# CivilsTap

## Quality & Affordable Education

CivilsTap Himachal

# CURRENT AFFAIRS MONTHLY

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## By CivilsTap Himachal

## For HPAS & other Competitive Exam in Himachal Pradesh

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# Contents

# GENERAL STUDIES 1.

## GEOGRAPHY

### FLOODS AND A 'PREVENTIVE MEASURE'

**Context:** After the landfall of Cyclone Michuang, there is a need to take preventive measures to avoid urban flooding in India.

**Floods:**

- Increased incidence of high-intensity rainfall in short duration is mainly responsible for floods. It is further compounded by unplanned growth, encroachment of natural water bodies, poor drainage system, etc.
- Urban flooding is significantly different from rural flooding as urbanisation leads to developed catchments, which increases the flood peaks from 1.8 to 8 times and flood volumes by up to 6 times.
- According to the World Meteorological Organization (WMO), flood-related catastrophes have increased by 134% since 2000, compared with the two previous decades.
- The Intergovernmental Panel on Climate Change (IPCC), in 2021, underscores rising global temperatures are dramatically affecting the water cycle, making floods and droughts more extreme and frequent.
- The IPCC highlighted the high probability that monsoon rainfalls will increase in the medium and long term, especially in South and Southeast Asia, causing severe floods.

**Floods in India:**

- Floods are a recurrent phenomenon, causing huge loss of lives and damage to livelihood systems, property, infrastructure and public utilities.
- Flood related damages show an increasing trend because of increase in population, rapid urbanisation, growing developmental and economic activities in flood plains coupled with global warming.
- Out of the total geographical area of 329 million hectares (mha), more than 40 mha is flood prone.
- An average every year, 75 lakh hectares of land is affected, 1600 lives are lost and the damage caused to crops, houses and public utilities.

**Causes of Urban Floods:**

**Weather Systems:** A special feature in India is that we have heavy rainfall during monsoons.

- Cyclones, cyclonic circulations and cloud bursts cause flash floods and lead to huge losses.
- Storm surges can also affect coastal cities/towns.
- **Precipitation:** 80% of the precipitation takes place in the monsoon months from June to September, and the rivers bring heavy sediment load from catchments, coupled with inadequate carrying capacity of rivers, are responsible for causing floods, drainage congestion and erosion of river-banks.
- **Water release for dam:** Sudden release or failure to release water from dams can also have a severe impact.
- **Urban Heat Island:** The urban heat island effect has increased rainfall over urban areas.
- **Climate Change & Sea Level Rise:** Global climate change is resulting in changed weather patterns and increased episodes of high-intensity rainfall events occurring in shorter periods.

**Urban Challenges & Floods in India:**

- **Encroachment & Habitations:** Encroachment is a major problem in many cities and towns.
- Natural streams and watercourses have formed over thousands of years due to the forces of flowing water in the respective watersheds.
- **Loss of Drains:** Ideally, the natural drains should have been widened (similar to road widening for increased traffic) to accommodate the higher flows of stormwater.

- **Improper disposal systems:** Improper disposal of solid waste, including domestic, commercial and industrial waste and dumping of construction debris into the drains also contribute significantly to reducing their capacities.
- **Health Risk:** Flood potentially increases chances of outbreak of infectious diseases. Affected areas become more prone to disease outbreak especially after the flood water dries up. Surge in diseases happens as flood water gets mixed up with sewage water and several other contaminants.
- **Insufficient policy attention:** Even though urban flooding has been experienced over decades in India, sufficient attention was not given to planning specific efforts to deal with it.

**Solutions:**

**Nature based Solutions:** Restoration includes a variety of ecological, physical, spatial and management interventions aimed at restoring the natural state and functioning of the ecosystem. It includes:

- Wetland Restoration;
- River / lake Restoration;
- Reviving Ecological Area;
- Riparian Vegetation Restoration;
- Mangrove Restoration;
- Restoring Natural Drainage Terrain
- **Bioremediation of water bodies:** It is a process followed to improve the quality of water wherein microbes are introduced in the water body to break down the pollutants.
- **Bioswales** are landscape vegetation designed to convey stormwater while removing debris and pollution.
- **Recharge well** is a technique to use rainwater for replenishing the ground water.
- **Bioretention system** is a landscaped depression that not only captures surface runoff but also treats the water.
- **Rain water harvesting techniques** include a wide array of interventions that stores surface runoff water and/or recharges groundwater.
- **Permeable Ground Surfaces:** Increasing permeable surfaces in the city, especially of footpaths and other green areas can help reduce the surface runoff and replenish groundwater to an extent.

**Planning Interventions:**

- **Urban River Management Plan:** The National Mission for Clean Ganga (NMCG) and the National Institute of Urban Affairs have developed a framework for developing Urban River Management Plan (URMP) to help river cities systematically and holistically plan for interventions required to revive and maintain the rivers within their limits in a sustainable manner.
- **River Basin Management plan:** It provides a road map for conserving, managing and developing river water, river basin and related resources to achieve maximum socio, economic and environmental benefits.
- **Flood Resilience Strategy or flood mitigation plans** define the short, medium and long-term measures to be adopted for strengthening flood resilience. The roles and responsibilities of various agencies and stakeholders are also defined in this strategy.
- **Plan for interlinking rivers and canals**: It includes large scale infrastructure related intervention to support efficient management of water resources. The intent is to address floods, water shortages, groundwater recharge and irrigation.
- **Community based Flood Management Plan:** It engages local communities in all the phases of a flood – prevention, mitigation, preparedness, response and recovery.

**Government efforts to curtail floods in India:**

Management of urban flooding falls under purview of the State Governments and the Urban Local Bodies/Urban Development Authorities who are responsible for maintaining the drainage and sewerage system.

- **Urban Flood Mitigation Project:** India's maiden urban flood mitigation project worth Rs 561 crore under the National Disaster Mitigation Fund (NDMF). The Prime Minister of India approved the country's first urban flood mitigation project under the NDMF.
- **Master Plan for Artificial Recharge to Groundwater – 2020:** It has been prepared by the Central Ground Water Board (CGWB) in collaboration with States/UTs envisaging construction of about 1.42 crore rain water harvesting and artificial recharge structures in the country to harness 185 Billion Cubic Meter (BCM) of water.
- **Jal Shakti Abhiyan (JSA):** Its emphasis is being given for rainwater harvesting/groundwater recharge in water stressed blocks across India with the primary aim to effectively harvest the monsoon rainfall through creation of artificial recharge structures, watershed management, recharge and reuse structures, intensive afforestation and awareness generation etc. JSA for the year 2023 has been launched with the theme 'Source Sustainability for Drinking Water'.
- **The Amrit Sarovar Mission:** It has been launched with an aim of developing and rejuvenating 75 water bodies in each district of the country as a part of celebration of Azadi ka Amrit Mahotsav for rainwater harvesting/recharge.
- **Atal Bhujal Yojana:** The focus is on demand side management of ground water and accordingly water saving interventions such as use of micro irrigation (drip/sprinkler system), shifting of cropping pattern from high water intensive crops to low water intensive crops, mulching etc. are being encouraged and incentivised.
- **The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 Scheme:** The provisions have been made for harvesting the rainwater through storm water drains into the water body (which is not receiving sewage/effluent) & creation/ strengthening of storm water drains around the water body.

## INCREASE IN COAL PRODUCTION IN INDIA

**Context:** The coal production in the country has shot up to over 664 million tonnes during the financial year 2023-24.

- It is a robust 12.29 percent increase over the corresponding figure of over 591 million tonnes for the same period of the previous year.
- The government aims to further increase production to reach 1 billion million tonnes by 2030.
- This increase ensures a consistent and robust coal supply to meet the energy needs of the power sector, highlighting the effectiveness of the coal supply chain.

**Current Status of Coal Reserve**

- India has rich deposits of coal in the world. Total estimated reserves of coal as on 01-04-2022 were 361.41 billion tonnes.
- The top three states with highest coal reserves in India are Odisha, Jharkhand, Chhattisgarh, which accounts for approximately 69% of the total coal reserves in the country.
- India is the second largest producer and consumer of coal globally after China, surpassing the USA in 2022.

**Reasons for High Production**

- **Reliance on coal for electricity generation:** Coal-fired thermal power plants (TPPs) generated 74.3% of India's electricity during FY 2022-2023.
- **Industrial demand:** Industries like steel and cement heavily rely on coal as a fuel source.
- **Limited domestic alternatives:** Renewable energy sources like solar and wind are still not developed enough to fully replace coal.
- Only 10.4% of the 36.44 exajoules of India's primary energy consumption in 2022 are from renewables (hydroelectric, solar, and wind); coal and oil gas account for 55.1% and 33.3%, respectively.

**Arguments in favour of India's continued reliance of coal**

- India's cumulative emissions from fossil fuels like coal between the start of the industrial revolution in 1750 and the end of 2021 are only 3.3% of the global total, far behind those of Europe (31%), the U.S. (24.3%), and China (14.4%).
- Fulfilling the development needs of 17% of the world's population, which lives in India, is also a fundamental duty to which must be attended, failing which 'sustainable development' will simply be an empty catchphrase.
- Ninety-six percent of the coal used by TPPs in India comes from domestic mines and is key to why electricity is so affordable in India.

## Challenges and Concerns

- **Environmental impact:** Coal mining and burning contribute significantly to air pollution, greenhouse gas emissions, and water contamination.
- Coal deposits in India generally contain high levels of ash (35-50%). Burning coal with more ash leads to pollution.
- Coal-fired thermal power plants (TPPs) are responsible for nearly 70% of India's greenhouse gas emissions.
- **Health impacts:** Air pollution from coal combustion has severe health consequences like respiratory illnesses.
- **Climate change:** Continued dependence on coal hinders India's progress towards carbon neutrality goals and commitments.
- **Social impacts:** Coal mining affects communities near mines, raising concerns about displacement, livelihood loss, and environmental degradation.

## Way Ahead

- For India's long-term goal of reaching net-zero by 2070, the country must continue to implement clean coal technologies to reduce the power sector's emissions.
- India must focus on increasing the efficiency of its TPPs(Thermal Power Plants) to reduce emissions while ramping up nuclear, solar and wind energy into the grid.
- Coal production is expected to continue increasing in the near future. However, the long-term outlook for coal remains uncertain, with growing emphasis on clean energy transition and climate change mitigation.
- Diversifying energy sources, adopting cleaner technologies, and addressing social and environmental concerns are crucial for India's sustainable energy future.

## NO TSUNAMI THREAT TO INDIA

**Context:** Indian Tsunami Early Warning Centre (ITEWC) stated that there is no tsunami threat to India following the Tsunami in Japan.

## Tsunami:

- Tsunami (a Japanese word that means "harbor wave") is a series of giant ocean waves caused by earthquakes or volcanic eruptions under the ocean.
- The formation of a tsunami can depend on a host of factors, including the shape of the ocean floor, and the earthquake's distance and direction.
- The speed of a tsunami depends on the depth of the water it is traveling through. The deeper the water; the faster the tsunami.

## Causes of Tsunami

- **Earthquake:** When an earthquake takes place under the ocean, a large chunk of the ocean floor can suddenly move upward or downward, leading to a sudden displacement of a large volume of water, thereby causing tsunami waves.
- **Volcano eruption:** When a volcano erupts in the ocean, the lava flowing out of the volcano displaces the water around it and that water can become a large wave.

## How are tsunamis detected?

- **Seismic Networks:** When an earthquake occurs, seismic networks provide information about an earthquake's location, depth, magnitude, and other source characteristics. The warning centers analyze this information to determine if the earthquake could have generated a tsunami and if a tsunami message is necessary.
- **Water-Level Networks:** If an earthquake meets certain criteria, the warning centers turn to water-level information, looking for changes in water-level height that could indicate the existence and size of a tsunami.
- The primary sources of information about water-level change are a network of Deep-ocean Assessment and Reporting of Tsunami (DART) systems and an extensive array of coastal water-level stations.

## Consequences of Tsunami

- **Loss of Life:** Tsunamis can cause significant loss of life, especially in densely populated coastal regions. In 2011, Japan was hit by a 9.0 magnitude earthquake and a resulting tsunami which killed around 18,000 people
- **Major Accidents:** The 2011 tsunami in Japan led to a nuclear meltdown at the Fukushima power plant, causing one of the most severe nuclear accidents.
- **Displacement of Communities:** People living in coastal areas are forced to evacuate or relocate which can lead to temporary or long-term homelessness and strain on resources.
- **Infrastructure Disruption:** Tsunamis can damage critical infrastructure such as roads, bridges, ports, and utilities, disrupting transportation and communication networks.

## Why is Japan prone to earthquakes and tsunamis?

- Japan is situated along the **'Pacific Ring of Fire'**, which is the most active earthquake tectonic belt in the world.
- The 'ring' refers to "an imaginary horseshoe-shaped zone that follows the rim of the Pacific Ocean, where many of the world's earthquakes and volcanic eruptions occur,"
- Within the Ring of Fire, there are different tectonic belts, including the Pacific Plate, Eurasian Plate, and Indo-Australian Plate, which keep meshing and colliding with each other, causing earthquakes, volcanic eruptions and tsunamis.

# SOCIETY, CULTURE

## CHILD MARRIAGE

**Context:** The Lancet study highlighted that Bihar, West Bengal, Uttar Pradesh, and Maharashtra accounted for more than half of the total headcount burden of child marriages in girls.

### Child Marriage in India

- According to National Family Health Survey-5 (NFHS-5) 2019-21, women in the age group of 20-24 years who were married before they turned 18, are 14.7% in urban and 27% in rural areas.
- Women aged 15-19 years who were already mothers or pregnant at the time of the survey were 3.8% (urban) and 7.9% (rural).
- The largest absolute increase in headcount was observed in West Bengal.

### Impact of Child Marriage

- **Physical Health:** Child brides often face complications during pregnancy and childbirth due to their immature bodies. This increases the risk of maternal and infant mortality.
- **Education:** Once married, girls are less likely to continue their formal education, limiting their opportunities for personal and economic development.
- **Gender Inequality:** Child marriage is often rooted in gender inequality, reinforcing traditional gender roles and norms.
    o Boys can also be affected, as they may face pressure to assume adult responsibilities at an early age, impacting their own personal development and well-being.
- **Violence and Abuse:** Lack of legal protection and social support may leave child brides trapped in abusive situations without recourse.
- **Reproductive Rights:** Child brides may have limited control over their reproductive rights, including family planning and the number and spacing of their children.
- **Cycle of Poverty:** Child marriage is often linked to poverty, creating a cycle where poverty leads to child marriage, and child marriage perpetuates poverty by limiting education and economic opportunities.

### Measures Taken by Government of India to Eliminate Child Marriage

- **Legal Framework:** The Prohibition of Child Marriage Act, 2006, is a dedicated legal framework aimed at preventing and prohibiting child marriages in India.
    o It sets the legal age of marriage as 18 years for girls and 21 years for boys.
    o The National Commission for Protection of Child Rights (NCPCR) undertakes various activities and programmes from time to time with concerned stakeholders/ organizations such as representatives of Child Welfare Committees (CWC), Police, Women and Child Development Department on the issue of child marriages and related matters.
- **Support Services and Helplines:** Government of India has introduced CHILDLINE 1098, a 24X7 telephone emergency outreach service for children in crisis, which responds with suitable interventions to calls for any form of assistance which a child requires, including for prevention of child marriages
- **Beti Bachao Beti Padhao (BBBP) Scheme:** Launched in 2015, this national initiative focuses on improving the status of girls and addressing issues such as female foeticide, child marriage, and gender-based discrimination.
    o It emphasizes the importance of education and encourages the protection and empowerment of girls.
- **Integrated Child Development Services (ICDS):** The ICDS program, among other objectives, aims to improve the nutritional and health status of children, including those at risk of child marriage.
    o It provides a range of services, including health check-ups, immunization, and nutrition support, to address the overall well-being of children.
- **National Plan of Action for Children 2016:** The National Plan of Action for Children outlines the government's commitment to child welfare and includes strategies to prevent child marriages.

- **Sarva Shiksha Abhiyan (SSA):** SSA is an ongoing program aimed at providing universal access to quality elementary education.
  - By promoting education for all children, including girls, the government aims to address one of the root causes of child marriage – lack of education.
- **Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA):** SABLA targets adolescent girls (11-18 years) and aims to empower them through education, life skills training, and nutrition support.
  - By focusing on the holistic development of adolescent girls, the scheme aims to prevent early marriage.
- **Awareness Campaigns:** The government, along with non-governmental organizations, conducts awareness campaigns to educate communities about the harmful effects of child marriage.

## Conclusion

- Child marriage had declined nationally, prevalence of girl child marriage decreased from 49 percent in 1993 to 22 percent in 2021.
- Prevalence of boy child marriage came down from 7 percent in 2006 to 2 percent in 2021.
- Continuous efforts are required to address deep-rooted social norms, improve access to education, and enhance the economic opportunities for girls to eliminate the practice of child marriage in India.

# HISTORY, PERSONALITIES

## SAVITRI BAI PHULE & RANI VELU NACHIYAR

**Context:** The Prime Minister of India paid tributes to social reformer Savitri Bai Phule & Rani Velu Nachiyar on their Jayanti.

### Savitribai Phule (3 January 1831 – 10 March 1897)

- She was a woman from the Mali Community and went on to become an educator, a challenger to caste hierarchies and barriers, and a writer.
- Married Jyotirao Phule at an early age.
- At a time when it was considered unacceptable for women to even attain education, she with her husband went on to open a school for girls in Pune, in 1848.
- This became the country's first girls' school.
- They opened more such schools for girls, Shudras, and Ati-Shudras (the backward castes and Dalits, respectively) in Pune, leading to discontent among Indian nationalists like Bal Gangadhar Tilak.

### Major Contributions:

- **Social Reformer:** Along with Jyotirao, Savitribai started the Balhatya Pratibandhak Griha (Home for the Prevention of Infanticide) for pregnant widows facing discrimination.
- Savitribai Phule advocated inter-caste marriages, widow remarriage, and eradication of child marriage, sati, and dowry systems, among other social issues.
- **Satyashodhak Samaj:** In 1873, the Phule's set up the Satyashodhak Samaj (Truth-seekers' society), a platform open to all, irrespective of their caste, religion or class hierarchies, with the sole aim of bringing social equity.
- Satyashodhak Marriage, as an extension, started with the aim of rejecting Brahmanical rituals where the marrying couple takes a pledge to promote education and equality.
- **Relief work during famine and Bubonic plague:** Savitribai became involved in relief work during the 1896 famine in Maharashtra and the 1897 Bubonic plague.
- **Literary Works:** Savitribai Phule published her first collection of poems, called Kavya Phule (Poetry's Blossoms), at the age of 23 in 1854.
- She published Bavan Kashi Subodh Ratnakar (The Ocean of Pure Gems) in 1892.

### Rani Velu Nachiyar (3 January 1730 – 25 December 1796)

- She was the first queen to fight against the British colonial power in India.
- She is known by Tamils as Veeramangai.
- **Early Life:** She was the princess of Ramanathapuram and the only child of Raja Chellamuthu Vijayaragunatha Sethupathy and Rani Sakandhimuthal of the Ramnad kingdom.
- **Skills Acquired:** She was trained in war to match weapons usage, martial arts like Valari, Silambam (fighting using a stick), horse riding, and archery.
- She was a scholar in many languages and she had proficiency with languages like French, English and Urdu.
- **Marriage:** She married the king of Sivagangai.
- **Succession:** She succeeded her husband in 1780 and granted powers to the Marudu brothers to administer the country in 1780.

# GENERAL STUDIES 2.

## POLITY AND CONSTITUTION

### ASPIRATIONAL DISTRICTS PROGRAMME

**Context:** The Aspirational Districts Programme (ADP) was launched by the Prime Minister in January 2018. With this initiative, the Government has tried to change the development narrative by referring to these districts as 'aspirational' instead of 'backward'. Since its launch, all 112 underdeveloped districts included in the programme have improved their performance.

- It was launched in 2018 to improve the socio-economic status of 112 aspirational districts across 28 States. These districts had witnessed the least progress along certain development parameters. The districts accounted for more than 20% of the country's population and covered over 8,600 gram panchayats.
- The Programme is coordinated by NITI Aayog with support from Central Ministries and the State Governments.

**5 Core themes of ADP- The 5 core themes include:**

(1) Health & Nutrition (30% weightage)

(2) Education (30% weightage)

(3) Agriculture & Water Resources (20% weightage)

(4) Financial Inclusion & Skill Development (10%)

(5) Basic Infrastructure (10%)

- The delta ranking of the Aspirational Districts combines the innovative use of data with pragmatic administration. The programme ranks districts based on the improvement achieved month-on-month through the Champions of Change dashboard (An online Dashboard).

**What is the institutional framework and core strategy of the Aspirational Districts Programme?**

**Framework**

❖ NITI Aayog anchors the program at Central level, while individual Ministries have been responsibility to drive progress in districts. The States are the main drivers of the programme. For each district, a central Prabhari officer has been nominated. He/she should possess a rank of joint secretary/additional secretary.

**Core Strategy**

The ADP is based on the following strategy-

1. Work on the strength of each district
2. Make development as a mass movement in these districts
3. Identify low hanging fruits and the strength of each district which can act as a catalyst for development
4. Measure progress and rank districts to spur a sense of competition
5. Districts shall aspire from becoming State's best to Nation's best

**What is the significance of the Aspirational Districts Programme?**

1. **Greater autonomy-** States and districts have a greater say in their own development. Local challenges differ significantly across the country. Thus, State and Local Governments are best-positioned to recognize their development challenges, and design customized policy interventions.
2. **Better outcomes by improved governance-** The programme has focused on improving governance, making use of existing resources more smartly and achieving better outcomes for the same amount of money.

3. **Replication of innovative service delivery approaches-** The smart classroom initiative being implemented in Banka, Bihar, to improve student learning outcomes, is being replicated in the aspirational districts across Bihar, Arunachal Pradesh, Odisha and Jharkhand.
4. **Improved Collaboration-** The aspirational district programme has increased the government collaboration with the private sector, philanthropic organizations and technical partners.
5. **Competition among the districts-** It has spurred competition among districts by allowing them to regularly assess their position vis-à-vis other aspirational districts, as well as the best performing districts in the country.

**Achievements of the Aspirational Districts Programme:**

The success achieved by the ADP has been globally recognized. The United Nations Development Programme (UNDP) has appreciated the programme's 3Cs principle and recommended its replication in other parts of the developing world.

1. **Health and Nutrition-** Model Anganwadi centres have been set up across districts to benefit women and children. The number of institutional deliveries has increased, along with a dip registered in the rate of severe acute malnutrition in infants. Poshan App has been developed for real-time health data analytics in Ranchi.
2. **Education outcomes-** Innovation and digitisation have been the cornerstone of transformation in the education sector. The 'Hamara Vidyalaya' model adopted in Namsai, a remote district in Arunachal Pradesh has shown substantial improvement in learning outcomes and overall teaching practices.
3. **Agriculture and water resources-** District administrations have laid emphasis on improving irrigation facilities, yield and farmer education. Several innovative paths have been adopted to create market linkages for products indigenous to the aspirational districts. For ex- the farmers of Chandauli, U.P were encouraged to grow fertiliser-free organic black rice.
4. **Basic Infrastructure Development-** This pillar witnessed significant advancement especially in LWE affected districts. This ensured better connectivity and seamless movement from rural to urban regions. For ex- Bijapur in Chhattisgarh and Malkangiri in Odisha have greatly improved the network of roadways and ramped up the infrastructure projects in their jurisdiction.
5. **Financial inclusion and skill development-** Micro-ATMs have been launched in Maharashtra's Gadchiroli district to provide financial assistance to women self-help group members. They are provided with commission-based income on every transaction.

**Issues associated with the implementation of Aspirational District Programme:**

1. **Inadequate Coverage:** Although the program is highly inclusive in nature, it fails to capture crucial variables like environment and gender.
2. **Imbalance in implementation:** Most districts channelised their efforts focused on health and nutrition, education, and agriculture and water resources. They paid less emphasis on the sectors of Skill Development and Financial Inclusion.
3. **Budgetary Constraints:** ADP is affected by the issue pertaining to insufficient budgetary resources. This sustains the lack of human resources and dearth of technical capacities at the district and block level.
4. **Issues in Coordination:** NITI Aayog plays a mentoring role in 27 districts in eight states. 12 Central Government Ministries have similarly adopted the remaining districts. Implementation involving multiple ministries leads to a lack of coordination.
5. **Shortcomings of Delta Ranking:** It is largely focused on assessing quantity (that is, coverage of access) rather than quality. For ex- Timely delivery of textbooks in schools is part of the ranking index, however very less weightage is given to the quality of education rendered in these districts.

