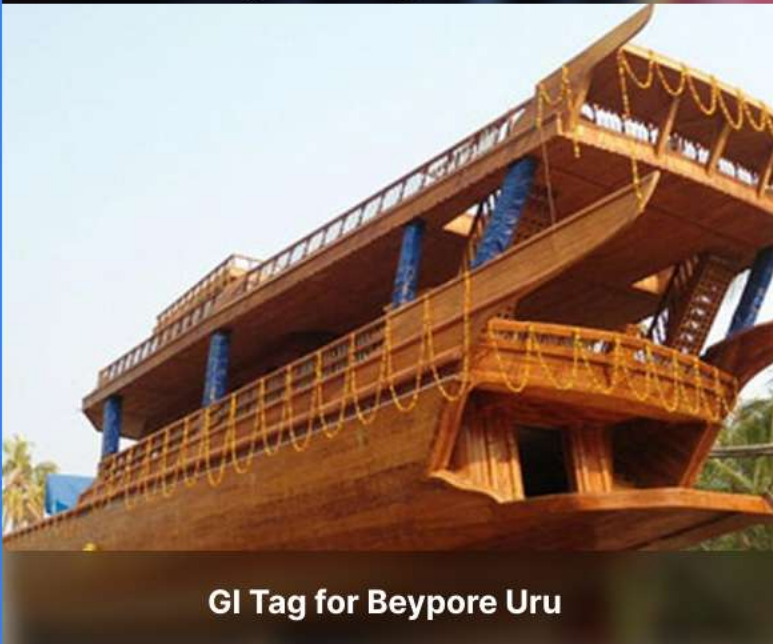
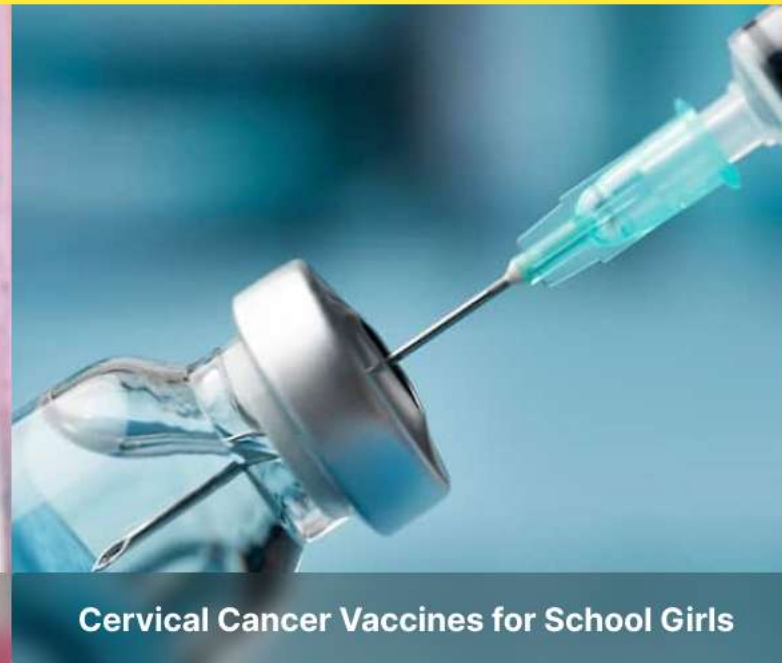


Monthly

prepp

Current Affairs Notes

December 2022



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GENERAL STUDIES 1

Indian culture, Modern Indian History, Freedom Struggle

THREE MORE SITES ADDED TO TENTATIVE LIST OF UNESCO

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Tentative UNESCO list

Prepp Mains Booster: Indian Heritage and Culture

Context:

- Recently, UNESCO has added **Vadnagar town, Modhera Sun Temple, and Unakoti sculptures** to its tentative list of World Heritage Sites.
- India now has 52 sites on UNESCO's tentative list, which is a list of properties that each state party intends to nominate.

Key Highlights

- The town of **Vadnagar in Gujarat, the iconic Sun Temple in Modhera, and the rock cut sculptures of Unakoti in Tripura** have all been added to the tentative list of UNESCO World Heritage Sites.
- The UNESCO tentative list is a "inventory of those properties which each State Party intends to consider for nomination".
- With this addition, **India now has 52 sites on the UNESCO Tentative List**. The list demonstrates India's rich cultural and natural wealth, as well as the vast diversity of our heritage.
- The move will greatly benefit India's cultural heritage.



About UNESCO tentative list

- If a state believes a monument/site has cultural and/or natural heritage of exceptional universal value and is thus suitable for inscription on the World Heritage List. The state then compiles a list of such sites and sends it to UNESCO. After a preliminary inspection, UNESCO accepts or rejects the monument and compiles a preliminary list.
- A place on a country's tentative list does not automatically confer world heritage status on that site.
- Any monument/site must be placed on the Tentative List (TL) before it can be considered for the final nomination dossier.
- After a site is designated as a tentative site, the country must prepare a nomination document for consideration by the UNESCO World Heritage Committee as a World Heritage Site.

Modhera Sun Temple

- The Sun Temple in Modhera, dedicated to Surya Dev, was the first of such temples to set trends in architectural and decorative details, exemplifying the Solanki style at its best.

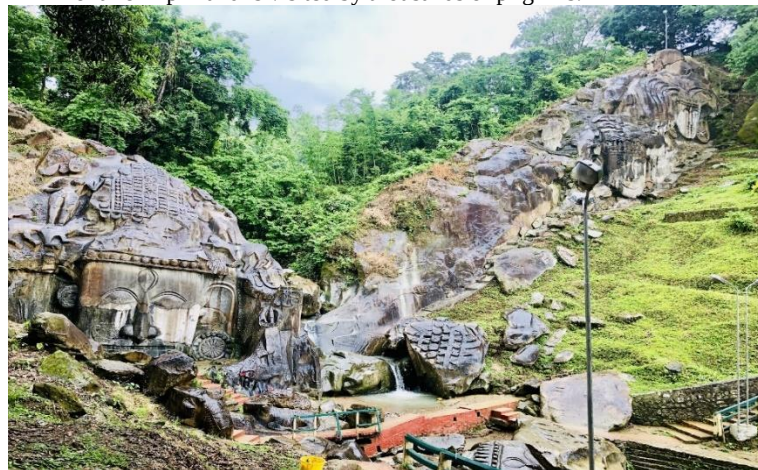
- Modhera Sun Temple is located in Mehsana, neighbouring Ahmedabad district.
- The temple was built after 1026-27 CE during the reign of Bhima I of the Chalukya dynasty.
- Situated on the banks of Pushpavati River. It is surrounded by a terra-formed garden of flowering trees and songs of birds.
- The remains of the Sun Temples at Modhera are relics of times gone by when reverence of the natural elements fire, air, earth, water and sky were at their peak sharing space with myriad manifestations of Vedic gods.

Vadnagar

- Vadnagar is a municipality in the Gujarat district of Mehsana. Vadnagar's history dates back to the early eighth century BCE.
- The town still has a large number of historic buildings, mostly religious and residential in nature.

Unakoti

- Unakoti, in Tripura's northeastern region, is known as an ancient holy place associated with Shaiva worship.
- The site is a massive gallery set in a forested area that displays a number of towering low relief images in a unique style, making it a masterpiece of human creative genius.
- Unakoti, famously known as the 'Angkor Wat of the North-East'
- Dating back to the 7th-9th centuries, Unakoti is a 'Shaiba' (Saivite) pilgrimage site with marvelous rock carvings, murals with their primitive beauty and waterfalls.
- Literally, Unakoti means 'one less one crore' in Hindi and Bengali and the local Kokborok language, it is called Subrai Khung.
- The images found at Unakoti are of two types, namely rock-carved figures and stone images.
- Every year, a big fair, known as 'Ashokastami Mela', takes place in the month of April and is visited by thousands of pilgrims.



PM TO PARTICIPATE IN A PROGRAMME COMMEMORATING SRI AUROBINDO'S 150TH BIRTH ANNIVERSARY AND RELEASE A COMMEMORATIVE COIN AND POSTAL STAMP IN HIS HONOR

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: Current events of national and international importance.

Prepp Mains Booster: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues.

Context:

- Recently, PM Shri Narendra Modi participated in a video conference commemorating **Sri Aurobindo's 150th birth anniversary**.

- Under the auspices of **Azadi Ka Amrit Mahotsav**, the Prime Minister released a commemorative coin and postal stamp in honor of **Sri Aurobindo**.

Key Highlights

- Sri Aurobindo, was a visionary who made significant contributions to India's freedom struggle.
- Azadi Ka Amrit Mahotsav, an initiative to commemorate the glorious history of India's people, culture, and achievements on the occasion of 75 years of independence, is commemorating Sri Aurobindo's 150th birth anniversary by organizing year-long activities and programs across the country.

About Sri Aurobindo

- Aurobindo Ghose was born in Calcutta on August 15, 1872.
- He was a philosopher, poet, yogi, seer, and Indian nationalist who preached a spiritual evolution-based philosophy of divine life on Earth.
- He is popularly known as yogi Rishi Aurobindo.
- He died in Pondicherry on December 5, 1950.



Sri Aurobindo - As a Revolutionary

- He also joined a revolutionary society and played a key role in the secret preparations for an uprising against the British government in India.
- Sri Aurobindo left his post in Baroda in 1906 and moved to Calcutta, where he quickly became a leader of the Nationalist movement.
- In his newspaper *Bande Mataram*, he was the first Indian political leader to openly advocate for the country's complete independence.

Literary Works

- He was also a journalist, and his first philosophical magazine, *Arya*, was published in 1914.
- Among his many works are *The Life Divine*, *The Synthesis of Yoga*, and *Savitri*.
- He advanced a philosophy of divine life on Earth through spiritual evolution.

CONTEXTUALISING AMBEDKAR'S IDEA OF A MORAL DEMOCRACY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Dr.B.Ambedkar

Prepp Mains Booster: Significant Personalities, Salient features of Indian Society, Diversity of India.

Context:

- There are several studies that have been conducted on **Dr. B.R. Ambedkar's conception of democracy**, which has primarily been explained through the lens of social, political, and economic philosophies.
- '**Situating Democracy in Ambedkar's Moral Discourse**,' by Sangharsh Telang and Mayur Kudupale, examines how Ambedkar situates morality in his democratic discourse.

Key Highlights

- The article exemplifies **Ambedkar's vision of democracy as a moral project in which the concepts of equality, liberty, and fraternity coexist harmoniously**.



- It also delves into the moral foundation that paved the way for Ambedkar's discourse on democracy.
- He desired to build a morally rational system of democracy, despite the fact that merely reconstructing a system would not change society, as it was the change in mutual relationships, respect, and a sense of responsibility that could lead to a change in society.

About BR Ambedkar

- Bhimrao Ramji Ambedkar (14 April 1891 – 6 December 1956) was an Indian jurist, economist, social reformer, and political leader who led the committee that drafted the Indian Constitution from the Constituent Assembly debates.
- He was the Law and Justice Minister in Jawaharlal Nehru's first cabinet and inspired the Dalit Buddhist movement after renouncing Hinduism.

Ideology of Dr. B.R Ambedkar

- He was a firm believer in Democracy. He agreed with other national leaders that parliamentary democracy is the best form of democracy.
- He highlighted the need for 'democracy as a way of life,' which includes democracy not only in the political realm but also in the personal, social, and economic realms.
- For him, democracy must result in a significant change in society's social conditions, or else the spirit of political democracy, i.e. "one man, one vote," will be lost.
- Ambedkar was concerned with both the social and economic aspects of his work. Parliamentary democracy, he claims, ignores social and economic inequalities.

The Essence of Democracy

- In the process of understanding Ambedkar's works, many have failed to explore the multitudes of Ambedkar's idea of democracy, and have instead placed him within a dichotomous framework of social democracy versus liberal or political democracy.
- However, Ambedkar's final work, **The Buddha and His Dhamma**, sheds light on how he understood democracy as a concept that affected every aspect of human life; it was essentially a way of life.
- Buddha, Kabir and Mahatma Phule's philosophies played an important role in Ambedkar's own engagement with democracy.
- While the three pillars of democracy are **equality, liberty, and fraternity**, they must also be viewed morally.

- While it is well known that Ambedkar's moral principles were rooted in Buddhist philosophies, he was also critical of extreme individualism as a possible outcome of Buddhism, as such characteristics failed to engage in activism that challenged social order.
- As a result, he believed that a harmonious society required a balance between individualism and fraternity.

Significance of Practicality

- Ambedkar prioritized practicality. For him, concepts and theories needed to be tested in the same way that they were supposed to be practiced in society.
- He used rationality and critical reasoning to analyze any subject matter because he believed that a subject must first pass the test of rationality, failing which it must be rejected, altered, or modified.
- Ambedkar used the lens of morality in investigating the caste system, the Hindu social system, the nature of religion and Indian history.
- It was difficult to situate Ambedkar's democratic framework within these rigid religious structures and socio-political systems, especially since he brought the most marginalized communities into the fold of democracy.
- As a result, Ambedkar attempts to build a new structure based on Buddhist principles.

Types of Morality

- Ambedkar divides morality into two categories: **social morality and constitutional morality**:
 - **Social Morality**: It was built through interaction, and that interaction was based on mutual recognition of human beings. However, due to the rigid systems of caste and religion, such interaction was not possible because one did not accept another person as a respectable human being because of their religion or caste background. Social morality was founded on human equality and respect.
 - **Constitutional Morality**: It was a prerequisite for maintaining a democratic system in a country. He believed that only through a negation of hereditary rule, laws that represented all people, with people's representatives and a State which has the confidence of the people, can democracy be maintained. A single person or political party cannot represent the needs or desires of all people.
- Ambedkar realized that the caste system did not fit with his understanding of moral democracy. This was due to the traditional caste structure's hierarchical rule, with no mutual respect among individuals and complete subjugation of one group by another.

About Indian Society

- Ambedkar's concept of moral democracy must also be examined through the lenses of:
 - **Particularism** (a political theory in which one group promotes its own interests without regard for the interests of larger groups) and
 - **Universality** (a theory that some ideas have universal application or applicability).
- His analysis of Indian society explains that the caste system is a negative particularistic value in Hinduism.
- According to Ambedkar, the upper castes universalise the negative particularity (their dominance over other groups) and particularise the negative universal morality (wherein the caste system and the subsequent alienation of certain groups is justified).
- This negative social relation is essentially 'undemocratic'. To combat this separation, Ambedkar attempted to incorporate Buddhist democratic processes into the discourse of modern democracy.
- According to him, Buddhist Sanghas were spaces where debates, discussions and dissent were encouraged.
- Furthermore, the practice of 'voting,' which they called 'Salapatraka Grahakas,' began in Sanghas, establishing moral grounds or principles of social freedom and public reason.

Importance of Religion

- According to Ambedkar, the roots of democracy are found in the realm of religion, without which associated living is impossible.

- Thus, instead of removing aspects of religion completely, he attempts to reconstruct a new version of democracy that accepts the democratic aspects of religions like Buddhism.
- Finally, Ambedkar recognizes the importance of distinguishing principles and rules in society in order to conceptualize democracy as a way of life.
- He explained that, while religion must be limited to principles as intellectual methods of judging things, rules, or habitual ways of doing things, must be subscribed to in order to operationalize democracy.

The Buddha and His Dhamma

- Ambedkar elaborates in The Buddha and His Dhamma on how the concepts of Dhamma, which include Prajna or thinking and understanding, Sila or good action, and finally Karuna or kindness, emerge as a morally transformative concept that dismantles regressive social relations.
- The incorporation of such rules aids in transforming the traditional approach to democracy in order to create a new form of democracy based on moral concepts.
- Thus, Ambedkar's concept of moral democracy rejects traditional caste-based religion that hinders social interaction and universalizes negative particularistic values, replacing them with positive particularistic values and moral orders that bind human beings together.

Post – Independence

VIJAY DIWAS: A RECAP OF THE 1971 INDO-PAK WAR, WHICH HELPED BIRTH BANGLADESH

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Vijay Diwas

Prepp Mains Booster: The Freedom Struggle — its various stages and important contributors/contributions from different parts of the country, India and its neighbourhood- relations.

Context:

- **Vijay Diwas, or Victory Day, is observed on December 16, to commemorate the end of the 1971 Indo-Pak War and the liberation of Bangladesh.**
- On this day, 51 years ago, India declared victory after Pakistan **signed the Instrument of Surrender.**

Key Highlights

- Vijay Diwas is observed on 16th December every year to mark India's victory over Pakistan in the 1971 war.
- On December 3, 1971, the Indian government decided to go to war with Pakistan in order to save Bengali Muslims and Hindus.
- This 13-day war was fought between India and Pakistan.
- On December 16, 1971, the Pakistani forces' commander surrendered unconditionally to the allied forces of the Indian Army and the Mukti Bahini in Dhaka.

What caused the Indo-Pak War of 1971?

- Following the end of British rule in 1947, India was divided into two independent countries: India and Pakistan. **East Pakistan (now Bangladesh) and West Pakistan (present-day Pakistan)** comprised the latter.
- The two Pakistans have had their share of issues since the beginning for a variety of reasons, the most obvious being their geographical separation.
- In terms of administration, East Pakistan was frequently overlooked because the top positions were held by those from the West. There was also a cultural divide to contend with.
- For example, when Urdu, which is spoken in West Pakistan, was designated as the official language of the country, it was viewed as an imposition on the culture of the people of the East.
- In the mid-1960s, leaders such as Sheikh Mujibur Rahman, also known as the founder of Bangladesh (and the father of current Prime Minister Sheikh

Hasina), actively began protesting against these policies and helped form the Awami League.

- Their demand soon evolved into one for greater freedom and autonomy. In the 1970 elections, the League won 160 of the 162 seats in East Pakistan, but none in the West.
- Although Zulfikar Ali Bhutto's Pakistan People's Party won 81 of the 138 seats in West Pakistan, Mujib had a clear overall majority in the House to become Prime Minister.
- Instead of accepting the mandate, the Pakistani military launched a brutal crackdown on Bengalis on March 25, 1971.
- Bangladesh now celebrates its independence on March 26.



India's Support

- On March 25, at midnight, Pakistan unleashed genocide on Bangladesh. Refugees flooded into India.
- India supported Bangladesh in its freedom struggle, and one must recognize Indira Gandhi's and the Indian Army's contributions to Bangladesh's liberation.
- Pakistan's supremacy lasted two and a half decades, but religion and the two-nation theory crumbled along the way.
- India had declared support for the League previously. This was visible even without direct intervention: on May 15, it launched **Operation Jackpot**, an operation to recruit, train, arm, equip, supply, and advise Mukti Bahini fighters engaged in guerrilla warfare against the Pakistan military. There was also a diplomatic plan in place.

India and the Bangladesh Liberation War: The Definitive Story

- Former diplomat Chandrashekhar Dasgupta, who was posted in Bangladesh in 1972, wrote in his book *India and the Bangladesh Liberation War: The Definitive Story*,
 - The foreign ministry's first task was to foster international sympathy and support for Bangladesh. The Bangladeshis were doing an excellent job on their own, but we greatly aided them.
 - The second task was to "explain to the international community that the problem in East Bengal was not simply an internal problem of Pakistan — that by driving out millions of refugees into India, Pakistan was exporting a domestic problem to India. And this threatened to destabilize the political situation in neighboring countries."
- If India intervened without clearly justifying its actions in foreign eyes, the charge that it was attempting to break up Pakistan would be established, and Bangladesh would be denied recognition by the majority of nations.
- However, when the Pakistan Air Force launched pre-emptive strikes against Western India (including Amritsar, Pathankot, Srinagar, Avantipura, Ambala, Sirsa, and Agra) on December 3, 1971, India formally declared war on December 4.

A Resounding Victory

- Over the course of 13 days, the war was fought on both the Eastern and Western fronts.
- The notable battles which were fought in the area of responsibility of the Southern Army included the famous battles of Longewala and Parbat Ali where Pakistan's armoured forces were destroyed by resolute Indian troops.
- Another well-known military action was the raid on the Pakistani town of Chachro by soldiers of the renowned 10 Para Commando Battalion led by Lieutenant Colonel (Later Brigadier) Bhawani Singh, the former ruler of Jodhpur state.
- India's Field Marshal Sam Manekshaw was an important figure in this war and is frequently mentioned in reference to it. His planning and strategy contributed to one of the quickest victories in recent military history.
- On December 6, India formally recognized Bangladesh as an independent country. Two days later, the Indian Navy launched an attack on Karachi. From December 12 to 16, Indian forces pushed through to Dhaka and entered the city, ending the war with a total victory.
- Pakistan Eastern Command Commander Lt Gen AAK Niazi signed the instrument of surrender and surrendered to Indian Eastern Commander Lt Gen Jagjit Singh Aurora.