**Way forward:**

1. **Formulate strategies for saturation of indicators-** Special focus is required in sectors like health, nutrition and education to recover lost ground due to the COVID-19 pandemic.
2. **Strengthen governance mechanisms-** Analysis has shown that districts perform better when the tenure of key officials like the District Magistrate, Chief Medical Officer, District Agriculture Officers

etc. are stable. It is crucial that vacancies for these key positions are regularly filled and stability is provided by the state authorities.

3. **Extension of ADP template-** Extension of the ADP template to under-developed blocks and districts which are lagging behind in social indicators.
4. **Addition of sectors-** The first UNDP appraisal of the Aspirational Districts Programme has recommended a realignment of sectors under the program by addition of topics such as environment and gender.

## Conclusion

The success of the Aspirational Districts Programme has been testified by national as well as international agencies. It is a flagship initiative for improving the lives of citizens residing in most backward regions of the country. The need of the hour demands overcoming its challenges and realizing the vision of 'SABKA SAATH, SABKA VIKAS' for ensuring inclusive development.

## CIVIL SOCIETY UNDER SIEGE IN INDIA

**Context:** The article discusses the recent attacks on civil society in India. It also highlights the instruments being used to attack civil society.

## What is civil society?

Civil society refers to a wide variety of communities and groups such as non-governmental organizations (NGOs), labor unions, indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations that function outside of government to provide support and advocacy for certain people or issues in society.

- A free civic space regulated under constitutionally guaranteed principles is the essence of democracy. India is lucky to have a diverse and vibrant civil society.
- However, according to the author, the anti-communal and progressive civic space is under attack by the state.

## What is the status of attacks on civil society?

- According to the author, civil societies in India are under varied degree of attacks:
- **Highly attacked organisations:** These include organisations that actively fight against communalism. This has led to them running out of funds and their leaders sent to prison or being charged.
- This includes organisations such as Citizens for Justice and Peace (CJP), Amnesty India, Oxfam, Centre for Equity Studies and Lawyers Collective.
- **Moderately attacked institutions:** This has led to some organisations almost closing their operations. They have been attacked, for example, for having connections with Adivasi rights movements impacting mining interests.
- They include the Centre for Policy Research (CPR) and anti-communal NGOs such as ANHAD.
- **Low-level attacks:** These include Institutions that are generally not active in the anti-communal area but pursuing significant human rights causes.
- For instance, organisations such as Navsarjan, which is a leader in Dalit rights, and Save The Children's work on child rights.

## What are the instruments being used to attack civil society?

- **Legal Charges:** They have been attacked with charges that may lead to penal consequences such as imprisonment on charges of money laundering. This is done through:
- **Prevention of Money Laundering Act, 2002:** The 2019 amendments enabled the Department of Revenue to work with a broader definition of proceeds of crime. This has resulted in attacks on NGOs by the Enforcement Directorate (ED).
- **Foreign Contribution (Regulation) Act, 2010:** The FCRA was made stringent in 2010 and in 2020. This has been used to take away the right of NGOs to access foreign funds from 18,000 organisations between 2015 and 2022.

- Under the FCRA, the Central Bureau of Investigation (CBI) too is empowered to investigate NGOs and their personnel with lethal impact.

**Restrictions on Domestic funding:** The 2020 amendments to the Income-Tax Act provisions on tax exemptions for NGOs and donors have now made renewals of 12A and 80G certificates mandatory every 5 years.

- Also, donor data (including their PAN card numbers) must be made available to the Ministry of Finance. This can enable the state to intimidate these domestic donors.

**Income-Tax Surveys:** It is a way of collecting data that can be used to file more cases either by the CBI or the Tax Department.

- Because of the use of these instruments, the last ray of hope for India's democracy, its civic space, is under serious threat.

## REPRESENTATION OF WOMEN IN INDIAN JUDICIARY

**Context:** Supreme Court judge Justice B.V. Nagarathna said that **more women judges are needed in the judiciary**.

**Representation of Women in Judiciary**

- **Justice Beevi** became the first Muslim woman judge of the Supreme Court, as well as the **first woman Supreme Court Justice in Asia in 1989.**
- Since 1989, only **10 women** have made it to the Supreme Court. Currently, there are **only three female judges** of the 33 Supreme Court judges.
- **Only 4.1%** of all Supreme Court judges have been women, while the **remaining 96% are men.**
- There are **more women judges at the district court level** than at the High Court level.
- **Justice Nagarathna** is in line to become the **first-ever female Chief Justice of India** in 2027.
- The appointment of Justices Kohli, Nagarathna, and Trivedi to the top court in 2021 created history, as this marked the **first time that so many females were appointed to the SC** in one go.
  - Additionally, this was significant as for the first time India had four female judges in the SC at once, the highest number so far.

**Reasons for the Lack of Representation of Women**

- **Historical Reasons:** Historically, legal and judicial systems worldwide have been male-dominated, and India is no exception. The legal profession has traditionally been perceived as a male domain, and this mindset has persisted over the years.
- **Societal Expectations and Stereotypes:** Societal expectations often dictate traditional gender roles, and there may be stereotypes that cast women in roles that are seen as less compatible with the demands of a judicial career.
- **Educational Barriers:** Limited educational opportunities for women can result in fewer female candidates entering law schools and subsequently pursuing a career in the judiciary.
- **Family and Cultural Expectations:** Cultural norms and expectations regarding women's responsibilities within the family may dissuade them from pursuing demanding and time-consuming careers, such as a judicial career.
- **Gender Bias and Discrimination:** Stereotypes about women's capabilities may lead to their exclusion from consideration for higher judicial positions.
- **Networking and Mentorship Opportunities:** Male-dominated networks and mentorship structures within the legal profession may make it challenging for women to access the same opportunities for career advancement.
- **Appointment Procedure:** The lower judiciary has a better representation of women than the High Court and Supreme Court.
  - That's perhaps because entry to the lower judiciary is through an examination, while the High Court and Supreme Court are decided by the collegium.

**Importance of Representation of Women in Judiciary**

- **Gender Equality:** A diverse judiciary ensures a more inclusive and representative legal system.
- **Fairness and Impartiality:** Having a judiciary that reflects the diversity of the population helps in dispelling biases and promoting impartial decision-making.
- **Inspiration and Role Modeling:** Women judges can act as role models, encouraging more women to pursue careers in law.
- **Access to Justice for Women:** Women may feel more comfortable and understood when their cases are heard by judges who share similar life experiences and perspectives.
- **Legal Interpretation and Legislation:** Women judges can provide unique insights into legal interpretation and the development of legislation, particularly in areas related to gender-based issues, family law, and women's rights.
  - Their presence can influence legal discourse and contribute to the evolution of more gender-sensitive laws.
- **Global Norms and Commitments:** Internationally, there is a growing recognition of the importance of gender diversity in all sectors, including the judiciary.

**Conclusion**

- The lack of representation of women in the judiciary, combined with the traditional exclusionary attitude towards women, has led to a lack of diversity within the judicial system.
- **Therefore, it is essential that efforts to increase diversity in the judiciary are made to ensure a more equitable court system.**
- **There is a requirement to enhance transparency in the judicial system. This will create more opportunities for women to prove their mettle** and create a level playing field.

## GUIDELINES FOR INCREASING POLITICAL INCLUSION OF DISABLED

**Context: The article discusses guidelines released by India's Election Commission for political parties to use disability-friendly language and be more inclusive of persons with disabilities.**

**Guidelines for increasing Political inclusion of disabled:**

- The Election Commission of India has issued 11 guidelines for political parties. These guidelines focus on three main areas:
- Focus on Disability-Inclusive Language: The guidelines urge political parties to avoid derogatory and dehumanizing terms when referring to persons with disabilities (PwDs). For example, the negative comparison made by Tamil Nadu leader A Raja in Sep. 2023, equating Sanatan Dharma with leprosy and HIV, highlights the kind of language these guidelines aim to prevent.
- Ensure Accessibility of Information: Political parties are advised to make their websites accessible to PwDs. Additionally, they should organize events in locations that are accessible to everyone, including those with disabilities.
- Inclusion within Political Parties: The guidelines encourage the inclusion of PwDs at all levels within political parties. This includes developing training modules on disability for party workers and making efforts to integrate PwDs in various party roles and activities.

**Benefits of these guidelines:**

- Encourage political inclusion of PwDs, aligning with the principles of the UN Convention on the Rights of Persons with Disabilities.
- Guidelines promote inclusivity and accessibility for PwDs in the political sphere.

**What are the limitations of these guidelines?**

- Advisory Nature: The guidelines are not mandatory. Some use mandatory language like "should" and "shall," while others are more discretionary, using terms like "may."

- Exclusion from the Model Code of Conduct: These guidelines are not part of the official Model Code of Conduct for elections. It's unclear if violations of certain guidelines will lead to actions under section 92 of the RPwD Act, which penalizes atrocities against PwDs.
- Ambiguity in Language: There is some confusion about the usage of certain terms like "blind," "deaf," and "dumb," which can be technical terms but might be considered derogatory in some languages.

## Way forward:

- A consistent approach is needed across all guidelines.
- The draft National Policy for Persons with Disabilities doesn't currently include a chapter on political inclusion, which should be added.
- There is a lack of data on the number of legislators with disabilities. The Election Commission is encouraged to include disability information in nomination forms and affidavits for elections.
- The draft National Policy for PwD lacks a chapter on political inclusion. Incorporating such a chapter would align with Article 29 of the UN Convention on the Rights of Persons with Disabilities, emphasizing the political rights of PwDs.

## UTTARAKHAND LIKELY TO BE FIRST STATE TO IMPLEMENT UCC

**Context:** The Defence Minister of India has said that Uttarakhand is likely to become the first state in the country to implement a Uniform Civil Code (UCC).

## What is Uniform Civil Code (UCC)?

A Uniform Civil Code refers to the provision of one law for the entire country, applicable to all religious communities, in their personal matters such as marriage, divorce, inheritance, adoption, etc.

Currently, separate personal laws apply for the members of different major religions.

## Constitutional Provisions

- Article 44 contained in part IV of the Constitution says that the state "shall endeavor to secure for the citizens a uniform civil code throughout the territory of India".
- Part IV of the Constitution outlines the Directive Principles of State Policy, which, while not enforceable or justiciable in a court of law, are fundamental to the country's governance.

## UCC in India

- **UCC in Goa:** It follows the Portuguese Civil Code of 1867, which means that people of all religions in Goa are subject to the same laws on marriage, divorce, and succession.
- The Goa Daman and Diu Administration Act of 1962, which was passed after Goa joined the union as a territory in 1961, gave Goa permission to apply the Civil Code.
- States like Gujarat, Madhya Pradesh and Assam have also expressed their willingness to follow the UCC, none have officially adopted it.

## Arguments in favor of UCC

- **Uniformity in Governance:** Having a common set of laws would streamline governance and administrative processes, making it easier for the state to administer justice and ensure the rights of its citizens.
- **Women's Rights:** Personal laws in different religions may have discriminatory provisions, particularly against women, and a uniform code will provide a more egalitarian legal framework.
- **Secularism:** A Uniform Civil Code is seen as a way to reinforce the secular fabric of the country by treating all citizens equally irrespective of their religious affiliations.
- **International Image:** Implementing a UCC may enhance India's international image by demonstrating a commitment to principles of equality, secularism, and human rights.
- The Supreme Court in various judgments including Mohd. Ahmed Khan vs Shah Bano Begum judgment of 1985, has called for the implementation of the Uniform Civil Code.
- **Promote national Spirit:** The implementation of a UCC will promote the integration of India by establishing a shared platform for diverse communities.

**Arguments against UCC**

- **Plurality in existing laws:** Experts argue that if there is plurality in already codified civil and criminal laws, how the concept of 'one nation, one law' can be applied to diverse personal laws of various communities.
- **Issues with implementation:** The implementation of the code has been difficult because India is a diverse country with various religious communities following their own personal laws.
- It has been argued that the marriage and death rituals observed by tribal communities differ from Hindu customs, and there is concern that these practices may also face prohibition.
- **Challenge for Law and Order:** It would be a tyranny to the minority and when implemented could bring a lot of unrest in the country.
- **Against Constitutional provisions:** UCC is perceived as an infringement upon the constitutional right to freely exercise one's chosen religion found in Article 25 and 26 and the Sixth Schedule of the Constitution.
- **Fear among minorities:** There is a contention that the Uniform Civil Code may potentially enforce a code that is influenced by Hindu practices in all communities.
- The Law Commission of India stated that a UCC "is neither necessary nor desirable at this stage". It recommended that discriminatory practices, prejudices and stereotypes within a particular religion and its personal laws should be studied and amended.

**Way Ahead**

The authorities should consult with different sections of society before implementing the UCC to foster an environment of inclusivity, transparency, and respect for diverse perspectives throughout the process.

The Law Commission expressed its support for achieving "equality within communities" as opposed to pursuing "equality between" communities

## INDIA AND SAUDI ARABIA

**Context:** India and Saudi Arabia have decided to set up a **Joint Committee on Defence Cooperation** to give a boost to the defence ties.

**India-Saudi Arabia Relations:**

- Establishment of **diplomatic relations in 1947**, and it was strengthened by the signing of **Delhi Declaration in 2006** and elevated to a strategic partnership by signing of **Riyadh Declaration in 2010.**
- The Prime Minister of India's visit to Riyadh in 2016 captured the spirit of **enhanced cooperation in the political, economic, security, and defence realms**.
    - King Salman conferred the **King Abdulaziz Sash** (the Kingdom's highest civilian honour) to India's Prime Minister, indicating the importance of Saudi Arabia-India relations.

**Current Scenario:**

- India's relations with Saudi Arabia have witnessed unprecedented growth in recent years, marked by a remarkable rise in trade and other investments.
- **Trade:** India's foreign trade with Saudi Arabia reached an all-time high of *$52.75 billion in FY23*.
    - India received *$3.22 billion in FDI* from Saudi Arabia between April 2000 and June 2023.
    - India sources crude petroleum, petroleum products, fertilisers, raw plastic, organic and inorganic chemicals from Saudi Arabia.
- **Energy Security:** Saudi Arabia contributes to India's energy security as India is highly dependent on imports for its energy needs, importing 87% of oil consumed, and the Middle East accounts for over 60% of India's crude oil imports.
- **Food Security:** India complements Saudi countries in their food security as Saudi Arabia is largely import-dependent for its food needs and manufactured goods, including textiles.

- **Strategic Partnership Council (SPC):** India is the fourth country after the UK, France, and China to partner with Saudi Arabia to establish the India-Saudi Arabia Strategic Partnership Council (SPC) in 2019.
    - o This aims to take forward mutual collaborations on the economy, investments, as well as social, political, and security matters.
- **Defence Cooperation:** India and Saudi Arabia have a Joint Committee on Defence Cooperation (JCDC) that meets regularly.
    - o Indian Navy cooperates with Royal Saudi Naval Force through various initiatives, which include operational interactions such as **bilateral naval exercise Al Mohed Al Hindi**, training and other maritime avenues.
    - o Indian Navy ships have been regularly undertaking port calls at various ports of Saudi Arabia.
    - o **Various Exercise:** The Indian Navy has also been interacting with the Royal Saudi Naval Force in various multilateral fora – *Ex Milan, Indian Ocean Naval Symposium, Combined Maritime Forces and Djibouti Code of Conduct – Jeddah Amendment (DCoC-JA)*.
- **Regional Stability:** Both countries agreed to work together for **peace, security and stability of the region**, as Iranian-backed **Houthi militants** in Yemen stepped up attacks on vessels and disrupted maritime traffic in the Red Sea.
- **Indian Ocean Naval Symposium (IONS):** The navies of the two countries could explore practical cooperation in the **fight against piracy** and an active role of the Royal Saudi Navy in the IONS.

## Challenges

- **Energy Dependence:** The core element of their relationship continues to revolve around energy, particularly Saudi Arabia's export of crude oil.
    - o India is highly dependent on imports for its energy needs, importing 87% of oil consumed, and the Middle East accounts for over 60% of India's crude oil imports.
- **Saudi Arabia's Aid to Pakistan:** While engaging with India, Saudi Arabia's aid to Pakistan raises concerns.
- **Economic Shifts, Political Transitions, and Geopolitical Dynamics:** These factors have tested their relationship. However, the underlying respect, shared interests, and commitment to mutual growth have allowed their ties to remain resilient.
- **Role of China:** The country is also engaged with China, moving towards rapprochement with Iran and Israel, and is also now consolidating the Saudi partnership with the US, India, and Europe.
    - o Many have thus already described this engagement as a power shift, with China emerging as a significant player in the Middle East.
    - o Increasing Chinese influence in the Middle East may indirectly help Pakistan, both economically and strategically.

## Conclusion and Way Forward

- Despite the challenges, both nations have recognized the importance of adapting their partnership to address modern challenges. They have established the **India-Saudi Arabia Strategic Partnership Council (SPC)** in 2019 to take forward mutual collaborations on the economy, investments, as well as social, political, and security matters.
- India needs to patiently assess if **China's growing involvement** in the Gulf is detrimental to its long-term security interests and the regional balance of power.
    - o The **I2U2 partnership** between India, Israel, the UAE, and the US has already put India on the region's alliance canvas.
- At the same time, recent developments also provide a window of opportunity for India to embed itself as a significant player in the Middle East.

## SUB-CATEGORISATION OF SCHEDULED CASTES

**Context:** The Union government has formed **a committee** to ensure equitable distribution of benefits to Scheduled Castes (SCs) across the country.

o The **sub-categorisation of SCs** comes after the Prime Minister's promise to look into the demand raised by the **Madiga community of Telangana.**

## Sub-Categorisation within Scheduled Castes

- It is to identify and help the most backward among the SCs.
- In the last two decades, multiple states like Punjab, Bihar, and Tamil Nadu have tried to bring in reservation laws at the state level to sub-categorise SCs.
- In the **last two decades,** States like Punjab, Bihar, and Tamil Nadu have tried to bring in reservation laws at the State level in a bid to sub-categorise Scheduled Castes.

## Legality of Sub-categorisation

- **E. V. Chinnaiah v State of Andhra Pradesh (2004):** The Supreme Court through its **5-Judge Bench** held that once a community is included in the Presidential List for Scheduled Castes under Article 341 of the Constitution, they become part of a single larger class of people, casting a wide net for the purposes of reservation.
  - o It held that the **State did not have the legislative power** to create sub-classifications within this single class and that such an action would violate the **Right to Equality.**
- However, all plans are held up in courts as the Supreme Court forms its **larger Constitution Bench** (in Davinder Singh Case) to decide the matter**.**
  - o The issue of sub-classification in reservations has been pending before a 7-Judge Constitution Bench for nearly two years without a hearing.

## Arguments favouring sub-categorisation within Scheduled Castes

- **Graded Inequalities:** The principal argument for sub-categorisation of SCs has been the graded inequalities among SC communities.
  - o The thrust of it has been that even among the marginalised, there are communities that have lesser access to basic facilities.
- **Unequal Representation:** Some communities are more backward and have less representation than others.
  - o For instance, the Madiga community has claimed that the benefits, including that of reservation, meant for the SC category had been cornered by the Mala community, with the Madigas being left out.
- **Legal Standpoint:** A **five-judge Bench** headed by **Justice Arun Mishra** has affirmed the competence of the States to give preferential treatment to the weakest among the Scheduled Castes without depriving other castes of any benefit.
  - o The Court has noted that the Scheduled Castes list contains many castes and cannot be treated as a homogeneous group.
- **Equitable Distribution of Benefits:** The Union government has formed a **committee of Secretaries** to evaluate and work out a method for the equitable distribution of benefits, schemes, and initiatives to the most backward communities amongst the over **1,200 Scheduled Castes across the country**.

## Arguments against sub-categorisation within Scheduled Castes

- These are primarily based on the **legal and practical challenges** associated with it.
- **Legal Challenges:** The Supreme Court held that the State did not have the power to unilaterally sub-categorise communities in the list of SCs or Scheduled Tribes (STs).
  - o The Constitution has provided that these lists can only be made by Parliament and notified by the President.
- **Data of socio-economic status:** The population data related to SC, ST, and OBC categories are not updated since the 2011 census.
  - o It hampers the objective and scientific basis for sub-categorisation.
- **Untouchability**: The social and educational backwardness cannot be applied to Scheduled Castes and Scheduled Tribes. The special treatment is given to the SCs due to untouchability with which they have suffered since ages.

**Conclusion**

- The Constitution of India does not prohibit the Parliament to sub-categorise SCs but it needs to justify by the government that this move would be a 100% count of all castes – a caste census of each community and sub-community and their respective socio-economic data.
- The government should focus on the equitable distribution of benefits, schemes and initiatives to SCs population in India, as mandated by the Constitution and other Statutory provisions.

## ASER 2023 REPORT

**Context:** The article discusses the **'Beyond Basics'** Annual Status of Education Report (ASER) **released by Pratham.** It focuses on a survey of **rural students aged 14 to 18 years,** addressing their educational progress and challenges in India.

**What were the major findings in the ASER 2023 report?**

- **Enrolment Rates:** Overall, 86.8% of 14-18-year-olds are enrolled in an educational institution. The percentage of youth not enrolled is 3.9% for 14-year-old youth and 32.6% for 18-year-olds. Most of the people in this age group were enrolled in the Arts/Humanities streams.
- **Foundational skill gaps:** About 25% cannot read Grade 2 text, and over 50% face difficulties with arithmetic skills expected by Grade 5, highlighting a deficit in foundational learning.
- **Digital technology underutilized:** Despite the high availability of smartphones in rural households (95%), their use for educational purposes is limited.

**Gender disparities:**

- Fewer females (28.1%) are in the Science, Technology, Engineering, and Mathematics stream (STEM) stream compared to males (36.3%).
- Females are better at reading in their regional language, while males excel in arithmetic and English.
- Males are more likely to own and use smartphones.
- **vocational training:** The survey shows a low enrollment in vocational training, with only 5.6% of young people participating. Among these, college students are more engaged, with 16.2% enrolled in courses, usually lasting no more than six months.

**What were the suggestions provided in the ASER 2023 report?**

- **Pedagogic Reforms for Rural Students:** The report suggests reforming teaching methods to help students who balance academic and farm work, addressing the educational challenges faced in rural areas.
- **Leverage Smartphones for Education and Address Digital Gender Gaps:** ASER advocates using the widespread access to smartphones (95% of households) for educational purposes and emphasizes closing the gender gap in digital skills, as females lag behind males in smartphone proficiency.
- **Rethink vocational education:** To increase the 6% enrollment in vocational courses, ASER suggests reimagining vocational training to make it more aspirational and aligned with students' interests.

## PRADHAN MANTRI AWAS YOJANA-URBAN (PMAY-U)

**Context:** More than 3,000 flats are likely to be allotted to slum dwellers by the Delhi Development Authority (DDA) under the PMAY-U.

**About PMAY-U**

- The **Ministry of Housing and Urban Affairs (MoHUA)** launched the Pradhan Mantri Awas Yojana – Urban (PMAY-U) in **2015**, as a flagship Mission of the Government of India.
- **Objective:** It addresses urban housing shortage among the Economically Weaker Section (EWS)/Low Income Group (LIG) category including the slum dwellers by ensuring a pucca house to eligible urban households.

- **Coverage:** The Mission covers the entire urban area consisting of Statutory Towns, Notified Planning Areas, Development Authorities, Special Area Development Authorities, Industrial Development Authorities or any such authority under State legislation which is entrusted with the functions of urban planning & regulations.
- **Implementation period:** The scheme was earlier from 25.06.2015 to 31.03.2022. Now it has been extended up to 31.12.2024, except Credit Linked Subsidy Scheme (CLSS) vertical, to complete all the houses sanctioned under the scheme.

**Features**

- PMAY-U adopts a demand-driven approach wherein the housing shortage is decided based on demand assessment by States/Union Territories (UTs).
- It is a **demand driven scheme** and GoI has not fixed any target for construction of houses.

**Components of the scheme**

- **In-situ Slum Redevelopment (ISSR):** Central Assistance of Rs. 1 lakh per house is admissible for all houses built for eligible slum dwellers under the component of ISSR using land as a Resource with the participation of private developers.
- **Credit Linked Subsidy Scheme (CLSS):** Beneficiaries are eligible for an interest subsidy of 6.5%, 4% and 3% on loan amounts up to Rs. 6 Lakh, Rs. 9 Lakh and Rs. 12 Lakh respectively.
- **Affordable Housing in Partnership (AHP):** Under AHP, Central Assistance of Rs. 1.5 Lakh per EWS house is provided by the Government of India.
  - An affordable housing project can be a mix of houses for different categories but it will be eligible for Central Assistance, if at least 35% of the houses in the project are for the EWS category.
- **Beneficiary-led Individual House Construction/ Enhancement (BLC-N/ BLC-E):** Central Assistance up to Rs. 1.5 lakh per EWS house is provided to eligible families belonging to EWS categories for individual house construction/ enhancement.
  - The Urban Local Bodies validate the information and building plan submitted by the beneficiary so that ownership of land and other details like economic status and eligibility can be ascertained.