THE ASSAM-MEGHALAYA BORDER FIRING

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Assam-Meghalaya dispute

Prepp Mains Booster: Post-independence consolidation and reorganization within the country; GS2 -Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- The recent firing incident on the Assam-Meghalaya border has put the focus on the five-decade-old boundary issue between the two northeastern states.
- Six persons were killed by Assam police, just before the second round of discussions between the two states to settle their boundary dispute, raising concerns that the negotiations will be adversely affected.



Background

- The incident allegedly took place after Assam police and forest personnel stopped a truck carrying lumber at Mukroh village.
- The villagers became agitated upon the entry of Assam police and forest personnel and surrounded them, leading to the firing.

- The NHRC said that five villager deaths and one Assam Forest guard occurred.

Impact

- The Assam-Meghalaya agreement was hailed as a big victory because Assam's border disputes with other Northeastern states had persisted despite numerous rounds of negotiations. The firing now puts the next negotiations in jeopardy.
- Because of security concerns, Assam police prohibited the passage of automobiles to Shillong and other areas in eastern Meghalaya.
- Taxi drivers residing in Assam also barred automobiles registered in Meghalaya from entering the State.
- Tourism was severely impacted in the year that saw the highest number of visitors to Meghalaya, with many travelers postponing their travels and others shortening their stays due to the unpredictability.
- As a result of the Mukroh incident's complexities, the process of settling the boundary dispute between the two States in the remaining six of the 12 sectors was also postponed.
- On March 29, a settlement to the dispute in the remaining six sectors was reached.

How did the boundary dispute start?

- During the British rule, undivided Assam included present-day Nagaland, Arunachal Pradesh, Meghalaya and Mizoram.
- Meghalaya was separated from Assam in 1970 as an autonomous State, and it achieved full statehood in 1972.
- The Assam Reorganisation (Meghalaya) Act of 1969, which the Meghalaya administration refused to approve, served as the foundation for the creation of the new State.
- This was due to the Act adopting a 1951 committee's suggestions for defining Meghalaya's border.
- Areas of the current East Jaintia Hills, Ri-Bhoi, and West Khasi Hills districts in Meghalaya were relocated to the Karbi Anglong, Kamrup (metro), and Kamrup districts of Assam based on the recommendations of that panel.
- Following statehood, Meghalaya disputed these transfers, alleging they belonged to its indigenous chieftains. Assam said that Meghalaya's administration was unable to produce any paperwork or historical records to support its claim to these territories.
- On the basis of an official claim made by Meghalaya in 2011, the dispute was reduced to 12 sectors after claims and counterclaims.

Steps taken to resolve the issue

- A joint official committee was established in 1983 to deal with border concerns.
- The panel suggested that the Survey of India redefine the border in collaboration with both states.
- In 1985, a neutral panel headed by Justice YV Chandrachud was established.
- The report was debunked in Meghalaya. With the assistance of the Survey of India, around 100 kilometres of the border were marked in 1991, although Meghalaya objected.
- A resolution calling for the intervention of the Center and the creation of a boundary commission was adopted by the Meghalaya Assembly in 2011.
- The Center requested that nodal officers be appointed by the two administrations to discuss the conflict.
- Meghalaya requested in 2019 that the Supreme Court order the Centre to settle the conflict, but the petition was turned down.

Recent status

- A draft resolution was signed by Assam and Meghalaya on January 29 of this year. It was the first step in settling a 50-year-old disagreement.
- Himanta Biswa Sarma, the chief minister of Assam, and Conrad K. Sangma, the chief minister of Meghalaya, signed a historic Memorandum

of Understanding in the presence of Indian Home Minister Amit Shah on March 29 in New Delhi.

- The agreement sought closure in six disputed sectors that were taken up for resolution in the first phase.
- The six disputed sectors were
- **Districts of Assam:** Tarabari (4.69 sq km), Gizang (13.53 sq km), Hahim (3.51 sq km), Boklapara (1.57 sq km), Khanapara-Pilangkata (2.29 sq km) and Ratacheria (11.20 sq km) under the Kamrup, Kamrup (Metro), and Cachar
- **Districts of Meghalaya:** the West Khasi Hills, Ri-Bhoi and East Jaintia Hills.

What Principles are considered for resolving the dispute?

Five principles are considered while resolving border disputes:

- Historical facts,
- Ethnicity,
- Administrative convenience,
- Willingness and sentiments of the people concerned and
- The contiguity of the land, preferably with natural boundaries such as rivers, streams, and rocks.

Salient Features of Indian Society

Role of Women and women's Organization, Poverty and Developmental Issues, Urbanization, their Problems and their remedies

PUNE NON-PROFIT ORGANIZATION SWAYAM SHIKSHAN PRAYOG LED BY WOMEN BAGGED AN AWARD AT COP27 FOR CLIMATE ADAPTATION

Priority: Low

Primary Source: Down to Earth

Prepp Prelims Booster: Swayam Shikshan Prayog

Prepp Mains Booster: Role of women and women's organization, Agriculture

Context:

- Recently, a **Non-profit based organization** in Pune **Swayam Shikshan Prayog** was recognized at the 27th Conference of the Parties to the **United Nations Framework Convention on Climate Change (COP27)** for its efforts over the past two decades in assisting women farmers in the Marathwada region to adopt **climate-resilient agricultural practices**.



SSP SWAYAM SHIKSHAN PRAYOG
Margin to Mainstream

Key Highlights

- **Swayam Shikshan Prayog** received the **Local Adaptation Champions Award** in the **capacity and knowledge** category in Sharm El-Sheikh, Egypt.
- **The Global Center on Adaptation**, an international organization that raises awareness and resources on adaptive climate solutions through public and private sector collaborations, organized the award.

About Swayam Shikshan Prayog

- Swayam Shikshan Prayog (SSP) is a non-governmental organization based in Pune, India.
- Prema Gopalan and Sheela Patel co-founded it in 1998 with the goal of assisting female entrepreneurs in fields such as agriculture, health, and sanitation.

- Its efforts have been recognized by the United Nations Development Programme and the United Nations Framework Convention on Climate Change.

Objectives of SSP

- Swayam Shikshan Prayog assists women farmers in shifting their focus away from cash crops such as cotton and sugarcane, which require massive amounts of water during poor monsoon seasons, and toward more sustainable agricultural practices.
- The non-profit teaches women about water-resilient practices that are free of chemical fertilizers and pesticides.
- Swayam Shikshan Prayog promotes water-efficient irrigation models by raising awareness of water conservation among farms, households, and communities and increasing access to water-efficient irrigation techniques through government subsidies.
- It also assists farmers in gaining access to water stewardship projects that are aligned with government programs.
- Swayam Shikshan Prayog also encourages the establishment of agro-allied enterprises in dairy, poultry, vermicomposting, and local seeds. It enables women farmers to sell their farm produce through these agro enterprises.

Krishi Samvad Sahayaks (KSS)

- **Krishi Samvad Sahayaks (KSS)**, as they are known, disseminate information about cultivating food crops such as millets, cereals, pulses, and vegetables in mixed cropping patterns.
- The organization collaborates with the government and agri-tech companies, but the KSS women are the educators on the ground. They worked with the Maharashtra government to expand the **Mahila Kisan Sashaktikaran Paryojana (MKSP)** to 21,000 farmers in 2015.
- MKSP, a component of the **National Livelihood Rural Mission**, aims to improve women's current status in agriculture.
- The non-profit encourages women farmers from marginalized communities to diversify and increase crop cycles on small land holdings — six to eight crops per season.

Women-led resilient farming model

- Women make all of the decisions about which crops to cultivate and sell in this women-led resilient farming model, giving them more control over their income and savings.
- The model also encourages women to obtain title rights on a small plot of land from their families in order to put their learnings into practice. The NGO refers to this as the one-acre model.
- Swayam Shikshan Prayog targets women farmers because they believe men are more inclined to increase earnings for their families. Women, on the other hand, are more concerned with food security, health, and the nutrition of their families, making them more open to the message.
- Azim Premji Philanthropic Initiatives and Sir Ratan Tata Trust, among other philanthropic organizations, contribute to the organization's funding. They claim to have assisted 41,000 women in acquiring 30,000 acres of land and increasing 25% of their average yield in food crops.



WEIGHING IN ON THE EFFICACY OF FEMALE LEADERSHIP IN GOVERNMENT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian polity

Prepp Mains Booster: Role of women and women's organization; Indian Constitution—historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

Context:

- According to government data presented in the Lok Sabha on December 9, women's representation in Parliament and most States legislatures is below 15% with 19 Assemblies having less than 10% women lawmakers.
- This is lower than the global average of 25.5%. Only 8% of the total MLAs are women across all States in India.
- Female leaders are important because they excel notably more than males in putting policies that advance women's interests into practice.
- The **1993 amendment to the Indian Constitution** required that each State reserve **one-third** of all pradhan positions for women, made it possible for their research to be conducted.
- **Efficiency:** The efficiency of female leadership was tested in a different study by Nobel Laureate Esther Duflo and co-author Raghavendra Chattopadhyay, who used the system of reserved reservations of pradhans in gram panchayats.



- **Rural Infrastructure:** According to Chattopadhyay and Duflo's findings, pradhans made greater investments in rural infrastructure that catered to the demands of their own gender.
- For instance, women pradhans were more likely to invest in ensuring that people had easy **access to drinking water** because it is typically, if not always, the responsibility of women to collect drinking water.
- **Gender Equality:** In addition to the practical value of encouraging more room for women in public policy, achieving this objective is crucial for **gender equality**. Arguably, the most significant aspect of involvement in public life is the ability to vote.

Why there should be quotas for women in parliament?

- It is crucial to **level the playing field** through suitable legal measures.
- There are many **obstacles** for women running for office.
- **Poor representation:** Only roughly 10% of the entire ministerial strength is made up of female members.
- The fact that Ms. Mamata Banerjee is currently the **only female Chief Minister** illustrates the underrepresentation of female ministers in India.
- Even more glaring is the underrepresentation of women in Indian legislatures.
- For instance, most women were elected to the Lok Sabha in the 2019 election.
- **2019 lok sabha elections:** For instance, the 2019 election resulted in the most women being elected to the Lok Sabha.
- However, there are only 15% women MPs in the 17th Lok Sabha and 12.2% women MPs in the Rajya Sabha. This is lower than the global

average of 25.5%. Only 8% of the total MLAs are women across all States in India.

- There is strong evidence that boosting the number of women in policy-making positions has a significant positive impact on how people view women's leadership potential.
- The number of female politicians running for office and winning elections rises as a result of the decline in voter prejudice towards female candidates.
- Over time, voter attitudes about the effectiveness of female leadership could radically shift, making quotas obsolete.

Significance of legislative representation of women

- **Political empowerment:** Legislative representation is fundamental to political empowerment, enabling participation in the law-making process.
- **Gender Equality:** Women's representation in the national parliament is a key indicator of the extent of gender equality in parliamentary politics.
- One of the key tenets of contemporary constitutional democracy is the equitable representation of all communities in politics.
- **Skills:** Women "bring different skills to politics and serve as role models for younger generations;" they "appeal to justice between sexes;" and
- **Representation of women's interests:** Their involvement in politics makes it easier for women's interests to be represented in state policy and fosters "a revitalised democracy that bridges the gap between representation and participation."

Conclusion

- By reserving, say, a **third of party nominations for women**, the major party partners in the UPA and NDA alliances can avoid the impasse in Parliament.
- The number of women in legislatures and eventually in governments will undoubtedly rise due to this.
- Women's representation in India's Parliament is an important metric to evaluate progress in bridging gender inequities in the country.
- Women's equal participation and leadership in political and public life are essential to achieving the Sustainable Development Goals by 2030.

Women's Reservation Bill

- The Lok Sabha and state legislative assemblies would reserve one-third of all seats for women under the Constitution (**One Hundred and Eighth Amendment**) Bill, 2008.
- The authority specified by Parliament shall decide how to distribute the reserved seats.
- The Lok Sabha and legislative assemblies will reserve one-third of the total number of seats for women from Scheduled Castes and Scheduled Tribes.
- Reserved seats may be allotted by rotation to different constituencies in the state or union territory.
- Reservation of seats for women shall cease to exist 15 years after the commencement of this Amendment Act.

Population and Associated Issues

INDIA MUST BUILD AWARENESS ON POPULATION CONTROL

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Population

Prepp Mains Booster: Population and associated issues; Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- Recently, a private members' bill to restrict India's population was introduced in the Lok Sabha by two Bharatiya Janata Party lawmakers, Ravi Kishan and Nishikant Dubey.
- The Bill makes the case that population growth is the main factor slowing India's rate of progress and that population control is urgently required.

Population policies in India

- India was **one of the first countries** to address its population issue in 1951, bringing attention to the negative effects of overcrowding.
- India's population has increased significantly, but there has also been a considerable fall in the country's overall fertility rate (TFR).
- The **TFR is at 2%** (fifth round of the National Family Health Survey, or NFHS), down from around **5.9% in 1950**.
- After the 1970s, there was a sharp fall, demonstrating an inversely proportionate relationship between economic success and fertility rates.
- **Politicised:** In India, the discussion of the necessity of population control has become very politicised.
- Ultimately, the discourse of development suffers as a result of how frequently such a delicate topic is reduced to a little religious dispute.

Uttar Pradesh Population (Control, Stabilization and Welfare) Bill, 2021

- The Yogi Adityanath administration and the State Law Commission of Uttar Pradesh developed the **Uttar Pradesh Population (Control, Stabilization and Welfare) Bill, 2021**, around six months before the 2022 Uttar Pradesh Assembly elections.
- In the Hindi heartland, particularly in Uttar Pradesh and Bihar, population is a serious issue, but the recommendations were more political than useful.
- For instance, the Bill stated that couples with more than two children **would not be eligible for any government jobs**.
- However, it wasn't made clear what would happen to someone who had a third kid after working for the government or if a parent of two children remarried for any reason and produced a third child.
- The Bill was perceived as fostering **majority appeasement politics** and deepening **political polarisation**.
- According to NFHS data, despite Muslims having a **larger fertility rate than Hindus**, the difference between the two groups has significantly closed.
- The difference between the fertility rates of Hindus and Muslims, which was **1.1 in 1992–1993, is now only 0.35**.

Fewer children | A look at the total fertility rate at national level in three decades



SOURCE: NATIONAL FAMILY HEALTH SURVEY

What is the issue with forced population control measures?

- The TFR in India, at 2%, is even lower than the replacement level, marking a significant improvement in population control measures.

- India obviously does not require a law requiring forced population control.
- In response to the need for such a law, External Affairs Minister S. Jaishankar stated that "forced population control might have extremely grave effects, it can create a gender imbalance."
- In the nations that have used them, forced population control techniques have **not produced positive results**;
- India's close neighbor **China** is the most pertinent example.
- A **demographic imbalance** has resulted from the failed one-child policy.
- Due to imposed population control laws, China's population is aging more quickly than the population of any other developed nation.

Way forward

- India needs to adopt population control measures. However, the emphasis should be on **enhancing public health infrastructure and increasing understanding of the necessity of population control**.
- The pace of aging will be impacted by any forced control technique.
- Programs to raise awareness of population control should not be limited to a single day of the year, but should be held regularly at the local level to ensure that everyone is aware of population-related issues.
- According to data from the United Nations, many countries are expected to see a reduction in the number of young people and an increase in the population of seniors.
- Although the tendency originated in wealthy nations like Japan, it is increasingly seen in underdeveloped nations as well, particularly in Southeast Asia.
- Implementing **forcible population control** will undoubtedly be **detrimental** given these trends.

Private Member bill

- A private member is an MP who is not a minister. While both private members and ministers participate in the law-making process, bills introduced by private members are referred to as private members' Bills.
- In contrast, those introduced by ministers are referred to as government Bills.
- It must be introduced in the House with one month's notice.
- Its drafting is the responsibility of the member in question.
- The Chairman of the Rajya Sabha and the Speaker of the Lok Sabha decide whether or not a private Bill is admissible.
- A private member's bill can only be introduced and debated on Fridays.

**Salient features of World Physical Geography,
Distribution of Key Natural Resources across the World
Important Geophysical Phenomena such as Earthquakes,
Tsunami, Volcanic Activity, Cyclone etc.**

SCIENTISTS URGE ANDHRA PRADESH GOVT. TO PROTECT GLACIAL-PERIOD COASTAL RED SAND DUNES OF VIZAG

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Erramatti Dibbalu

Prepp Mains Booster: Geographical features and their location changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

Context:

- D. Rajasekhara Reddy, adviser to the Geo-Heritage Cell of INTACH (Indian National Trust for Art and Cultural Heritage) and former professor of Geology, Andhra University, said that the Erra Matti Dibbalu

needs to be protected to study the impact of climate change as this have seen both the glacial and the warm periods.

- Geologically, archaeologically and anthropologically the site is significant and it needs to be protected for further study and evaluation.

About Erra Matti Dibbalu

- The **coastal red sand dunes, popularly known as 'Erra Matti Dibbalu'** is located along the coast and is about 20 km north-east of **Visakhapatnam city** and about 4 km south-west of Bheemunipatnam.
- It was declared as a **geo-heritage site** by the **Geological Survey of India (GSI)** in 2014 and it has been listed under the **category of protected sites** in 2016 by **government of Andhra Pradesh**.
- The five kilometre stretch of dunes along the coast ranges in width from 200 metres to two kilometres.
- The Erra Matti Dibbalu cover an area of roughly 20 square kilometres, and the whole area has been designated as a Geo Heritage Site.

Significance

- The site is about 18,500 to 20,000 years old and it can be related to the **last glacial period**.
- These sand deposits are uncommon and have only been found in three tropical locations in south Asia: **Teri Sands in Tamil Nadu, Erra Matti Dibbalu in Visakhapatnam, and Red Coastal Sands of Sri Lanka**.
- They **do not occur in equatorial regions or temperate regions** due to various scientific reasons.
- The impact of climate change can be studied as this have seen both the glacial and the warm periods.
- The distinctiveness of this location lies in the red sediments, which represent the **late quaternary geologic age and constitute a continuation of the earth's evolution**.
- They have **badland topography and can reach heights of up to 30 metres**, exhibiting gullies, sand dunes, buried channels, beach ridges, paired terraces, the valley in the valley, wave-cut terrace, knick point, and waterfalls, among other geomorphic landforms and features.
- **Geological:** The top light-yellow sand unit is estimated to have been deposited around 3,000 years ago, could not attain the red colouration as the sediments were geochemically unaltered.
- These sediments are unfossiliferous and deposited over the khondalite basement. The dunes consist of light yellow sand dunes at the top followed by a brick red sand unit, a reddish brown concretion bearing sand unit with yellow sand at the bottom.
- The previous studies indicate that the bottom-most yellow sand unit is fluvial while the other overlying three units are aeolian in origin.
- **Archaeological:** Due to investigations of artefacts that suggest an Upper Palaeolithic horizon and cross-dating that places the site during the Late Pleistocene epoch, around 20,000 BC, the location also has archaeological value.
- Andhra University researchers claim that the area was inhabited by prehistoric humans because excavations at various locations in the area revealed stone implements of three distinctive periods and also the pottery of the Neolithic man.



Concerns:

- The red sand deposits are loose and unconsolidated. The sediments are washed away each monsoon, turning the water a bright red.
- Their stability is being harmed by further degradation brought on by human activity, such as digging, climbing, and littering, which is causing erosion to worsen.

Way forward

- According to senior geologists at Andhra University, the entire region needs to be protected, and the government shouldn't permit any constructions, including roads, any entertainment zones, including the construction of restaurants, and even permission for film shoots because they involve heavy machinery.
- Keeping these factors in mind, scientists from the GSI, NIO, and varsity as well as heritage enthusiasts from INTACH claim that it is the State government's duty to ensure that the site is safeguarded at all costs from any unforeseen circumstances.

A 2-MILLION YEAR OLD EDEN DISCOVERED**Priority:** Low**Primary Source:** Indian Express, The Hindu**Prepp Prelims Booster:** Geography

Prepp Mains Booster: Geographical features and their location changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

Context:

- Recently, **scientists have collected DNA** from animals that lived over 2 million years ago in a lush forest where there is now a vast, cold desert.
- The study was published in the journal Nature, they compared the DNA to that of different species, looking for matches.
- Scientists have analyzed 2-million-year-old DNA extracted from dirt samples in the area, revealing an ancient ecosystem unlike anything seen on Earth today, including traces of mastodons and horseshoe crabs roaming the Arctic.

About the study

- **Environmental DNA, or eDNA**, was isolated from soil samples by the researchers. This is the genetic material that living things release into the environment, such as through spit, excrement, hair, or decaying animal remains.
- It can be difficult to study DNA that is extremely old since genetic material degrades over time, leaving only microscopic bits for researchers to study.
- However, using cutting-edge technology, scientists were able to extract genetic data from the tiny, broken fragments of DNA.