## WATER EVERYWHERE MISSION

**Context:** The article discusses the challenges in achieving 100% coverage under the Jal Jeevan Mission. It also highlights what needs to be done to ensure it.

**Background:**

Launched in 2019, the Jal Jeevan Mission aims to achieve the objective of providing piped water in adequate quantities and of prescribed quality on a regular and long-term basis to every rural household in India (55 litre per capita per day of water).

Data shows **73.57% of the rural households** have already been covered by this flagship scheme.

**What are the Challenges in achieving 100% Coverage?**

There are challenges in achieving 100% coverage.

For instance, 3 states — Rajasthan, Jharkhand, and West Bengal — are way below the national average (73%), and even below the halfway mark (50%) of providing functional tap water connections to every household.

**These challenges include:**

1. **Geographic Challenges:** Rajasthan's arid and rocky terrain, unlike UP's plains, is not very conducive to piped water supply. Also, the state has the issue of generally low availability of water.
2. **Political Challenges:** For instance, change of government in the state in the recent elections has also slowed the implementation in Rajasthan, as per the author.

3. **Sustainable Source:** Unless the source of water is sustainable (such as through replenishment by groundwater recharge), the supply would become a long-term issue.

4. **Lack of Urgency:** For instance, West Bengal has plenty of water, which may have taken away the urgency required to implement the scheme. It has also led to the problem of contamination, which requires a much greater focus on treatment and supply.

5. **Raw Material Supply (Pipes):** The more immediate challenge has been the rising demand for duct iron pipes, which are an important raw material for piped water connections and its timely supply.

6. **Reaching the Last Mile:** Providing clean drinking water for PVTGs is part of the recently launched PM JANMAN scheme. The launch of this initiative makes it necessary to reach far-flung areas, which will be a challenge.

**What should be done?**

1. **Planning Sustainability of Water Source:** This must be done by the panchayat. Villagers do not know how much water there is in the groundwater aquifers. Communities must be empowered in aquifer and groundwater management. In this respect, states have put in place an implementation support agency to handhold the communities and train them in operation and maintenance of water connections for the next 3-4 years.

2. **Correct Identification of Area:** Appropriate area must be selected after field survey to house all three water supply units: The water treatment plan, storage unit, and distribution channel (meaning taps).

3. **Maintenance of Infrastructure:** The Centre has asked states to come up with a plan and decide on a mix of user charges and government subsidy for the upkeep of the drinking water infrastructure.

4. Records indicate that many states that did not perform well initially have progressed fast in the last two years. For instance, Uttar Pradesh, with only around 20% coverage in 2022, has improved it to above 76%.

According to the author, once everyone has a tap water connection, the way forward would be to ensure the quality is improved alongside the volume of supply.

## On Aadhaar-Based Payment Systems (ABPS) for NREGA Wage Payments

**Context:** The article discusses the issues with using Aadhaar-Based Payment Systems (ABPS) in MGNREGS wage payments.

**Background:**

Recently, the Rural Development Ministry made Aadhaar-Based Payment Systems (ABPS) mandatory in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

There are 2 modes of wage payments in MGNREGS: account-based and ABPS. As per the government's data, out of 25.6 crore registered workers, only 16.9 crore workers are eligible for ABPS while all are eligible for account-based payments.

**How are payments made through ABPS?**

For ABPS, the following procedure needs to be done:

- **First**, a worker's Aadhaar number must be linked to their job card. Authentication is successful only when all the details including spelling and gender match.

- **Second**, Aadhaar must be linked to the bank account.

- **Third**, the Aadhaar number of each worker must be mapped correctly through their bank branch with a software mapper of the National Payments Corporation of India.

The Aadhaar number acts as the financial address and cash transferred gets deposited to the last Aadhaar-linked bank account.

| What are the advantages of using | What are the issues with these claims? |
|---|---|
| | |

| ABPS, as claimed by the government? | |
|---|---|
| **1) Will remove duplicate job cards and lead to savings.** | No publicly available audits on the procedures followed by officials in deleting job cards and the valid scientific assessment of the gains of such an exercise are available. |
| | Studies show how officials have resorted to deleting job cards owing to pressure from the Union government to meet 100% of the Aadhaar seeding targets. There are also strong evidence of exaggerated savings claims due to Aadhaar. |
| **2) Reduce wage payment delays.** | Timely payments is only a function of the government allocating adequate funds. With adequate funds, the time taken to pay workers will not be different whether it uses ABPS or account-based payments. |
| | The evidence for quicker payments in ABPS compared to account-based payments was not statistically significant (only 3%). |
| **3) Lower payment rejections.** | Study finds no statistically significant difference between the rejection rates in the two modes of payments. |

**What are some other issues with using ABPS in MGNREGS payments?**

1. **Lack of Evidence:** No credible evidence supporting the decision to shift to ABPS was provided by the government.
2. **Complex Procedure:** Incorrectness in any of the steps for ABPS means that the worker is denied work, does not receive wages, or is not paid in their preferred account.
3. **Spelling Mismatches:** Since different administrative units are involved in creating different documents in rural areas, spelling mismatches are common.

   Hence, according to the authors, the difficulties in resolving problems with ABPS are more than the difficulties in resolving problems with account-based payments and hence, account-based payments are advocated.

## ISSUES WITH PANCHAYATI RAJ INSTITUTIONS (PRIs)

**Context:** The article discusses the importance and challenges faced by Panchayati Raj Institutions in India, especially with regards to funds.

**Background:**

Recently, the RBI's report on **'Finances of Panchayati Raj Institutions'** was released. It helps in understanding the fiscal health of the third tier of government in India: local institutions of governance.

**Why are Panchayati Raj Institutions important?**

1. **Governance and Rural Development:** Critical to providing **local governance** and helping in **rural development**. This is important as almost 69% of our population resides in rural areas
2. **Implementation of Policies:** Significant role in **translating the vision and developmental policies** of both the Central and State governments into action.
3. **Familiarity with Local Needs:** Local governments have a more detailed information on the local needs of citizens than any higher level of government. This makes them best suited to provide basic public goods and services, such as health, education, sanitation, etc.

**What are the challenges with Panchayati Raj Institutions?**

1. **Funds:** Inadequate independent financial resources and heavy reliance on grants from upper tiers of government.
2. **Functionaries:** Lack of trained manpower.

3. **Functions:** Lack of political will (to devolve more power and functions to local governments).

4. **Weak infrastructure**.

5. **Regional Disparities:** The devolution of powers and functions to panchayats (and their performance) varies greatly across states (India's southern states have done better than others).

According to the author, the main challenge is inadequate resources.

### What are the issues with PRI finances?

1. **Lack of Own Revenues:** PRIs have done little to augment their own revenues—items like property tax, fees and fines.

2. **Dependence on Transfers:** PRIs have preferred the option of transfers from higher levels of government. This reliance on grants has meant they are not financially self-reliant, restricting their power to take spending decisions.

It is **against the principle of subsidiarity**, which means that higher levels of government should perform only those functions that cannot be effectively performed at the local level.

## NUTRITIONAL DEFICIENCIES IN INDIA

**Context:** The article discusses the impact of poor nutrition on health issues like anemia in India. It covers government efforts to improve nutrition through programs and food fortification, the shift in dietary patterns, and the importance of awareness and education to tackle these challenges.

### What is nutritional deficiencies?

Nutritional deficiency occurs when a body lacks essential nutrients due to insufficient nutrient-rich food intake (**primary deficiency**) or medical conditions hindering nutrient absorption (**secondary deficiency**). It can lead to various health issues but is preventable or resolvable through a balanced diet or targeted nutrient consumption.

### What are the factors contributing to nutritional deficiencies in India?

- **Poor Dietary Choices:** Shift from traditional diverse diets to processed, sugar-rich foods.

- **Economic Constraints:** As per FAO, 46% of South Asia's population, including India, can't afford a balanced diet. Around 74% of Indians can't afford a healthy diet, and 39% lack a nutrient-adequate diet (State of Food Security and Nutrition in the World, 2023).

- **Health Conditions**: Diseases like celiac and infections lead to nutrient absorption issues.

- **Lack of Awareness**: Misunderstandings about fortified foods hinder acceptance.

- **Implementation Challenges**: Government programs like Anemia Mukt Bharat face operational difficulties.

### What are the impacts of nutritional deficiencies?

- **Health-Related Concerns:** Nutritional deficiencies cause conditions like iron deficiency anemia, impair the immune system, and lead to digestive issues. These are especially prevalent in children and women.

- **Intergenerational Effects:** Anemic mothers often give birth to anemic babies, creating a cycle of malnutrition across generations.

### What government initiatives are in place to address nutritional deficiencies?

- **Anaemia Mukt Bharat (AMB)**: Focuses on administering iron and folic acid tablets, especially targeting children and women, to tackle iron deficiency anaemia.

- **Mid-day Meal Scheme**: Aimed at school children, this scheme provides nutritious meals during school hours to improve their overall nutrition.

- **Large-Scale Food Fortification (LSFF)**: Involves fortifying staple foods like wheat flour, rice, and edible oils with essential micronutrients. This is a relatively new approach in India to combat widespread nutritional deficiencies.
- **National Iodine Deficiency Disorders Control Programme:** Introduced in 1992, it significantly reduced goitre rates through the adoption of iodised salt. This program is an example of successful nutrient fortification in India.
- **Enhance Awareness**: Implement intensive IEC (Information, Education, and Communication) campaigns to educate about fortified foods and nutrition.

**Way forward:**

- **Promote Balanced Diets:** Encourage traditional diets rich in cereals, pulses, vegetables, fruits, and nuts, moving away from processed foods.
- **Strengthen Government Programs:** Improve execution of Anaemia Mukt Bharat and the Mid-day Meal Scheme for better effectiveness.
- **Expand Food Fortification:** Broaden LSFF (Large-Scale Food Fortification) to include more staples, learning from the success of the iodised salt program.

# INTERNATIONAL

## INDIA-SOUTH KOREA (RoK) RELATIONS

**Context:** General Manoj Pande, Chief of the Army Staff of India, recently visited the Republic of Korea.

### Background

- The deep-rooted connections between India and South Korea (RoK) can be traced back to 48 AD, as documented in the 13th-century Korean text "SamgukYusa."
- It tells the story of Princess Suriratna of Ayodhya (later Queen Heo Hwang-ok), who married King Kim-Suro of the ancient Gaya Confederacy in Korea.
- Diplomatic relations established in 1973, further strengthened to a "Special Strategic Partnership" in 2015.
- Year 2023 marked the 50th anniversary of the establishment of formal diplomatic relations between India and RoK.

### Areas of Cooperation

### Economic Cooperation:

- **FDI:** South Korea is the 13th largest foreign direct investment (FDI) source in India, investing US$ 5.4 billion between April 2000 to December 2022, as per Invest India. Companies like Samsung, LG, and Hyundai have established manufacturing and service facilities.
- **Bilateral trade:** It has grown significantly, reaching over $17 billion in 2013 and exceeding $23 billion in 2022.
- **CEPA:** India and Korea signed the Comprehensive Economic Partnership Agreement (CEPA) in 2010, further boosting trade and investment.

### Technological Collaboration:

- Both countries are actively involved in knowledge sharing and joint research initiatives in areas like information technology, biotechnology, and renewable energy.
- Collaboration in space exploration and satellite technology is also gaining momentum.

### Security and Defense:

- Regular military exchanges and joint exercises to enhance cooperation and understanding on regional security issues.
- Partnerships in defense technology development and procurement.

### Cultural and Educational Exchange:

- Growing popularity of Korean pop culture (K-pop) and dramas in India, fostering cultural understanding and people-to-people exchanges.
- Increasing student mobility and academic partnerships between universities in both countries.

### Challenges

- Rising nationalism and protectionist tendencies in both countries can pose challenges to further economic integration.
- North Korea's nuclear program remains a concern for both India and South Korea, requiring coordinated efforts for regional stability.
- The emerging coalition of North Korea, China, and Russia poses a new serious challenge to collaborative efforts between the two nations.
- Divergent stances may arise, necessitating a nuanced appraisal of each party's strategic imperatives.
- A challenge is the absence of a shared vision for a new comprehensive defence framework to construct a novel and sustainable emerging regional order.

### Measures

- **Explore technological collaborations:** Leveraging their technological capabilities, India and South Korea should aim to collaborate in developing advanced defence systems and equipment.
- **Explore opportunities:** In an era where defence against space warfare, information warfare, and cybersecurity is paramount, both nations can further explore opportunities for cooperation.
- **Tech arena:** Given Korea's status as an advanced high-tech digital superpower, vast opportunities exist in the development of robust security measures to effectively counter emerging threats in the digital domain.
- **Counter terrorism:** Strengthening coordinated efforts to counter terrorism aligns seamlessly with the shared concerns of India and South Korea.
- **Maritime security:** There is potential for collaboration in maritime security, including joint patrolling and information sharing, given the significant maritime interests both countries have in the Indian Ocean.
- **Peacekeeping and exercises:** India and South Korea can leverage their United Nations peacekeeping expertise for collaborative efforts through sharing insights and resources in peacekeeping operations.

## Way Ahead

- The imperative for India and Korea is to transcend the confines of bilateral cooperation, and embrace a paradigm shift that cultivates a more profound understanding of their roles in the swiftly evolving global scenario.
- A strategic, balanced approach, coupled with adaptability to the evolving geopolitical landscape is key to unlocking a robust and enduring defence collaboration.

Overall, India and South Korea share a strong and multifaceted partnership. Addressing existing challenges and exploring new avenues of collaboration will further strengthen this strategic relationship in the years to come.

## EXPANSION OF BRICS

**Context**: Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates have joined BRICS as new full members.

### About

- It was done as per the decision adopted by the 15th BRICS Summit in 2022.
- A proposal to admit six countries, including Argentina, into the bloc with effect from January 1.
- Argentina's new President announced withdrawing his country from becoming a member of the BRICS.

### About BRICS

- BRICS is an acronym that refers to a group of five major emerging national economies: Brazil, Russia, India, China, and South Africa.
- The term was originally coined by economist Jim O'Neill in 2001.
- BRICS brings together five of the largest developing countries of the world, representing around 41% of the global population, around 24% of the global GDP and around 16% of global trade.
- Origin: As a formal grouping, BRIC started after the meeting of the Leaders of Russia, India and China in St. Petersburg on the margins of the G8 Outreach Summit in 2006.
- The grouping was formalized during the 1st meeting of BRIC Foreign Ministers on the margins of UNGA in New York in 2006.
- The success of the meet led to the crystallisation of an annual summit under the aegis of BRIC.
- Initially, the grouping was termed BRIC as South Africa was inducted in 2010 and from there on it has been referred to as BRICS.

**Summits:** The governments of the BRICS states have met annually at formal summits since 2009.

Over a period of time, BRICS countries have come together to deliberate on important issues under the three pillars of:

- **Political and security,**

- Economic and financial and
- Cultural and people-to-people exchanges.

New Development Bank: Formerly referred to as the BRICS Development Bank, is a multilateral development bank established by the BRICS states.

The Bank shall support public or private projects through loans, guarantees, equity participation and other financial instruments.

**Significance of Expansion**

- Strengthening the Group: BRICS currently represents around 40% of the world's population and more than a quarter of the world's GDP.
  With the additions, it will represent almost half the world's population, and will include three of the world's biggest oil producers, Saudi Arabia, the UAE and Iran.
- Focus on Middle East: With the inclusion of Saudi Arabia, Iran, the UAE, and Egypt, there is a discernible Middle East focus, bearing geo-economic, geostrategic, and geopolitical implications.
- Representative of Developing Countries: The addition of new members bolsters the BRICS group's influence as a representative body of the developing world.
- Voice for Global Governance: The grouping now represents a larger share of the world's population and economy.

However, this only means that the group is potentially a powerful voice for reform of the arrangements for global governance and a powerful actor in these arrangements.

Impact on India's Position

Chinese Dominance: Among the newly admitted members, India regards each as a valuable partnership to cultivate.

- Apprehensions have emerged regarding the potential for the group to become more pro-China, potentially overshadowing India's influence and concerns.
- Although China desires BRICS to embody an anti-western stance, India's perspective is inclined toward maintaining the group as a "non-Western" entity.

**Addressing the Challanges:** For BRICS to maintain long-term effectiveness, India and China must address their border disputes and cooperate on complex global matters, including allocating resources for the growth of developing economies.

If India aims to genuinely represent the voice of the Global South, harmonizing these diverse interests into a unified stance could present a more formidable challenge than initially anticipated.

**Way Ahead**

- As the BRICS operates based on consensus-driven decision-making, attaining consensus among 10 countries characterized by diverse economies, geographical locations, and interests proves to be substantially more challenging than doing so among the original five members.
- To ensure the continued effectiveness and consistency of the institution, in the long run, BRICS might opt to focus on easier-to-achieve objectives.

## ONE YEAR OF INDIA-AUSTRALIA ECTA

**Context:** The India-Australia Economic Cooperation and Trade Agreement recently completed one year.

Negotiations are also underway for concluding the Comprehensive Economic Cooperation Agreement between the two countries but there is no defined deadline at the moment.

**India-Australia Economic Cooperation and Trade Agreement:**

The ECTA is a bilateral free trade agreement signed between India and Australia on December 2, 2022. It came into effect on December 29, 2022.

**Objectives:**

- **Boost bilateral trade and investment:** Removing tariffs and trade barriers aims to increase trade volume and create opportunities for businesses in both countries.
- **Enhance market access:** The agreement provides preferential access for Indian and Australian goods and services in each other's markets. India has agreed to Negative listing after 5 years of coming into force of the Agreement.
- **Streamline customs procedures:** Simplifying customs processes aims to save time and costs for businesses involved in cross-border trade.
- **Promote regulatory cooperation:** ECTA encourages harmonization of technical standards and regulations between the two countries.

## Expected benefits for India

- **Duty-free access for 96.4% of India's exports to Australia:** This includes key sectors like textiles, agriculture, and leather products.
- **Exports:** Exports are expected to increase by 10 billion by 2026-27 and the total bilateral trade is expected to cross US $ 45-50 billion by 2035.
- **Increased job creation:** Increased trade is expected to generate approximately 10 lakh new jobs in various sectors in India.
- **Greater foreign investment:** Improved market access and a more predictable regulatory environment could attract more foreign investment into India.
- **Closer economic ties with Australia:** ECTA strengthens the economic partnership between India and Australia, opening up new avenues for collaboration.

## Achievements so far

- According to official data, India's exports to Australia grew 14% year on year in value terms to $5.87 billion between April and November 2023 while imports contracted 19% year on year to $11.46 billion in the period.
- The trade deficit between the two countries was $5.2 billion between April and November 2023 as against $8.6 billion in the corresponding period a year ago.
- Exports to Australia on preferential lines grew by 17.8% in the same period and grew by 15.14% on non-preferential lines.
- Meanwhile, agricultural exports to India from Australia are 50% higher since the trade agreement came into force.

## Way Ahead

- While ECTA presents promising opportunities, some challenges remain, such as differences in regulatory standards and potential implementation issues.
- Continued dialogue and collaboration between both countries are crucial to maximize the benefits of the agreement.
- Its successful implementation could pave the way for further cooperation and contribute to regional economic growth and development.

## 7TH NEPAL-INDIA JOINT COMMISSION MEETING

**Context:** External Affairs Minister S Jaishankar and his Nepal counterpart NP Saud co-chaired the seventh meeting of the Nepal-India Joint Commission.

### About

Established in 1987, the India-Nepal Joint Commission provides a platform to review all aspects of the bilateral partnership.

India and Nepal have signed five key agreements. They are:

- An agreement to export 10,000 megawatts of electricity to India in the next decade.
- Fifth tranche of Indian assistance for people affected by an earthquake in Jajarkot area of Nepal in November 2023.

- Launch of Nepali space satellite,
- Cooperation in renewable energy development,
- Implementation of high-impact community development projects,

They inaugurated three 132-kV cross-border transmission lines, including the second circuits of the Raxaul-Parwanipur line and the Kataiya-Kusaha line, and the New Nautanwa-Mainhiya line.

## India-Nepal Relations

- Nepal is important for India in the context of its overall strategic interests in the region, and the leaders of the two countries have often noted the age-old 'roti beti' relationship, which refers to cross-border marriages between people of the two countries.
- **Shared Border:** The country shares a border of over 1,850 km with five Indian states – Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand. Land-locked Nepal relies heavily on India for the transportation of goods and services and access to the sea is through India.
- **The India-Nepal Treaty of Peace and Friendship:** Signed in 1950, it forms the bedrock of the special relations that exist between India and Nepal.
- Nepalese citizens avail facilities and opportunities on par with Indian citizens in accordance with the provisions of the Treaty. Nearly 8 million Nepalese citizens live and work in India.
- **Defense Cooperation:** India has been assisting the Nepal Army (NA) in its modernization by supplying equipment and providing training.
- Assistance during **disasters, joint military exercises, adventure activities and bilateral visits** are other aspects.
- The 'Indo-Nepal Battalion-level Joint Military Exercise **SURYA KIRAN'** is conducted alternately in India and in Nepal.
- Since 1950, India and Nepal have been awarding each other's Army Chief with the honorary rank of General in recognition of the mutual harmonious relationship between the two armies.
- The Gorkha regiments of the Indian Army are raised partly by recruitment from hill districts of Nepal.
- **Connectivity and Development Partnership:** India has been assisting Nepal in development of border infrastructure through **upgradation of 10 roads** in the Terai area; development of cross-border rail links at Jogbani-Biratnagar, Jaynagar-Bardibas; and establishment of Integrated Check Posts at Birgunj, Biratnagar, Bhairahawa, and Nepalgunj.
- **Water Resources Cooperation:** Cooperation in water resources primarily concerning the common rivers is one of the most important areas of bilateral relations.
- A three-tier bilateral mechanism established in 2008, to discuss issues relating to cooperation in water resources, flood management, inundation and hydropower between the two countries, has been working well.
- **Energy Cooperation:** India and Nepal have had a Power Exchange Agreement since 1971 for meeting the power requirements in the border areas of the two countries, taking advantage of each other's transmission infrastructure.
- India is currently supplying a total of about 600 MW of power to Nepal. An Agreement on 'Electric Power Trade, Cross-border Transmission Interconnection and Grid Connectivity' between India and Nepal was signed in 2014.
- **Trade and Economic:** India remains Nepal's largest trade partner, with bilateral trade crossing US$ 7 billion in FY 2019-20. India provides transit for almost the entire third-country trade of Nepal.
- India's export to Nepal has grown over 8 times in the past 10 years while exports from Nepal have almost doubled. Despite the difficulties due to the pandemic, India ensured uninterrupted flow of trade and supplies to Nepal.
- Nepal is India's 11th largest export destination, up from 28th position in 2014.
- In FY 2021-22, it constituted 2.34% of India's exports. Infact exports from India constitute almost 22% of Nepal's GDP.
- **The 'New Partnership in Agriculture':** It was announced in April 2018, which focuses on collaborative projects in Agriculture, Education and R&D.

- **Mahakali River bridge:** Recently, a MoU was signed between India and Nepal for the construction of a motorable bridge across the Mahakali River connecting Dharchula (India) with Darchula (Nepal), under Indian grant assistance.
- **Operation Maitri & post-earthquake reconstruction assistance:** In the wake of the 2015 earthquake in Nepal, GoI was the first responder and carried out its largest disaster relief operation abroad (Operation Maitri).
- India extended US$ 1 billion to Nepal as part of its long-term assistance for post-earthquake reconstruction in housing, education, health and culture heritage sectors.

## Issues between India & Nepal

- **Treaty of Peace and Friendship of 1950:** On 31 July 1950, India and Nepal signed a treaty of peace and friendship in an effort to "strengthen and develop these ties and to perpetuate peace between the two countries".
- As time passed, Nepal believed the treaty was "incompatible with national self-respect".
- **Madhesi Issue:** India's entrenched interests in Nepal suffered a setback in 2015, when a blockade at the borders ensued following protests by Madhesis and some other ethnic groups against marginalization of their interests in the newly-passed Nepalese Constitution.
- **Kalapani dispute:** The area is in India's control but Nepal claims the region because of historical and cartographic reasons. The area is the largest territorial dispute between Nepal and India consisting of at least 37,000 hectares of land in the High Himalayas.
- **Susta Border dispute:** Susta is a disputed territory between Nepal and India. It is administered by India as part of West Champaran district of Bihar.
- Nepal claims the area a part of West Nawalparasi District under Susta rural municipality, alleging that over 14,860 hectares of Nepali land in Susta has been encroached upon by India.

## Way ahead

- There are several irritants that have developed, straining this relationship, and for now there seems to be a concerted attempt by both governments to return to bonhomie, with the Indian government seeking to utilize "religious diplomacy" as a means to emphasize the special relationship.
- India-Nepal relations need to graduate to a more meaningful partnership on economic and geopolitical issues, with the Indian government continuing to retain a substantial role in partnering the Nepali regime in development projects.

## RED SEA TROUBLE

**Context:** A spate of attacks on cargo ships in the Red Sea since November by the **Houthi militia of Yemen** has turned the **quickest marine route linking Asia with Europe through the Suez Canal unsafe.**

**About**

- The attack has forced freighters **to take a longer transit around the Cape of Good Hope in Africa's southern tip**, making shipments both dearer and longer to deliver.
- It has c**ompounded the woes of global trade** as it emerges from the aftermath of the **pandemic, feels the heat of the Russia-Ukraine war and grapples with a global economic slowdown.**

**Importance of Red Sea Trade Route**

- The Red Sea, stretching from **Egypt's Suez Canal to the narrow Bab el-Mandeb Strait** separating the Arabian Peninsula from Africa, remains a key trade route for global shipping and energy supplies.
  o Opened in 1869, the Suez Canal is one of the busiest canals in the world, carrying around **12% of global trade.** In 2022, 23,583 ships used this route.
- **Linking East and West:** The Red Sea serves as a bridge between the East and West, providing a shorter and more direct route for maritime trade between Europe, Africa, the Middle East, and Asia.

- **Strategic Importance:** The Suez Canal, which connects the Red Sea to the Mediterranean, is one of the world's most important artificial waterways, facilitating global trade and reducing shipping times and costs.
- **Trade in Goods and Resources:** The region is a significant source of oil and natural gas, and the Red Sea remains an important route for the transportation of energy resources.
- **Economic Impact:** The trade routes through the Red Sea support the economies of countries along its shores by providing employment, stimulating economic activity, and fostering international relations.
- **Political Significance:** The control of key chokepoints, such as the Bab el Mandeb and the Suez Canal, has implications for global trade and security.
  - o Political stability and cooperation among the countries bordering the Red Sea are crucial for ensuring the smooth flow of goods.

**Impact on Indian trade**

- After the attacks, major cargo shipping lines decided they would **not operate on this route**. Even small feeder vessels have of late **stopped plying** in these waters.
  - o **Commodities are the worst affected whether it be chemicals, plastic, petrochemicals**, because margins are not there to absorb the hike in freight.
- **Almost 90% of western hemisphere cargo**, both inbound or shipped from India, that used to go through the Red Sea is **now getting re-routed through the Cape of Good Hope**.
  - o The remaining 10% of Indian import or export cargo is either not moving or using a transit facility.
- **Elongation of Both import and export cycles:** Container Corporation of India is saying about **25% of its containers are being held back by Indian exporters**.
  - o Besides the extra time taken on account of the longer route, the developments could make **imports costlier and call for better inventory management.**
- **Increase in freight cost:** While all consignments are likely to be impacted by the **increase in freight cost** — by up to **six-fold** in some cases — and the **longer voyage time**, the pinch would be felt most by **low-value, high-volume cargo as well as perishables.**
- **Final products:** Also, the crisis could result in final products turning expensive.
  - o For instance, the Red Sea crisis could come in the way of any plans to reduce pump prices of petrol and diesel.
- **Energy security:** Gross imports of crude oil and petroleum products as a share of India's gross imports in value terms was **25.8% in 2022-23.**
  - o In fact, **India's import dependence** (based on consumption) in the April-September 2023 period was **87.6%,** according to the government's Petroleum Planning and Analysis Cell.

## ON THE UAE-INDIA CEPA COUNCIL (UICC) – THE UAE-INDIA PARTNERSHIP HAS A NEW CATALYST IN PLAY

**Context:** The article discusses the recent growth in UAE-India bilateral relations due to Comprehensive Economic Partnership Agreement (CEPA). It also highlights the objectives of the UAE-India CEPA Council (UICC).

- The United Arab Emirates-India relationship is one of the region's most dynamic partnerships. It highlights the positive benefits that can be achieved through open, consistent and constructive dialogue; visionary leadership; and mutual respect.
- It has shown exemplary progress in ensuring free and open trade, promoting the development of resilient and sustainable economies, to multilateral cooperation.
- The Comprehensive Economic Partnership Agreement (CEPA) remains fundamental to the continued dynamism of this partnership.

## What have been the outcomes of India-UAE CEPA?

**The CEPA has led to:**

- Expanded market access for Emirati and Indian businesses seeking to enter each other's respective markets
- Significant decrease in tariffs.
- Streamlined customs procedures.
- Introduction of a series of robust and transparent regulations that support rules-based competition.

Due to this, UAE has become one of India's most important economic partners. It has risen to the position of India's 4th largest investor, 3rd largest trading partner and 2nd largest export destination.

**Outcomes of the CEPA in addition to strengthened economic bonds:**

- According to the author, the CEPA has done much more than strengthen our economic bonds. This includes:
- Led to much deeper and more nuanced (which consider all factors and stakeholders) relations.
- Encouraged strategic and political alignment never seen before in the history of the relationship. This includes:
- **Support at Multilateral Fora:** India's support throughout the UAE's presidency of CoP-28, and that of the UAE of India's G20 presidency, are indicative of the mutual support.
- **BRICS Membership:** UAE's recent addition to the BRICS grouping will serve to further catalyse bilateral ties and promote peace and prosperity at the global level.
- Apart from this, at this year's Vibrant Gujarat Summit, the UAE-India CEPA Council (UICC) will be officially unveiled.

**Objectives of the UICC:**

- **Outlet to Deepen Commercial Ties:** It will provide a dynamic new outlet for the business communities of the two countries to deepen commercial ties.
- **Leverage India-UAE Strategic Partnership:** The Council seeks to leverage the rapidly developing strategic partnership between the two governments.
- **Encourage Business Partnerships:** It seeks to encourage partnerships across all levels of the two business communities. It will focus on critical spheres such as startups, women's entrepreneurship, MSMEs and the services sector.
- **Holding Events to build Trust:** It will facilitate a range of events that support trust, dialogue and open engagement among the business communities.
- Thus, the Council will provide business communities with the resources they need to fully unlock the benefits and opportunities of CEPA.

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## ON INDIA-MALDIVES BILATERAL RELATIONS – CHANGE FOR THE WORSE

**Context:** The article discusses the recent developments which signal a decline in India-Maldives relations. It highlights the importance of maintaining sound bilateral relations which will be in both countries' interest.

**Background:**

There has been a rapid decline in ties between India and the Maldives, especially after the Maldives' newly elected President Mohamed Muizzu came to power on the back of his "India Out" campaign.

The recent incident involved tweets by 3 Maldivian Ministers, attacking Indian Prime Minister for promoting the Lakshadweep islands for tourism and made derogatory remarks about Indians. The Ministers were then suspended, and the Maldivian government has distanced itself from them.

**Other incidents signal a decline in bilateral relations:**

- State visits of the Maldives' President to Turkey and China — the first President to not visit India on the first state visit.
- Withdrawal of India's military personnel.

- Revoking of the joint Hydrography Pact.

## How should both countries respond to this situation?

**Both countries need to reassess their responses to this situation.**

## Maldives:

- It cannot afford to alienate India because:
- India's proximity to Maldives.
- India's rising economic stature: Indian tourists made up the most arrivals to Maldives post-COVID-19.
- India's historical position as a net security provider in the Indian Ocean.
- India's support to Maldives during the COVID-19 pandemic.
- India's infrastructure and development projects in the islands.

## India:

- India must realise that hostility towards a much smaller neighbour serves no purpose.
- Instead, both countries can benefit from a stronger relationship through the intense strategic partnership and cooperation on the international stage shown in the past.
- Hence, India should ensure that these developments do not change the basic structure of bilateral ties or affect regional stability.

## INDIA-MALDIVES ROW FRAMES THE NEED FOR INDIA'S LONG NEGLECTED MARINE DOCTRINE

**Context:** The article discusses tensions between India and Maldives due to offensive remarks about India's Prime Minister. It highlights the importance of the Maldives in India's maritime security and suggests India should improve its diplomatic approach, considering China's influence in the region.

India should heed K.M. Panikkar's prediction about the critical importance of maritime strength. It's essential to pivot from a land-centric defense policy to a more robust maritime strategy. It requires reinforcing India's maritime diplomacy, enhancing naval capabilities, and fostering stronger ties with neighboring countries like the Maldives. By focusing on these maritime aspects, India can secure its interests in the Indian Ocean and counterbalance the growing influence of other regional powers.

## Why is the Maldives important to India?

- **Strategic Location:** The Maldives archipelago, with its 27 atolls, is strategically positioned in the Indian Ocean, integral to India's maritime security.
- **Exclusive Economic Zone:** It has a nearly one million square km exclusive economic zone, vital for regional influence and security.
- **Proximity to India:** Located just 700 km from Kochi, India, the Maldives offers a significant geographic advantage.
- **Historical Importance:** The British maintained a base on Maldives' Gan Island until 1976, indicating the long-recognized strategic value of the region.

## What is the issue with India's diplomatic approach?

- **Continental Fixation:** India's focus has been more on land-based defense, leading to sporadic and random maritime initiatives. India needs to keep the countries like Maldives close, it will help in strengthening India's maritime position.
- **Perception of Dominance:** Indian diplomacy can seem patronizing, particularly in smaller neighboring nations like the Maldives.
- **Impact of Domestic Politics:** Domestic issues in India, such as unchecked communal speeches, can negatively impact its image abroad.
- **Need for Sensitive Diplomacy:** India's approach has sometimes been seen as overbearing, underlining the need for more sensitivity and balance in its diplomatic relations, particularly with smaller nations.
- **China's Maritime Investments:** China's politico-economic strategies include investments in regional countries, enhancing its influence in the Indian Ocean. Additionally, the development of strategic ports

like Hambantota in Sri Lanka and Gwadar in Pakistan, along with leasing a military/naval base in Djibouti, further challenges India's regional influence.

- **Use of the "Islamic Card":** Coupling its influence with Pakistan's religious incitement, China is positioning itself as a significant player in predominantly Muslim nations like the Maldives.

## What initiatives have been taken by India to overcome maritime issues?

- **Creation of a Specialized Naval Unit:** In 2005-06, India established a dedicated naval organization for foreign cooperation, led by a two-star admiral.
- **Equipment Transfer to Neighboring Countries:** India transferred patrol boats, aircraft, and helicopters from its own navy to Sri Lanka, Maldives, Myanmar, and Seychelles.
- **Training and Advisory Support:** The Indian Navy has provided training and advisors to maritime neighbors.
- **Responsive to Regional Crises:** India has consistently been the first responder in regional crises, such as the 1988 Maldives coup attempt, the 2004 tsunami, and the 2014 water crisis in Maldives.
- **Maritime Diplomacy Enhancement:** India's maritime diplomacy initiatives aim to shape the maritime environment favorably, aligning with its foreign policy and national security objectives.
- **Promotion of SAGAR Vision:** India's 2015 SAGAR (Security and Growth for All in the Region) initiative emphasizes broad regional maritime cooperation.

## EMERGING CHALLENGES FOR INDIA AFTER THE BANGLADESH ELECTIONS

**Context:** The article discusses the emerging challenges for India in the wake of the recent Bangladesh Elections. It highlights the allegations against the Awami League government and suggests a way forward for India.

## Background:

Ms. Sheikh Hasina (Awami League) recently came back in power in Bangladesh for a record 5th time (4th in a row). However, concerns were raised about the lack of participation of the principal opposition Bangladesh Nationalist Party-Jamaat-e-Islami coalition.

## What are the positive outcomes for India?

Continuity in Bilateral Relations: There will be continuity in the excellent bilateral relationship with Bangladesh, addressing India's security and connectivity concerns.

Power Purchase Agreement: Power purchase agreement has been recently signed by the Hasina government.

## What are the allegations against the Awami League?

- Election Irregularities: Large-scale false voting (such as the use of under-age children voting by turn several times) has been reported. This signals a firm step towards a one-party police state.
- Allegations of Corruption: Controversies such as stock market scams, large-scale money laundering, bank defaults, and crony capitalism have emerged.
- Anti-Secular Islamist Agenda: The Awami government plans to create model mosque cum islamic cultural centres. These can replace the syncretic and secular Bengali linguistic culture, threatening Bangladesh's secular identity.

## What are the emerging challenges in front of India?

- Harming India's Image: According to the author, there will be allegations against India of supporting autocracies abroad to suit strategic interests.
- Anti-India Sentiment in Bangladesh: Anti-Indian sentiments (especially among the youth) are rising in Bangladesh due to its support for an increasingly autocratic regime.
- Support to a Problematic Dispensation: Massive corruption scandals, mismanagement of economy, and abnormal price rise has tainted the Hasina government lately.
- Opposing Stand of India's Strategic Partners: India's strategic partners (such as the USA, and its European and Asian allies) have criticized Bangladesh elections.

- Lack of pro-Indian Elements in the Government: Most pro-Indian elements in the Awami League have been eliminated.

### Way forward:

- India's loss of influence in the neighbourhood, from Nepal to the Maldives, reflects badly on India's "Neighbourhood First" policy. Hence, the following steps can be taken:
- India should push hard to induct some pro-Indian leaders in the cabinet.
- Secular alternatives to the Awami League should be explored.

## DEVELOP LAKSHADWEEP BUT PROTECT ITS ECOLOGY

**Context:** The article discusses the development of Lakshadweep into a high-end, eco-friendly tourist destination. This plan aims to limit visitor numbers to protect the environment, avoiding the environmental issues seen in the Maldives due to tourism.

### What is the need for developing Lakshadweep?

- Alternative to the Maldives: Tensions with the Maldives highlight the need for India to have its own high-end tourist destination.
- Preventing Environmental Damage: The negative environmental impact in the Maldives underscores the need for a sustainable tourism model in Lakshadweep.
- Limited Space Management: Lakshadweep's small size necessitates a controlled development approach to avoid overcrowding and ecological harm.
- Economic Development: With only 10 of its 36 isles inhabited, developing Lakshadweep addresses the need for economic growth in this region.

### What are the challenges in developing Lakshadweep?

- **Limited Area:** Lakshadweep's small size (32 sq km) and limited inhabited islands (10 out of 36) pose a challenge for large-scale development.
- **Exclusivity for High-End Tourism**: Due to space limitations, even with land reclamation, Lakshadweep is likely to cater only to the upper tier of travelers, making it an exclusive destination. This approach, though seemingly unfair, is a strategic choice to manage the area's constraints.
- **Waste Management:** As seen in the Maldives, efficiently handling waste to prevent environmental degradation is a significant challenge.
- **Balancing Exclusivity and Accessibility:** Developing high-end resorts while preserving the local environment, as opposed to the overcrowding seen in places like Goa, requires careful planning.
- **Sustainability:** It's essential to adopt sustainable practices early on to prevent future environmental problems. Constructing new facilities, such as the planned airport, while preserving the environment, presents a significant challenge.

### What can be learn from Maldives?

- Maldives' experience shows how excessive tourism can lead to environmental degradation.
- In the Maldives, waste disposal became a significant issue, with an estimated 300 tonnes of hard and soft waste dumped daily on a small island. This situation transformed a once-beautiful island into an overrun garbage dump, as highlighted in a 2012 BBC report. This example underscores the importance of effective waste management in Lakshadweep to avoid similar environmental degradation.
- The swift rise in tourism in the Maldives emphasizes the fragility of small island ecosystems, underscoring the need to maintain a balance between tourist numbers and ecological conservation.

### Way forward:

- **Conduct Sustainability Surveys:** Carry out detailed surveys to ensure development in Lakshadweep is environmentally sustainable.
- **Target High-End Tourism:** Cater to wealthier tourists, who can be taxed for the additional expenses, to manage the demand and fund eco-friendly initiatives.

## ON THE INDIA-OMAN FREE TRADE AGREEMENT – BRIDGING THE GULF

**Context:** The article discusses the status of trade between India and Oman and the Gulf. It also highlights the possible benefits and challenges arising due to the proposed India-Oman Free Trade Agreement.

The text of the proposed trade agreement between India and Oman has been substantially concluded, indicating that a comprehensive economic partnership agreement (CEPA) (a free trade agreement, or FTA) may be signed over the next few weeks.

### What is the current status of trade between India and Oman and the Gulf?

- Oman is India's 29th largest trading partner, but the 3rd largest export destination among the 6 Gulf Cooperation Council (GCC) countries.
- India exports gasoline, iron and steel, electronics, and machinery to Oman, and imports petroleum products, urea, propylene, and ethylene polymers.
- Bilateral trade has been growing, increasing from $3.15 billion in 2021-22 (FY22) to $4.48 billion during FY23 (42% growth).
- The GCC countries contribute about 1/6th of India's total trade. The trade balance, however, is in favour of the GCC (due to India's petroleum imports).

### What could be the potential benefits of the India-Oman CEPA?

- **Facilitate Trade:** It could substantially reduce the customs duties, and even bring them down to zero in some instances.
- **Provide a Market for Indian Exports:** Oman has a high per capita income of $25,060 (India's being $2,370). Thus, it could emerge as a market for more expensive exports from India.
- **Strategic Outreach in the Gulf:** India is looking to improve its relations with the Persian Gulf nations as a balancing act in the backdrop of the Israel-Hamas conflict.
- **Balance Tilted in India's Favour:** There is hardly any item sold by Oman that can threaten Indian industry. On the other hand, India might get important market access for its exports to Oman in the form of finished products.
- For instance, raw material from Oman such as petrochemicals, chemicals, and crude oil will enter India at a lower/zero duty. In return, India will get market access for finished products such as engineering, chemicals, plastics, textiles.

### What are the challenges?

- **Limited Opportunities:** Oman is a much smaller country than India, growth in trade between the two is expected to be limited. With a population of 1.4 billion, compared to Oman's 5 million, India represents a much larger consumer market for Oman.

## AGREEMENT SIGNED ON DEVELOPMENT OF CHABAHAR PORT

**Context: India and Iran** signed an agreement on the further development of the **Chabahar Port.**

### Chabahar Port

- Iran's Chabahar port is located on the **Gulf of Oman** and is the **only oceanic port of the country.**
- It is situated in the **city of Chabahar** in **Sistan and Baluchestan Province.**
- Chabahar has two ports; **Shahid Kalantari and Shahid Beheshti.**
  - o The former is an old port with limited water front to accommodate feeder vessels.
  - o The Shahid Beheshti Port is being developed in four phases. On completion of all 4 phases, port capacity will 82 million tons per year.
- The port gives access to the **energy-rich Persian Gulf nations'** southern coast and India can bypass Pakistan with the Chabahar port becoming functional.

### Significance of Chabahar Port for India

- **Geopolitical Significance:** Chabahar Port is strategically located at the crossroads of South Asia, Central Asia, and the Middle East. It provides India with direct sea access to Afghanistan and Central Asia, bypassing Pakistan.
  - India can bypass Pakistan in transporting goods to Afghanistan.
- **Gateway to INSTC:** Chabahar port will boost India's access to Iran, the key gateway to the I**nternational North-South Transport Corridor** (**INSTC)** that has sea, rail and road routes between India, Russia, Iran, Europe and Central Asia.
- **Countering China:** Chabahar port will be beneficial to India in countering Chinese presence in the Arabian Sea which China is trying to ensure by helping Pakistan develop the Gwadar port.
  - Gwadar port is less than 400 km from Chabahar by road and 100 km by sea.
- **Trade Benefit:** With Chabahar port becoming functional, there will be a significant boost in the import of iron ore, sugar and rice to India.
  - The import cost of oil to India will also see a considerable decline.

**Brief on India and Iran Relations**

- **Political Relations:** India and Iran signed a **friendship treaty in 1950.** The two countries have in place several Bilateral Consultative Mechanisms at various levels including the Joint Committee Meeting (JCM), Foreign Office
- Consultations (FOC), Security Consultations at the level of National Security Advisers.
- India and Iran also have Joint Working Groups to facilitate cooperation in various important sectors.
- **Economic Relations:** India-Iran bilateral trade during the FY 2022-23 was **$2.33 billion, registering a growth of 21.76%.**
  - India and Iran have also been trying to diversify their channels of payment to increase bilateral trade.
- **Energy Cooperation:** India has consistently been among the **top importers of Iranian oil,** although this relationship has faced challenges due to international sanctions on Iran.
- **Regional Stability:** India and Iran share concerns and interests in the stability of the region, especially in the context of Afghanistan.
  - The two nations have collaborated on various initiatives to address common security challenges.

**Areas of Concerns**

- **International Sanctions:** Iran has faced international sanctions, particularly in relation to its nuclear program.
  - These sanctions have affected economic relations between India and Iran, especially in the energy sector.
  - India's ability to import oil from Iran has been impacted, leading to uncertainties in their energy cooperation.
- **Geopolitical Challenges:** The geopolitical landscape in the Middle East and South Asia has been complex, and both countries need to navigate carefully to balance their regional interests.
- **Security Concerns:** The security situation in the region, including the volatile conditions in Afghanistan, has implications for both India and Iran.
  - Their cooperation on regional security issues is essential, but differences in strategic perspectives can pose challenges.
- **Chabahar Port Development:** While the development of the Chabahar Port is a significant project, progress has been slower than anticipated.
- **Impact of External Players:** Both India and Iran have relationships with external players that may not align with each other's interests.
  - The influence of external powers in the region can complicate their bilateral dynamics and create challenges for mutual cooperation.
- **Nuclear Deal Uncertainties:** The uncertainties surrounding the Iran nuclear deal (JCPOA) and the potential for changes in the international approach toward Iran's nuclear program can impact the diplomatic and economic relations between India and Iran.

**Way Ahead**

- Although India has followed a balancing act in the Middle East, the evolving geopolitical realignments could pose newer challenges for India to deepen its cooperation with Iran amid escalating tension between Iran and the West.
- The relationship faces challenges due to geopolitical dynamics, including the influence of other regional players.
- However, both countries continue to explore opportunities for collaboration and economic partnership.

## INDIA -CHINA BORDER ISSUE

**Context:** At least two previously **unknown incidents of conflict between the Indian and Chinese troops** along the **Line of Actual Control (LAC)** have come to light.

**About**

- After the beginning of the **stand-off in eastern Ladakh in 2020**, India and China had deployed thousands of troops in forward posts along the LAC in the area which largely continue to remain deployed with the disengagement and de-escalation still incomplete.
- Tensions between India and China along the **Line of Actual Control (LAC)** continued through 2021 and till end 2022.

**The India-China Borders**

- India considers the LAC to be **3,488 km long,** while the Chinese consider it to be only around **2,000 km.**
- **It is divided into three sectors**: the eastern sector which spans **Arunachal Pradesh and Sikkim**, the middle sector in **Uttarakhand and Himachal Pradesh,** and the western sector in **Ladakh.**
- **Western Sector or Aksai Chin Sector:** The region is claimed by the Chinese government **post-1962 war** as an autonomous part of the Xinjiang region which was originally a part of the Indian state of Jammu and Kashmir.
- **Middle Sector:** It is the less disputed section of the Indo-China border but the **recent Doklam standoff and Nathu La Pass trading issues** have brought distress at all levels.
- **Eastern Sector or Arunachal Pradesh:McMahon Line** had differentiated India and China in this sector but in the 1962 war the People's Liberation Army covered 9000 sq. km. area.
  - o The announcement of a unilateral ceasefire made them step back on the international borderline.
  - o However, China has been claiming that area as their own and recently they have started to **claim the whole of Arunachal Pradesh** as their own.



**Why did China Encroach on Indian Territory?**

- **To show its dominance:** China felt that somehow India was not recognising the growing gap in their relative economic status, when China perceived that India was seeking to get closer to the United States (US) to balance China it decided that it needed to demonstrate its power.
  - From the Chinese point of view, the basis of this "stability" does not come from settling its border issues with India, **but dominance on the border and deterring Indian challenges.**
- **India's stand on China's Aggressive Foreign Policy:** India sought to challenge the Chinese point of view in many ways.
  - By building up its **border infrastructure** to more effectively maintain a deterrence capacity against the PLA along its borders.
  - By developing a **relationship with the US** which appeared to merge the threats from China's primary and secondary strategic directions.
  - By promoting its ties with exiled Tibetans and maintaining its relationship with the **Dalai Lama.**
  - Challenging China's efforts to develop ties in **South Asia and the Indian Ocean region.**
  - Leading the **global critique of China's Belt & Road Initiative.**
- **Threat to Chinese efforts in the South-Asian region:** China needs to be accepted in its periphery as the foremost economic and military power, before it is taken seriously as a **global power.**
  - In its southwest is India, **equally huge and populous** and with aspirations of its own, and its neighbors most certainly see India as being the **naturally pre-eminent power in South Asia.**
- **India's engagement with Chinese Adversaries:** In recent years, India has developed strong military ties with the country which China believes is its **primary threat, the United States.**
  - China would like to focus on the western Pacific challenge and retain stable ties with India in South Asia.
  - India's constant efforts, however, to upgrade its border infrastructure and strengthen its partnership with the US destabilise China's calculations.