What is Environmental DNA?

- Environmental DNA, also known as eDNA, is DNA that is collected from a variety of environmental samples, such as soil, seawater, snow, or air, rather than directly from an individual organism.
- As organisms interact with their surroundings, DNA is expelled and accumulates from various sources.
- In recent years, eDNA has been used to detect previously unseen endangered wildlife.

Region's Warm Period

- However, millions of years ago, this region was experiencing intense climate change, which caused temperatures to rise.
- Sediment likely accumulated at the site for tens of thousands of years before the climate cooled and cemented the finds into permafrost.
- The cold environment would help preserve the delicate bits of DNA, until scientists came along and drilled the samples out beginning in 2006.
- During the region's warm period, when average temperatures were 20 to 34 degrees Fahrenheit (11 to 19 degrees Celsius) higher than today, the area was home to an unusual variety of plant and animal life.

- The DNA fragments suggest a cross between Arctic plants like birch trees and willow shrubs and those that prefer warmer climates like firs and cedars.
- The DNA also revealed traces of animals such as geese, hares, reindeer, and lemmings. Previously, the only signs of animal life at the site were a dung beetle and hare remains.

Geographical Location

- The DNA fragments were discovered in sediment from the **northernmost part of Greenland, known as Kap Copenhagen**.
- Greenland scientists had announced the discovery of DNA dating back two million years which is the oldest ever extracted in Ice Age sediment, ushering in a new era in paleogenetics.
- It was once thought that one million years was the limit of DNA survival, but we are now twice that old.
- Today, Kap Copenhagen is an Arctic desert where various types of deposits, including plant and insect fossils preserved in excellent condition, have already been discovered.

**GENERAL STUDIES 2****Indian Constitution****LADAKH'S INCLUSION UNDER SIXTH SCHEDULE OF CONSTITUTION****Priority:** Medium**Primary Source:** The Hindu**Prepp Prelims Booster:** Sixth Schedule

Prepp Mains Booster: Indian Constitution, Government policies and interventions

Context:

- Recently, India's Union Home Ministry evaded a reply about Ladakh's inclusion in the **Sixth Schedule of the Constitution**.
- The Union Home Ministry has informed a Parliamentary panel that the main objective of the inclusion of tribal populations under the said schedule is to ensure their overall socio-economic development, which the Union Territory's administration has already been taking care of since its creation.

Background

- On August 5, 2019, the former state of Jammu and Kashmir was divided into two Union Territories: **Jammu and Kashmir and Ladakh**, the latter lacking a Legislative Assembly.

- After its special status was removed, several political groups in Ladakh have been demanding that land, employment, and the cultural identity of Ladakh, should be protected under the Sixth Schedule.

About Sixth Schedule of Indian Constitution

- The Schedule safeguards tribal populations by granting communities autonomy through the establishment of **Autonomous District Councils (ADCs)**, which can draft laws governing land, public health, and agriculture.
- According to Article 244 of the Indian Constitution, the Sixth Schedule contains provisions for the administration of tribal areas in Assam, Meghalaya, Tripura, and Mizoram. There are currently 10 autonomous councils in the four states mentioned.
- Along with ADCs, the 6th Schedule establishes separate Regional Councils for each area designated as an autonomous region.



Importance of Schedule

- The Schedule safeguards tribal populations by granting communities autonomy through the establishment of **Autonomous Development Councils**, which can draft laws governing land, public health, and agriculture. As of now, ten autonomous councils exist in Assam, Meghalaya, Tripura, and Mizoram.
- In 2021, Ladakh's sole Lok Sabha member, demanded constitutional safeguards by amending the **Ladakh Autonomous Hill District Council (LAHDC)** Act for the protection of land, employment, and Ladakh's cultural identity under the Sixth Schedule.
- According to the 2011 Census, the tribal population in the Union Territory of Ladakh is 2,18,355, accounting for 79.61% of the total population of 2,74,289. The committee recommended that the Union Territory of Ladakh be granted special status in order to meet the developmental needs of the tribal population.
- The Committee further recommends that the possibility of including Ladakh in the fifth or sixth Schedule be investigated.

Objective of Inclusion

- It was stated that the main objective for inclusion of tribal population under fifth/sixth schedule is to ensure their overall socio-economic development, which the UT Administration has already been taking care of since its creation. Sufficient funds are being provided to Ladakh to meet its overall developmental requirements.
- The Ladakh administration had recently increased the reservation for Scheduled Tribes in direct recruitment from 10% to 45%, which would help the tribal population significantly in its development.
- The apex body for Leh, a group comprised of all political parties in Ladakh, the influential Buddhist association, and the **Kargil Democratic Alliance (KDA)**, has been demanding Statehood for Ladakh and protection under the Sixth Schedule.

Need of Inclusion in the Sixth Schedule

- The administration of the UT of Ladakh region is now entirely in the hands of bureaucrats. The government now appears even further away than Srinagar.
- The changed domicile policy in Jammu and Kashmir has sparked concerns in the region about its own land, employment, demography, and cultural identity.
- The UT has two Hill councils in Leh and Kargil, but neither is covered by the Sixth Schedule.
- Their authority is limited to the collection of some local taxes, such as parking fees, and the allotment and use of land vested in the Centre.

CITIZENSHIP PATH TO BE EASED FOR 6 MINORITY GROUPS FROM 3 NATIONS

Priority: High 
Primary Source: The Hindu

Prepp Prelims Booster: Citizenship

Prepp Mains Booster: Governance, Constitution and Polity, Government policies and interventions for development in various sectors.

Context:

- Recently, it was stated that the Centre is preparing to make the citizenship process easier for minorities from **Pakistan, Afghanistan, and Bangladesh**.
- Hindus, Sikhs, Parsis, Christians, Buddhists, and Jains** from Pakistan, Afghanistan, and Bangladesh will be allowed to produce expired passports and visas.

Key Highlights

- The Centre is preparing to make the citizenship process easier for minorities from **Pakistan, Afghanistan, and Bangladesh** who entered India with valid documents but whose passports and visas have since expired.
- The **Ministry of Home Affairs (MHA)** is expected to restructure the citizenship portal to accept expired passports and visas as supporting documents for members of six minority communities from Pakistan, Afghanistan, and Bangladesh — **Hindus, Sikhs, Parsis, Christians, Buddhists, and Jain**.
- The MHA's citizenship portal currently accepts expired passports as supporting documents only for Hindu and Sikh applicants from Pakistan and Afghanistan who entered India before December 31, 2009.
- Following reports of corruption during manual screening in 2018, all citizenship processes were moved online in 2018.

Citizenship - Constitutional Provisions

- Citizenship is a legal relationship between an individual and a state to which he or she owes allegiance and is subjected to protection.
- Citizenship is listed in the Union List of the Constitution. This list falls solely under the competence of Parliament.
- The term "citizen" is not defined in the Constitution, although details on the various types of people who are eligible for citizenship are provided in Part 2, (Articles 5 to 11).

About Citizenship Amendment Act (CAA), 2019

- The Citizenship Act of 2019 amends the Citizenship Act of 1955 to allow illegal immigrants from Afghanistan, Bangladesh, and Pakistan who entered India on or before December 31, 2014 to apply for Indian citizenship.
- To be eligible for citizenship, a person must have lived in India for at least 11 years, according to the Citizenship Act of 1955.
- The amended Act reduces that period to five years for all migrants from these three countries who belong to these six religious communities.
- The Act was introduced ostensibly to assist refugees fleeing religious persecution in the three countries.
- The Act's conspicuous exclusion of Muslims has sparked widespread condemnation.

Obstacles Faced

- The portal, which works for the rights of Pakistani minorities in India, does not accept expired Pakistani passports for people who arrived on or after January 1, 2010.
- The online system does not accept an expired passport for a Pakistani Hindu who entered India in 2010, so the application is rejected.
- The individual or family must then rush to the Pakistani High Commission in Delhi, which charges a hefty fee to renew passports and sometimes rejects them on flimsy grounds.
- Even though the individual is eligible for Indian citizenship under the 1955 Act, they face challenges because they have spent approximately 12 years in India.

Exempt from Criminal Prosecution

- In 2015, the MHA amended the Citizenship Rules to legalize the stay of foreign migrants from these six communities who entered India on or before December 31, 2014 due to religious persecution, exempting them from the provisions of the Passport Act and the Foreigners Act even if their passports had expired.
- Despite the fact that they were exempt from criminal prosecution for illegally remaining in India, the online portal still refuses to accept their expired documents in order to process their citizenship applications.
- Changes will be made to the online portal so that expired foreign passports and visas can be accepted as supporting documents when applying for citizenship.
- People seeking Indian citizenship arrive on **long-term visas (LTVs)** or pilgrim visas. LTVs for five years are considered a step toward citizenship.

CAA not yet operational

- The Citizenship Amendment Act (CAA), 2019, which intends to grant citizenship to undocumented (or illegal) migrants from these six non-Muslim communities from the three neighboring countries who entered India before December 31, 2014, has yet to come into force because the rules governing the law have yet to be notified.
- The CAA could have aided documented minority migrants in expediting their applications by reducing the mandatory requirement of 11 years aggregate stay in India to five years in order to be eligible for citizenship.
- Many Pakistani Hindus who entered India legally and stayed for more than 11 years are also awaiting citizenship.

Wait for Citizenship

- There are 18,000 registered Pakistani Hindus who are awaiting citizenship.
- The MHA informed parliament in December 2021 that between 2018 and 2021, the government received 8,244 citizenship applications from minority groups and granted citizenship to 3,117 applicants.
- According to the MHA's annual report for 2021-22, from April to December of the COVID-19 affected year of 2021, as many as 1,414 citizenship certificates were granted to members of the minority communities from Pakistan, Afghanistan, and Bangladesh.
- The MHA has also delegated powers to district collectors in 31 districts and home secretaries in nine states to grant Indian citizenship by registration or naturalisation to members of the six minority communities who entered India with valid passports and visas.
- The MHA granted up to 2,439 LTVs to minority communities between March and December 2021. There were 2,193 from Pakistan, 237 from Afghanistan, and nine from Bangladesh.

In India, how is citizenship obtained?

- The Citizenship Act of 1955 governs citizenship in India. According to the Act, there are five ways to obtain Indian citizenship:
 - By birth,
 - By descent,
 - By registering,
 - By naturalization (extended stay in India), and by incorporating territory into India.

DELEGATED LAW SHOULD NOT TRAVEL BEYOND PURVIEW OF PARENT ACT: SC

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Delegated Legislation

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation

Context:

- Recently, the Supreme Court on Kerala electricity board appeal held that delegated legislation, including rules and regulations formed by State and Central authorities, should not supplant but supplement the parliamentary statute from which it draws power.
- The court observed that a rule must be declared invalid if it exceeds the authority granted by the statute to make rules. A rule is invalid if it replaces a provision over which it has no authority.

Highlights

- The Kerala State Electricity Board appealed a State High Court ruling that upheld Regulation 153(15) of the Kerala Electricity Supply Code, 2014.
- According regulation 153(15), "unauthorised additional load" within the same building and charged at the same rate is not considered "unauthorised use of energy" unless the consumer is billed based on the linked load.
- The Supreme Court overturned the judgement of the High Court, ruling that the Regulation violated Section 126(6) of the Electricity Act of 2003.
- The 2003 Act's Section 126 was created with the express intent of limiting this type of illegal electricity consumption.
- "The overuse of power is detrimental to the general public since it is likely to knock the entire supply system out of balance, compromising its effectiveness and even causing voltage variations to rise.
- The court stated that because Regulation 153(15) violates the terms of Section 126 of the Act 2003, it should be declared unlawful.

Observation made by the court

- A delegated power to create rules or regulations cannot be used to establish any substantive rights, obligations, or limitations that are not included in the parent statute's provisions.
- A body that makes rules or regulations must necessarily operate within the parameters of the statute because it has no inherent authority to do so and only draws it from the statute.
- The parent Act's boundaries should not be crossed by delegated legislation. In that case, it would be ultra vires and would have no legal standing.
- Operating in excess of one's legal authority, failing to follow the parent law's procedural rules, or just not complying with them can all constitute ultra vires (acting outside of one's legal authority).

What is meant by Delegated legislation?

- Delegated legislation refers to the **exercise of legislative authority** by a representative who is **subordinate to or lower in status** than the Legislature.
- A statute passed by a body other **than Parliament** is referred to as delegated legislation or auxiliary legislation.
- Through a Parliamentary Act, the legislature may authorize the enactment of a law by another person or entity.
- An Act of Parliament creates the **framework for a certain or particular law** and typically includes a description of its intended use.

Significance

- **Lowers burden on legislature:** Delegated Legislation lowers the burden of already overburdened Legislature by enabling the executive to make or alter the law under the authority of Legislature. This enables the

Legislature to focus on more crucial issues and develop relevant policy as a result.

- **Specific to local needs:** It enables those with the necessary training and expertise to make the laws. For instance, rather than passing rules that may not be appropriate for their specific area, a local authority may be allowed to implement laws specific to their area while taking into account local needs.
- **Emergency situation:** The process of delegated legislation also plays a significant role in an emergency situation since there is no need to wait for specific Act to be passed through Parliament to resolve the specific issue.
- **Flexibility:** Delegated legislation is flexible and extremely helpful to the legislative process since it frequently addresses issues that the Parliament did not foresee at the time it was adopting legislation.
- Therefore, delegated legislation can address both the changing demands of society and circumstances that Parliament did not foresee when it passed the Act of Parliament.

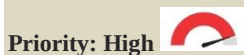


Delegated Legislation Under The Constitution Of India

- The concept of delegated legislation was not explicitly mentioned in the Indian Constitution, however, the idea of delegated legislation can be understood by analyzing **Article 312**.
- According to this Article, the Rajya Sabha has the authority to approve the opening of a new All India Service branch with a two-thirds majority.
- This indicates that the new All India Service recruiter would be given considerable legislative authority.

Functions and Responsibilities of the Union and the states
Separation of Powers between various organs, dispute redressal Mechanisms and Institutions

GOVERNORS DELAYING BILLS PASSED BY LEGISLATURES



Priority: High

Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

Prepp Mains Booster: Executive and Judiciary

Context:

- The article discusses the **delays encountered in enacting law due to Governors indefinitely sitting** on bills referred by the legislature.
- One of the **Constitution's "silences"** is in **Article 200**, which has been used by some Governors to obfuscate the mandate of democratically elected governments.
- A report in November 2022, highlighted the fact that nearly 40 bills were pending approval in the Kerala, Tamil Nadu and Telangana Raj Bhavans alone.



Background

- When the Constituent Assembly adopted the Constitution, the founders purposely left gaps in it to allow a future Parliament to modify and amend the Constitution to reflect the aspirations and will of the people. This, ostensibly, gave birth to a Constitution riddled with flaws.
- One of the Constitution's silences is in Article 200, which does not specify a timetable for the Governor to provide assent to bills sent by the Legislative Assembly.
- Governors of various opposition-ruled states have used this to their advantage in order to obscure the mandate of democratically elected governments.

Governor's Role in the 'Bill to Law' Process

- A bill passed by the State Assembly becomes law only after it is signed by the Governor.
- Because the Governor is a member of the State legislature, the process of making laws is not complete until he signs them, indicating his approval.

Recent Controversies

- **Tamil Nadu:** Tamil Nadu Assembly's Prohibition of Online Gambling and Regulation of Online Games Bill, 2022
- **Kerala:** Kerala Lok Ayukta (Amendment) Bill, 2022 (passed by the Kerala Assembly).
- **Tamil Nadu:** Almost 20 Bills are awaiting Governor assent in Tamil Nadu alone. The situation is similar in Telangana and West Bengal.

Article 200: Provisions

- According to Article 200, when a Bill passed by a State Legislature is presented to the Governor, he has four options:
 - He assents to the Bill.
 - He withholds assent.
 - He reserves the Bill for the President's consideration.
 - He returns the Bill to the Legislature for reconsideration.
- The first provision states that as soon as the Bill is presented to him, he may return it to the Legislature (if it is not a Money Bill) with a message requesting that the Legislature reconsider the Bill. He can advocate for the introduction of such amendments or changes as he deems necessary. If, after such reconsideration, the Bill is passed again, with or without amendments, and presented to the Governor for assent, he must give his assent.
- The second provision states that if a bill presented to him deviates from the powers of the High Court in such a way that it jeopardizes the position that the High Court is intended to fill by the Constitution, he must reserve the Bill for consideration by the President.

Why was the Governor's assent included in the Constitution?

- The clause was meant to preserve the federal ecosystem of the country.
- The constitution makers felt that an independent authority would act as a check and balance so that state laws did not conflict with central laws.
- The office of the governor was meant to act as a safety valve against hasty decisions of the states.

- It would also give the states an opportunity to reconsider the bills.

Constitutional Scheme

- **Constituent Assembly (Prof. Shibban Lal Saxena):** When the draft of **Article 200** was discussed in the Constituent Assembly, Prof. Shibban Lal Saxena correctly pointed out that there is no time limit for the Governor to act.
- **Purushothaman Nambudiri vs State of Kerala (1962),** a Supreme Court Constitution Bench clarified that the Constitution does not impose any time limit on when the Governor must provide assent to Bills.
- The question of whether the Governor can sit on Bills indefinitely was not raised before the Court, and the Court had no occasion to provide an authoritative ruling on it.
- The Court has maintained that the Governor must honor the will of the Legislature and that the President or a Governor can only act in accordance with their Council of Ministers.
- When a Governor, a central government-appointed official, refuses to sign a law validly passed by the Legislature, he is undoing the will of the Legislature through unconstitutional means, directly attacking the federal edifice of the Constitution.
- Delaying the assent of bills will be an arbitrary exercise, which is unconstitutional in and of itself.

President Withholding His Assent

- The additional issue of the President failing to act quickly to grant assent to the Bills reserved by the Governor for the President's consideration cannot be overlooked.
- The President has yet to act on the **National Eligibility and Entrance Test (NEET)-exemption Bill passed by the Tamil Nadu Assembly**, which was referred to him in May 2022.
- **Under Article 201 of the Constitution**, there is no time limit for even the President to decide on the outcome of the Bill.
- Even though there is no timetable for the President to grant assent, the State Assembly has six months to reconsider the Bill if the President decides to refer it back to the House.

Call for Reforms

- **Justice B.P. Jeevan Reddy-led Committee:** It states that if the Governor withholds assent to a Bill indefinitely, such a course will not be conducive to the decorous regard a Governor is expected to follow the rules of the Constitutional game.
- **The 'National Commission to Review the Working of the Constitution,'** established by the A.B. Vajpayee government in 2000, recommended that there should be a time-limit within which the Governor should take a decision whether to grant assent or to reserve a Bill for consideration of the President.
- It is also critical to understand the true purpose of Article 200, which requires the Governor to grant assent to bills.
- It was believed that an independent Governor would be required to act as a check and balance to prevent state-enacted laws from being in conflict with Union laws.
- **Some State governments expressed an opinion before the Sarkaria Commission** that a Governor will act as a safety-valve against hasty legislations and by their operation enable the State Government and Legislature to have a second look at it.
- **The Sarkaria Commission** even proposed a cure for the terminal illness afflicting the federal ecosystem of the country. It was suggested that the Governor's delay in granting assent could be avoided by streamlining the existing procedures; prior consultation with the Governor during the drafting of the Bill itself; and setting time limits for its disposal.

Way Forward

- An independent governor is required to act as a check and balance, preventing state-enacted laws from being in conflict with Union laws.
- The governor must grant or deny assent within a "reasonable time":
- Under the circumstances, reasonable time is required to do what the contract or duty requires in a specific case.

- **Keisham Meghachandra Singh vs. The Hon'ble Speaker, Manipur Legislative Assembly (2020):** The Supreme Court ruled that the Speaker must act on disqualification petitions filed by defecting MLAs within a reasonable time'.
- The Constitution should be read contextually to provide the meaning that the Governor must act on the Bills within a reasonable time, say three months.
- **Shamsher Singh and Anr. vs State Of Punjab:** Justice V.R. Krishna Iyer said, "maybe, our founding fathers were not political prophets who could foresee glaring abuses or perverted developments".

Comparison of the Indian Constitutional Scheme with that of other Countries Parliament and State Legislatures

WINTER SESSION LOADED WITH 25 BILLS, NO TIME FOR DEBATE, SAYS OPPOSITION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Parliament

Prepp Mains Booster: Governance, Constitution, Parliament

Context:

- Recently, the **Winter Session of Parliament** has begun and will last until December 29.
- With 25 Bills, including two financial Bills, on the agenda for a **17-day Winter Session of Parliament**, **opposition parties have expressed concern** about the limited time available for meaningful debate on the proposed legislation.

About Winter Session

- Every year, the winter session of Parliament is held from mid-November to mid-December.
- It is the shortest session of all.
- It considers matters that could not be considered earlier and compensates for the absence of legislative business during the Parliament's second session.

Parliamentary Sessions

- A session of the Indian Parliament is the period during which a House meets almost every day, without interruption, to conduct business. A year is typically divided into three sessions. A session is made up of many meetings.
- The process of summoning all members of Parliament to a meeting is known as Summoning of Parliament. The President summons Parliament.
- The President summons each House of Parliament on a regular basis. The time between two sessions of the Parliament cannot exceed six months, implying that the Parliament meets at least twice a year.
- In general, the sessions are as follows:
 - Budget session (February to May)
 - Monsoon session (July to September)
 - Winter session (November to December)

Issues regarding productivity of Parliamentary Sessions

- Last year, with a productivity of only 21%, the Monsoon Session was the third least productive Lok Sabha session in the recent two decades.
- The Government and Opposition parties could not agree on the themes to be debated, causing frequent disruptions in both Houses.
- The worst session in terms of productivity for both Houses since 1999 was the Winter Session of 2010.
- Rajya Sabha productivity dropped to 2% during that session, while Lok Sabha did marginally better at 6%.
- In terms of productivity, the Winter Sessions of 2013 and 2016 were the second worst for the Lok Sabha.
- Parliamentary working hours are being reduced on a daily basis. When a contentious issue arises, the government hesitates to debate it, resulting in

Opposition MPs violating the conduct rules and disrupting Parliamentary proceedings.

- The majority of the bills were passed without any scrutiny because they were introduced and passed in the same session.
- Parliamentary debate is a manifestation of a representative type of democracy in operation, in the sense that the people's representation directly questions the government on matters of governance.

Concern regarding less time

- During an all-party meeting, the opposition pointed out that there would be even less time to raise any other relevant issues.
- The Winter Session of Parliament begins on Wednesday and will last until December 29.
- The meeting is called before each session to discuss the legislative agenda.
- Most parties chastised the government for rushing through debates on major legislation.
- Adhir Ranjan Chowdhury, the party's floor leader, also expressed concern about the government's failure to follow through on the agreements reached at the all-party meeting held during the session.

Deliberation on EC appointment

- The party has also demanded a debate on the appointment of former IAS officer Arun Goel as Election Commissioner, citing the Supreme Court's rebuke last month regarding the "tearing hurry" with which he was appointed.
- The party has also demanded a discussion on the 10% reservation for economically disadvantaged sections.
- The Congress initially welcomed the Supreme Court decision on quotas, but later changed its position in response to strong opposition from allies such as Dravida Munnetra Kazhagam.

Role of the Parliament

- Parliament is the most important symbol of Indian democracy. Parliament enables citizens to participate in decision-making and hold the government accountable by summoning the House and calling MPs to participate in legislative and other business through discussion, debates, committee dispensations, and other mechanisms.
- Standing Committees are a microcosm of Parliament. They were designed to examine the technical details of bills referred to them, leaving the House to consider broader policy issues.
- The government should not forget that the committee system has stood the test of time. Not referring bills to committees and passing them without proper debate is a direct assault on the foundation of our democracy.

Why is it necessary to refer bills to parliamentary committees?

- Parliamentary committees allow legislators to interact with experts, stakeholders, and government officials to better understand the ramifications of bills.
- They discuss the implications of various provisions and provide recommendations for changes.
- Bills referred to them have fallen sharply in recent years. Unfortunately, far fewer bills are now referred to committees. Approximately 27% of bills were referred to committees during this government's first term (2014-19).
- According to data on the Lok Sabha website, less than 10% of bills in the 17th Lok Sabha were referred to committees, compared to 71% in the 15th Lok Sabha under the UPA-II government.

BEHIND RENEWED TENSIONS OVER BELAGAVI, A LONG, CONTESTED HISTORY

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Border region between Karnataka and Maharashtra

Prepp Mains Booster: Issues and challenges pertaining to the federal structure

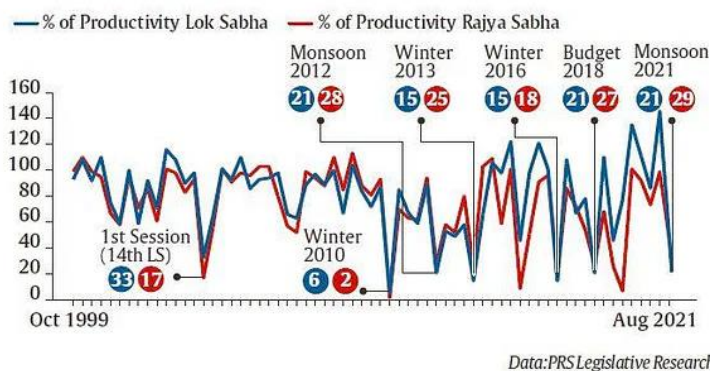
Why in News?

Recently, the incidence of violence is observed near the **border region between Karnataka and Maharashtra** in the disputed area of Belagavi district, Karnataka. It led to the heating up of the **decades-old border dispute between Karnataka and Maharashtra**.

Background:

- The erstwhile Bombay Presidency included the present-day Karnataka districts of Vijayapura, Belagavi, Dharwad, and Uttara-Kannada.
- In 1948, the **Belgaum municipality** requested that the district, having a predominantly Marathi-speaking population, be incorporated into the proposed Maharashtra state.
- But, the **States Reorganisation Act of 1956**, which divided states on **linguistic and administrative lines**, made Belgaum and 10 talukas of Bombay State a part of the then Mysore State (It was **renamed Karnataka in 1973**).

THE LOWS IN HOUSE PRODUCTIVITY



What is the conflict?

- While demarcating borders, the Reorganisation of States Commission sought to include talukas with a **Kannada-speaking** population of more than **50 percent** in Mysore.
- Opponents of the region's inclusion in Mysore argued that Marathi speakers outnumbered Kannadigas who lived there in **1956**.

Various steps taken to resolve the dispute:

- In September 1957, the Bombay government established the **Mahajan Commission** under former Chief Justice M. Chand Mahajan in **October 1966**.
- In **1967**, the committee recommended that some villages in **Karwar, Haliyal, and Suparna talukas of Karnataka** be given to Maharashtra but left Belagavi with the southern state.
- In **1960**, both States agreed to set up a **four-man committee** with two representatives from each State. Except on the issue of contiguity, the committee could not arrive at a unanimous decision.

History of state reorganization in India:

Introduction: The States of India were originally formed as a **result of historical accidents and circumstances**. After independence, there has been a growing demand for the reorganization of the States on a **more rational basis**, in the context of not only from financial, economic, and administrative management of independent India but also due to the growing importance of regional languages.

Formation of states:

- For the first time, the **States Reorganisation Commission (SRC)** was constituted in **1953** to recommend the principles and broad guidelines on which the States can be reorganized after independence.
- To give effect to the scheme of reorganization which emerged from the consideration of the proposals contained in the Report, the **States Reorganisation Act, 1956**, was enacted by the Parliament under **Article 4 of the Constitution of India**.

- The new States formed as a result of the reorganization of States in 1956 are Andhra Pradesh, Bombay Kerala, Madhya Pradesh, Madras, Mysore, Punjab, and Rajasthan.
- Thereafter the Parliament also enacted various Reorganisation Acts from time to time:
 - The Bombay Reorganisation Act in 1960, The Punjab Reorganisation Act in 1966, the State of Himachal Pradesh Reorganisation Act in 1970, and the North-Eastern States Reorganization Act in 1971.
- In 2000, The Reorganisation Acts of **Uttar Pradesh, Madhya Pradesh, and Bihar** which were enacted by the Parliament.
- In 2014, Telangana was formed after **The Andhra Pradesh Reorganization Act**.
- On **5th August 2019**, the President of India in the exercise of the powers conferred by **Clause (1) of Article 370** of the Constitution issued the Constitution (Application to Jammu and Kashmir) Order, 2019.
 - It led to the formation of two new Union Territories (UTs): **Jammu & Kashmir, and Ladakh**.
- In **2020**, the Dadra and Nagar Haveli and Daman and Diu (Merger of Union Territories) Act, 2019 merged the **Union Territories (UTs) of Daman and Diu (D&D) and Dadra and Nagar Haveli (DNH)**.

Note: Presently, India comprises **28 states and 8 union territories**.



RAJYA SABHA PASSED THE WILD LIFE (PROTECTION) AMENDMENT BILL, 2022

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

Prepp Mains Booster: Conservation; Environment; Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- Recently, the Rajya Sabha passed the Wild Life (Protection) Amendment Bill, 2022 which is intended to amend the Wild Life (Protection) Act, 1972 to incorporate more species protected under the law.
- The Lok Sabha passed the Bill during the Monsoon session earlier this year.

Background

- The Bill had been scrutinized by a parliamentary panel, seeking to conserve and protect wildlife through better management of protected areas and rationalizing schedules that list out species under the Wildlife (Protection) Act of 1972.

- The Lok Sabha cleared the legislation in August during the Monsoon Session.

What are the amendments?

- It seeks to implement India's obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which mandates that nations restrict the trade of all listed species through licenses, which are to be carried out by the passage of the Bill.
- **Exception to section 43(1) of Wildlife (Protection) Act of 1972:** The bill allows a person with a current ownership certificate may transfer or transport a captive elephant for religious or other purposes.
- **Reduction in number of schedules:** The Bill decreases the overall number of schedules to four. By reducing the number of schedules for specially protected animals to two (one for greater protection level), **eliminating the schedule for vermin species (Schedule V)**, and adding a new schedule for specimens listed in the CITES Appendices.



- **Invasive species:** The term "invasive alien species" refers to plant or animal species that are not indigenous to India and whose introduction could have a negative influence on the habitat or the native wildlife.
- The central government may authorise an officer to seize and dispose the invasive species.
- **Control of sanctuaries:** The Act gives the Chief Wild Life Warden authority over, responsibility for, and maintenance of all sanctuaries within a state. The state government appoints the Chief Wild Life Warden.
- The Bill stipulates that the Chief Warden's actions must follow the sanctuary management plans.
- These plans will be created in accordance with rules established by the central government and with the Chief Warden's approval.
- **Conservation reserves:** State governments may designate areas near national parks and sanctuaries as conservation reserves under the Act in order to safeguard the local flora, animals, and their habitats. The Bill empowers the central government to also notify a conservation reserve.
- **Captive animals:** A person may voluntarily turn over any captive animals or animal products to the Chief Wild Life Warden under the terms of the bill. The person who surrenders these products won't receive any payment. The surrendered items become property of the state government.
- **Tribals and forest dwellers:** The Bill will be beneficial for tribal and forest-dwellers as it permits activities like grazing, movement of livestock, etc.
- **Standing Committee:** The Bill includes the addition of a new Schedule for species classified under CITES Appendices and the establishment of a Standing Committee to exercise powers and duties delegated by the State Wildlife Boards, under Section 6.
- **Management Authority:** The central government may designate a Management Authority under a new Section 49E that is being considered.

- According to CITES, the Authority will be in charge of issuing licenses and certifications for the trade in designated specimens as well as reporting requirements. It must also carry out any additional tasks that may be required to fulfill the Convention's requirements.
- The Centre will also be given the authority under Section 49F to designate one or more institutions that conduct species research as Scientific Authorities, who will advise the Management Authority and oversee the issuance of export permits for specimens of species listed in Appendix II of Schedule IV as well as the actual export of such specimens.

What is Section 43(1) of the Wildlife (Protection) Act of 1972?

- No person having in his possession a captive animal, animal article, trophy, or uncured trophy in respect of which he has a certificate of ownership shall transfer by way of sale or offer for sale or by any other mode of consideration of commercial nature, such animal or article or trophy or uncured trophy.

Vermin: Vermin are usually considered problem or nuisance animals that attack humans, crops, livestock or property.

Concerns

- The Bill in its present form over the provision related to the transport of captive live elephants for any other purpose could be misused.
- The current amendment's broad definition of "any other purpose" will enable elephant traders, increase the risk of capturing wild populations, and undermine the core goals of the WLPA.
- Any other purpose:** The term 'any other purpose' appears to have ambiguous meaning, thereby potentially increasing the demand for illegal capture of these animals in the wild.
- Only 1,251 of India's 2,675 captive elephants have ownership certificates. There is a sizable elephant population whose ownership status is uncertain.
- Vermins:** Bill removes the present schedule for vermin species. The Centre retains the power to declare vermin.
- The Centre has started using its powers under Section 62 to issue orders declaring species as vermin at even state levels, often without any reliable scientific assessment.

CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora):

- It is an international agreement between governments.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species.
- Based on the risk of extinction, CITES divides plant and animal species into three groups (Appendices).
- The Convention requires countries to regulate the trade of all listed specimens through permits.
- It also seeks to regulate the possession of live animal specimens.

Salient Features of the Representation of Peoples Act Structure, Organization and Functioning of the Executive and the Judiciary

WHY LOAN RECOVERY VIA LOK ADALAT HAS JUMPED FOUR-FOLD?

Priority: High



Primary Source: Indian Express

Prepp Prelims Booster: NPA, Lok Adalat

Prepp Mains Booster: Disputes Redressal Mechanisms, Judiciary, Economy

Context:

- Recently, the number of **non performing assets (NPAs)** referred by banks to various recovery channels, including **Lok Adalat and the Insolvency and Bankruptcy Code (IBC)** route in 2021-22 witnessed four fold jump compared to 2020-21 as lakhs of small ticket loans were referred for resolution to Lok Adalats of banks.

What is a Non-Performing Asset?

- NPA is a classification for loans or advances that are in default or are behind on scheduled payments of principal or interest.
- In most cases, debt is classified as non-performing when loan payments have not been made for a minimum of 90 days.
- Gross non-performing assets are the total of all loans that have been defaulted on by individuals who have obtained loans from the financial institution.
- The amount realized after deducting the provision amount from the gross non-performing assets is known as net non-performing assets.

About Lok Adalats

- The term 'Lok Adalat' means 'People's Court' and is based on Gandhian principles.
- According to the Supreme Court, it is an ancient form of adjudicating system that existed in ancient India, and its validity has not been questioned even in modern times.
- It is a component of the Alternative Dispute Resolution (ADR) system that provides informal, low-cost, and expeditious justice to the general public.
- The first Lok Adalat camp was established in Gujarat in 1982 as a voluntary and conciliatory agency with no statutory backing for its decisions.
- Because of its growing popularity, it was given statutory status under the Legal Services Authorities Act of 1987. The Act makes provisions for the Lok Adalats' organization and operation.

Why is there an increase in the number of cases?

- In 2020-21**, when COVID-19 had hit, recovery processes of banks were affected due to restrictions on movement.
- During the period, the insolvency proceedings were suspended and many state governments had restricted banks from initiating harsh recovery methods against defaulters.
- In 2021-22**, when COVID related restrictions were lifted, banks again started initiating recovery processes and so the number of cases had seen a jump.
- Banks referred approximately 87.86 lakh cases worth Rs.4.87 lakh crore to various recovery channels in 2021-22 as against 20.35 lakh amounting to Rs.4.5 lakh crore in 2020-21.
- This data was released by the Progress Report 2021-22 released by the Reserve Bank of India.
- Apart from Lok Adalat and IBC, the other routes for impact recovery are **Debt Recovery Tribunal (DRTs)** and the **Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI Act)**.

How many cases were referred to Lok Adalat?

- Among all the channels, the number of stressed accounts referred by a bank to Lok Adalats, which has statutory status under the Legal Service Authority Act, 1987, saw a steep rise in 2021-22.
- Banks referred around 85.06 lakh cases worth Rs.1.19 lakh crore to Lok Adalat compared to 19.49 lakh cases worth Rs.28,084 crore in 2020-21.
- The cases referred to Lok Adalats are high as the cost of recovery through this route is low compared to the DRT's or SARFAESI.
- However, the rate of recovery has been very low through this route.
- Out of the Rs.1.19 lakh crore worth of accounts referred to Lok Adalats in 2021-22, banks could recover just Rs.2,777 crore, showing a recovery rate of 2.3%.
- The recovery rate was 4% in 2020-21.

- Banks refer stressed accounts of up to Rs.20 lakh to Lok Adalats, organised by banks through the district legal service authority.
- The recovery rate is low as it is very difficult to recover loans from defaulters in the small ticket loan segment who willingly do not want to repay.

LOK Adalat



Progress in Insolvency and Bankruptcy Code (IBC) cases

- As fresh insolvency cases could be admitted after the one year suspension during COVID-19, admissions under the IBC increased by 65% during 2021-22.
- There 885 cases referred to IBC in 2021-22 as against 536 cases in 2020-21.
- Of the 885 cases, resolution plans in 143 cases were approved during 2021-22.
- The amount involved was Rs.1.99 lakh crore and banks recovered Rs.47,421 crore-a recovery rate of 23.8%.
- The recovery rate in 2020-21 stood at 20.02%.

How have DRTs and SARFAESI routes fared?

- Despite the lull in the interim years, SARFAESI and DRTs produced recovery rates comparable to the IBC mechanism in 2021-22.
- Banks referred 29,487 cases involving Rs.47,165 crore to DRTs in 2021-22 compared to 28,182 cases worth Rs.2.25 lakh crore in the year ago period.
- The recovery rate under DRT stood at 25.7% during 2021-22.
- The number of cases referred to SARFAESI were 2.49 lakh in 2021-22 as against 57,331 cases in 2020-21.
- The rate of recovery in this channel was 22.5%.

What is SARFAESI Act?

- SARFAESI Act of 2002 is "an act to regulate securitization and reconstruction of financial assets and enforcement of security interests, and to provide for a central database of security interests created on property rights, and for matters associated with or incidental thereto,".
- SARFAESI is an acronym for **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest**.
- It permits banks and other financial institutions to recover loans by auctioning off the defaulter's residential or commercial assets.
- Under this act, India's first Asset Reconstruction Corporation (ARC), ARCIL, was established.
- Secured creditors (banks or financial institutions) have rights to security interest enforcement under section 13 of the SARFAESI Act, 2002.
- The SARFAESI Act of 2002 will now apply to all state and multi-state co-operative banks, according to the Supreme Court of India. Banks can now seize and sell defaulters' properties to recoup their debts, thanks to the Supreme Court's momentous decision.

Appointment to various Constitutional Posts, Powers, functions and Responsibilities of various Constitutional Bodies

RAJYA SABHA PASSES 'FUTURISTIC' ENERGY CONSERVATION BILL

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Energy Conservation Bill

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation; Conservation; Environment

Context:

- Recently, the Rajya Sabha passed the Energy Conservation (Amendment) Bill, 2022, clearing the decks for "mandate use of non-fossil sources", including green hydrogen, green ammonia, biomass, and ethanol for energy and feedstock and establishing carbon markets in the country.
- The Bill aimed to bring large residential buildings, with a minimum connected load of 100 kilowatt (kW) or contract demand of 120 Kilovolt Ampere (kVA), within the fold of the Energy Conservation regime.



Provisions

- The following provisions in the proposed Bill have been included to support to energy transition activities:-
- **Minimum share of consumption of non-fossil:** Specify minimum share of consumption of non-fossil sources by designated consumers as energy or feedstock;
- **Carbon credit trading scheme:** Carbon credit certificates shall be issued by the central government or any authorized agency to the entities that would need to comply under the scheme.
- These organizations have the option to buy and sell certificates depending on their needs.
- **Large residential buildings:** Coverage of large residential buildings within the fold of the Energy Conservation regime; and Enhance the scope of the Energy Conservation Building Code to include sustainability aspects.
- The allotment of regulatory powers of **State Electricity Regulatory Commissions**.
- Amendments in the governing council of the **Bureau of Energy Efficiency (BEE)**.
- The scope has been expanded to include **Vehicles (Motor Vehicles Act 1988) and Vessels (ships and boats)**, according to the bill.
- **Penalty:** A penalty of up to Rs 10 lakh in case of failure of compliance.

- It will attract an additional penalty of twice the price of the oil equivalent of energy consumed above the prescribed norm.

Impact

- Meet Energy standards:** The new regulations would give the government the authority to impose import or manufacturing restrictions on any automobiles or vessels that do not meet the required energy standards.
- Reduced consumption of fossil fuels:** Buildings would have to make sure that at least a portion of its overall energy usage is derived from non-fossil fuels or renewable resources.
- This would increase demand for renewable or other non-fossil fuels and assist in reducing the amount of energy based on fossil fuels consumed in the economy.

Concerns

- The Opposition said that the Bill was ultra vires of the Energy Conservation Act, 2001.
- The current Bill deals with protecting the environment and preventing climate change caused by using fossil and non-fossil fuels to generate electricity, whereas the Energy Conservation Act of 2001 deals with saving energy.
- The purpose and object of the current Bill are not included in the original Acts scope and objective.
- Lack of coordination:** The State Governments have been granted authority under the Act to discharge a different set of tasks from those that the Central Government does.
- A coordinated strategy between the Central Government and the State Government is missing, each State Government will operate independently hampering coordination.
- Centralization:** With only five proposed State delegates, the Bureau of Energy Efficiency would be unable to receive the majority of the states' opinions.
- R&D:** The government needs to enable some successful research and development and pilots on the ground before setting targets of such fuels for industries. This will bring about a clear picture of their technical and financial feasibility.