**Way Forward**

- Disengaging from the points of friction is undoubtedly a step forward, and India and China must go a long way to solve the border dispute.
- India should **continue to press for complete disengagement and de-escalation** from all friction areas.
- Also, the Corps Commanders level talks must continue as the relationship cannot go back to normal as long as the situation along the stand-off lingers.
- India must keep its stand firm over **restoring the status quo** and rebuilding peace all along the LAC.
- The Indian government must constantly watch all developments that affect India's security and take all essential measures to **safeguard its sovereignty and territorial integrity.**

## CONSENSUS REGARDING COOPERATION BETWEEN INDIA AND FRANCE

**Context:** The article discusses the strong 25-year partnership between France and India. They want to deepen their ties to address modern challenges like security in the Indo-Pacific, climate change, and technology cooperation.

**What is The Consensus Regarding Cooperation between India and France?**

- **Strategic Partnership Foundation:** Both nations view their alliance as a pillar of stability in a turbulent world, having cultivated ties for over 25 years without major contention.

- **Focus on Indo-Pacific Region:** Key areas of joint concern include security, climate change, and regional architecture development. France, with its significant Indian Ocean presence, partners with India in addressing these challenges.

- **Security Cooperation:** They collaborate against traditional threats like piracy and non-traditional ones such as illegal fishing. France's regional military bases, like in La Reunion and Djibouti, facilitate joint naval patrols and resource pooling.

- **Technology and Digital Initiatives:** Joint efforts in digital technology aim to foster economic growth and sustainable development, emphasizing an inclusive digital environment.

- **Research and Development:** Collaborations in frontier technologies, such as AI and quantum computing, are central, highlighted by the Indo-French Centre of Excellence in quantum computing.

- **Environmental Initiatives:** They share a roadmap for developing Green Hydrogen, aspiring to lead in decarbonized hydrogen production.

- **Defence and Space Collaboration**: Defense relationship is evolving, with India diversifying its defence acquisitions and France emerging as a key supplier. In space, joint initiatives include the Gaganyaan project and collaboration in the upcoming Venus mission.

## What Required Grow Cooperation between India and France?

- **Maritime Security Enhancement:** Increase frequency and scale of joint naval exercises, utilizing French bases more effectively for regional security.

- **Institutional Mechanism Synergy:** Foster better integration between the Indian Ocean Rim Association, Indian Ocean Naval Symposium, and the Indian Ocean Commission, led by India and France for a unified approach to maritime challenges.

- **Trade and Technology Coordination:** Strengthen collaboration in the EU-India Trade and Technology Council, utilizing France's influence for beneficial outcomes, and align strategies in the Mineral Security Partnership with the US and G7 countries.

- **Defense Manufacturing Collaboration:** Beyond purchasing French defense equipment, India should focus on manufacturing items like Rafale jets domestically, benefiting from the trilateral partnership with France and UAE, to deepen defense ties.

- **Joint Research Initiatives:** Expand consortiums involving academic, governmental, and corporate entities for projects in crucial sectors like health and climate change, leveraging the Indo-French Centre of Excellence in quantum computing.

## INDO-AFRICAN RELATIONSHIP AMID SOUTH-SOUTH COOPERATION

**Context:** India-Africa relationship has strengthened in recent times, with the African Union's induction into the G-20 group as the 21st member under India's presidency. Africa has been a central focal point in India's engagement with the Global South. India has positioned itself as a legitimate voice for the welfare of the countries of Africa, as the founding father of NAM and an active participant in the G-77 deliberations.

### History of India-Africa Relationship:

- Historical Cultural and Trade Relationship- Trade relationship existed between the Indus Valley and the contemporary African civilisations. There was a development of 'monsoon culture' through the trade culture, with the close association of people from both continents. The colonial phase saw the forceful migration of indentured labourers or girimitiyas to British colonies in Africa.

- Historical Political Relationship- Gandhiji's tools of civil disobedience and non-cooperation were tested on the soil of Africa. India and Africa used this ideological and historical ties in a decolonised world to oppose neo-colonialism. India and Africa also collaborated in the Bandung conference to advance the agenda of the Global South, which ultimately led to the formation of NAM.

### What are the areas of Cooperation between India-Africa amid South-South Cooperation?

1. **Political cooperation-**
    a) Regionalisation and reorientation of global governance norms on the 21st century have produced many strong political institutions amid the south-south Cooperation. For ex- Asia Africa Growth corridor (AAGC), Build Back Better (B3W), Blue Dot Network, ADB.

b) India and Africa have converged on the UNSC membership expansion, and India has supported the Ezulwini Consensus.

c) India has also stepped its engagement in regional organisations like ECOWAS, African continental Free trade Agreement, BRICS, OIC, NDB etc.

2. **Economic cooperation-**
   a) India has increased its investments in Africa to boost Africa's economic growth and reduce the poverty levels in the global south. For ex- EXIM Bank's Focus Africa Programme, India-Africa Partnership project, India-Southern African Customs Union Preferential Trade Agreement.
   b) Overall trade between India-Africa has touched $100 bn in 2022-23.
   c) 22.5% India's FDI outwards flow is towards Africa. India's current investment in Africa is around $32 bn with companies like ONGC Videsh making investments in India.

3. **Security cooperation-** India-Africa share security cooperation synergies on issues like curbing piracy, humanitarian and Disaster Relief (HADR) and maritime security.

4. **Climate change and Technology cooperation**- India and Africa have been cooperating in the climate change domain through organisations like ISA and CDRI. These organisations have also helped India extend its soft power influence in the region of Africa.

5. **P2P cooperation-** India has provided Africa with India's skilled workforce like engineers, trained nurses, digital public infrastructure and health care equity.

## What is the significance of India-Africa Relationship?

1. **Huge Economic Potential:** The African Continental Free Trade Area (AfCFTA) provides a wide scope to create the largest free trade area in the world by geography and an opportunity to lift 30 million people out of extreme poverty. It can help promote India-Africa bilateral trade and investment under AfCFTA.

2. **Potential for Indian Businesses-** There are opportunities in services trade with Africa in the fields of Information Technology (IT), Mobile payment solutions, banking, and financial services.

3. **Infrastructure Development in the African Continent**- India has the world's third-largest start-up ecosystem. Thus, it could count on its strengths to fortify the digital infrastructure in Africa. It can contribute to the achievement of the continent's Agenda 2063.

4. **Achievement of Common Agendas-** Most African nations are developing in nature just like India, which creates a common understanding on multiple issues. India and Africa share common grounds on reformation of the UNSC, Climate change agreements, Trade Issues and WTO negotiations.

5. **Soft Power-** Successful transformation of Africa into a 'continent of growth' from the 'continent of darkness' would enhance India's soft power and leadership position in the global south.

## What are the Challenges in India-Africa Relationship?

1. **Africa as ground of Geopolitical contest-** There is sharpening of competition among at least half a dozen external partners such as China, Russia, the United States, the European Union, Japan, Türkiye and the United Arab Emirates. The competition is mainly for strengthening their relations with parts of Africa to ensure market access, gain energy and mineral security, and increase political and economic influence.

2. **Increasing Chinese assertiveness-** China has emerged as 'the infrastructure developer', 'the resource provider', and 'the financier.' It has invested enormously in Africa in terms of money, materials and diplomatic push. Since 2007, Chinese leaders have visited the continent 123 times, while 251 African leaders have visited China. This has limited India's room in the region's geopolitical arena.

3. **Lack of clear strategy on the part of India-** India's model of development cooperation in Africa lacks a clear strategy in comparison with the Chinese Model. India also lacks the deep pockets as Chinese to invest deeply into the African economy.

4. **Lack of Focus-** Geopolitical tensions in Asia and the imperative to consolidate its position in the Indo-Pacific region have compelled India to deviate from greater focus on the India-Africa relationship. Instead, India concentrated on its ties with the United Kingdom, the EU, and the Quad powers.

5. **Racial Attacks-** Incidents of racial attacks on African nationals have severely dented India's image in the region.

**What Should be the way ahead to Strengthen India-Africa Relations?**

1. **Strengthen Political and Diplomatic Cooperation**- India must restore periodic leaders' summits through the India-Africa Forum Summit. India must establish a dedicated secretary in the Ministry of External Affairs (MEA) for African affairs.
2. **Enhance Defence and Security Cooperation-** India must increase the number of defence attachés in Africa and expand dialogue on defence issues. India must also strengthen maritime collaboration and extend Lines of Credit to facilitate defence exports.
3. **Deepen Economic and Development Cooperation-** India must promote India-Africa trade through the creation of an Africa Growth Fund (AGF) to enhance access to finance. India must also implement measures to improve project exports and enhance cooperation in the shipping domain.
4. **Increase Socio-Cultural Cooperation-** There must be facilitation of greater interaction between Indian and African universities, think tanks, civil society, and media organisations. India must establish a National Centre for African Studies and rename Indian Technical and Economic Cooperation (ITEC) and Indian Council for Cultural Relations (ICCR) scholarships after famous African figures.
5. Implementation of the 'Roadmap 2030' and PM's 10 guiding principles- India must establish a special mechanism for implementing the 'Roadmap 2030' through collaboration between the MEA and the National Security Council Secretariat.

By following this roadmap and implementing the recommended measures, India can further strengthen its partnership with Africa, contribute to its growing global stature and leadership among the countries of global south.

## INDIA-MYANMAR BORDER FREE MOVEMENT REGIME

**Context:** The Union Ministry of Home Affairs (MHA) is planning to end the Free Movement Regime (FMR) with Myanmar.

**Free Movement Regime (FMR) Agreement**

- The FMR is a mutually agreed arrangement between the two countries that allows tribes living along the border on either side to travel up to 16 km inside the other country **without a visa.**
- It was aimed **to minimise the historical divide** and facilitate cultural and economic ties.
  - The border between India and Myanmar was **demarcated by the British in 1826**, **without seeking the opinion of the people** living in the region, which effectively divided people of the same ethnicity and culture into two nations without their consent.
  - People in the region have strong ethnic and familial ties across the border.
- It was implemented **in 2018 as part of the Act East Policy** and was supposed to **provide impetus to local trade and business** and boost regional ties.
  - The region has a long history of trans-border commerce through customs and border haats.

**Differed Opinion**

- Manipur had urged the MHA to suspend the FMR and fence the entire India-Myanmar border in September 2023.
  - It had **already suspended the FMR in 2022** to prevent large-scale migration of refugees from Myanmar.
- However, **Mizoram and Nagaland** have **opposed** this move of MHA, arguing that the FMR allows the tribes residing across the borders to maintain their ethnic, social, and cultural ties, as well as contribute to the economic well-being of people on both sides of the border.
  - They have also opposed the proposal of fencing the entire border with Myanmar.

**Why ending the FMR Agreement is significant to India?**

- **Security Concerns:** There are illegal immigrants, drug traffickers, and insurgents from Myanmar have been misusing the liberty of the FMR.
- **Control of Ethnic Violence:** There have been several instances of ethnic violence in the region.

- o About 200 people have lost their lives in ethnic violence between the Kuki tribes and the Meiteis in the second half of 2023.
- **Border Management:** The decision to end the FMR is part of a broader plan to secure the India-Myanmar border.
  - o The government plans to fence the border, similar to the India-Bangladesh border.
- **Regulation of Movement:** The FMR allowed locals from both countries to enter either side up to a certain distance without visas and passports.
  - o This arrangement will be scrapped, regulating the movement of people across the border.

## India's strategy to safeguard its borders

- **Developing Infrastructure:** As part of the strategy to secure the borders as also to create infrastructure in the border areas of the country, several initiatives have been undertaken by the **Border Management Division**.
  - o These include the construction of the fence, floodlighting, roads, Border Out Posts (BOPs), Company Operating Bases (COBs), and deployment of technological solutions along the India-Pakistan, India-Bangladesh, India-China, India-Nepal, India-Bhutan and India-Myanmar borders.
- **Deployment of Troops & Surveillance:** The Indian Army and the BSF are deployed in multiple layers to form an anti-infiltration grid.
  - o The border fence and deployment of other surveillance devices have helped in reducing infiltrations.
  - o Improving our intelligence network within the state to nab the drug dealers on our side of the border must be the main priority of our security forces.
- **Along Bangladesh, Nepal, Bhutan, and Myanmar borders:** Our borders with these countries are guarded primarily by paramilitary forces, and they have to deal with the smuggling and trafficking of humans, drugs, arms, illegal migration, and movement of suspected insurgents.
- **Drugs Challenge:** Drones have proved to be an effective tool in smuggling drugs across the border.
  - o It will take more than mere vigilance on the border to deal with this menace.

## Conclusion and Way Forward

- Mere scrapping of FMR might not make any difference on the ground, as in the case of Manipur where FMR has remained suspended since September 2022.
  - o The people continue to cross the international border from any point mostly without permits. Crossing the border freely highlights the fact that the India-Myanmar border **continues to be poorly guarded.**
- There is a need to ensure that the border between India and Myanmar is **effectively secured and regulated by all stakeholders**.

## WORLD ECONOMIC FORUM ANNUAL MEET IN DAVOS

**Context:** The **54th annual meeting** of the World Economic Forum in Davos, Switzerland was concluded recently.

**About**

- Every year, leaders from various fields, such as business, politics, economics, etc., gather in the Swiss town to discuss challenges facing the world and explore the ways forward.
- The five-day session was held offline for the first time in three years.

**Five Takeaways of the 2024 Summit:**

- **Artificial Intelligence:** Many transformational abilities for human welfare were discussed, so were the need for regulation, fear of job losses, the risks of impersonation and misinformation, and the inequalities it can potentially worsen.
  - o The overall discussion seemed to be that the **positives outweigh the negatives,** and human intelligence did not face a major threat from AI.

- **War and Uncertainty:** Business leaders spoke of the risk posed by a fragile geopolitical situation, wars in the Middle East and Europe, the threats to global supply chains, and the uncertainty around food security.
  - Yet, no plans or roadmaps for peace were offered about the Israel-Gaza violence.
- **Climate:** The need for businesses to adapt to climate change and for countries to unite for action against it despite differences was another topic.
  - The need for the Developed countries to assist in the financing of climate action in the developing countries was discussed.
- **China's Economy:** Facing a slowing economy, China tried to attract more investment from the West, which has witnessed some cooling.
  - At 5.2%, China's GDP growth in 2023 is still below pre-pandemic levels, and it is battling American attempts to isolate it.
- **India:** India seemed to be the **most visible** among its regional Asian peers, with major tech companies staging booths in Davos.
  - Indian business leaders were seen at the forefront of debates over technology and supply chain issues.
  - One of the key takeaways from the Forum meeting was the announcement of the launch of a **Global Good Alliance for Gender Equity and Equality** with the support by **WEF and Government of India.**
  - The objective of this Alliance is to bring together global best practices, knowledge sharing and investments in the identified areas of women's health, education, and enterprise.

## CONSENSUS REGARDING COOPERATION BETWEEN INDIA AND FRANCE

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## CHALLENGES FACED BY IMEC – A REVIVAL OF THE IMEC IDEA AMID CHOPPY GEOPOLITICS

**Context:** The article discusses the India-Middle East-Europe Economic Corridor (IMEC), a proposed trade route. It mentions how conflicts like the Yemen conflict and Gaza war affect trade through the Suez Canal, making alternatives like IMEC more important.

### What is the IMEC Project?

India Middle East Europe Corridor is a network of **transport corridors** comprising **railway lines** and **sea lanes** to **promote economic integration** between Asia, the Arabian Gulf, and Europe.

### What are the challenges IMEC is facing?

- **Geopolitical Tensions:** The conflicts in Yemen and Gaza have impacted regional stability, crucial for IMEC's success. The Yemen conflict undermines confidence in the Suez Canal, highlighting the need for alternatives like IMEC.

- **Turkey's Exclusion and Alternative Proposal:** Excluded from IMEC, Turkey has shown dissatisfaction and proposed an alternative trade route. This route, positioning itself as an alternative to Saudi Arabia, would pass through Iraq to reach the Mediterranean.

- **Saudi Israeli Link Controversy**: The key part of IMEC, connecting Saudi Arabia to Israel, faces opposition due to longstanding regional disputes. Critics argue that the Arab Street would not support a major trade link between these two nations, especially following the Gaza war.

- **Uncertain U.S. Support:** The potential political return of Donald Trump casts doubts on the U.S.'s commitment to IMEC. Trump's unpredictable nature raises questions about sustained U.S. interest in such a global project.

### How does IMEC benefit India?

- **Enhanced Container Shipping:** For India, particularly the southern region, IMEC holds the potential to reduce delivery schedules by up to 40%. This improvement hinges on the development of dedicated freight corridors as part of a comprehensive all-India network, thereby making trade faster and more efficient.
  **Reduced Logistics Costs:** Aligning with India's National Logistics Policy of 2022, IMEC could help in reducing logistics costs to global levels by 2030.

- **Optimizing Transport Modes:** Currently, 70% of India's containers move by road. IMEC could shift this towards a more balanced split among road, rail, and coastal shipping, as recommended by industry experts.

- **Integration with Indian Ports:** The corridor plans to integrate with major Indian ports like Mundra and Jawaharlal Nehru Port Trust, enhancing their global connectivity and trade capacity.

- **Support for the Hydrogen Economy:** IMEC includes plans for hydrogen pipelines, which could benefit India in the transition to a decarbonized economy.

**Way forward**

The future of IMEC hinges on overcoming geopolitical hurdles and infrastructure challenges. Successful resolution of issues, like Turkey's exclusion and the Saudi Israeli link, will be crucial. With potential global financing and support, especially from the U.S., Europe, and Saudi Arabia, IMEC could become a major, transformative trade route, benefiting regional economies and enhancing global trade connectivity.

## MYANMAR MILITARY COUP AND INDIA

**Context:** This article discusses the political and military situation in Myanmar. It describes how, since a military coup three years ago, there has been resistance against the army, involving various ethnic armed groups and local defense forces.

**What are the consequences of the Myanmar military coup?**

- **Widespread Civil Disobedience:** Following the coup, a significant civil disobedience movement emerged, indicating widespread public opposition to the military takeover.

- **Formation of Resistance Forces**: The ousted parliament members established the **People's Defence Forces (PDFs)**, demonstrating organized political resistance against the military.

- **Escalating Armed Conflict:** Ethnic armed organizations, like the Arakan Army, Myanmar National Democratic Alliance Army, and Ta'ang National Liberation Army, inflicted significant losses on the military, especially in Shan State.

- **Loss of Territorial Control:** The military's loss of Paletwa town, a critical node in India's Kaladan project, exemplifies the significant territorial setbacks they faced.

- **Internal Displacement and Refugees:** Military actions against civilians caused substantial internal displacement and a refugee crisis in neighboring countries.

- **Military Recruitment and Desertions:** There's growing difficulty in military recruitment and increased desertions, including over 150 soldiers seeking refuge in India.

- **Diminished Military Cohesion:** The punishment of army officers for failing to prevent desertions points to internal issues and weakening cohesion within the military.

**What is the position of Myanmar's neighboring countries on the military coup?**

**China's Position:**

- **Defends Myanmar Military:** China supports the Myanmar military on international platforms.

- **Engagement with Ethnic Armed Groups:** China maintains relations with ethnic armed organizations on Myanmar's northern border, indicating a strategic balance.

- **Ceasefire Facilitation:** China's involvement in negotiating a ceasefire between rebels and the Myanmar army suggests its significant influence in the region.

**ASEAN's Stance:**

- **Exclusion of Myanmar Military:** ASEAN has denied the Myanmar military participation in its summits.

- **Limited Mediation Success:** Despite efforts, the ASEAN special envoy faced challenges in engaging with all relevant stakeholders in Myanmar.

**Thailand's Approach:**

- Thailand shares a 2,416 km border with Myanmar, giving it substantial influence.

- The Thai Foreign Minister interacted with both Myanmar's military leadership and Aung San Suu Kyi, reflecting **direct diplomatic engagement.**

- Thailand hosts Myanmar exile organizations and has escalated **humanitarian assistance,** showcasing its multifaceted involvement in the crisis.

**What should India do?**

- **Enhance Humanitarian Aid:** India could increase its humanitarian assistance to help displaced people in Myanmar, which might also reduce the number of refugees entering India.

- **Recognize Ongoing Resistance**: India should be aware of the continuous resistance against the military coup, showing no signs of abating despite the lack of a charismatic leader and substantial international support.

- **Adapt to Myanmar's Political Fragmentation:** It's important for India to consider the fragmented control in Myanmar, with different areas being controlled by the military, ethnic armed groups, and PDFs.

- **Reassess Policy with Stakeholder Input**: India could benefit from revising its Myanmar policy after engaging in discussions with all relevant parties, responding to the complex regional dynamics.

# SOCIAL ISSUES

## ON HIGHER EDUCATION

**Context:**

The article discusses the status of graduate unemployment in India. It also highlights the structural problems with the Higher Education sector.

**What is the status of graduate unemployment in India?**

- **Unemployment Rate:** In 2012, the unemployment rate among graduates was 20%; it has now increased to 34% in 2021. Among postgraduates, it used to be 18% in 2012; it has now doubled to nearly 37%.
- **Employability:** Some reports state that fewer than half of India's graduates were employable in 2021.
- **Status of Women:** India's female labour force participation is among the lowest in the world.

**What are the problems with the education system leading to unemployment?**

- The problem with the education system is structural. It includes:
- **Deteriorating Quality of Higher Education:** The rise in the number of private colleges, industrial training institutes (ITIs) and polytechnic colleges has led to a lowering of quality. The governments and the University Grants Commission did not have the capacity to regulate these colleges.
- **Lack of Access to Higher Education:** A vast majority of the country's youth don't get higher education. Higher education enrolment rates are still about 27% (18-23 year olds).
- **Impact of Online Learning:** There were learning deficiencies, which affected students' abilities to acquire knowledge and become employable.

**Apart from the above, other issues leading to unemployment includes:**

- **Lack of Job Creation in the Economy:** Unemployment is also because the economy is not creating enough jobs.
- **Sector-wise Issues in the Economy:** Agriculture has not become high tech, so graduates are not likely to join it. Jobs, such as delivery boys, are not preferred jobs for educated people. In the services sector, the jobs being created require high knowledge.

**What are the structural problems with the Higher Education sector?**

- Higher education institutions create new knowledge, and it leads to the development of new technologies. This leads to the possibilities of new businesses, innovation, entrepreneurship, and start-ups. However, it is constrained by the following issues:
- **Low R&D Expenditure:** India's R&D expenditure is only 0.7% of GDP. In Korea, it is 4%.
- **Lack of Participation of the Private Sector in R&D:** Globally, the private corporate sector accounts for about 70% of total R&D expenditure. In India, the public sector accounts for some 70% of total R&D expenditure.
- **Lack of Research Funding to Universities:** A very small proportion of public funding goes towards research within universities in India, unlike other countries.
- Most of it goes towards the Council of Scientific and Industrial Research, Indian Council of Medical Research, etc. This is problematic because these institutions don't translate their research into usable products/processes.
- **Foreign Ownership of Research:** Indian researchers are absorbed in MNCs. There are 800 MNCs which have their global research hubs in India. The value of that research goes abroad.
- **Equity Issues:** There is a larger issue of social equity. Scheduled Castes, Scheduled Tribes, Muslims are underrepresented in higher education.
- **Issues with the National Education Policy (NEP**): It has not led to substantive change in the education system.
- For instance, there is an emphasis on autonomy of higher education, however imposing the Central University Entrance Test on colleges was against that ideal, leading to confusion.

**What should be done?**

- **Converting Research into Products:** Creating institutions that convert patents or research scientific research papers into products and processes.
- **Increasing Funding:** Universities must be funded more, and private industry will have to play a role in this.
- **Vocational Training:** Divert students at the end of Class 10 and Class 12 away from higher education towards ITIs and vocational training can increase employability.

## MULYA PRAVAH 2.0 – AN AMBITIOUS PUSH FOR VALUES, ETHICS IN HIGHER EDUCATION

**Context:** The article discusses the Mulya Pravah 2.0 guidelines issued by the University Grants Commission. These guidelines aim to promote ethics and values in higher education.