For More Info on the Energy Conservation Bill

Energy Intensity: It is calculated by taking the ratio of energy use (or energy supply) to gross domestic product (GDP), indicating how well the economy converts energy into economic output.

Carbon Intensity: Carbon intensity is the carbon emission per unit of energy consumed. Low carbon intensity signals either low energy consumption (as in the case of poor households/regions/countries) or an economy that consists of high efficiency in energy use or the dominance of low-energy activities such as services).

NEED FOR AN EFFECTIVE TOURIST POLICE

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Tourist Police

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services.

Context:

- In India, **crimes against tourists** and other foreign nationals appear to be on the rise. A Kerala session court recently sentenced two men to life in prison for the rape and murder of a Latvian tourist in 2018.
- With optimistic **predictions of approximately 13.34 million foreign tourists arriving by 2024**, there is an urgent need to upgrade security systems specifically to provide a flawless security blanket cover to foreign tourists.



What is a Tourist Police Scheme?

- A pool of trained police officers would be made available under the scheme to provide policing services to tourists and to control crime in tourist areas.
- Unless the content or rules in this scheme indicate otherwise, the rules of the district police of the concerned state shall apply to the Tourist Police.
- For all policing purposes, the Tourist Police Station will fall under the jurisdiction of the district police (Superintendent of Police).

Crime against Foreigners

- According to **National Crime Records Bureau (NCRB)** data, Delhi recorded 27 cases of crime against foreigners last year, a significant decrease from 62 cases reported in 2020 and 123 cases reported in 2019.
- Rajasthan has seen a sharp decrease in crime registration, from 16 in 2019 to 4 in 2020 and two cases last year, which could be attributed to a drop in tourist arrivals due to COVID-19.
- In the last three years, at least 29 foreigners have been murdered. While 14 foreigners were raped last year, 16 were raped in 2020 and 12 in 2019.
- Last year, 15 cases of assault on foreign women's modesty were reported across the country, along with 14 complaints of cheating.
- While foreigners reported 142 thefts in 2019, the number dropped to 52 in 2020 and 23 in 2021.

Importance of Tourism

- Crime against foreigners not only tarnishes our image globally, but it may also have a negative impact on the inflow of foreign tourists, which is a vital source of revenue for our country.
- Tourism is one of India's largest foreign exchange earners, and continuous efforts must be made to increase earnings.
- While India's tourism earnings were \$30.06 billion in 2019, they fell to \$6.958 billion in 2020 due to COVID-19 and the resulting restrictions on foreign tourists entering the country. Last year, there was a small increase of \$8.797 billion.
- With forecasted arrivals of approximately 13.34 million foreign tourists by 2024, there is an urgent need to upgrade our security systems, specifically to provide a flawless security blanket cover to foreign tourists. To attract hordes of tourists, safety is of the utmost importance.

Initiatives for a Safe Environment

- The Ministry of Tourism, in collaboration with the **Bureau of Police Research and Development (BPRD)**, organized a conference in New Delhi on October 19, 2022, to provide a safe environment for tourists. It was organized with the goal of "sensitizing the specific needs of tourists for the effective implementation of the Uniform Tourist Police Scheme at the pan-India level."
- Though the concept of "tourist cops" has been popular in recent years, it has not received the attention it deserves. Uttar Pradesh, Madhya Pradesh, Delhi, Goa, Rajasthan, and Kerala are the states that have tourist police.

- In preparation for the upcoming G20 Summit, the Delhi Police Department is beefing up its tourist police wing, which had previously been neglected, as are other states that will see a large influx of foreigners.

Necessary Measures

- The BPRD has published a booklet on the tourist police scheme that explains how to set up tourist police stations and control rooms, outposts, uniforms, recruitment, qualifications, training, and logistics requirements for tourist police stations.
- There are at least 25 popular tourist destinations in the country where the tourist police must be deployed to assist foreign visitors.
- As an incentive, a 30% deputation allowance has been proposed for police officers who join the tourist police on deputation.
- While the establishment of tourist police stations is a commendable step toward providing safety to foreigners, much more needs to be done to instill a sense of security in them even before they leave their home countries for India.
- With theft being the most common crime committed against foreigners, all criminals in and around tourist areas must be identified and kept under constant surveillance.
- Because foreigners come for short periods of time, cases cannot be allowed to linger in courts for long. Fast track courts should be established immediately to hear cases of crime against foreigners and punish the perpetrators as soon as possible.

RAJYA SABHA PASSES MARITIME ANTI-PIRACY BILL

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Internal Security

Prepp Mains Booster: Internal Security

Context:

- Recently, the **Rajya Sabha** passed a **Bill** that the government claims will provide an effective legal tool **to combat maritime piracy**.
- Those convicted of such crimes face harsh penalties under the Bill. **The Bill was passed by the Lok Sabha earlier.**

Background

- The Anti-Maritime Piracy Bill will be in accordance with the **United Nations Convention on the Law of the Sea (UNCLOS)**.
- It was first introduced in 2019 before being referred to the Standing Committee for further review.
- This time, the government has reintroduced the Bill after incorporating some amendments recommended by the Standing Committee.
- It was stated that it will improve India's maritime security, including that of its trade routes.
- The government attempted to incorporate the Standing Committee's recommendations into the Bill in a suitable manner.

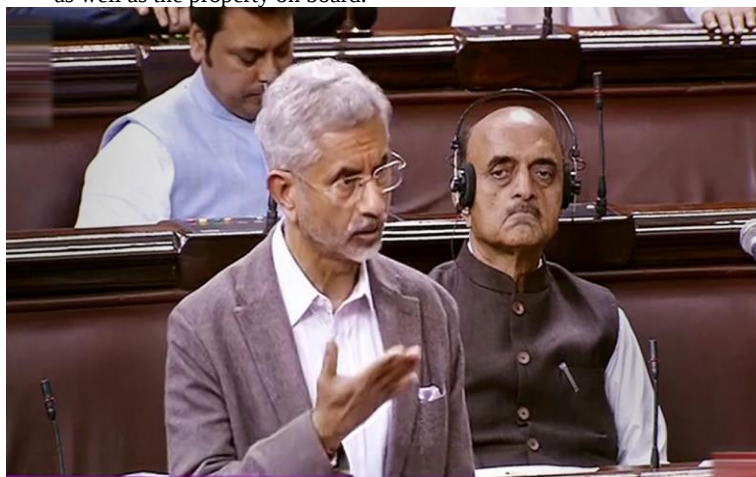
Key Highlights

- The Maritime Anti-Piracy Bill was introduced by the **External Affairs Minister S Jaishankar**.
- It was stated that ensuring maritime security is critical to safeguarding India's security and economic well-being.
- The security of sea lanes of communication is critical because more than 90% of India's trade is carried out by sea routes, and more than 80% of the country's hydrocarbon requirements are carried out by sea.
- **The Bill addresses the issue of the death penalty** as an "exceptional case," and that the punishments proposed are proportionate to the gravity of the offenses.
- In the absence of a specific law or a legal provision in the Indian Penal Code or the Criminal Procedure Code on piracy, this Bill would provide an effective legal instrument to combat maritime piracy.

- It would allow us to fulfill our obligations under the UN Convention on the Law of the Sea, which was signed in 1982 and ratified in 1995.
- Between 2008 and 2011, there were 27 maritime incidents involving 288 Indian nationals.
- And, between 2014 and 2022, there were 19 piracy cases involving 155 Indian crew members.

Features of the Bill

- The Bill empowers Indian authorities to take action against piracy on the high seas.
- It will apply to all parts of the sea adjacent to and beyond India's Exclusive Economic Zone.
- Piracy will be a punishable offense under it. It provides for life imprisonment or death if the piracy involves attempted murder or results in death. If you attempt to commit piracy or direct others to do so, you could face up to 14 years in prison and a fine.
- Offenses will be extraditable. As a result, the accused can be transferred to any country with which India has an extradition treaty for prosecution.
- It gives authorities the authority to seize a pirate-controlled ship or aircraft, as well as the property on board.



Need of the Bill

- India does not have a specific law or legal provision in IPC or CRPC on piracy. This bill, along with amendments, would provide an effective legal tool to combat piracy not only in our territorial waters, but also in the EEZ and on the high seas.
- With more than 90% of our trade with the world taking place via sea routes and more than 80% of our hydrocarbon requirements being seaborne, India's security and economic well-being are inextricably linked with the sea, and maritime security is a prerequisite.

Suggestions

- Members from all parties supported the Bill, though some suggested that a few provisions could be improved.
- Supporting the Bill, it was stated that India will be delighted to have this law but asked the government to reconsider some of the harsh provisions, such as bail provisions for those arrested.
- Some members demanded that the death penalty provision in the Bill be removed.
- Concerning suggestions for having a standard operating procedure for better enforcement, it was stated that the suggestion is well taken and would aid in its enforcement.
- Designated courts will be established in consultation with the Chief Justice of India.

United Nations Convention on the Law of the Sea (UNCLOS)

- The United Nations Convention on the Law of the Sea, also known as the Law of the Sea Convention or the Law of the Sea Treaty.

- It is an international agreement that establishes a legal framework for all marine and maritime activities.
- It divides marine areas into five major zones: internal waters, territorial sea, contiguous zone, exclusive economic zone (EEZ), and high seas.
- It is the only international treaty that establishes a framework for state jurisdiction in maritime spaces. It gives different legal status to different maritime zones.

WHAT DO THE J&K LAND GRANTS RULES, 2022 ENTAIL?

Priority: Medium



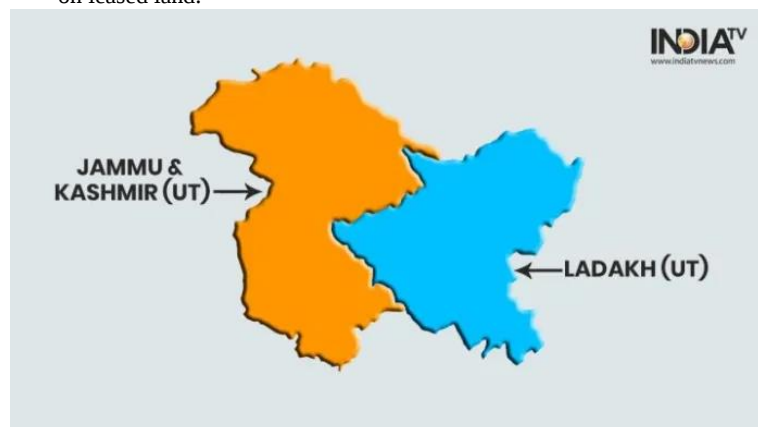
Primary Source: The Hindu

Prepp Prelims Booster: Land Grant Rules-2022

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation

Context:

- Recently, the **J&K** government has **notified Land Grant Rules-2022** which state that all the outgoing lessees, except subsisting/expired leases for residential purposes, shall immediately handover the possession of the land taken on lease to the government, failing which the outgoing lessee shall be evicted.
- The business community in Jammu and Kashmir is in a tizzy due to the new land rules.
- As per the new laws, owners no longer have the right to hold properties on leased land.



Background

- After the **J&K Reorganisation Act 2019** was passed on August 5, 2019, the **former J&K Land Grants Rules 1960** that allowed for 99-year leases with the option of extensions are no longer in effect.
- The administration has now made the decision to hold the auction for the leased land online.

What does the J&K Land Grants Rules, 2022 entail?

- The new land regulations state that existing landowners' leases cannot be renewed if they are about to expire.
- It reads that all leases, except the subsisting or expired residential leases, expired or determined prior to the coming into force of these rules or issued under these rules shall not be renewed and shall stand determined.
- **Reduced tenure:** The lease term has been shortened to 40 years from the prior maximum of 99 years.

Eligibility:

- All properties with expired leases will be listed by an **expert committee**. A new e-auction will be held for it.
- According to the guidelines, anyone who is "legally competent under Section 11 of the **Indian Contract Act, 1872**" is eligible to bid.

- The **J&K Land Grant Act of 1960** and the **Prevention of Money Laundering Act of 2002** both stipulate that anyone or any business that is in default of those laws' respective obligations is ineligible to bid in the auction.
- No such land shall be granted on lease to any person who is not a permanent resident of the State in accordance with the now-repealed land laws, unless the Government, for reasons to be recorded, relaxes this restriction in the interest of industrial or commercial development or in favour of a registered charitable society.

Features:

- **Diversification of land use:** In addition to education, healthcare, agriculture, tourism, skill development, and the advancement of traditional art, craft, culture, and languages, the L-G administration has expanded the uses of property under lease.
- The property might be **rented out for hydroelectric projects, stadiums, playgrounds, gymnasiums**, or other recreational uses.
- **Provisions for ex-service men and migrant workers:** Additionally, it contained provisions for ex-servicemen, war widows, and the families of martyrs—those who gave their lives in the line of duty—to work for themselves or for housing needs.
- For the first time, the land could be used for migrant worker facilities, structures, and other construction workers.
- **Compensation for previous lessee:** It specifies that the previous lessees will get payment for any building constructed on the property, "provided the lessee has not violated any of the terms of the Lease."

Impact

- **Businesses:** Since the majority of these commercial establishments have sprouted up on the leased land, this means that hundreds of business establishments, hotels, and shopping malls in Jammu and Kashmir may have to close down.
- Hundreds of homes are now up for new auction under the new guidelines, and **anyone can bid**.
- The list of properties where the lease has **expired has not yet been** made public by the government.
- The effect will be seen most strongly in Gulmarg, a popular tourist destination where 56 out of 59 hotels have already had their leases expire.
- Similar property auctions would take place in Pahalgam, Srinagar, and Patnitop in Jammu.
- The Jammu Kashmir Hoteliers Club (JKHC) and the Chamber Of Commerce Industry Kashmir (CCIK), two influential commercial associations in Kashmir, warned that the move will bring J&K's economy to a complete standstill and urged the L-G to rethink it.

Welfare Schemes for Vulnerable Sections of the population by the Centre and States

CENTRE TO CUT FUNDS IF LAND IS NOT ALLOTTED FOR HOUSING SCHEME

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: PMAY

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- Recently, the centre has warned the errant states that if they are unable to provide land to the landless beneficiaries of the Centrally sponsored Pradhan Mantri Gramin Awas Yojana (PMAY-G) by December 15 they would find their targets for this financial year redistributed to other States.

Pradhan Mantri Gramin Awas Yojana (PMAY-G)

- The former rural housing scheme **Indira Awaas Yojana (IAY)** was restructured and renamed in April 2016 as **Pradhan Mantri Awaas Yojana – Gramin (PMAY-G)** with an objective of **2.95 crore dwellings being constructed for the rural poor by March 2022**.
- This target figure was drawn from the Socio-Economic Caste Census, 2011.
- Under this initiative, certain financial assistance is provided to all the houseless people or people living in dilapidated houses to construct pucca homes.
- Ministry:** Union Ministry Of Rural Development.
- The selection of the beneficiaries under this scheme is made through a 3 step validation process consisting of **Gram Sabha, Socio-Economic Caste Census 2011, and geo-tagging**.
- Finance:** Under this scheme, the cost of construction of any house will be shared between the **Central government and the state government in the plain areas in a ratio of 60:40**.
- For the rural household in the Union Territories, including Ladakh, the cost of construction of houses will be covered fully 100% by the Central government.
- The **ratio of the costs will be 90:10 for the rural households** located in the northeastern states, the Himalayan states, and the Union Territory (UT) of Jammu & Kashmir.
- The deadline was extended by two years, to March 2024, because of the COVID pandemic.
- Women empowerment:** Allotment of house is made jointly in the name of husband and wife except in case of widow, unmarried and separate person.
- The scheme promotes women's empowerment by providing the ownership of houses in name of the female members or in a joint name.
- As on 24th January 2022, **66.90% of houses are either in the name of women beneficiaries or under the joint name of both wife and husband**.

Convergence with other schemes

- The beneficiary is entitled to 90/95 person-days of unskilled labour from MGNREGS.
- Convergence with **Swachh Bharat Mission-Gramin** will be used to leverage the **aid for toilet construction**.
- A thematic element is inherently present in the convergence for piped drinking water, power connection, LPG gas connection, etc. under various government programs.

Monitoring

- The AwaasSoft and AwaasApp end-to-end e-governance technologies are used to implement and monitor the Scheme.
- AwaasSoft offers tools for entering data and keeping track of numerous statistics pertaining to the scheme's implementation.

Current status

- Statistics from the Union Ministry of Rural Development show that as of November 2022, 2.06 crore houses had been built.
- Building homes for at least 2.5 lakh landless beneficiaries across the nation is one of the last obstacles as the project enters its final stage.
- Since the landless PMAY-G beneficiaries are among the most deserving recipients on the program's permanent wait list, providing them with land for the construction of their homes is of the utmost importance.
- Due to financial aid for land purchases, the initial number of 4.48 lakh landless beneficiaries has decreased to 2.56 lakh since the program's inception. However, **43% of landless beneficiaries are yet to be provided with land**.

For More Information [Pradhan Mantri Awas Yojana - Gramin](#)



INCLUSION OF COMMUNITIES ON ST LIST STILL ON THE BACKBURNER

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Schedule Tribal

Prepp Mains Booster: Issues relating to development; Mechanisms, laws, institutions, and Bodies constituted for the protection and betterment of these vulnerable sections.

Context:

- Recently, the opposition MPs question the government's failure to act on a task force's recommendation of over 40 communities for inclusion in 2014.

Background

- The Parliament has been debating the inclusion of various communities in the **Scheduled Tribes lists of Uttar Pradesh, Tamil Nadu, and Himachal Pradesh**.
- Opposition MPs, specifically from Odisha have questioned the government about the list of communities that was already recommended for inclusion on a priority basis by a government task force over eight years ago.
- The Panda Task Force, established in February 2014 under the leadership of former Tribal Affairs Secretary Hrusikesh Panda, had compiled a comprehensive list of over 40 communities from across the country that it felt should be included in ST lists on a priority basis.
- The Ministry of Tribal Affairs has introduced a Bill in the Lok Sabha this Winter Session proposing the inclusion of nearly all of the aforementioned synonyms in Chhattisgarh's ST list.

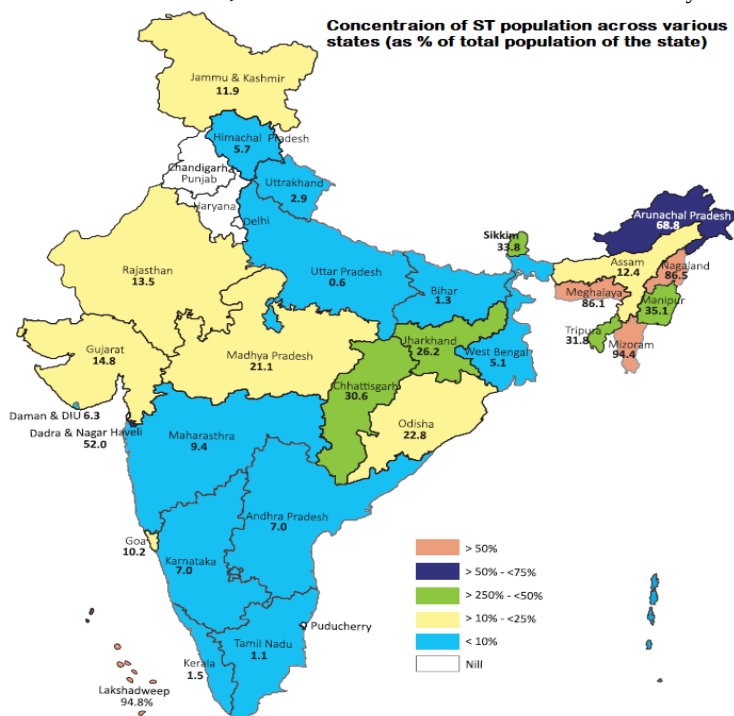
Who are the Scheduled Tribes?

- The term 'Scheduled Tribes' first appeared in the Indian Constitution.
- Article 366 (25) defined scheduled tribes as "such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this constitution".
- Article 342 specifies the procedure to be followed when specifying scheduled tribes.
- Several tribal groups have adapted to modern life, but others are more vulnerable.
- The Dhebar Commission (1973) established a separate category called "Primitive Tribal Groups (PTGs)," which was renamed "Particularly Vulnerable Tribal Groups (PVTGs)" in 2006.

Comprehensive list

- Nine of those communities are in Odisha, 26 are Assam tea tribes, eight are in Chhattisgarh, and a few are in Andhra Pradesh and Tamil Nadu.

- According to the task force led by Dr. Panda, a few are subsets of communities already classified as ST:
 - others are phonetic variations of existing tribes,
 - a few were left out when states were bifurcated,
 - others are those omitted from lists inexplicably,
 - and a few more are those losing categorisation because they were forcibly taken away from their homelands as indentured labor to other States or were displaced due to industrialisation.
- In **Odisha**, the communities are Kandha Kumbhar, Jodia, Chuktia Bhunjia, Saara, Mankidia, Porja, Banda Paraja, Durua, and Paharia.
- In **Tamil Nadu**, it recommended the Pulayan community, claiming that it had been unfairly excluded.
- In **Andhra Pradesh**, it recommended the Konda Kumari community.



The Panda Task Force

- The task force concluded that as many as 26 Assamese tea tribes, including those forcibly taken as indentured laborers from states such as Bihar, Jharkhand, and Odisha, should be included in the ST list.
- It justified this based on the key principle that the 'indentured labourers are a category which is distinct from 'voluntary migration'".
- These are the communities of Mal Paharia, Bedia, Saora, Shabar, Kharia, Gond, Munda, Bonda, Mahli, Paraja, Chik Baraik, Kol, Khond (Kandha), Chero, Koya, Birhor, Bhumji, Halba, Majwar, Dhanwar, Baiga, Lodha, Nagasia, Bhil, Oraon, and Santal.
- Keeping with the same principle, it had also recommended for inclusion tribal communities of Maharashtra, Gujarat and Madhya Pradesh that had been displaced on account of the Narmada Dam Project as this too qualified as "involuntary migration".
- It also recommended that various Devnagri versions of tribes, such as Bharia, Pando, Gadaba, Bhuihar, Nagasia, Dhangad, and Kond, be added to Chhattisgarh's ST list.

Changes required

- Odisha MP Chandrani Murmu (BJP) asked the Minister of Tribal Affairs to expedite the process of including the communities in Odisha on a priority basis, as recommended by the task force.
- It was mentioned that the Union government had been sitting on State government recommendations to include as many as 160 communities on the State's ST list since the 1970s.

- The Nationalist Congress Party asked the government last week in Lok Sabha to bring a comprehensive Bill to include all such communities that had been left out of ST lists.
- The task force noted that these communities were still being excluded or faced delays in inclusion due to the current procedure and criteria for inclusion in ST lists, and it recommended changes to both.
- It had said the procedure "defeats the Constitutional agenda for affirmative action and inclusion", was "**cumbersome**" and "**time-consuming**" and that the criteria for defining communities as STs based on their characteristic traits (being followed since the 1960s) was "obsolete".

NEW FORUM TO TAKE FORWARD FIGHT FOR MUSLIM WOMEN'S INHERITANCE RIGHTS

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Gender justice

Prepp Mains Booster: Issues Related to Women

Context:

- Recently, progressive women's groups and social organizations have formed a forum called '**Muslim Women for Gender Justice**' to continue their fight for **equal inheritance rights for Muslim women**.



Background

- It was followed after the State government's reported decision to follow **Shariat law** in all aspects of **Muslim Personal Law**, particularly the law of inheritance.
- The new forum intends to launch a signature campaign and send memorandums to the Chief Justice of India, the Prime Minister, and the heads of national rights panels.
- The government's move comes after the Supreme Court recently asked it to file an affidavit in a Special Leave Petition filed by the Khuran Sunnath Society and others challenging a Kerala High Court order that dismissed their plea to declare that the Muslim community's practice on women's inheritance violated constitutional principles.
- NISA had pleaded its case in the petition. The case will be heard on January 20.

About Muslim Personal Law

- According to Sharia, or Muslim personal law, men are permitted to engage in polygamy, or having multiple wives at the same time, up to a maximum of four.
- A Muslim woman must follow the "Nikah halala" procedure, which requires her to marry another person and divorce him before remarrying her divorced husband.

How was Muslim law applied in India?

- The **Muslim Personal Law (Shariat) Application Act** was passed in **1937** with the goal of developing an Islamic law code for Indian Muslims.
- The British, who ruled India at the time, were attempting to ensure that Indians were ruled according to their own cultural norms.

- When it came to distinguishing between laws made for Hindus and those made for Muslims, they stated that "clear proof of usage will outweigh the written text of the law" in the case of Hindus.
- The writings in the Quran, on the other hand, would be of primary importance to Muslims.
- Since 1937, the Shariat Application Act has mandated aspects of Muslim social life such as marriage, divorce, inheritance, and family relations. The Act states that the State shall not intervene in personal disputes.

Discrimination Against Inheritance Rights

- According to **NISA**, a **Kozhikode-based progressive Muslim women's forum**, women suffer the most as a result of the Muslim Personal Law, which is discriminatory in nature.
- A Muslim widow will receive only one-eighth of her deceased husband's property rights. If a couple dies during their parents' lifetime, their children have no right to their grandparents' property.
- In addition, when property is partitioned, women receive only half of the rights of men. Such customs developed during the sixth century CE, when women had no inheritance rights.
- The NISA functionaries argue that because the social situation has completely changed, the personal laws should be changed accordingly. They claim that many Islamic countries' laws have been updated to reflect the times.

Conclusion

According to NISA officials, the government called a meeting of male representatives of Muslim religious organizations and agreed that neither the state nor the judiciary had the authority to intervene in Shariat law and Muslim Personal Law. They were also promised that this viewpoint would be presented as Kerala's position in the Supreme Court.

RESEARCHERS WANT BEEDI ROLLING DECLARED HAZARDOUS PROCESS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Occupational Hazard

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health

Context:

- Recently, a group of researchers has **urged the government to declare beedi rolling a hazardous process** and has suggested alternative sources of income for them.
- The call comes after a review of 95 studies on the **occupational health hazards of beedi workers in the country**.
- The George Institute for Global Health examined studies from Karnataka, Tamil Nadu, West Bengal, and Maharashtra.

Beedi Production

- Bidi production is an agro-forestry cottage industry that is entirely dependent on Tendu Leaves and Tobacco.
- The State Department of Forests is in charge of picking tendu leaves, collecting them, storing them, and distributing them to bidi manufacturers.
- Because the entire manufacturing process is done manually, the industry is highly labor intensive. It belongs to both the organized and unorganized sectors.

Status in India

- According to data from the Labour Ministry's e-Shram portal, there are 21.11 lakh unorganized workers in the tobacco (beedi) industry in the country.
- In India, 71.8 million adults smoke beedi, and the cottage industry sector primarily employs women.
- According to the studies, approximately 87% of workers reported symptoms such as back, shoulder, neck, knee, joint, spondylitis, tiredness, and body ache.

- Workers had musculoskeletal, gastrointestinal, skin, cardiovascular, oral, and eye diseases.



Beedi Sector in India

- Beedi rolling is done in almost all major Indian states, primarily in the unorganized home-based sector, with sub-contractors serving as the primary beedi manufacturers.
- There are approximately 300 major manufacturers of branded beedis, but thousands of small-scale manufacturers and contractors account for the vast majority of beedi production in India.
- According to government estimates, the total number of beedi workers is around 4.5 million², with the majority of them being home-based women workers.
- According to trade unions, the country could have 7-8 million beedi workers, especially if those involved in beedi trade and tendu leaf collection are included.

Issues Faced by Women

- Women workers had more miscarriages and abortions, a lower fertility rate, and more uterine problems. Pregnant women who rolled beedi were 1.4 times more likely to be anemic, three times more likely to have pregnancy-induced hypertension, and 2.5 times more likely to have foetal growth restriction.
- Newborns of mothers who participated in the study were 1.9 times more likely to have a low birth weight and 1.7 times more likely to have a smaller gestational age. The studies had revealed that young children frequently accompanied and assisted their mothers at work. In addition to respiratory issues such as cough, TB, asthma, breathlessness, and giddiness, up to 87% of children had headaches and body pain.

Government Initiatives

- Minimum Wage Act.
- The Provident Funds Act.
- **Beedi and Cigar Workers (Conditions of Employment) Act, 1966** - to regulate the working conditions of beedi workers, and
- **Beedi Workers Welfare Fund Act, 1976** - to provide for welfare schemes for beedi workers and their families, including health, education, maternity benefits, group insurance, recreation, and housing assistance.
 - There are also special schemes under the fund to encourage the education of beedi workers' children, particularly girls.
- **Insurance Scheme:** A Group Insurance Scheme for Beedi Workers was also introduced in April 1992 under the social security scheme of the Life Insurance Corporation (LIC) of India.
 - This provides insurance coverage of Rs. 5000/- in the event of natural death and Rs. 25,000/- in the event of accidental death to beedi workers who have identity cards.

Recommendations

- To train beedi rollers in alternative livelihood methods with better pay, as they currently receive less than \$2 for rolling 1,000 beedis.

- The **World Health Organization** has recommended that women workers be screened for cervical cancer and respiratory diseases under the National Health Mission and Ayushman Bharat schemes.
- It has recommended classifying beedi rolling work as a hazardous process under national and state level legislations, such as the Occupational Safety, Health, and Working Conditions Code 2020 (OSH Code), and de-incentivizing beedi rolling as a home-based informal sector and bringing it under the organized sector to ensure their safety and protection.
- The WHO funded the Institute's project, which called for research into the direct and indirect costs borne by beedi workers, the public health system, and the economy in order to guide policy and decision making.
- It has also proposed studies on workers' occupational health using specific standard clinical diagnostic criteria rather than symptom-based studies.

Issues Relating to Development and Management of Social Sector/ Services relating to Health, Education, human Resources

THE NEED TO MAKE CANCER DRUGS AFFORDABLE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Health

Prepp Mains Booster: Issues relating to the development and management of Social Sector/Services relating to Health

Context:

- A recent report ("Cancer Care Plan and Management") by the Rajya Sabha's Standing Committee on Health noted that "about 40% of cancer hospitalization cases are financed mainly through borrowings, sale of assets and contributions from friends and relatives".
- The Committee claims that this circumstance has developed due to "even average out-of-pocket spending on cancer care is too high" and "spending for cancer care in private facilities is approximately three times that of public facilities."
- The Committee has thus brought attention to the importance of the issues surrounding the treatment of cancer, whose occurrence in India was predicted to be close to 1.4 million in 2020.

Concerns

- **Survival rate:** The exorbitant expense of treatment has had a significant impact on survival rates in developing nations.
- While the five-year survival rates for breast cancer are thought to be 65% and 45%, respectively, in India and South Africa, they are close to 90% in high-income nations.
- **Expensive treatment:** The cost of a course of standard treatment for early-stage HER2 (human epidermal growth factor receptor) positive breast cancer would be equivalent to about **10 years of average annual wages in India and South Africa** and 1.7 years in the United States, according to a World Health Organization (WHO) report on the pricing of cancer medicines and its impacts.
- WHO claims that the expenses of other types of medical treatment, such as surgical procedures, radiation, and supportive care, would make overall medical care even more prohibitively expensive.
- CDK (cyclin-dependent kinase) inhibitors are a key therapeutic component of the breast cancer therapy protocol, particularly for metastatic breast cancer.
- This group of medicines, which includes the pharmaceuticals Ribociclib, Palbociclib, and Abemaciclib, helps to reduce the growth of cancer cells in the body.
- The patient is anticipated to take one of these medications for the rest of her life, and a month's worth of treatment with these meds might cost anywhere between Rs.48,000 and Rs.95,000.
- If one were to add up the cost of a month's worth of treatment for several cancer medications, one would find that: Ribociclib (Novartis) costs

₹64,455; Palbociclib (Pfizer) costs ₹87,000; and Abemaciclib (Eli Lilly) costs between ₹47,752 and ₹95,000.



Reason Behind Excessive pricing

- **Expenditure on innovation:** Large pharmaceutical companies spend over \$3 billion in bringing a new molecule to the market, which they must recoup in order to remain in the market for innovation.
- **Profiteering:** According to the WHO report the spending on research and development may bear little or no relationship to how pharmaceutical companies set cancer medicine prices.
- Companies set prices with an eye to maximizing profits, thus denying patients from taking advantage of medical breakthroughs.
- **Intellectual property rights:** Pharma firms in the developed world have been successful in convincing their governments to **strengthen the rights that they receive via patents and other types of intellectual property rights**, which allow them to exercise **monopoly control over their products**, over the previous three decades.
- **Evergreening of patents:** Normal patent protection for a drug lasts for the duration of its patent term, after which time the cost of the drug is reduced through generic competition.
- Cancer is one of many non-communicable diseases where the situation might be very different.
- Even before generic manufacturers hit the market, innovative therapies could be adopted as the norm for medical care, taking the place of older medications.
- Additionally, in the case of pharmaceutical patents, the top companies frequently secure patents on minor improvements involving older medications (a practise known as "evergreening" of patents), extending their monopoly rights over the medications.
- The three medications for breast cancer mentioned above are now covered by patent protection, which means that Indian companies cannot produce these medications without the right holders' permission.
- The patent rights for Palbociclib held by Pfizer will expire in 2023, while those for Ribociclib held by Novartis and Abemaciclib held by Eli Lilly will expire in 2027 and 2029, respectively.
- Therefore, if these medications are vulnerable to "evergreening," their high pricing will last at least until 2029 and possibly beyond.

Impact

- **Right to life with dignity:** Patients and their families have experienced severe financial strain as a result of not having access to these essential medications, but their right to live in dignity, which is protected by Article 21 of the Indian Constitution, has also been jeopardised.
- In keeping with this, the Court has construed the **right to health under Article 21 as an extension of the right to life** in a number of decisions.
- Furthermore, it should be noted that every human being has the fundamental right to enjoy the **"best attainable quality of health"** as stated in the WHO Constitution.

Way forward

- The most obvious choice is to give **compulsory licences (CLs)** in accordance with **Sections 84 and 92 of the Patents Act**, allowing Indian companies to domestically make cancer medications, including those indicated above.
- When the cost of proprietary medications is exorbitant, the CLs let domestic enterprises to produce generic versions by superseding patent rights.
- As an alternative, the Government may make use of **Section 100** provisions, which give it the authority to permit any company to make use of a patented invention without the consent of the patent holder.
- If no domestic firm expresses interest in getting a CL for any of the aforementioned cancer medications, Section 100 may be helpful.
- Invoking the provisions of Section 100 seems to be the wisest course of action in light of the concerns the Rajya Sabha's Standing Committee on Health stated regarding the high costs of cancer medications.
- Trade Ministers from WTO members signed the TRIPS Agreement and Public Health Declaration in 2001, recognising each nation's right to award CLs.
- Even back then, developed nations were against the employment of this tool. Over the previous two years, these nations' positions have shifted.
- The use of CLs to increase domestic COVID-19 vaccine and drug production by developing nations was supported by the European Union and WTO members earlier this year.

What is the Evergreening of patents?

- It's a corporate, legal, business, and technological approach for extending/elongating the term of an issued patent in a jurisdiction that's about to expire in order to keep revenues by acquiring new patents.
- But in India evergreening of patents is not allowed.

Compulsory Licensing

Compulsory licensing is when a government allows someone else to produce a patented product or process without the patent owner's consent or plans to use the patent-protected invention itself. It is one of the flexibilities in the field of patent protection included in the WTO's agreement on intellectual property — the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement.

ALLEVIATING THE SCOURGE OF PRIVATE HEALTHCARE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Health care

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health

Context:

- In India, **private healthcare** must be made more affordable **alongside expanding public healthcare**.
- This article analyzes the reason behind expensive private healthcare in India with relevant measures.

Key Highlights

- India ranks poorly on a variety of health-financing indicators.
- Its **public health expenditure as a percentage of GDP (1.28%)** and share of **general government expenditure dedicated to health (4.8%)** remain comparable to the poorest countries.
- Growth in per capita health spending has not kept pace with rising incomes.

- **Private spending on health still accounts for nearly 60%** of total health spending. This is due to the private health sector's dominance.
- However, the conversation about addressing high healthcare costs has remained limited to what the government can do to share the personal expenditure burden.
- It becomes an issue of increasing government spending to reduce personal spending.



Issues with Indian Health Sector

- **Dispersed Private Sector:** The private sector in India is inextricably dispersed, with significant disparities between rural and urban areas and widespread market failure.
- **Income disparities, backwardness, and under-regulation:** The typical Indian context of income disparities, backwardness, and under-regulation incentivized the private sector to differentiate into a slew of organizations of varying sizes and scopes, each serving its own customer base.
- Healthcare provision in cities reflects the stark market failure in healthcare. The increased number of providers in cities has only served to raise prices, but this is not a necessary evil.
- Indian healthcare faces regulatory challenges as well as unfulfilled economic promises. Many states, for example, have their own Clinical Establishments Acts that have yet to be fully implemented.

How to make Private Healthcare Affordable?

- Initiatives that seek to make private healthcare more affordable without compromising care quality become increasingly important in this scenario.
 - This is likely to include a wide range of policy instruments that alter the operating conditions of the private sector. Such policies must be enshrined in our national health policy.
- Overarching policies are needed that drive down private healthcare costs even for self-paying consumers with little or no government subsidy.
- Public health insurance schemes have frequently been chastised for imposing unreasonable package rates on empanelled private providers, with little regard for actual costs of care.
- A good start can be made by incentivizing and spreading many **business process innovations (BPI)** scattered across the healthcare landscape, such as cost-cutting innovations by Aravind Eye Clinic and Narayana Hrudayalaya.
 - Such BPIs are limited to a few philanthropic organizations and receive little mainstream policy or research attention.
- While the healthcare ecosystem does not naturally incentivize such innovations, regulatory and economic policy signals can be helpful. There is already an emerging trend toward value-based healthcare, which seeks to improve patient outcomes for the money spent.
- Task shifting in healthcare is an evidence-based cost-cutting strategy, particularly in under-resourced settings. The National Commission for Allied and Healthcare Professions Act of 2021 may be a step in the right direction.

- Broadening the scope of practice for nurses and allied personnel should be a major focus of health policy, along with concurrent mainstreaming of such practice roles in the private sector.

Healthcare in Other Countries

- For example, some countries, such as Canada, have created regional health boards to organize care equitably within regions, capitalize on economies of scale, and reduce healthcare costs.
- Such boards should have adequate community representation and sufficient power to determine local policy and resource allocation, impose caps on the maximum number of healthcare providers, and build functional networks of care. They can help with a variety of health-care issues.
- Another viable option is to develop affordable and effective private health insurance products.

Way Forward

- Recent policy pronouncements envision the formation of organized networks of providers, such as **health maintenance organizations (HMOs)**, which can be easily regulated.
- To overcome opposition, strong political will and the elimination of unnecessary restrictions are required.
- The high costs of medical education necessitate cost recovery through resource-intensive modes of practice.
- While numerous steps have been taken recently to lower entry barriers in medical education, medical education costs have risen dramatically over the last decade or so. This requires policy consideration.
- While we work to make private healthcare more affordable, we must be careful that it does not replace adequate public health spending. No country in the world has ever achieved universal healthcare through primarily private means.
- Affordable private healthcare must only come to supplement strong public healthcare, while also having a complementary effect in improving the efficiency of government health spending.

ALLAHABAD HC TELLS UP GOVT TO HOLD CIVIC POLLS WITHOUT OBC RESERVATION

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

Prepp Mains Booster: Polity and Governance

Context:

- Recently, the **Allahabad High Court** ordered the Uttar Pradesh government to conduct the **local self-government elections** in the state without considering the **OBC reservation**.
- The term of local bodies in Uttar Pradesh had been scheduled to end on January 31st.

What was the case before the court?

- The Allahabad High Court had been hearing numerous Public Interest Litigations related to elections to urban local bodies in the state.
- The petitioners had alleged that the State had not followed the “**Triple Test Mandate**” set by the Supreme Court in deciding the reservation of seats.

What did the Court decide?

- The court ordered the Uttar Pradesh government to conduct elections immediately without considering the OBC quota.
- It also rejected the government notification to set up a committee to manage such local bodies.
- **Three-member committees** headed by the District Magistrate were instructed to take charge of the local bodies instead.



What is the Triple Test Mandate?

- In **K. Krishnamurthy (Dr.) v. Union of India (2010)**, a five-judge Constitution Bench interpreted **Articles 243D(6) and 243T(6)**, which allow for the enactment of laws granting backward classes reservation in panchayat and municipal bodies, respectively, to hold that barriers to political participation are distinct from those under **Articles 15(4) and 16(4)** that restrict access to education and employment.
- The Supreme Court developed a formula called the triple test mandate which had to be used by states in reserving seats in local bodies so that the politically backward communities could be empowered.
- The mandate required states to:
 1. Set up a **commission**
 2. Collect **accurate** and **quantifiable data** about the community
 3. Allocate reservations on the basis of the commission's recommendations without breaching the **overall 50% cap**.