**What is Mulya Pravah 2.0?**

- Mulya Pravah 2.0 is an updated guideline from the University Grants Commission (UGC) aimed at promoting ethical practices and human values in higher education institutions. It was introduced following unethical practices highlighted by a human resource managers' survey, such as favoritism, sexual harassment, and gender discrimination in various organizational processes. The guideline's primary focus is on building value-based institutions by developing respect for fundamental duties, constitutional values, and national bonding.

**Key aspects of Mulya Pravah 2.0 include:**

- **Transparency:** It emphasizes transparent administration and decision-making based on institutional and public interest, free from biases.
- **Accountability and Ethics:** Institutions are expected to ensure integrity, fairness, and high ethical standards in their administration.
- **Inclusivity and Respect:** The guideline encourages respect for constitutional values, inclusiveness, and global citizenship.
- **Confidentiality vs. Public Scrutiny:** While it stresses confidentiality, this contrasts with the right to information for accountability. Institutions are urged to disclose critical information publicly.
- **Role of Teachers and Staff:** Teachers are expected to be role models, maintaining good conduct and standards. Staff and students' unions should support administration constructively.

**What are the concerns related to Mulya Pravah 2.0?**

- **Suppression of Dissent:** The guidelines may inadvertently suppress different opinions, crucial for institutional growth.
- **Vague Terminology:** Terms like 'dignified manner' for raising issues are not clearly defined, leading to potential misuse and misinterpretation.
- **Threat to Unions:** There's a concern that the guidelines could be used to undermine the voices of staff and student unions. Past instances of banning and suspending unions and accusing their representatives suggest a risk of similar actions under these guidelines.

**Way forward**

To improve Mulya Pravah 2.0, clear definitions of terms like 'dignified manner' should be provided to prevent misuse. Ensuring a balance between confidentiality and public scrutiny is crucial. The guidelines should foster open dialogue and respect diverse opinions, especially from unions, to strengthen the integrity and growth of higher education institutions.

## INFRASTRUCTURE GAPS FOR PEOPLE WITH DISABILITIES ACROSS COURT PREMISES

**Context:** As per the report of the **Centre for Research and Planning of the Supreme Court** there are **severe gaps** in accessibility for people with disabilities at courts across India.

**About**

- The first-of-its-kind report, sheds light on the inadequacies in the **infrastructure of District Courts across India,** raising serious concerns about the impediments faced by people with disabilities in accessing justice.

**Major Findings of the Report**

- **More than half** of the District Court complexes do not have ramps, **only 25.2%** have availability of wheelchairs.
- **Only 30.4%** of District Court complexes have separate disabled-friendly toilets.
- **Only 5.1%** of District Courts have tactile paving to assist persons with visual impairments in navigating the court building.
- Sign language interpreters are available in only **2.8%** districts in India.
- Out of a sanctioned strength of 25,081 judges in District Judiciary, there are 20,831 courtrooms highlighting an infrastructure gap of 4,250 courtrooms.
  - When courts function in **private rented buildings**, they not only face the challenge of non-availability of necessary amenities but also of a secure work environment.
- The data signifies a **"critical shortcoming"** in the judicial infrastructure with respect to accessibility, necessitating concerted attention and action.

**Measures Taken by Government of India for the People with Disabilities**

- **National Policy for Persons with Disabilities, 2006:** It supports Physical Rehabilitation, which includes early detection and intervention, counselling and medical interventions and provision of aids and appliances.
- **India is a signatory of the UN Convention on the Rights of Persons with Disabilities (UNCRPD):** It came into force in **2008**. Three important obligations arise out of the Convention, namely
  - Implementation of provisions of the UNCRPD,
  - Harmonization of Indian Laws with the UNCRPD,
  - and Preparation of a Country Report by 2010.
- **Accessible India Campaign (Sugamya Bharat Abhiyan): Launched in 2015,** this initiative aims to make public spaces and transportation accessible for people with disabilities. It includes provisions for accessible buildings, transport, and websites.
- **Reservation in Education and Employment:** The government provides reservation in educational institutions and government jobs for people with disabilities.
  - This ensures that a certain percentage of seats and jobs are reserved for individuals with disabilities.
- **The Rights of Persons with Disabilities Act, 2016:** This legislation replaced the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.
  - The new act expanded the categories of disabilities, increased the reservation in government jobs, and included measures to enhance accessibility.
- **Economic Empowerment: National Handicapped Finance and Development Corporation** is an apex institution for channelizing the funds to persons with disabilities through the State Channelizing Agencies (SCAs) nominated by the State Government(s) or through Non Government Organizations.

**Way Ahead**

- There is a need for **regular inspection by the concerned agencies like the Public Works Department** in coordination with the District Judges to explore modifications that can be made in existing court buildings to make the judicial infrastructure disabled-friendly.

## NATIONAL MISSION FOR CLEAN GANGA (NMCG)

**Context:** The **National Mission for Clean Ganga (NMCG)**, the agency responsible for **abatement of pollution in river Ganga** and its tributaries, **has assumed new powers.**

**About**

- The NMCG issued a notification recently to **amend the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016.**
- The NMCG now has **powers to allow discharge of treated sewage, which conforms to the norms prescribed under the Environment (Protection) Act, 1986**.
  o The discharge into rivers or any other water bodies is allowed **only after exploring the option of its direct reuse** for purposes such as agricultural use, industrial use, etc.
- The move will ensure **more water into the rivers.** For instance, 560 minimal liquid discharge treated sewage water from the **Okhla Sewage Treatment plant in Delh**i may be released into Yamuna, which **will increase the flow of the river.**

**Challenges persists**

The NMCG, though well-intentioned, faces several challenges in its quest to rejuvenate the Ganges River.

**Funding and resource constraints:**

- **Inadequate allocation:** Despite being a ₹20,000 crore mission, only a fraction of the funds have been disbursed to states, hindering project implementation.
- **Financial dependence:** States often lack their own budget for river conservation, making them reliant on central funds, creating delays and uncertainty.

**Infrastructure and technological limitations:**

- **Outdated sewage treatment plants:** Many existing STPs require upgrades or are malfunctioning, leading to untreated sewage flowing into the river.
- **Limited monitoring and data collection**: Real-time water quality monitoring systems are crucial for effective action, but their coverage is insufficient.

**Social and behavioral challenges:**

- **Cultural practices:** Traditional practices like idol immersion and washing clothes in the river contribute to pollution.
- **Industrial waste discharge:** Untreated industrial effluents from factories continue to pollute the river, requiring stricter enforcement of environmental regulations.

**Policy and governance challenges:**

- **Riverbed sand mining:** Unsustainable sand mining practices can damage the riverbed and disrupt ecological balance.
- **Fragmented institutional framework:** Multiple agencies at central state and local levels are involved, but coordination and accountability are often lacking.
- **Limited focus on upstream river basins:** Pollution control efforts primarily focus on the main stem of the Ganga, neglecting upstream tributaries that contribute significantly to the problem.

**Measures**

- **Several Sewage Treatment Plants took time to be commissioned** as there were problems with land acquisition. Hence, there is a **need to ease the process of land acquisition**.
- The **Detailed Project Reports**, which prescribe steps to execute a project, and the roles of various actors, **needs revision** as there is an impression that building treatment plants is entirely the Centre's responsibility.
- The **parameters** used by the Central Pollution Control Board (levels of dissolved oxygen, biochemical oxygen demand, and faecal coliform), **vary widely** along various stretches of the river, reflecting still a long way ahead.
- **On the lines of the air quality index,** there is a need to develop a **water quality index**, to be able to better communicate about river-water quality of various locations.

**Way Ahead**

- The NMCG has made **significant progress in several areas,** such as setting up wastewater treatment plants, increasing public awareness, and promoting riverfront development.

- **Continuous efforts to address the challenges, along with innovative solutions and increased public participation**, are crucial for the mission's long-term success and the ultimate revival of the Ganges.

## SOCIAL AUDIT ADVISORY BODY (SAAB)

**Context:** The 1st meeting of the **Social Audit Advisory Body (SAAB)** was held recently.

**About**

- The Meeting was chaired by the **Secretary, Department of Social Justice & Empowerment.**
- This advisory body, a first of its kind, has been established **to guide the Ministry in institutionalizing social audits for its various schemes.**
- **Members:** Representatives from key ministries and academic institutions are members of this advisory body.

**What is Social Audit?**

- Social Audit is the examination and assessment of a programme/scheme for **comparing official records with actual ground realities.**
  - It includes an audit of the quality of works being executed at different levels along with the details of disbursements made, the number of labourers employed and materials used.
- **Objective:** The basic objective of social audit is to ensure public accountability in the implementation of projects, laws and policies.
- **Significance:** Social Audits play an important role in **bringing transparency and driving corrective actions** based on valuable feedback from citizens.

**National Resource Cell for Social Audit (NRCSA)**

- The Department of Social Justice and Empowerment has established the **National Resource Cell for Social Audit (NRCSA)** to ensure social audits through **dedicated Social Audit Units at the state level.**

## POLITICAL EMPOWERMENT OF WOMEN

**Context:** Women's political empowerment will enhance governance and boost the economy, as per **2023 UNDP report**.

**Political Empowerment**

- Political empowerment refers to **women's increased capacity to influence and participate** in decision-making processes at all levels of political life.
- It is a **crucial element of achieving gender equality** and building a just and equitable society.

**Current status**

- In the **Global Gender Gap Report 2023,** India has achieved an overall rank of **127 out of the 146 countries** and in the **political empowermen**t front, India's rank is **48.**
- In the **2019 Lok Sabha elections**, there were **only 719 women contestants,** 9% of the total, **and 78 won, making up under 14.4% of all seat winners**, a proportion that is below the South Asian average of 18.9% (World Bank).
- **In India, only 10.5% of all Members of Parliament in 2021** were women, while state assembly representation stands at an average of 9%.
- However, India's electoral landscape is **set for a transformative gender shift.** Projections show that **women's voter turnout would exceed that of men by 2029 and reach 55% of the total by 2047**.
  - Five recent state elections saw well above **70% of eligible women voting**. Rural gains stood out.

- Many social researchers specifically link these gains to **India's 33% reservation of seats in local representative bodies**, as well as **grassroots self-help group movements.**
  - o Some attribute it to the **influence of development schemes** that "recognize women's agency."

## Benefits of Women Political Empowerment (WPE)

- **Governance**: As a **2023 UNDP report** underscores, women's political empowerment (WPE) leads to responsive and transparent governance, reduces risks of civil war and political violence, and breaks down gender stereotypes.
- **Economic benefits:** A recent data-analysis over an extended time-span (from 1830) across 182 countries has assessed that **there have been clear differences in the annual GDP per capita growth** rates between countries with low and high rates of WPE.
  - o A 2013 study found that WPE over a period of time can augment **women's presence in the economy, labour marke**t **and reduction in gender wage gaps**.
- **Innovation and growth:** The same analysis showed, increased WPE also brings in technological change and innovation and growth, particularly in non-Western nations, with the infusion of new and efficient ideas into the economy.
- **Multiplier effect:** A regional study in Europe and Central Asia (ECA) estimated that a **10%-point increase in women's representation in parliament is likely to yield a 0.74%-point rise in GDP growth.**
- **Sustainable Development Goals:** A meta analysis of a global data-set (2015- 2019) said that increased WPE also contributes to the realization of Sustainable Development Goals.
- **Better at role given:** In India, a study revealed that **"women legislators perform better** in their constituencies on economic indicators than their male counterparts and **are less likely to be criminal and corrupt**, more efficacious, and less vulnerable to political opportunism" (Thushyanthan Baskaran, et al).
- **Access to financial resources:** A 2020 field study in 163 villages to evaluate the uptake of India's rural jobs scheme where women helm local bodies found **"it raised women's demand for work and access to financial resources."**

## Challenges

- **Internalized patriarchy:** Deep-rooted gender biases and discriminatory practices often limit women's access to political opportunities and decision-making positions.
- **Violence and Harassment:** Women in politics face higher risks of violence, harassment, and intimidation, discouraging their participation.
- **Lack of Support:** Limited access to childcare, funding, and political networks can hinder women's ability to campaign and run for office.
- **Unequal Representation:** Existing power structures and political systems often favor men, making it difficult for women to break through and win elections.
  - o **Political parties often fight shy** of fielding a fair share of women as contestants.
  - o Women who do get party tickets have family political connections, said a study. In 2019, **41% of all women candidates and 30% of those who got elected were 'dynasts.'**
- **Just a vote bank:** The importance accorded to women is transactional i.e., a **"your-vote-for-my-scheme approach."**

## Strategies for Progress

- **Quotas and Reserved Seats:** Affirmative action policies, like reserving seats for women in legislatures, can increase their representation in the short term.
  - o **The Constitution (106th Amendment) Act, 2023,** which reserves one-third of all seats for women in Lok Sabha and State legislative assemblies is a right step in this direction.
- **Capacity Building and Training:** Empowering women with political knowledge, skills, and leadership training can enhance their confidence and abilities in political leadership.

- **Combating Gender-Based Violence**: Robust legal frameworks and comprehensive measures are needed to prevent and address violence against women in politics.
- **Raising Awareness and Advocacy:** Public education and campaigns can challenge gender stereotypes and promote social and cultural change towards greater gender equality in politics.
- **Supporting Women's Organizations:** Women's organizations and networks play a crucial role in supporting female candidates, advocating for their rights, and holding governments accountable.

**Way Ahead**

- The **pursuit of gender equality in politics isn't merely for justice and fair play**, but foremost for a **more stable and sustainable economy.** Trends suggest that **goal is almost 130 years away (UN Women)**.
- For accountable governance, be it in India or elsewhere, **women must pitch in as voters, poll workers, candidates and lawmakers.**

# GENERAL STUDIES 3.

## ECONOMY

### LIVELIHOOD IN RURAL INDIA

**Context:** At a group discussion held by Life Skills Collaborative, most of the rural youth when questioned about their aspirations for the future they preferred staying in their village.

**About**

- With the prevalent trend of urbanisation — the UN projects that almost 50% of the Indian population will be living in urban areas by 2047— it is crucial not to overlook those who choose to stay behind in villages.

**Rural Livelihood**

- **Main source of income:** Farming is the main source of rural livelihoods, with children from many rural families supplementing their family's income by working on family-owned farms.
- **Changing Trends:** The rural economy is experiencing a major occupational shift, the National Sample Survey Office data recorded 34 million farmers leaving their farms and transitioning to other sectors such as construction during 2004-05 and 2011-12.
- This highlights the need for not only making agriculture an aspiring vocation among rural youth, but also creating alternative employment opportunities.
- **Current vocational education:** In rural India the current vocation education is intermixed with Industrial Training Institutes to upskill rural populations, but with little to no placement opportunities.
- Presently, rural education scarcely focuses on skill development, if learning is infused with rural life skills in schools, rural education will have the potential to nurture a generation capable of thriving.

**Initiatives by Government of India to Upskill Youth in Rural India**

- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** Launched in 2015, PMKVY is a flagship skill development scheme that aims to enable a large number of Indian youth to take up industry-relevant skill training to help them secure a better livelihood.
- The scheme provides short-term training programs in various sectors, including agriculture, healthcare, construction, and more.
- **Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY):** DDU-GKY is a part of the National Rural Livelihoods Mission (NRLM) and focuses on the rural poor youth.
- It aims to transform rural poor youth into economically independent and globally relevant workforce through market-driven training programs.
- **National Rural Livelihoods Mission (NRLM):** NRLM, launched in 2011, aims to reduce poverty by promoting diversified and gainful self-employment and wage employment opportunities in rural areas.
- It includes skill development as a key component to enhance the livelihood options for rural youth.
- **Skill Development Initiatives under MGNREGA:** Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) includes provisions for skill development and wage employment in rural areas.
- States may allocate a portion of their MGNREGA funds for skill development programs.
- **Rural Self-Employment Training Institutes (RSETIs):** RSETIs are institutions established to provide training and skill development to rural youth, especially those from economically weaker sections.
- These institutes aim to promote self-employment and entrepreneurship in rural areas.
- **Skill Development in Agriculture:** Various initiatives focus specifically on skill development in the agricultural sector, including training programs on modern farming techniques, use of technology in agriculture, and agribusiness skills.

- **Digital India:** The Digital India initiative aims to bridge the digital divide in rural areas by providing digital literacy and skills training.

## Way Ahead

- To control migration of these youth to urban areas in search of meaningful employment, it becomes imperative to provide vocational training to students to imbibe relevant rural skills.
- Effective rural education should be tailored such that technical as well as life skills, needed to empower youth in these areas, become accessible to them through formal education.
- Educational evidence from other developing economies suggests — such as Mexico's tele-schools and Bhutan's well-being-infused curriculum.
- The tele-schools provide lessons on subject matters as well as values, thereby providing a much higher level of access to value-based secondary education for remote areas where secondary schools are scarce.
- This has shown to have trickling benefits in the local economy with improved attitudes and increased aspirations among children and parents.
- By offering rural populations skills in fields like agricultural mechanisation, pollution monitoring, nursing and digital technologies via e-learning, rural India can boost employability in both traditional and non-traditional trades, leading to a vibrant economy.

## WORLD EMPLOYMENT AND SOCIAL OUTLOOK: TRENDS 2024 REPORT

**Context:** The International Labour Organisation (ILO) has released the **World Employment and Social Outlook: Trends 2024 report.**

### Major Findings

- **Joblessness and the jobs gap** have both fallen below pre-pandemic levels but **global unemployment will rise in 2024.**
- **The Economic Recovery:** The macroeconomic environment deteriorated significantly over 2023.
  - **Ongoing geopolitical tensions** as well as persistent and broadening **inflation** triggered frequent and aggressive moves by central banks.
  - Monetary authorities in advanced and emerging economies implemented the **fastest increase in interest rates since the 1980s,** with significant global repercussions.
- **Economic Slowdown:** China, Türkiye and Brazil slowed down considerably, causing adverse impact on global industrial activity, investment and trade.
  - Despite the economic slowdown, global growth in 2023 was modestly higher than anticipated, and labour markets showed surprising resilience.
- **Unemployment Rate:** The global unemployment rate in 2023 was **5.1%,** a modest improvement from 2022.
  - The **labour market participation rates** had largely also recovered from their pandemic lows.
  - Although the imbalances eased somewhat in 2023, concerns are rising that these **labour market imbalances are structural,** rather than cyclical, in nature.
- **Real wages declined** in the majority of G20 countries as wage increases failed to keep pace with inflation.
  - In 2023, the numbers of workers living in extreme poverty – earning less than US\$2.15 per day per person in purchasing power parity (PPP) terms – **grew** by about one million globally.
  - **Only China, the Russian Federation and Mexico** enjoyed positive real wage growth in 2023.
  - **Real wage growth in India and Türkiye was also positive.**

### Suggestions As per the Report

- In **fast-ageing countries,** policymakers need to support the participation of groups with weak labour market attachment, notably youth, women and older workers.
- **Investment and skills policies** need to raise productivity and potential growth and facilitate more **productive use of technological progress.**

- Improvements in sectors and occupations with **low pay and difficult working conditions** may motivate workers who left to come back.
- Ensuring that internationally mobile workers get matched to adequate jobs could alleviate some of the shortages.
- None of the structural headwinds facing labour market adjustment is likely to disappear over the short term, which makes it important that governments and social partners engage in supplemental efforts to address these challenges.

## MULTIDIMENSIONAL POVERTY IN INDIA SINCE 2005-06

**Context:** NITI Aayog has released its discussion paper **'Multidimensional Poverty in India since 2005-06'.**

**About**

- The Multidimensional Poverty Index (MPI) is a globally recognized comprehensive measure that captures **poverty in multiple dimensions beyond monetary aspects.**
- It has three equally weighted **dimensions – Health, Education, and Standard of living** – which are represented by **12 indicators**.
- It also adds **two indicators**, viz., **Maternal Health and Bank Accounts** in line with national priorities.

**Findings**

- **Reduction in Poverty:** India has registered a significant decline in multidimensional poverty from 29.17% in 2013-14 to 11.28% in 2022-23 i.e. a **reduction of 17.89 percentage points.**
- **State Wise Decline: Uttar Pradesh** registered the largest decline in the number of poor with 5.94 crore people escaping multidimensional poverty during the last nine years followed by Bihar, Madhya Pradesh and Rajasthan.
- **Headcount Ratio:** The pace of decline in poverty headcount ratio using the exponential method was much faster between 2015-16 to 2019-21 (10.66% annual rate of decline) compared to period 2005-06 to 2015-16 (7.69% annual rate of decline).
- **Improvement in Indicators:** All 12 indicators of MPI have recorded significant improvement during the entire study period.
- Initiatives covering all dimensions of poverty have led to **24.82 crore individuals escaping multidimensional poverty** in the last 9 years.
  - As a result, **India is likely to achieve its SDG target** of halving multidimensional poverty well before 2030.

**Government Interventions to Reduce MPI**

- **Poshan Abhiyan and Anaemia Mukt Bharat** have played a crucial role in addressing reach to health facilities, resulting in a substantial reduction in deprivation.
- **National Food Security Act (NFSA):** Under it foodgrains are provided to 81.35 crore beneficiaries covering 75% population in rural areas and 50% population in urban areas.
  - Recently, the Government has decided to continue providing free food grains to NFSA beneficiaries under Pradhan Mantri Garib Kalyan Anna Yojana for a period of five years w.e.f. 1st January, 2024.
- **Mission Poshan 2.0 and Saksham Anganwadi** have significantly contributed to fostering a healthier India, impacting millions of lives through key schemes like POSHAN Abhiyaan, Anganwadi Services, and the Scheme for Adolescent Girls.
- **Pradhan Mantri Poshan Shakti Nirman (PM POSHAN):** It is a flagship programme of Government of India, is the largest School feeding Scheme in the world to address the twin problems of improving the nutritional status and school enrolment of children.

- **Pradhan Mantri Surakshit Matritva Abhiyan:** It is aimed at improving maternal health by offering assured, comprehensive, and quality antenatal care to all pregnant women universally on the 9th of each month.
- **PM Ujjwala Yojana**: It has provided clean cooking fuel to an impressive 31 crore individuals, distributing 10 crore LPG connections.
  - o Beyond creating smoke-free kitchens, this initiative has protected numerous women from chronic respiratory disorders.
- **Saubhagya:** It has improved electricity coverage for almost 100% of the population, benefiting an additional 2.86 crore households and rendering kerosene lamps obsolete, thus improving respiratory health and eyesight.
- **Swachh Bharat Mission (SBM) and Jal Jeevan Mission (JJM):** They have led to a nationwide wave of improved sanitation facilities providing 14 crore tap water connections and construction of 11.33 crore IHHL in rural areas.
- **The Pradhan Mantri Jan Dhan Yojana (PMJDY):** It has been a driving force for change, witnessing the opening of over 50 crore bank accounts in recent years.
  - o It has played a central role in bringing a significant section of the population into the formal financial system.
- **The PM Awas Yojana:** It has revolutionized living conditions in both urban and rural areas, facilitating the construction of over 4 crore homes for the underprivileged.

## INDIA'S FIRST AI UNICORN

**Context:** Ola group's AI firm Krutrim is **India's first artificial intelligence unicorn.** Krutrim has raised $50 million at a valuation of $1 billion in a funding round.

### What is a Unicorn?

- Unicorn is a term used in the venture capital industry to describe a **privately held startup company with a value of over $1 billion.**
- The term was coined to represent the **rarity and uniqueness** of such companies, much like the mythical creature.
- Unicorns are often characterized by their **rapid growth, disruptive business models,** and the **ability to attract substantial investment.**
- **Growth of Unicorns:** Work from home during the pandemic fueled the growth of digital businesses in India, the incident also resulted in a long unicorn list.
  - o Mainly three factors, a thriving digital payments ecosystem, large smartphone user base and digital-first business models, have come together to attract investors.
- Companies that achieve unicorn status are considered to be **high-value** and have the potential to impact their respective industries significantly.