Similar Cases

- The Court repeated the same judgment in 2021 when it canceled local body polls in Maharashtra and Madhya Pradesh for not following the triple test mandate.
- The Odisha High Court stopped elections in Odisha 2021 for not following the mandate.

Reactions to the verdict

- The government has agreed to set up a commission and provide reservations on the basis of the triple-test formula.
- Opposition parties have criticized the state government for limiting the rights of the backward classes.

Article 243D(6)

- Nothing in this Part shall prevent the Legislature of a State from making any provision for reservation of seats in any Panchayat or offices of Chairpersons in the Panchayats at any level in favour of backward class of citizens

Article 243T(6)

- Nothing in this Part shall prevent the Legislature of a State from making any provision for reservation of seats in any Municipality or offices of Chairpersons in the Municipalities in favour of backward class of citizens

Article 15(4)

- Nothing in this article or in clause (2) of Article 29 shall prevent the State from making any special provision for the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes

Article 16(4)

- Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favor of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State

ON AMENDING THE COOPERATIVE SOCIETIES ACT 2022

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Multi-State Cooperative Societies

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora; Development processes and the development industry —the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

Context:

- Recently, the Bill to amend the Multi-State Cooperative Societies (MSCS) Act, 2002, was introduced in the Lok Sabha.
- The amendments have been introduced to improve governance, reform the electoral process, strengthen monitoring mechanisms and enhance transparency and accountability.

What are multi-State cooperatives?

- According to the International Cooperative Alliance (ICA), cooperatives are people-centered enterprises jointly owned and democratically managed cultural needs and aspirations.
- Multi-State cooperatives are organizations with operations in multiple States, such as a farmer-producers organization that purchases grains from growers in various States.
- The board of directors, representing all the States where these collectives do business, is in charge of all administrative and financial decisions.
- In India, there are around 1,500 MSCSs registered, with Maharashtra having the most.

What are the concerns with the cooperative sector?

- Political patronage:** The operation of cooperative societies was to be greatly influenced by their independent and autonomous nature.
- However, H.S. Shylendra, professor at the Institute of Rural Management, Anand (IRMA), notes in a 2021 paper that the sector became a channel for giving patronage to supporters of ruling political parties when cooperatives were included in the planning process as development tools.
- Notably, States like Maharashtra, Kerala, Gujarat, portions of Karnataka, Tamil Nadu, Madhya Pradesh, and West Bengal demonstrate the power of cooperatives as a tool of political control
- Interventions State governments:** The policy of state governments to contribute to the share capital of cooperatives allowed for direct government intervention in the functioning of legally autonomous cooperatives "in the name of the public interest."
- Trust Deficit:** MSCSs were established to make it easier for collectives to operate across the nation.
- On the other hand, despite their promise, MSCSs are having problems with trust, which is the cornerstone of cooperation, according to IRMA researcher Indranil De. Because of this, the Centre now has multiple controls over MSCSs.
- Monitoring Mechanism:** In a collective organisation, monitoring is one of the key institutional functions, but if it is done from a great height, it adopts a top-down rather than bottom-up approach.
- Researchers note out that the Act has not been changed in accordance with the report's recommendations, which were made in 1991 by the planning commission's Choudhary Brahm Perkash Committee about the restructuring of multi-State cooperatives.



What does the Bill seek to change?

- Transparency and accountability:** The Centre introduced a Bill to alter the 2002 law for more "transparency" and "easy of doing business" in order to close the "loopholes" in the MSCS Act.
- The adjustments have been introduced to boost openness and accountability, strengthen monitoring procedures, and improve governance.
- Financial discipline:** In addition to permitting the raising of funds in multi-State cooperative organizations, the Bill also aims to strengthen the makeup of the board and maintain financial discipline.
- The establishment of a **Co-operative Rehabilitation, Reconstruction and Development Fund** is also contemplated for the purpose of reviving failing multi-State cooperative societies.
- Central Co-operative Election Authority:** The Bill calls for the establishment of a central Co-operative Election Authority to supervise how the MSCSs conduct their elections. The Centre shall appoint the Authority's chairperson, vice-chairperson, and up to three more members.
- Appointment of a Cooperative Information Officer and a Cooperative Ombudsman:** The Bill includes provisions for the appointment of a Cooperative Information Officer and a Cooperative Ombudsman in order to increase the democratic nature of multi-State cooperative organisations' governance.
- Inclusivity:** Provisions regarding the presence of women and members of Scheduled Caste/Tribe on the boards of multi-State cooperative organisations have also been inserted in order to promote equity and encourage inclusivity.
- Penalty:** The government has proposed amending Section 104 of the current Act to enhance the fines for breaking the legislation for multi-state co-op societies to a maximum of Rs 1 lakh. The proposed revisions also call for increasing the maximum sentence from the current six months to up to one year.

Issues

- Concentration of power of the Centre:** The opposition objected to these changes in Parliament, claiming that they could result in "the concentration of power of the Centre," which would affect MSCSs' "autonomy" and open the door to "misuse."

- Notably, the Supreme Court upheld the constitutional authority of States to regulate cooperative organisations last year when it invalidated a portion of the 97th Constitutional Amendment.
- Funding:** Existing profitable multi-State cooperative societies will provide the funding for this fund by contributing either Rs.1 crore or 1% of their net profits. Opposition noted that this would increase the pressure on MSCSs.

Cooperatives In India - Constitutional Provisions

- The Constitution (97th Amendment) Act of 2011 created a new Part IXB (Cooperatives) following Part IXA (Municipalities) regarding cooperatives in India.
- In Part III of the Constitution, Article 19(1)(c), the word "cooperatives" was added after "unions and associations" which enabled citizens the right to form cooperative societies as their Fundamental Right.
- The Act protected cooperatives by inserting Article 43 B and Part IX B related to them.
- The Directive Principles of State Policy (Part IV) now include a new Article 43B on the "development of cooperative societies."
- Supreme Court's Ruling:** The Supreme Court ruled down certain portions of the 97th Amendment Act, 2011, in July 2021 and concluded that states have the sole authority to legislate on matters reserved exclusively to them as cooperatives are a part of the State list.

Issues relating to Poverty and Hunger

THE NUTRITION CHALLENGE

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Nutrition

Prepp Mains Booster: Issues Related to Poverty and Hunger

Context:

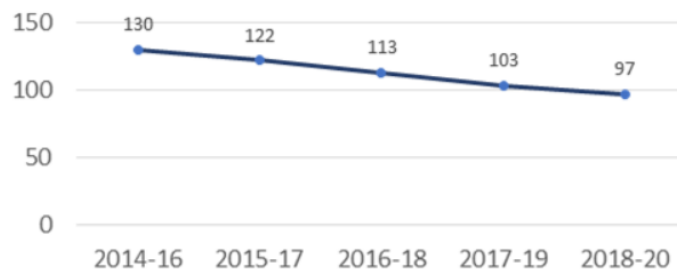
Recently, the Registrar General of India has confirmed that India's **maternal mortality rate** was 97 in 2018-2020. In 2001-03, it was 301. In 2005, the infant mortality rate was 58 percent and 27 in 2021. The rate of decline, on the other hand, has accelerated since 2005.

Background

- According to the **Registrar General of India's (RGI)** Special Bulletin on MMR, India's **Maternal Mortality Ratio (MMR)** has improved by a stunning 6 points and now stands at 97/ lakh live births.
- The Maternal Mortality Ratio (MMR) is defined as the number of maternal deaths in a given time period per 100,000 live births.
- According to statistics derived from the Sample Registration System (SRS), the country has seen a progressive reduction in MMR from:
 - 130 in 2014-2016,
 - 122 in 2015-17,
 - 113 in 2016-18,
 - 103 in 2017-19 and
 - 97 in 2018-20,
- By achieving this, India has met the National Health Policy (NHP) target of less than 100/lakh live births and is on track to meet the SDG target of less than 70/lakh live births by 2030.

What is the Maternal Mortality Rate?

- The Maternal Mortality Rate (MMR) is the number of maternal deaths per 100,000 live births due to pregnancy or termination of pregnancy, regardless of the location or duration of pregnancy.
- The maternal mortality rate is used to represent the risk that women face when they become pregnant.



National Rural Health Mission

- The National Rural Health Mission (NRHM)** was established in 2005 to provide accessible and affordable healthcare through a public primary care system.
- The National Urban Health Mission (NUHM) is a sub-mission of the larger National Health Mission (NHM), with the National Rural Health Mission (NRHM) being the other.
- It was established to provide accessible, affordable, and high-quality health care to the rural population, particularly vulnerable groups.
- It provides secondary and tertiary care services in public systems alongside private capacity to ensure high-quality services at reasonable prices.
- Unfortunately, NRHM allocations have not kept pace. However, it appears to have had a positive impact on many indicators.
- With untied funds, health facilities began to look better, doctors, drugs, and diagnostics became a reality, institutional deliveries increased, ANM (**Auxiliary Nurse Midwife**) and nurse vacancies began to fill, and community **ASHA workers** began to put pressure on public systems to perform by getting patients there.

What accounts for these gains?

- NRHM had a clear focus on developing credible public primary health systems. Community connections were important, as was human resource capacity, and flexible financial resources were available at all levels.
- There was a push for central, state, and local governments to collaborate with civil society, with full participation of frontline workers. Planning had to start at the bottom. Civil society was in charge of community monitoring.
- The approach was pragmatic, allowing for a wide range of state-specific interventions. The decentralized planning process, in which states developed annual plans based on district health action plans, became the norm.
- Institution building was facilitated through collaboration with panchayats and facility-specific Rogi Kalyan Samitis or hospital management committees.
 - Through the Population Foundation of India, civil society participated in community action. Professionals were brought in to improve processes.
 - Over 60% of the funds were to be spent at the district level, and untied grants were made available to all levels of the health institution.

Lack of Nutrition

- According to the fifth National Family Health Survey 2019-21, 35.5% of children under the age of five are stunted, 19.3% are wasted, and 32.1 percent are underweight. The Poshan Abhiyan, while innovative, has yet to address the institutional decentralized public action challenge.
- The ICDS is viewed as a nutrition initiative, but the institutional role of local panchayats and communities with untied financial resources is still lagging.
- Nutrition does not lend itself to narrow departmentalism, and such non-institutional wider partnerships are doomed to fail.
- Because of the multifaceted nature of undernutrition, it is critical that ICDS be redesigned to integrate health, education, water, sanitation, and food security at all levels, under the auspices of local governments.

- Given the variety of conditions, it is critical to allow for context-specific and need-based prioritization at each Anganwadi center by allowing flexibility through decentralized local action, made possible by accountable decentralized financing.



Government related initiatives for Maternal Mortality in India

- The National Health Mission's Janani Suraksha Yojana will link cash assistance with institutional deliveries.
- The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) provides free antenatal care to pregnant women on the 9th of every month.
- Pradhan Mantri Matru Vandana Yojana, Poshan Abhiyan, and LaQshya Guidelines are some other initiatives.

Reorganization Principles for Nutrition Success

- Make the gram panchayat, gram sabha, livelihood mission women's collectives, and other community organizations responsible for education, health, nutrition, skills, and diverse livelihoods.
- Panchayat-led committees of the concerned wider departments are also required at the block and district zila parishad levels.
- use decentralized financial resources to put village-specific planning into action.
- allow for simultaneous interventions for all broader nutrition determinants;
- assess for additional caregivers with capacity development to ensure household visits and the intensity of monitoring required for nutrition outcomes;
- promote the diversity of local foods, including millets served hot;
- ensure the availability of basic drugs and equipment for healthcare and growth monitoring in each village;
- amplify behavior change communication;
- Establish monthly health days at every Anganwadi center, with community involvement and parental involvement;
- establish a platform for adolescent girls in each village for empowerment and diversification of livelihoods through skills;
- interventions should be based on decentralized district plans based on village plans to ensure anganwadis do not face deficits such as a lack of buildings or untied resources; and
- adopt a "leaving no one behind" rights-based approach to ensure universal coverage of children under the age of six, adolescent girls, and pregnant women for all needs.

How can the challenge of undernutrition be tackled?

- Undernutrition can be effectively addressed in a short period of time if the thrust is correct. The recently released NFHS-V highlights the unfinished agenda and the slow rate of decline in undernutrition.
- Nutrition is not a subject that lends itself to narrow departmentalism. It advocates for a whole-of-government and whole-of-society approach.
- Technology can only be a tool, and monitoring must become more local. Panchayats and community organizations are the best way forward.

- The nutrition challenge is also a women's empowerment challenge. It necessitates a behavioral shift toward exclusive breastfeeding, natural foods over junk food, and clean water and sanitation.

What is the Registrar General of India?

- It reports to the Ministry of Home Affairs.
- Apart from conducting the Population Census and monitoring the implementation of the Registration of Births and Deaths in the country, it has been providing estimates on fertility and mortality using the Sample Registration System (SRS).
- The SRS is the country's largest demographic sample survey, providing direct estimates of maternal mortality through a nationally representative sample, among other indicators.
- On a regular basis, Verbal Autopsy (VA) instruments are administered for deaths reported under the SRS to produce a cause-specific mortality profile in the country.

Important Aspects of Governance, Transparency and Accountability, E- governance

WHAT IS THE PROPOSAL TO BAN THE SALE OF SINGLE CIGARETTES?

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Health

Prepp Mains Booster: Issues related to health; Government policies and interventions for development in various sectors and issues arising out of their design and implementation

Context:

- Recently it was stated that about **7 million annual deaths can be expected by 2030** from low and middle income countries due to smoking.
- Single sticks, being more economical can appeal to youngsters who may have limited money in hand.
- In its most recent **report on cancer management, prevention, and diagnosis**, the Parliamentary Standing Committee on Health and Family Welfare recommended that the government prohibit the sale of single cigarettes.

What does the report say?

- The Parliamentary Standing Committee on Health and Family Welfare** in its most recent **report on cancer management**, prevention, and diagnosis, recommended that the government prohibit the sale of single cigarettes.
- It also suggested that the government **raise taxes on all tobacco products** and use the proceeds for cancer prevention and awareness.
- The Committee observed that there is an urgent need **to disincentivize tobacco and alcohol consumption in the country**.
- It was noted that tobacco consumption in various forms accounts for nearly 50% of all cancers, collectively referred to as tobacco-related cancers — which can be avoided.

What are the concerns over single-use cigarettes?

- Single sticks are less expensive to purchase than a full pack of cigarettes. This may be especially appealing to adolescents and youth who may have limited financial resources.
- Single sticks are also preferred by people who want to try it out but haven't started smoking on a regular basis.
- A ban on single-stick sales would force a potential consumer to buy the entire pack, which may not be particularly cost-effective, limiting potential experimentation and the scope for regular intake.
- A potential ban would necessitate the consumer carrying the packet.

Status of India

- The Committee discovered that India has the lowest prices for tobacco products and must consider raising taxes on them. It proposes that the additional tax revenue be used for cancer prevention and awareness.
- These measures stem from the observation that oral cancer accounts for the highest proportion of cancer cases in the country.
- The committee also sought a ban on gutka and pan masala, as well as a prohibition on their direct and indirect advertising.
- This is based on the observation that in **India, more than 80% of tobacco consumption is in the form of chewing tobacco** with or without areca nut, which is aggressively marketed as a mouth freshener.



View of WHO

- **The World Health Organization (WHO)** has determined that all forms of tobacco are harmful, and there is no safe level of tobacco exposure.
- It also states that smoking cigarettes is the most common method of tobacco use worldwide.
- Furthermore, the medical journal Lancet noted in a June 2020 editorial that by 2030, 7 million annual deaths from smoking are expected to be from low and middle-income countries.
 - The tobacco industry is targeting young people in low and middle-income countries to replace those dying from smoking-related causes.
- Single stick sales, due to their ease of access and affordability, can also act as a disincentive to quit smoking.
- According to the WHO, nicotine in tobacco products is highly addictive, and without cessation support, only 4% of users who try to quit smoking will succeed.
- Professional assistance and proven cessation medications can more than double their chances of quitting successfully.

Recommendations

- In general, the measures seek to reduce consumption as well as the availability of tobacco products, including cigarettes.
- The report, citing the National Health Policy's (2017) goal of reducing current tobacco use by 30% by 2025, suggests that the government must take effective steps to limit the sale of tobacco products.
- It is recommended that the government prohibit the sale of single sticks of cigarettes and impose harsh penalties and fines on violators.
- It also suggests that the government eliminate all designated smoking areas in airports, hotels, and restaurants, as well as encourage organizations to adopt a smoke-free policy.
- Despite the fact that the proposed move would reduce consumption and sales, the government should also consider vendor licensing. The ban on single sticks may be ineffective in the absence of a vendor licensing regime.

INTERNET ACCESSIBILITY TO ALL

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Net Neutrality

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation

Context:

- Recently, R S Sharma, CEO of National Health Authority, has written an article titled 'How to ensure that the internet remains accessible to all' published in the Indian Express on 17th December 2022.
- In that article, he said that the government needs to devise regulations to ensure that **digital gateways don't become gatekeepers** of services, products.

What is Net Neutrality?

- Net Neutrality means to keep the Internet accessible and available to all without discrimination.

What is need for net neutrality?

- **Internet as a necessity:** The ease of living enabled by digital technologies has turned digital innovations into essential services for the common public.
- **Gateways to orange keeper:** The openness of the internet is challenged when these gateways (telecom service providers, personal computers and cellphones, operating systems) permit and restrict access to other gateways or networks. They then shift roles from being a facilitator to a regulator, from being a gateway to a gatekeeper.
- Governments worldwide occasionally take action to control these organizations to guarantee public access. One such instance is the breakup of AT&T in the 1980s.
- The internet would not be what it is today if these gateway providers were not subject to this code of behavior.
- **Domination by Big tech:** For example, the mobile app distribution platforms are dominated by Apple and Google.
- However recently these companies have been fined by various countries in the world for their anti-competitive behavior.
- These concerns include limitations on **payment channels, advertising options, app policies, and numerous other features of a business** or application that could be viewed as discriminatory in theory and reality.

Net Neutrality in India:

- When the **Indian government** released its policy on **net neutrality**, which, among other things, mandates that telecom networks should be **neutral to all of the information** being transferred via them, regardless of the information contained in it or the device, sender, recipient, or application that is using it.
- Adopting Net Neutrality made it possible for India to **oppose Big Tech** in a **democratic manner**.
- **Free basics by Facebook:** Without this legislation, Facebook would not have been able to offer Free Basics in India, and instead the internet would have been divided into walled gardens run by telcos and Big Tech firms.
- Today, with over 800 million users, India is among the countries that use wireless internet the most. For a digitally empowered India, the internet must continue to be an open and unrestricted medium.
- The code of conduct and laws cannot keep up with the speed at which digital technologies are developing in order to keep up with the new gateway providers that are appearing.
- The Google Play Store's payment policies were deemed "**unfair and discriminatory**" in a report presented to the Competition Commission of India in March.

Steps taken by European Union

- In response to these concerns, the European Union recently passed the Digital Markets Act, which is anticipated to go into effect in early 2023 after receiving final approval in July 2022.
- Through ex-ante regulation, the Digital Markets Act legislation seeks to maintain the competitiveness and innovation of the digital market.

- The biggest internet platforms won't be able to use the most destructive anti-competitive tactics thanks to the DMA.
- The goal is to **maintain a healthy connection between these digital market access control platforms** and the businesses who provide their services there.

Way Forward

- The Indian government has taken an enormous leap forward in maintaining its sovereignty through disruptive digital and path-breaking public goods.
- Aadhaar, UPI, DigiLocker, and CoWIN are just a few names that adorn this list. However, many people continue to rely on the many digital services provided by big, international tech businesses.
- A level playing field must be ensured, and innovative gates must not be allowed to become oppressive gatekeepers, thus the government must create the necessary rules.

LS PASSES BILL TO EXTEND ST STATUS TO BETTER-KURUBA

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Constitution (Scheduled Tribes) Order (Fourth Amendment) Bill

Prepp Mains Booster: Governance and Polity, Government Policy & Interventions, Issues Related to SC & ST

Context:

- Recently, the Lok Sabha passed the **Constitution (Scheduled Tribes) Order (Fourth Amendment) Bill, 2022** to include **Betta-Kuruba on the Scheduled Tribes list of Karnataka** as a synonym for the already categorized Kadu-Kuruba tribe in the State.
- **Tribal Affairs Minister Arjun Munda** stated that the Bill seeks to provide justice to the Betta-Kuruba community, which has only 5,000 members in Karnataka.

About Scheduled Tribe

- Article 366 (25) of the Constitution refers to Scheduled Tribes as those communities, who are scheduled in accordance with Article 342 of the Constitution.
- According to Article 342 of the Constitution, Scheduled Tribes are defined as communities that have been declared as such by the President through an initial public notification or a subsequent amending Act of Parliament.
- The list of Scheduled Tribes is state/UT specific, and a community designated as a Scheduled Tribe in one state does not have to be in another.