### Unicorns of India

- As of 2023, India is home to **111 unicorns** with a total valuation of $349.67 Bn.
- The year **2021, 2020, and 2019** saw the birth of the maximum number of Indian unicorns.
- **Bengaluru is India's unicorn capital** with the largest number of unicorn headquarters **followed by Delhi (NCR) and Mumbai**.
- **Traditional sectors** such as E-commerce, Fin-tech, E-commerce, Supply Chain & Logistics, Internet Software & Services do dominate the arena but a strong wave of **unconventional sectors** such as Content, Gaming, Hospitality, Data management & analytics, etc are making their place on the list.
- **Mensa Brands** took only 6 months to become a unicorn in 2021, making it one of **fastest unicorns in Asia.**

**Do you know ?**The global startup ecosystem is witnessing a shift of gradually transitioning from the age of unicorns to the age of **decacorns**.A decacorn is company that has attained a **valuation of more than**

**$ 10 Bn.**India has five startups namely, **Flipkart, BYJU's, Nykaa and Swiggy,** added in decacorn cohort.

**Significance of Rise of Unicorns for Indian Economy**

- **Job Creation:** Unicorns often experience rapid growth, leading to an increase in job opportunities.
- **Innovation and Technology:** Their success signifies a thriving ecosystem that fosters innovation, research, and the development of cutting-edge technologies.
- **Foreign Investments:** Foreign investments not only provide capital for these companies but also contribute to the overall inflow of foreign capital into the Indian economy, supporting economic growth.
- **Entrepreneurship Ecosystem:** The success stories of these companies motivate aspiring entrepreneurs, creating a positive impact on the overall entrepreneurship ecosystem.
- **Global Recognition:** Indian unicorns, especially those expanding globally, enhance the global recognition of India as a hub for technology and business innovation.
- **Economic Growth:** The success of unicorns contributes to economic growth by adding value to various sectors of the economy.

**Measures Taken by Government of India to support Unicorn/Startups**

- **Atal Innovation Mission (AIM):** The scheme was launched by the government in 2016, and aims to foster innovation as the government creates new programs and policies to assist start-up development in several economic areas.
  - It grants approximately **Rs 10 crores** to finance firms over five years.
- **Multiplier Grant Scheme (MGS):** The Department of Electronics and Information Technology initiated the Multiplier Grant Scheme (MGS) to empower collaborative research and development among industries for the growth of goods and services.
  - The government gives a maximum amount of **Rs 2 crore** per project for a duration of less than two years.
- **Dairy Entrepreneurship Development Scheme (DEDS):** The Department of Animal Husbandry, Fisheries, and Dairying has launched the DEDS scheme, which aims to create self-employment in the dairy sector.
  - The activities include milk production, procurement, preservation, marketing, etc.
- **Startup India Initiative:** This is one of the most popular government schemes for startups in India. The Startup India Initiative aims to provide **tax benefits to entrepreneurs for over five years.**
- **Startup India Seed Fund Scheme:** The government of India introduced this scheme in **2021** to assist early-stage startups.
  - The selected entrepreneurs under this scheme will get the **funding of Rs 5 crore.**
- **Fund of Funds for Startups (FFS):** The government has established the Fund in **2016** with a corpus of **Rs 10,000 crore** to provide financial support to startups.
  - This fund is managed by **SIDBI (Small Industries Development Bank of India)** and aims to promote innovation and entrepreneurship.

**Challenges**

- India is home to a vibrant and diverse startup ecosystem, with a growing number of unicorn startups
- However, most of these unicorns have not gone public yet, due to various reasons, such as regulatory hurdles, high costs, and abundant private capital.
- India does not have a dedicated stock exchange for startups, unlike the US, which has the Nasdaq, or China, which has the STAR Market.
  - The existing exchanges, such as the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE), have stringent listing norms, such as profitability criteria, minimum promoter holding, lock-in periods, and disclosure requirements, that may not suit the growth-oriented and innovation-driven nature of startups.

**Conclusion and Way ahead**

- The Indian economy is intricately tied to the success of its startup ecosystem.

- The long-term prospects are still promising as the IMF projects that India's economy will grow to become the third largest in the world by 2027.
- An uptick in investment activity is anticipated in the upcoming years as the world economy stabilizes, solidifying India's standing as a top investment destination.
- There is a need to make more investments in startups that emphasize professional upskilling and ongoing education, demonstrating the industry's dedication to worker empowerment.

## RISING GAP IN INCOMES

**Context:** According to a recent report by the State Bank of India (SBI), India has witnessed a significant fall in inequality over the last decade.

### Key Findings

- The report claims that the Gini coefficient has fallen from **0.472 in 2014-15 to 0.402 in 2022-23.**
- The Gini coefficient falls for regular wage and casual wage workers, but rises for the self-employed. However, the changes are largely minimal.

### The polarization of incomes

- The fall in the Gini coefficient is accompanied by a polarization in incomes. Incomes of the **top 10% have grown faster than the bottom 30%,** with polarization largely seen amongst self-employed workers.
- The category of the self-employed includes own-account workers, such as individual farmers, roadside hawkers, etc. and those who are self-employed but also employ other workers.

### Gini Coefficient for different segments

- The Gini for the self-employed workers rises from **0.37 to 0.3765,** an increase of **1.5%.**
- For **regular and casual wage workers**, the coefficient register falls of **1.7% and 4.8%**, respectively.
- Though the Inequality has fallen, inequality among the top income earners seems to have fallen far more.

> **Gini coefficient** Gini coefficient is a gauge of **economic inequality**, measuring income distribution or wealth distribution among a population. The coefficient **ranges from 0 to 1**, with 0 representing perfect equality and 1 representing perfect inequality.

### Concern

- The analysis is conducted on taxpayer data, and a majority of income-earners fall outside the tax net.
  - According to data from the 2022-23 Periodic Labour Force Survey (PLFS), nearly 80% of income-earners earn less than ₹2.5 lakh per annum — the minimum taxable amount.
- Only those individuals who earn income from work are considered in the report. It excludes those who work as unpaid family helpers, a large proportion of whom are women.

## DISRUPTIONS TO GLOBAL TRADE SEA ROUTES

**Context: The United Nations Conference on Trade and Development (UNCTAD)** has raised alarms on **escalating disruptions to global trade** due to the **geopolitical tensions** and climate change affecting the **world's key trade routes.**

### Waterways

- Waterways are the **most suitable and cheapest** for international trade.
- International trade is carried out through ports and harbours which are connected with hinterlands through railways, roads or inland waterways.
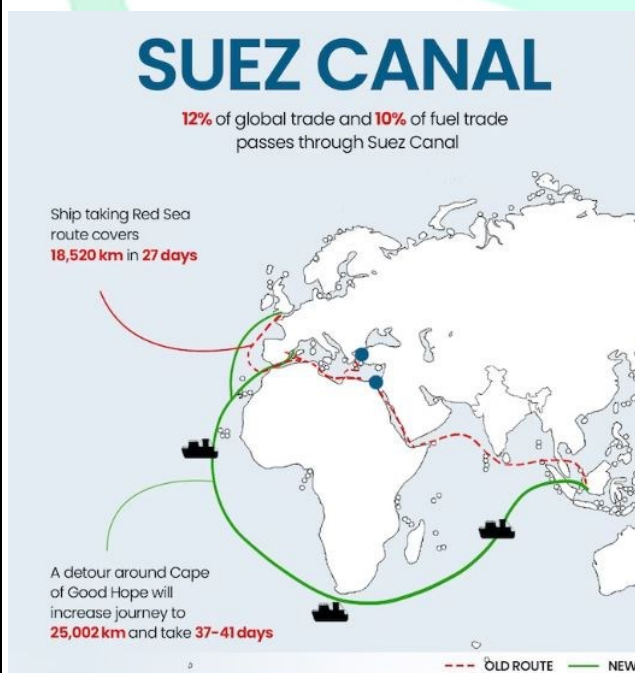- It can be classified as **national and international transportation.**

- The water transport can be divided into two parts: **Inland water transport and Ocean water transport.**

**Major Choke Points in International Trade Sea Route**

- **Strait of Hormuz:** Located between the **Persian Gulf and the Gulf of Oman,** the Strait of Hormuz is a crucial passage for oil shipments from the Middle East.
    - o A significant portion of the world's oil supply passes through this choke point.
- **Malacca Strait:** Situated between the **Malay Peninsula and the Indonesian island** of Sumatra, the Malacca Strait is one of the busiest waterways globally.
    - o It connects the Indian Ocean to the South China Sea and the Pacific Ocean, making it a key route for trade between Europe, the Middle East, and East Asia.
- **Suez Canal:** Connecting the **Mediterranean Sea to the Red Sea,** the Suez Canal is a vital shortcut for ships traveling between Europe and Asia.
    - o It significantly reduces the travel distance and time compared to the alternative route around the southern tip of Africa.
- **Panama Canal:** Linking the **Atlantic and Pacific Oceans,** the Panama Canal is crucial for maritime trade between the Americas, Europe, and Asia.
    - o It allows ships to bypass the lengthy and treacherous journey around the southern tip of South America.
- **Taiwan Strait:** Separating Taiwan from mainland China, the Taiwan Strait is essential for shipping in the East Asian region. It is a heavily trafficked waterway for goods moving between China, Taiwan, Japan, and other Asian nations.

**Disruptions on Trade Routes**

- **Suez Canal:** UNCTAD estimates that the weekly transits going through the Suez Canal **decreased by 42%** over the last two months.
    - o **About 12 percent** of global trade passes through the Suez Canal.
    - o Ships are now being **forced to take the Cape of Good Hope route**, which entails circumnavigating the entire African continent, it is now taking them **37–41 days** to reach their destination as compared to **27 days through Suez Canal.**



**SUEZ CANAL**
12% of global trade and 10% of fuel trade passes through Suez Canal

Ship taking Red Sea route covers 18,520 km in 27 days

A detour around Cape of Good Hope will increase journey to 25,002 km and take 37–41 days

--- OLD ROUTE — NEW

- **Panama Canal:** Simultaneously, the Panama Canal, a pivotal conduit for global trade, is **grappling with diminished water levels,** resulting in a staggering **36% reduction in total transits** over the past month compared to a year ago.

- Panama Canal accounts for **six percent of global trade.**
- A vessel taking the Cape Horn route, instead of the Panama Canal, takes **18 additional days of travel time.**

- **The crisis in the Red Sea,** marked by Houthi-led attacks disrupting shipping routes, has added another layer of complexity.

## Implications

- **Increase in Trade Cost:** The cumulative effect of these disruptions translates into extended cargo travel distances, escalating trade costs, and a surge in greenhouse gas emissions from shipping having to travel greater distances and at greater speed.
  - Avoiding the Suez and Panama Canal necessitates more days of shipping, **resulting in increased expenses.**

- **Environmental Concerns:** Additionally, ships are compelled to travel faster to compensate for detours, burning more fuel per mile and emitting more CO2, further exacerbating environmental concerns.

- **Increases in Food and Energy Prices:** Prolonged interruptions, particularly in container shipping, pose a direct threat to global supply chains, potentially leading to delayed deliveries and heightened costs.
  - Energy prices are witnessing a surge as gas transits are discontinued, directly impacting energy supplies, especially in Europe.

- **Impact on developing countries:** Developing countries are particularly vulnerable to these disruptions.

## Way Ahead

- The organization emphasizes the urgent need for swift adaptations from the shipping industry and robust international cooperation to navigate the rapid reshaping of global trade dynamics.

- The current challenges underscore trade's vulnerability to geopolitical tensions and climate-related challenges, demanding collective efforts for sustainable solutions especially in support of countries more vulnerable to these shocks.

# SECURITY

## CYBER CRIMES IN INDIA

**Context:** Around 50% of cyber-crime complaints received on the national cybercrime helpline every day have their origin in China and pockets of Cambodia and Myanmar.

### What is Cybercrime?

- Cybercrime refers to criminal activities that involve the use of computers, networks, and digital technologies.
- It encompasses a wide range of illicit activities conducted in the virtual space, often with the intent to compromise, damage, or gain unauthorized access to computer systems, networks, and data.
- Cybercriminals employ various techniques and tools to exploit vulnerabilities in networks, and they may target individuals, organizations, or even governments.

### Common types of cybercrime include:

- **Hacking:** Unauthorized access to computer systems or networks to steal, alter, or destroy data.
- **Phishing:** Deceptive attempts to acquire sensitive information, such as usernames, passwords, and financial details, by posing as a trustworthy entity.
- **Malware:** Malicious software designed to disrupt, damage, or gain unauthorized access to computer systems. This includes viruses, worms, trojans, ransomware, and spyware.
- **Identity Theft:** Stealing and using someone's personal information, such as social security numbers or credit card details, for fraudulent purposes.
- **Cyber Espionage:** Covert activities aimed at gaining unauthorized access to sensitive information for political, economic, or military purposes.
- **Cyberbullying:** Using digital platforms to harass, threaten, or intimidate individuals.
- **Online Fraud:** Engaging in fraudulent activities, such as online scams and financial fraud, to deceive and exploit victims for monetary gain.

### Cybercrime in India

- Chief executive officer of Indian Cyber Crime Coordination Centre (I4C), mentioned that on average 5,000 cyber complaints are registered in the country every day and around 40-50% originate outside the country.

### There were five major cybercrime trends noticed last year:

- complaints were received against Investment Apps/Websites which offered part time jobs or lured people into Ponzi schemes;
- complaints pertaining to Illegal loan Apps;
- complaints on Customer Care Number and One Time Password (OTP) frauds;
- complaints of Impersonation or takeover of social media accounts and
- complaints of Sextortion.
- Most cyber crimes were reported from Haryana, Telangana, Uttarakhand, Gujarat and Goa. Among Union Territories, most complaints came from Delhi, followed by Chandigarh and Puducherry.

### Impact of Cyber Crimes

- **National Security Threats:** Cyber crimes pose a threat to national security when state-sponsored actors or criminal organizations target critical infrastructure, government institutions, or military systems.
- **Financial Loss:** This includes theft of personal information, online banking fraud, credit card fraud, and ransomware attacks.
- **Data Breaches:** Data breaches can lead to the exposure of personal information, trade secrets, intellectual property, and other confidential data, causing severe damage to the affected entities.

- **Disruption of Services:** Cyber attacks can disrupt essential services such as power grids, communication networks, and transportation systems.
- **Reputational Damage:** Organizations that fall victim to cyber attacks often suffer reputational damage.
- Customer trust can be eroded, and it may take a significant amount of time and resources to rebuild a positive image.
- **Increased Costs for Cybersecurity Measures:** This includes implementing robust security protocols, training employees, and deploying advanced technologies, which can result in increased operational costs.

**Initiatives by Government of India to Prevent Cybercrimes**

- **Indian Computer Emergency Response Team (CERT-In):** CERT-In is the national nodal agency for responding to cybersecurity incidents.
- It provides proactive and reactive cybersecurity support and plays a crucial role in ensuring the security and resilience of the country's cyber infrastructure.
- **National Critical Information Infrastructure Protection Centre (NCIIPC):** NCIIPC is responsible for protecting critical information infrastructure from cyber threats.
- It identifies and designates critical sectors and advises organizations in these sectors on enhancing their cybersecurity measures.
- **Cyber Crime Prevention against Women & Children (CCPWC) scheme:** The Ministry of Home Affairs has provided financial assistance to all the States & UTs under the scheme to support their efforts for setting up of cyber forensic-cum-training laboratories, training, and hiring of junior cyber consultants.
- **Indian Cyber Crime Coordination Centre (I4C):** The Government has established I4C to provide a framework and ecosystem for Law Enforcement Agencies (LEAs) to deal with cyber crimes in a comprehensive and coordinated manner.
- 'Joint Cyber Coordination Teams' have been constituted for seven regions at Mewat, Jamtara, Ahmedabad, Hyderabad, Chandigarh, Vishakhapatnam and Guwahati under the I4C.
- **National Cyber Crime Reporting Portal:** The Government has launched the National Cyber Crime Reporting Portal to enable the public to report incidents pertaining to all types of cyber crimes.
- A toll-free number 1930 has been operationalized to get assistance in lodging online cyber complaints.
- The Citizen Financial Cyber Fraud Reporting and Management System module has also been launched for immediate reporting of financial frauds and to stop siphoning off funds by the fraudsters.
- **Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre):** This initiative is aimed at creating awareness about botnet and malware infections and providing tools for detection and cleaning.

# SCIENCE AND TECHNOLOGY

## ON ISRO's XPOSAT MISSION – MEET ISRO's NEW X-RAY EYE IN THE SKY

**Context:** Black holes and neutron stars have remained a mystery. However, because of their immensely strong magnetic fields, these celestial bodies emit highly energetic X-ray light, which can be used to study their properties.

For this purpose, on January 1st, 2024, ISRO's PSLV put into orbit the XPoSat (X-ray Polarimeter Satellite) – the country's first space observatory to study the polarisation of cosmic X-rays.

This is the world's second space mission to study the polarisation of cosmic X-rays, after NASA's IXPE, launched in 2021. XPoSat operates in a frequency band different from NASA's mission.

### What are X-rays?

X-rays are electromagnetic waves. These are generated by movements of electric charges when the electric and magnetic fields in its vicinity are disturbed.

### What are Polarised X-rays?

- In electromagnetic waves like X-rays, the electric field oscillates or varies in strength and direction as the wave propagates. The direction and nature of this variation in the electric field depend on the motion of the electric charge responsible for generating the wave.
- For instance, as the X-ray wave travels, if the electric charge responsible for producing the X-ray is in motion (such as an electron accelerating), it affects the way the electric field changes as the wave moves.
- Sometimes these variations acquire directionality (variations in a particular direction), which is when these X-rays are described as being "polarised".
- Stars mostly emit unpolarised light, however it is different in the case of stars with very large magnetic fields. Electrons in those objects spiral around the magnetic field lines and emit X-rays. The electrons' motion provides the X-rays with some directionality, making them polarised.
- Measuring the polarisation of X-rays can enable astronomers to understand the nature of these polarised X-ray emitting-objects, such as pulsars or regions around blackholes.

**Note: Pulsar:** A pulsar (or pulsating radio source) is a neutron star that rotates quickly and releases two polarised radio lights. The beams create a unique timing and polarisation signature as they burst across space. Pulsars are among the few celestial objects that emit circular polarised light.

### Why is it difficult to study X-rays from space?

- ❖ Their high energy makes them impossible to focus with lenses, like ordinary light.
- ❖ The Earth's atmosphere absorbs most of it.

### How will XPoSat Mission study X-rays?

- The main instrument aboard, the payload called POLIX (Indian X-ray Polarimeter), aims to study a special property of X-rays in space. POLIX is shaped like a cubical cylinder. At its core lies a disc of beryllium. Detectors kept along the walls collect X-rays after their scattering from the metallic disc.
- POLIX's beryllium disc will let astronomers probe lower energy X-rays than what the NASA instrument is capable of.
- The other instrument (XSPECT) aboard XPoSat will study timing and spectral properties of X-ray emitting objects in space.
- With this venture, ISRO has signaled that it has the expertise and maturity to contribute to all aspects of planetary research.

## GSAT-20

**Context:** NewSpace India Limited (NSIL), ISRO's commercial arm, will launch GSAT-20 satellite on-board SpaceX's Falcon-9 during the second quarter of 2024.

**About the GSAT-20**

- It is, weighing 4700 kg, a High Throughput Satellite (HTS) with Ka-Ka-band which is fully owned, operated and funded by NewSpace India Limited (NSIL).
- It was recently renamed as GSAT-N2.
- It will be the second 'demand driven' satellite launch enabled by NSIL.

**Significance:**

- It is a high-capacity communication satellite that is meant to offer broadband services, including In-flight and Maritime Connectivity (IFMC) services.
- It offers Pan-India coverage including Andaman and Nicobar and Lakshadweep islands, along with an HTS capacity of nearly 48 Gbps and has been specifically designed to meet the demanding service needs of remote and unconnected regions.

**Why Falcon 9 of SpaceX?**

- GSAT-20 weighs about 4,700 kg, much heavier than launch capacity of ISRO's most powerful rocket, LVM-3.
- For its heavier satellites, weighing more than 4,000 kg, India had been depending on Arianespace's heavy launch vehicle Ariane-5.
- However, it was retired and its successor Ariane-6 is yet to make its debut.
- Typically, communication satellites are launched into space at an orbit that is 170 km x 36,000 km (also known as Geosynchronous Transfer Orbit or GTO).
- India's GSLV and LVM3 rockets are designed and reliably proven to deliver payloads into such a highly elliptical (egg-shaped) orbit.
- GSLV can deliver around 2250 kg to GTO
- LVM3 can deliver 4000 kg to GTO.
- However, GSAT-20 is beyond the payload capacity of India's operational rockets.

## INDIA'S SPACE MISSION PLAN FOR 2024- SPACE RESEARCH: GLORY AND BEYOND

**Context:** The article discusses India's advancements in space research, including its solar observatory Aditya-L1 and other missions planned for 2024. It explains the motives behind space exploration, highlighting nationalism, economic growth, technological development, and international prestige as key drivers.

**What is India's space mission plan for 2024?**

- **Aditya-L1:** Observing the solar atmosphere and contributing to the understanding of space weather from a unique vantage point at the Sun-Earth Lagrange point 1.
- **XPoSat:** India's first X-ray Polarimeter Satellite, dedicated to studying cosmic radiation and understanding high-energy processes in stellar and galactic systems.
- **Gaganyaan-1:** Laying the groundwork for future manned spaceflights.
- **Mangalyaan-2:** Orbiting Mars again to continue exploration and research.
- **NISAR (NASA-Isro Synthetic Aperture Radar):** A collaboration with NASA for Earth observation, highlighting the importance of international partnerships.
- **Shukrayaan-1:** Exploring Venus to expand knowledge of the solar system.

**How does space research benefit India?**

- **National Security and Prestige:** Successful missions like Aditya-L1 not only enhance India's global standing and national pride but also position it as a competitor in the global space race, traditionally dominated by powers like the U.S., Russia, and China.
- **Economic Growth:** The Indian space economy, valued at $8.4 billion, is projected to expand to $44 billion by 2033. This growth is fueled by rising investments and a burgeoning number of space startups.

- **Technological Advancements:** Missions necessitate technological advancements, specifically in the miniaturization of electronic components essential for spacecraft. These innovations extend to wider industries, significantly impacting the development of semiconductors and integrated circuits.
- **International Collaboration:** Projects like NISAR with NASA show the growing importance and benefit of international partnerships in space exploration.
- **Start-up Ecosystem:** A significant increase in space startups from 1 in 2014 to 189 in 2023, receiving investments worth $124.7 million, indicates a booming sector fueled by space research.

## ADITYA L1 MISSION

**Context:** Recently, ISRO performed a crucial manoeuvre to bind Aditya-L1 into L1 orbit.

### What is the Aditya-L1 mission?

- Aditya-L1 is the first space-based Indian observatory to study the Sun.
- The solar mission will not see the spacecraft actually go to the sun, it will instead create a space observatory at a point from which the sun can be observed even during an eclipse.
- The spacecraft will be placed in a halo orbit around the Lagrange point 1 (L1), around 1.5 million km from the Earth, of the Sun-Earth system.
- The mission has a life of five years during which its payloads are expected to provide the information to understand the phenomenon of
- Coronal heating; coronal mass ejection; pre-flare and flare activities and their characteristics;
- Dynamics of space weather; and propagation of particles and fields.
- It is equipped with seven payloads (instruments) on board with four of them carrying out remote sensing of the Sun and three of them carrying in-situ observation.

### What are the seven payloads?

- The Visible Emission Line Coronagraph (VELC) will study the Corona, imaging and spectroscopy, and Coronal mass ejections.
- The Solar Ultraviolet Imaging Telescope (SUIT) will focus upon the Photosphere and Chromosphere imaging- narrow and broadband. It will also measure the solar irradiance variations.
- The Solar Low Energy X-ray Spectrometer (SoLEXS) and High Energy L1 Orbiting X-ray Spectrometer (HEL1OS) will study the soft and hard X-ray flares from the Sun over a wide X-ray energy range.
- The Aditya Solar wind Particle Experiment (ASPEX) and Plasma Analyser Package For Aditya (PAPA) will analyze the electrons and protons in the Solar wind or particles. It will also study the energetic ions.
- The Advanced Tri-axial High Resolution Digital Magnetometers will study the interplanetary magnetic field at L1 point.

## NISAR SATELLITE

**Context: Indo-US satellite- NISAR** is to **study Earth's cryospheric change**s which will help in natural resource, hazard management

### About the NISAR

- **NASA-ISRO Synthetic Aperture Radar (NISAR)** represents a first-of-its-kind collaboration between NASA and ISRO for an **Earth-observing mission.**
- The radar satellite is **set to launch in 2024**
- The goal of NISAR is to make global measurements of the **causes and consequences of land surface changes** using advanced radar imaging.
- **Collaboration: NASA's Jet Propulsion Laboratory** will lead the US component and provide the mission's **L-band SAR.**
  - o ISRO's UR Rao Satellite Centre and Space Applications Centre will contribute the spacecraft bus, launch vehicle and S-band SAR electronics.
- It will employ **two radar systems, an L-band and an S-band,** to penetrate clouds and darkness, offering comprehensive data even during polar winter nights.

- NISAR **will cover nearly all of the planet's land and ice surfaces every 12 days.**

**Applications of NISAR**

- **Snow studies: The L-band radar is particularly adept at penetrating snow**, offering insights into the movement of ice beneath, while the **S-band radar focuses on snow moisture**, indicating areas of melting.
- **Glaciers**: Beyond polar ice, NISAR will **track changes in mountain glaciers,** which have significantly contributed to sea level rise since the 1960s.
- **Wetlands**: This mission is distinguished by its **ability to track a variety of Earth's vital signs**, ranging from the health of wetlands to the impacts of deforestation and natural hazards.
- **Geophysical dynamics:** The measurements will also **enable scientists to closely study what happens where ice and ocean meet.**
  - For example, when parts of an ice sheet sit on ground that is below sea level, saltwater can seep under the ice and increase melting and instability.
- **Southern ocean: The mission's extensive coverage of the Southern Ocean** is unprecedented and will offer new insights into these crucial areas.

**Significance**

- This initiative comes at a crucial time, as **recent satellite imagery from East Antarctica has shown significant glacial collapse**, highlighting the urgent need for detailed monitoring.
- The mission will **also provide a 'time-lapse movie' of ice sheets, offering a consistent view of their motion,** thus aiding in predictions of future changes. This is important to **understand and predict the dynamics of ice sheets.**
- **The satellite's all-weather capability** is particularly beneficial for monitoring regions like the Himalayas, where cloud cover can hinder data collection.

## NATIONAL QUANTUM MISSION

**Context:** The government will set up a **coordination cell** to implement the **National Quantum Mission (NQM)** with a focus on establishing **four technology hubs.**

**About**

- The NQM is expected to set up four mission hubs in **quantum computing, quantum communication, quantum sensing and metrology, and quantum materials and devices.**
- It will essentially be a consortium of **academia, research and development labs and industry.**

**Mission Coordination Cell (MCC)**

- The MCC will be set up as a **coordinating agency** for the Mission and will work in coordination with the Mission Secretariat, DST.
- It will function under the overall supervision and guidance of **Mission Technology Research Council (MTRC).**

**National Quantum Mission (NQM)**

- The government approved the National Quantum Mission (NQM) in **2023** from **2023-24 to 2030-31.**
- **Aim:** To seed, nurture and scale up **scientific and industrial R&D** and create a vibrant & innovative ecosystem in Quantum Technology (QT).
  - This will accelerate QT led economic growth, nurture the ecosystem in the country and make India one of the leading nations in the development of **Quantum Technologies & Applications (QTA).**
- **Objectives:** The Mission objectives include developing intermediate-scale **quantum computers with 50-1000 physical qubits in 8 years** in various platforms like superconducting and photonic technology.
  - **Satellite-based secure quantum communications** between ground stations over a range of 2000 kilometers within India, long-distance secure quantum communications with other

countries, inter-city quantum key distribution over 2000 km as well as multi-node Quantum networks with quantum memories.

- o **Developing magnetometers** with high sensitivity in atomic systems and Atomic Clocks for precision timing, communications, and navigation.
- o It will also support the **design and synthesis of quantum materials** such as superconductors, novel semiconductor structures, and topological materials for the fabrication of quantum devices.
- o **Single photon sources/detectors,** and entangled photon sources will also be developed for quantum communications, sensing, and metrological applications.
- **Implementation:** Setting up of four Thematic Hubs (T-Hubs) in top academic and National R&D institutes in the domains – Quantum Computing, Quantum Communication, Quantum Sensing & Metrology and Quantum Materials & Devices.
  - o The hubs will focus on generation of new knowledge through basic and applied research as well as promote R&D in areas that are mandated to them.
- **Significance:** NQM has the potential to **elevate the country's Technology Development ecosystem** to a level of global competitiveness.
  - o The Mission would greatly **benefit various sectors** including communication, health, financial, energy with applications in drug design, space, banking, security etc.
  - o The Mission will also provide a **huge boost to National priorities** like Digital India, Make in India, Skill India and Stand-up India, Start-up India, Self-reliant India and Sustainable Development Goals (SDG).

# ENVIRONMENT

## CLIMATE CHANGE INDUCED TEMPERATURE RISE – IMD'S 2023 REPORT IS A WAKE-UP CALL

**Context:** The article discusses how 2023 was India's second-warmest year, causing various weather issues and affecting the economy, agriculture, and employment due to climate change.

**How did the year 2023 bring a grim retrospect from the India Meteorological Department (IMD)?**

- **Temperature Rise:** 2023 was marked as the second warmest year since 1901, with the average temperature 0.65°C above the long-term mean.
- **Extreme Rainfall:** December 2023 saw rainfall 60% above normal, making it an exceptionally wet month, except in the north and Northeast regions.
- **Tropical Storms:** The Indian Ocean experienced six tropical storms, significantly higher than usual, with three escalating to severe cyclonic storms, indicating a rise in extreme weather events.
- **El Nino Contribution:** The unusual weather patterns and increased global temperatures were partly attributed to El Nino, underscoring the broader impact of climate change.

**How is climate change going to impact India?**

- The Reserve Bank of India's 2022-23 Report on Currency and Finance projects a potential 2% loss in GDP and a decline in living standards for half the population by 2050. It particularly emphasizes the loss in productivity in major sectors such as agriculture and construction due to increasing heat stress.
- The World Bank predicts India will face over 40% of global job losses due to heat-induced productivity decline by 2030.
- It is bad for poorest populations, as evident by skyrocketing prices of essentials like vegetables (tomatoes, onions, potatoes, chilly, and cumin) due to erratic weather impacting production.

**Way forward:**

- Accelerate strategies to reduce carbon intensity in GDP by 2030 due to increasing climate challenges.
- Allocate sufficient funds for both mitigation and adaptation to climate impacts.
- Prioritize renewable energy sources over thermal power to meet 2030 targets and reduce coal dependency.

## "THE ROLE OF E-FUELS IN DECARBONISING TRANSPORT" REPORT

**Context:** The **International Energy Agency (IEA)** released a report titled **"The Role of E-fuels in Decarbonising Transport"**.

- The report extensively **explores the potential and challenges of e-fuels as a solution for decarbonizing the transport sector.**

**Key Findings**

- **Rapid deployment of low-emission fuels:** Significant reductions in fossil fuel demand are possible in road transport through fuel **efficiency improvements and surging sales of electric vehicles (EVs).**
- **E-fuels crucial for deep decarbonization: Fuels obtained from electrolytic hydrogen, or e-fuels**, could be a viable pathway and scale up rapidly by 2030, underpinned by a **massive expansion of cheaper renewable electricity** and anticipated cost reductions of electrolysers.
- The report highlights the **limitations of electrification** for achieving **net-zero emissions in sectors like aviation and shipping.**
    - o **E-fuels, with their near-zero carbon footprint,** are deemed essential for deep decarbonization in these areas.

- **Technological and economic viability:** The report acknowledges the current high cost of e-fuels but forecasts substantial cost reductions with technological advancements and economies of scale.
- **Infrastructure compatibility:** E-fuels can be readily used in existing infrastructure and engines, eliminating the need for extensive infrastructure upgrades that electrification necessitates in certain sectors.
- **Resource considerations:** Producing e-fuels at scale will require significant renewable energy, water, and potentially captured $CO_2$. Sustainable management of these resources is crucial to ensure e-fuels don't create new environmental concerns.
- **Policy recommendations:** The report calls for governments to implement supportive policies including carbon pricing, research and development funding to create a conducive environment for their production and adoption.

## E-fuels

- E-fuels (Electrofuels), also known as **synthetic fuels, are low-emission liquid or gaseous fuels** produced from **renewable energy source**s like solar or wind power, water, and captured carbon dioxide.
    - **Eg.** eGasoline, eDiesel, eHeating oil, eKerosene, e-methane, e-kerosene and e-methanol.
- They **can be tailored to replace conventional fuels** like gasoline, diesel, and jet fuel, offering a drop-in solution for existing engines and infrastructure.
- In transport, low-emission e-fuels **provide a complementary solution to sustainable biofuels.**
    - Particularly in aviation, **e-fuels benefit from their ability to use existing transport**, storage, distribution infrastructure and end-use equipment.

## How are eFuels produced?

- eFuel production is based on the **extraction of hydrogen**. This happens by means of an **electrolysis process** that **breaks down water** (e.g. seawater from desalination plants) into its components of **hydrogen and oxygen.**

## Benefits of e-fuels

- **Deep decarbonization:** E-fuels offer the potential for near-zero greenhouse gas emissions compared to fossil fuels, especially when combined with renewable energy sources and carbon capture technologies.
- **Versatility:** They can be used in existing transportation infrastructure and engines, requiring minimal adaptation compared to full electrification.
    - This makes them particularly attractive for sectors like aviation and shipping, where battery technology has limitations.
- **Energy security:** E-fuels can reduce dependence on fossil fuel imports and provide a domestic source of clean energy for transportation.

## Challenges

- **Cost:** Currently, e-fuels are significantly more expensive to produce than fossil fuels. However, costs are expected to decrease as production scales up and technological advancements occur.
- **Scalability:** Large-scale production of e-fuels currently faces limitations in terms of renewable energy availability and infrastructure for water and carbon dioxide capture.
- **Geopolitical implications:** Increased reliance on e-fuels may shift dependence from oil-producing countries to countries with abundant renewable resources, potentially creating new geopolitical dynamics.
- **Costly: Low-emission e-fuels are currently expensive to produce**, but their cost gap with fossil fuels could be significantly reduced by 2030.

- **Huge investment: Accelerated deployment of low-emission e-fuels** for shipping would require significant investments in refueling infrastructure and in vessels.
  - Achieving a 10% share in shipping would require around 70 Mt/yr of e-ammonia or methanol. This is **3.5 times the current global traded volume** of ammonia or two times the trade in methanol.
- **Access to $CO_2$:** It is an important constraint to **carbon containing low-emission e-fuels.**
  - The best wind and solar resources are **not necessarily co-located with significant bioenergy resources**, which puts additional constraints on siting e-fuel projects that require carbon input.

## Scaling Up E-fuels: Measures to Unleash Potential

## Cost Reduction:

- **Policy support:** Governments need to take bolder actions in carbon pricing mechanisms, tax breaks, and subsidies that can incentivize e-fuel production and make it competitive with fossil fuels.
- **Technological advancements:** Research and development efforts targeting more efficient electrolysis, carbon capture, and conversion technologies can significantly reduce production costs.
- **Economies of scale:** Investing in large-scale production facilities can leverage economies of scale and bring down e-fuel prices closer to fossil fuels.

## Infrastructure Development:

- **Renewable energy:** Expanding renewable energy capacity is crucial to provide the clean electricity needed for e-fuel production.
- **Water and CO2 management:** Sustainable water management and infrastructure for capturing and utilizing CO2 are essential to ensure environmental responsibility.
- **Distribution and storage:** Building infrastructure for e-fuel distribution and storage across transportation hubs is vital for widespread adoption.

## Market Creation and Demand Stimulation:

- **Public procurement:** Governments can create demand by mandating e-fuel blends in public transportation fleets and aviation fuel.
- **Corporate commitments:** Airlines, shipping companies, and fuel suppliers can set ambitious targets for e-fuel adoption, driving market demand.

## Regulatory and Policy Framework:

- **Carbon-neutral fuel standards:** To enable widespread adoption, e-fuels will need to meet internationally agreed technical and safety standards for measuring life-cycle GHG emissions.
- **International cooperation:** Global collaboration on research, development, and policy frameworks can accelerate e-fuel innovation and deployment.

## Way Ahead:

- Overall, **e-fuels have the potential to play a crucial role in decarbonising the transport sector** alongside other solutions like electrification.
- **Addressing the challenges through continued research, technological development, and investment in production infrastructure** is key to unlocking their full potential in the fight against climate change.

Bringing the GHG emissions of the road transport sector down to zero by 2050 cannot be achieved by one measure alone. Countries that deploy a set of different measures such as **reducing transport demand, improving vehicle efficiency, and adding renewable energy carriers such as biofuels.**

## EVOLUTION OF WILDLIFE LAWS AND ITS IMPACT- A LOOK AT PROJECT TIGER, 50 YEARS ON

**Context:** The article discusses how India's Project Tiger, started in 1973, has expanded tiger reserves and increased tiger numbers. It also covers the challenges faced by forest-dwelling communities due to these conservation efforts, including issues related to their relocation and the recognition of their rights.

### What is Project Tiger?

- Project Tiger was launched in 1973 to promote conservation of the tiger. It came at a time when the population of tigers in India was rapidly dwindling, due to unfettered hunting and habitat loss.

### How Did the Wildlife Laws Evolve?

- **1972 Wildlife (Protection) Act (WLPA):** National Parks and Wildlife Sanctuaries were established, affecting the rights of forest-dwellers and strengthening state control. Under this act, Critical Tiger Habitats (CTHs), also known as the core areas of tiger reserves, are identified.
- **Project Tiger (1973):** A result of WLPA, leading to the creation of tiger reserves.
- **2006 Amendment of WLPA:** Formation of the National Tiger Conservation Authority (NTCA) and introduction of tiger conservation plans, modifying rights of forest-dwellers in tiger reserves.
- **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 (FRA):** Recognized rights of forest-dwellers in tiger reserves and established Gram Sabhas as authorities for forest management.
- **Introduction of Critical Wildlife Habitat (CWH) under FRA:** Different from CTH under WLPA, once notified as CWH, land couldn't be diverted for non-forest purposes.
- **Notification of FRA Rules (2009) and Challenges:** Planned but overshadowed by the NTCA's rush to delineate CTHs, leading to notification of tiger reserves without full compliance with WLPA provisions.

**Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 (LARR Act):** This law mandates fair compensation and rehabilitation for relocated people.

- **What are the implications of legal changes in Wildlife Laws?**
- **Expansion of Tiger Reserves:** From nine reserves in 1973 to 54 in 2022, covering 78,135.956 sq. km across 18 states.
- **Increase in Tiger Population:** Due to enhanced protection, tiger numbers rose to 3,167-3,925 by 2022.

**Challenges in Implementing the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 (FRA):** Though recognizing forest-dweller rights, the implementation has been problematic, leading to disputes over land use in tiger reserves.

- **Lacked buffer area:** Under the Wildlife Protection Act of 1972, India designated 26 tiger reserves across 12 states as Critical Tiger Habitats (CTHs), covering 25,548.54 sq. km, 91.77% of which are CTHs. However, except for Odisha's Similipal, these lacked Buffer Areas until mandated by a 2012 Supreme Court order.
- **Relocation and Rehabilitation Challenges:** Relocation and rehabilitation under wildlife conservation laws like the LARR Act face challenges. Despite legal mandates for fair compensation and resettlement, the process often lacks transparency and adequate compensation, leading to disputes and dissatisfaction among relocated communities.
- **Conflict with the National Tiger Conservation Authority (NTCA) Directives:** The NTCA's 2007 directive for delineating CTHs conflicted with the FRA's provisions, complicating the balance between tiger conservation and community rights.
- **Fixed compensation:** The Union and State governments offer ₹15 lakh, increased from ₹10 lakh in 2021, for either cash or relocation under the Project Tiger 2008 guidelines. However, this doesn't fully cover the legal requirements for compensation, resettlement, and relocation under LARR Act.

**What should be done?**

- **Respectful and Informed Relocation:** Implement relocation policies as per the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, ensuring that relocation from tiger reserves is voluntary, informed, and includes fair compensation.
- **Addressing Conflicts Proactively:** Develop strategies to proactively address and resolve conflicts that arise from the expansion of tiger reserves and the increased protection measures, balancing conservation needs with the rights of local communities.

## CHALLENGES TO INDIA'S CLIMATE GOALS

**Context:** The article discusses the challenges in front of India, especially its electricity policies, in transitioning to non-fossil energy. It also highlights other negative outcomes of India's electricity policies.

- The 2023 UN Climate Change Conference (COP28) concluded with a statement calling for the phase-out of fossil fuels.
- However, achieving these climate targets will be difficult without immediate and decisive action by India, the world's third-largest greenhouse-gas (GHG) emitter. India accounted for 7.6% of global GHG emissions in 2022.

**What are the challenges in front of India in transitioning to non-fossil energy?**

- **Taxation Policy on Petroleum Products:** India reduces taxes on petroleum products when global prices increase and raises them when prices drop (countercyclical taxation). This resulted in a low effective carbon price in India. Lower prices prevent shift to costlier renewable sources.
- **Electricity Pricing and Subsidies:** Electricity, which accounts for 34% of India's emissions, is heavily subsidised in India (Subsidies mean fossil energy appears artificially cheaper than it actually is).
- **Difficulties in Reforming Electricity Pricing:** Reforming electricity pricing is difficult as electricity prices are not set by one central authority, but by the states and UTs. Additionally, the expectation of subsidised power has become part of the country's politics.
- **Lack of Clean-Energy Investments:** Heavy subsidisation strains state governments' finances – which prevents clean-energy investments.

**What are the negative outcomes of India's electricity policies?**

- **Depletion of Water:** In agricultural regions, it has contributed to the rapid degradation and depletion of water resources.
- **Health Issues due to Emissions:** Reliance on fossils (such as coal) for power generation causes severe pollution-related health problems.
- **Populism leading to even more Subsidies:** In Indian politics, the popularity of electricity subsidies as a tool for winning elections may lead to competitive populism between state governments, leading to even more subsidies.

**What should be done?**

1. For the transition to renewables to be economically feasible, renewable energy and storage must be cheaper.
2. International financial support will be required for renewable energy and storage projects in developing countries.

## 5 YEARS OF NATIONAL CLEAN AIR PROGRAMME (NCAP)

**Context:**

The National Clean Air Programme (NCAP) recently completed five years.

About National Clean Air Programme (NCAP)

The Ministry of Environment, Forest and Climate Change launched the NCAP in 2019 as a long-term, time-bound, national level strategy to tackle the rising air pollution.

- The NCAP's initial target was to reduce two key air pollutants, PM10 and PM2.5, by 20-30% by 2024, with 2017 levels as the base. In September 2022, the Centre revised this to a 40% reduction by 2026.
- The plan includes 131 non-attainment cities, across 23 states and Union territories, which were identified by the Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.
- Non-attainment cities are those that have fallen short of the National Ambient Air Quality Standards (NAAQS) for over five years.
- "PRANA" – Portal for Regulation of Air-pollution in Non-Attainment Cities, is a portal for monitoring the implementation of the National Clean Air Programme (NCAP).

## Five-year status check of the NCAP's progress

- For 49 cities, PM2.5 data was available for all five years. Out of these, 27 cities recorded improvements in PM2.5 levels from 2019 to 2023.
- Similarly, for PM10, data across five years was available for 46 cities. Of these, 24 cities saw an improvement in their PM10 levels.

## Challenges in implementation

## Funding:

- **Underutilisation of funds:** Allocated funds are not utilised fully by most of the cities. Cities are lacking necessary will to implement action plans effectively.
- **Unequal distribution:** Some cities receive more funding than others, leading to disparity in progress and resentment.

## Implementation Hurdles:

- **Inter-departmental coordination:** Seamless collaboration between various government agencies (environment, transport, industry) is crucial, but bureaucratic silos often hinder progress.
- **Infrastructure gaps:** Lack of adequate monitoring stations, waste management facilities, and cleaner alternatives for industries slows down progress.

## Public Awareness and Behavior Change:

- **Limited awareness:** Many citizens don't understand the gravity of air pollution, hindering adoption of cleaner practices like carpooling or using public transport.
- **Resistance to change:** Existing habits and reliance on personal vehicles can pose a barrier to adopting eco-friendly behaviors.
- **Ineffective outreach:** Public awareness campaigns might not reach all communities, particularly vulnerable and marginalized groups.

## Industrial Compliance and Regulation:

- **Stringent standards vs. economic interests:** Strict emission norms might be met with resistance from industries fearing financial implications.
- **Weak enforcement:** Existing environmental regulations lack strong enforcement mechanisms, leading to non-compliance by polluting industries.
- **Outdated technologies**: Industries using older, polluting technologies lack incentives to invest in cleaner alternatives.

## Rapid urbanization and population growth:

- Increasing emissions from vehicles and construction activities put additional pressure on air quality.

## Geographical factors:

- Topography and weather patterns can trap pollutants, making it harder to disperse them in certain regions like Delhi NCR.

## Measures:

- **Push for utilization of funds:** There is a need to ensure that the funds are equitably distributed among cities with their proper utilisation.

- **Streamlined implementation:** Addressing bureaucratic bottlenecks and expediting project execution.
- **Effective public awareness campaigns:** Targeting diverse communities with tailored messages and promoting behavior change.
- **Strengthening regulations and enforcement**: Implementing stricter standards, improving monitoring, and holding polluters accountable.
- **Investing in technology and innovation:** Supporting research and development of cleaner technologies for industries and cleaner fuels for vehicles.

## Way Ahead:

- NCAP represents a significant step towards cleaner air in India.
- Continued efforts from all stakeholders, including government agencies, industries, and citizens, are essential for achieving its ambitious targets and ensuring a healthier future for all.

## ON THE ISSUES WITH CLIMATE CHANGE TREATIES

**Context:** The article discusses the issues with climate change treaties and the steps that can be undertaken to tackle them.

According to the author, the Dubai Agreement, as part of the UN Climate Change Conference in Dubai (COP28), will not have much impact on combating climate change.

## What are the issues with Climate Change Treaties?

1. **Voluntary Commitments Not Working:** Voluntary commitments entail no accountability. For instance, at the formation of the UNFCCC in 1992, all countries committed to preventing climate change, but emissions have continued to rise.
2. **Issues with Economic Models:** Economic models that intend to identify optimal climate policies often underestimate the benefits of emissions reductions and overestimate their costs.
3. **Not Considered Important:** In a world of urgent challenges, policymakers and the public have limited attention for climate change.
4. **Non-Cooperative Unilateral Approaches:** For instance, EU's Carbon Border Adjustment Mechanism (CBAM). This prevents cooperation.

## What should be done to tackle the Issues with Climate Change Treaties?

As shown by the Montreal Protocol (which bars participating countries from trading in ozone-depleting chemicals (CFCs)) with non-participating countries) and **MARPOL** (access to ports is restricted to ships that meet certain technical standards), the following steps can make climate change treaties more effective:

1. **Targeted Approach:** Agreements should aim at achieving progress in narrow, but crucial, economic sectors.
   For instance, the Montreal Protocol, which protects the stratospheric ozone layer.
2. **Legal Obligations:** Unlike the voluntary commitments made at each climate-change COP, these two treaties established binding obligations that can be enforced through international trade markets.
3. **Positive Feedback Loop:** The more countries that agree to participate, the higher the pressure on others to join.
4. **"Common but Differentiated" Responsibilities:** To succeed, international climate agreements must be compatible with countries' economic strategies. They should include provisions whereby richer countries agree to help poorer countries in terms of finance or technology.

These steps should be replicated for other major emissions sources. For instance, Aluminum production.

Through these changes, the world will have a better chance to achieve rapid and equitable transition to net-zero emissions.

## HUMBOLDT'S ENIGMA

**Context:** Humboldt's enigma is one of many puzzles of mountain biodiversity.

- The world's **tropical areas receive more energy** from the Sun and have greater primary productivity, which facilitates greater biological diversity.

- **Alexander von Humboldt** has observed that mountains contribute disproportionately to the terrestrial biodiversity of Earth, especially in the tropics, where they host hotspots of extraordinary and puzzling richness.

### What is Humboldt's enigma?

- **Humboldt's enigma** held that the earth's tropical areas don't contain all the biodiverse regions. There are many areas outside the tropics that are highly biodiverse. These places are mountains.

- There is a relationship between temperature, altitude, and humidity on one hand and the occurrence patterns of species (or their biodiversity) on the other.

### Indian Scenario

- In the case of India the biodiversity in tropical areas, south of the **Tropic of Cancer** are supposed to be the most diverse in the country.
    - The **Western Ghats and Sri Lanka** biodiversity hotspot lies in this zone.

- However, the **Eastern Himalayas** are much more diverse. The area is often considered the second-most diverse area of perching birds in the world.

### Reasons of high biodiversity in mountain range

- **Geological processes,** like uplifts, result in new habitats where new species arise, so the habitats are 'cradles'.

- Species on some climatologically stable mountains persist there for a long time, so these spots are '**museums'** that accumulate many such species over time.

- The more heterogeneous the **geological composition** of mountains is, the more biodiverse they are.

### Examples of Humboldt's enigma

- Coastal tropical sky islands (mountains surrounded by lowlands), like the **Shola Sky Islands in the Western Ghats.**
    - Here, old lineages have persisted on the mountain tops as climates and habitats fluctuated around them in the lower elevations.
    - The oldest bird species in the Western Ghats, such as the **Sholicola and the Montecincla**, are housed on the Shola Sky Islands.

- **The northern Andes range in South America** is considered the most biodiverse place in the world.
    - Different temperatures and rainfall levels support tropical evergreen biomes in the lower elevation to the alpine and tundra biomes near the top.

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