About Constitution (Scheduled Tribes) Order (Fourth Amendment) Bill, 2022

- The Constitution (Scheduled Tribes) Order (Fourth Amendment) Bill, 2022, was introduced in Lok Sabha on December 9, 2022.
- The Bill seeks to amend the Constitution (Scheduled Tribes) Order, 1950, so that it applies to Karnataka.
- The Order identifies tribal communities in states and union territories that are deemed to be Scheduled Tribes.
- Karnataka's Scheduled Tribes: Betta-Kuruba is included in the Karnataka Scheduled Tribes Bill as a synonym for the Kadu Kuruba community.

About Kurubas

- The Kurubas of Karnataka are a traditional sheep rearing community.
- Kurubas makeup 9.3% of the state's population and are classified as backward classes.
- Kurubas are the fourth largest caste in Karnataka, following the Lingayats, Vokkaligas, and Muslims.
- Kurubas are known by various names in other states, including Dhangars in Maharashtra, Rabaris or Raikas in Gujarat, Dewasis in Rajasthan, and Gadarias in Haryana.

Bill Passed

- The Bill was passed by voice vote following a discussion in which most members, including MPs from the ruling Bharatiya Janata Party, while supporting the Amendment, insisted that the government consider bringing a comprehensive Bill to include all such communities left off the list rather than bringing legislation one by one.



Views of Tribal Minister

- Minister for Tribal Affairs Arjun Munda said this point on bringing a comprehensive Bill had been raised time and again by members in the House but justified the move of separating them.
- Mr. Munda stated that this process demonstrated the Narendra Modi-led government's commitment to providing adequate time for community discussions.
- It was stated that they do not want to bring legislation in a way that drowns out the voices of these communities, which in some cases number less than 10,000.
- The House is now devoting adequate time to discussing issues affecting the country's smallest and most marginalized communities.

Karnataka's Current Reservation Quota

- According to the Supreme Court's 1992 order, Karnataka has limited reservation to 50%, with:
 - 32% reserved for backward classes,
 - 15% reserved for SCs, and
 - 3% reserved for STs.

WHAT IS THE CAG AUDIT REPORT ON ASSAM'S NRC?

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: CAG, NRC

Prepp Mains Booster: Governance, Constitution and Polity, Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- Recently, the **Comptroller and Auditor-General of India (CAG)** raised a **number of concerns in its compliance report to the Assembly**, ranging from excessive spending and financial irregularities to threats to data security in the **NRC exercise conducted in Assam**.

Background

- **Comptroller and Auditor-General of India (CAG)** report on the **National Register of Citizens (NRC)** update exercise in Assam identified serious irregularities, including "haphazard development" of software for the exercise, making it vulnerable to data tampering, and undue profits worth crores amassed by the system integrator (SI) by violating the Minimum Wage Act.

- The auditor raised concerns in a compliance report on 'logistical arrangements for NRC update project in Assam,' which was tabled in the Assam Assembly on December 24.

About Comptroller and Auditor General

- Article 148** of the Indian Constitution establishes an independent office of the Comptroller and Auditor General of India (CAG).
- The President of India appoints the **Comptroller and Auditor General** by a warrant under his hand and seal.
- He is the head of the **Indian Audit and Accounts Department** and one of the foundations of India's democratic government system.
- Comptroller and Auditor General** is the guardian of the **public purse** and oversees the whole financial system of the country at both the federal and state levels.
- His responsibility is to enforce the Indian Constitution and Parliamentary legislation governing financial management.



Comptroller and Auditor General (CAG)

What is the NRC exercise?

- An NRC was established in 1951 in Assam to identify those born in India and migrants from the former East Pakistan, now Bangladesh.
- In 2013, the Supreme Court directed the Centre and the State to begin an exercise in Assam to update the 1951 register.
- The order was based on a petition filed by an NGO called Assam Public Works. **The first draft was published in 2018.**
- The final list, published in 2019, included those who could establish their Indian citizenship by being residents or descendants of people who lived in Assam before March 25, 1971 — the cut-off date for deportation of foreigners under the Assam Accord of August 1985.
- A total of 19.06 lakh people were turned down out of 3.3 crore applicants due to a lack of adequate documents to prove their citizenship. The final list was deemed "faulty" by several parties.
- Three years later, the process is on hold because the Registrar General of India (RGI) has yet to release the final list.

What are the concerns?

- The process of updating the NRC had begun in December 2014, with a completion date of February 2015 and a project cost of 288.18 crore.
- The cost increased fivefold by March 2022 due to additional time to complete it and changes in the update software.
- The final draft of the document was published in August 2019, and the project cost increased to Rs 1,602.66 crore (expenditure of Rs 1,579.78 crore was reported).
- A test check of records revealed "excessive and inadmissible payment to vendors.
- In terms of irregularities, the CAG discovered that the wages paid to the outsourced staff were 45.59%-64.27% less than what was approved by the NRC coordination committee.
- This wage disparity allowed the system integrator to receive an undue benefit of 155.83 crore above the 10% "reasonable profit margin."
- The NRC Directorate entrusted one of the top software installation companies to information technology firm Wipro Limited.

- The CAG noted that secure and reliable software was required for the SC-directed exercise, but as many as 215 software utilities were added to the core software.
- According to the report, this was done without following the proper software development and vendor selection processes through tendering.
- Despite incurring extra costs, the CAG stated that the intended goal of preparing a valid and error-free NRC was not met.

Recommendations

- The country's top auditor sought criminal charges against Wipro Limited for violating the provisions of the Minimum Wage Act and paying data operators less than the minimum wage.
- Secondly, the report recommended action against the **State Coordinator of National Registration (SCNR)** for "excess, irregular and inadmissible payments".
- The CAG also recommended fixing accountability of the SCNR as the principal employer for "not ensuring compliance with the Minimum Wage Act".

State Coordinator of National Registration (SCNR)

- The State Government shall assist the Central Government in carrying out the process of updating the NRC 1951, and in this regard, under sub-rule (3) of Rule 15 of the Citizenship Rules, 2003, the State Government shall notify an officer not below the rank of Secretary to the State Government as the State Coordinator for updating the National Register of Citizens, 1951.
- The State Government has already designated the Commissioner & Secretary to the State Government, Political Department as the State Coordinator of National Registration (SCNR) for the updating of the National Register of Citizens, 1951.

Role of Civil Services in Democracy

PUBLIC SERVANTS CAN BE FOUND GUILTY OF GRAFT ON CIRCUMSTANTIAL PROOF: SC

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: PCA

Prepp Mains Booster: Important aspects of governance, transparency, and accountability; Role of civil services in a democracy; challenges of corruption.

Context:

- Recently, a Constitution Bench led by Justice S. Abdul Nazeer of the Supreme Court held that the demand and acceptance of bribe or illegal gratification by a public servant can be inferred by a court on circumstantial proof in the absence of direct evidence.
- According to the Bench, the "stink of corruption" negatively affects the nation's effective government and management.
- Honest public personnel are demoralised by corrupt officials. The Court noted that widespread corruption hinders nation-building efforts and that as a result, everyone suffers.

Background

- The Bench was responding to a question regarding whether public servants could be found guilty of corrupt behaviour under Sections 7 (public employee receiving gratification other than legal remuneration in connection with an official act) and 13 (1)(d)(i) and (ii) (criminal misconduct by a public employee) in the absence of direct oral or written evidence because the complainant was unavailable due to his death or for any other reason.

Highlights

- It is acceptable to infer culpability or guilt of a public servant under Sections 7, 13 (1)(d)(i) and (ii) read with 13(2) based on other evidence utilised by the prosecution, the bench noted, in the absence of the

complainant's testimony (by direct, primary, oral, or documentary evidence).

- In circumstances where the complainants have become hostile, the prosecution may use any other witnesses, oral or documentary evidence, or circumstantial evidence to support its case of corruption. The trial would not abate or result in an acquittal.



- **Acceptance of Bribe:** Under Section 7 of the Prevention of Corruption Act, "acceptance" is defined as when a bribe-giver offers to pay illicit gratification without the public servant making any demands in exchange, and the latter merely accepts the offer and takes the money.
- **Obtainment:** On the other hand, if the accused public servant demands a bribe and receives it, it would constitute "obtainment" and a violation of **Prevention of Corruption Act subsections 13(1)(d)(i) and (ii)**.
- However, the prosecution must successfully establish both the offer by the bribe-giver and the demand and acceptance of the illegal gratification as facts.
- According to Sections 7 and 13 (1)(d)(i) and (ii) of the Act, the Court explained, "otherwise, **mere acceptance and receipt of the illicit gratification** without anything else would **not make it an offence.**"
- **Presumption:** Based on the evidence in the case, a court may exercise its discretion to "presume" the offer made and bribe demanded or accepted by the accused official. However, the "foundational factors" should be documented using appropriate oral or written evidence.
- Insofar as a trial under Section 7, the Bench said a Court should mandatorily raise a "presumption in law" under Section 20 of the Act that, **unless the contrary is proved**, a public servant has "accepted or obtained or agreed to accept or attempted to obtain that gratification or that valuable thing, as the case may be, as a motive or reward".
- The court clarified that presumption in law under Section 20 of the Act is distinct from the presumption in fact and the former is a mandatory presumption while the latter is discretionary in nature

Prevention of Corruption (Amendment) Bill 2018

- The Prevention of Corruption (Amendment) Bill 2018 was passed by Parliament on July 24, 2018, to improve government openness and accountability.
- The requirement for India to evaluate the current provisions of the Prevention of Corruption Act, 1988 in order to bring it in conformity with the United Nations Convention against Corruption required the revision (UNCAC).

Features of the Prevention of Corruption (Amendment) Bill 2018:

- The bill makes the act of "**providing a bribe**" a direct crime. A person who is forced to pay a bribe and reports the issue to law enforcement authorities within seven days shall not be charged.
- The law narrows the definition of criminal misconduct to only two sorts of offences: **illicit enrichment** (amassing assets in excess of one's known income sources) and **fraudulent misappropriation** of property.

- **Prior authorisation of the relevant Government** or responsible body is required before conducting any inquiry into an alleged crime committed by a public servant. In circumstances where a person is arrested on the spot on suspicion of taking a bribe, such approval is not required.
- If the case is handled by a **special judge**, the bill sets a two-month trial period restriction. For each six-month extension granted, the reasons for the delay must be recorded. However, the total time for the trial to be completed cannot exceed four years.
- Punishment has been increased from a minimum imprisonment term of 6 (six) months to 3 (three) years, and from a maximum of 5 (five) years to 7 (seven) years, with or without fine. Punishment for abetment of offenses has also been increased by the same quantum.
- The Amendment Act has provided for the application of the Prevention of Money Laundering Act 2002 and Criminal Law Amendment Ordinance 1944 for attachment and administration of property procured by means of an offence under the PC Act.

For More info on [Prevention of Corruption Act](#)

EQUIPPING IAS OFFICERS TO DEAL WITH THE MANUFACTURING SECTOR

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Indian polity

Prepp Mains Booster: Role of civil services in Democracy

Context:

- The **Make in India and Ease of Doing Business** policies were developed because it was believed that only **rapid growth in the manufacturing sector** could solve the problems of poverty and unemployment.
- This could not happen unless India transformed itself from a difficult country in which to manufacture and do business to a desirable destination for manufacturing investment.
- **Manufacturing development** is only possible if the relevant **civil servants in the ministries have good manufacturing domain knowledge**.
- In this article, **R C Bhargava, Chairman of Maruti** discusses how IAS officers can be equipped to deal with the manufacturing sector.

Manufacturing Sector in India

- The manufacturing sector in India is significantly important for a developing nation like India that depends on manufacturing for growth and development.
- The top sub-sectors of the Indian economy that form the bulk of the manufacturing sector are food products, basic metals, rubber and petrochemicals, chemicals, and electrical machinery.
- The manufacturing sector in India has underperformed in recent decades as compared to other countries, accounting for only 16-17% of GDP.

IAS Officers in Manufacturing

- **Strategies and Failure:** Individuals develop and execute strategies and plans for implementation. Failures in this area have repeatedly demonstrated the importance of identifying the root causes of why existing personnel charged with policy execution have failed.
 - Inadequate knowledge and skills, a lack of motivation, environmental constraints, or inadequate supervision and monitoring could all be factors.
 - While the political leadership establishes the vision, it is the responsibility of IAS officers to translate that vision into ground realities.
- **Ensure adequate skills and training:** Officers from the IAS hold the majority of senior positions in secretariats and districts. They are in

charge of ensuring that subordinate civil servants are adequately trained and skilled, as well as motivated and guided to deliver good results.

- **Implementation rules:** They establish the framework of rules that will serve as the environment for implementation. As a result, if policies are to be implemented more effectively, IAS officers must be better equipped.



What should be the role of IAS Officers in manufacturing?

- The higher civil service recruitment system ensures high-quality applicants. However, this does not guarantee success when applying for jobs requiring specialized knowledge and experience.
- They must be properly equipped to work in the manufacturing sector. To achieve global levels of cost and quality competitiveness in the sector, officers in the central and state governments must understand how laws, regulations, and procedures affect industry competitiveness.
- They should be aware of the various ways in which these add to or reduce manufacturing costs. They must understand the importance of demand creation in enabling industry to achieve economies of scale, as well as how policy stability is required for companies to make long-term investments.
- Profitability and the generation of internal resources for growth must be recognized. This is only possible if the concerned civil servants in the ministries have good domain knowledge of the manufacturing sector and understand that the government and entrepreneurs must collaborate and trust each other.

What are the challenges?

- While policies are largely developed in Delhi, much of the implementation is carried out in states.
- Because we have a history of only trusting the public sector and distrusting the private sector, effective implementation has become complicated.
- Many of the laws and procedures were based on the suspicions of private-sector industrialists.
- Similarly, the British-inherited system of checks and balances is based on distrust of civil servants, leading implementers to prefer procedures and correct paperwork over producing results.
- When dealing with financial issues, civil servants are generally not friendly to the private sector. This causes long delays, higher costs, and a loss of competitiveness.

How can IAS officers be better equipped to deal with the manufacturing sector?

Establishment of new wing

- A wing should be established within the Department of Personnel and Training, as well as its state counterparts.
- This wing should be in charge of selecting officers from the IAS and other services based on aptitude and training them to develop and implement manufacturing and industrial development policies.

- To protect itself from outside pressures, it should report directly to the Prime Minister.

Officer selection and training

- Officers could be chosen after they have served for approximately ten years. Following that, selected officers would need to be trained and assigned to assignments that would allow them to gain more knowledge and experience.
- A temporary appointment to selected private companies should be made for knowledge and experience.
- It would familiarize officers with market competition, and select companies in various manufacturing sectors might be able to trust the government officers.
- These officers should be evaluated on a regular basis in order to advance them to the policymaking stage for the manufacturing sector.

About Make-in-India Initiative

- Make in India, which was launched in 2014, aims to transform India into a leading global manufacturing and investment destination.
- The initiative is an open invitation to potential investors and partners around the world to join the 'New India' growth story.
- Make in India has made significant progress in 27 industries. These include both strategic manufacturing and service sectors.

International Relations

AS INDIA'S RUSSIAN OIL IMPORTS RISE, US ENVOY SAYS IT'S SOVEREIGN DECISION

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Events of National and International Importance

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests.

Context:

- Recently, the US envoy in New Delhi Elizabeth Jones in her first media interaction said that the goal of Washington's oil cap policy is to reduce revenues to Russia to fund its war and it is a "sovereign decision" of countries to make regarding the oil imports from Russia at discounted rates amid the war in Ukraine.
- Russian oil exports to India surpassed those from Saudi Arabia and Iraq, two longtime suppliers, in October.

Reason Behind oil price cap

- The oil price cap aims to **cut down on Russian income** that may be used to strengthen its ability to continue fighting in Ukraine.
- A deal has been reached between the United States and its partners that will lessen the money that **Russia makes from each barrel it ships**.
- The attempt serves as a reminder of how Western sanctions have failed to damage Moscow's energy exports: while frequently selling oil to China and India at a discount, Russia is on track to earn more this year from oil sales than it did in 2021 thanks to a rise in the world price after the war started.
- India has always justified its decision to import petroleum from Russia, claiming that it does so to satisfy its population's energy needs and to reduce the inflationary effects of the Russia-Ukraine war on its people.

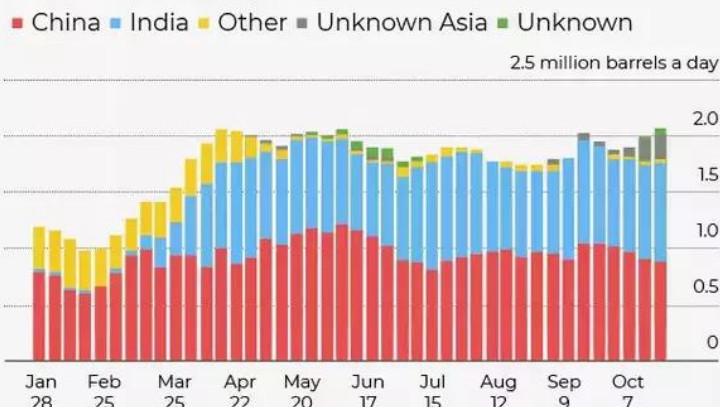
Impact

- The action is specifically **directed at other large consumers like China, India, and Turkey** as the G-7 has mostly opted to stop its own imports of Russian crude.
- Although those nations have not joined, the US is hoping they would use the threshold as a negotiating point.
- Importantly, they won't be able to obtain **European insurance** and shipping if they don't purchase below the barrier as most of insurance companies are based in UK.

- The US contended that **the sanctions ran the risk of causing an increase in oil prices**, which might have destroyed the global economy and even benefited Putin.
- The price cap served as a sort of off-ramp because those services would only be offered for oil sold below the predetermined level.
- The plan is to keep oil flowing to the world economy while limiting earnings.

Russia's Asian customers

Four-week moving average of crude shipments from all Russian ports



Source: Bloomberg

Note: Unknown Asia includes ships heading to the Suez Canal from Russia's western ports. Unknown includes vessels showing no clear destination and those that have transferred their cargo to unidentified ships.

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DRAGGING DEBT TALKS IN SRI LANKA PUT SPOTLIGHT ON CHINESE LOANS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Extended Fund Facility

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests; India and its Neighbourhood relations

Context:

- Recently, Nandalal Weerasinghe, governor of Sri Lanka's central bank, said that even though Sri Lanka missed the December deadline for its IMF report, it still has till January.
- Authorities are yet to clarify the status of the government's efforts to restructure its debt, raising questions about the apparent delay.
- The loans secured from China, the island nation's largest bilateral lender, have come under scrutiny as Sri Lanka struggles to secure financial assurances from its numerous creditors, a requirement for the provisional \$2.9 billion-IMF deal.

Srilanka-IMF

- Sri Lanka and the International Monetary Fund came to a **staff-level agreement** in September, months after Sri Lanka decided to declare a pre-emptive and disorderly default on its \$ 51 billion in foreign debt.
- The initiative, according to the administration, would set Sri Lanka's shattered economy on a path of recovery and reform, enabling the bankrupt nation to borrow money from outside sources once more.
- The IMF made Sri Lanka's assistance reliant on receiving sufficient funding guarantees from all of its creditors.
- Although international sovereign bondholders and private lenders make up the majority of Sri Lanka's **foreign debt, China, India, and Japan**

are the top three bilateral creditors and are essential players in the ongoing negotiations.

- The Sri Lankan opposition accused China of "bribing" Sri Lankans to delay the IMF agreement and "pushing down" unneeded projects in reference to massive infrastructure projects in Hambantota and Colombo that was funded by the Chinese during the Rajapaksa administration.
- Early this year, amid dire shortages, large-scale anti-government public protests drove the Rajapaksa brothers and their government from power.

Steps taken by Sri Lanka

- Sri Lanka has already implemented a number of important policy changes. Beginning this year, the Central Bank floated the rupee, substantially increased interest rates, raised electricity and fuel costs, and reinstated tax breaks that were put in place when President Gotabaya was in office.



Concerns

- **Diverse group of creditors:** The government faces the challenging task of negotiating with a diverse group of creditors as it sets out on a path of fiscal consolidation, including multilateral agencies, foreign governments—primarily China, Japan, and India—and International Sovereign Bond (ISB) holders, to whom the island owes nearly half of its foreign debt.
- While discussions with ISB holders are probably going to be legal and technical, those with bilateral creditors are a more difficult task that involves geopolitical considerations.
- **China:** A recent report by Sri Lankan economists Umesh Moramudali and Thilina Panduwawala observed that China will need to play "a big role" in Sri Lanka's debt restructuring process due to the country owing US\$ 7.4 billion, or 19.6% of its total outstanding public debt, to China at the end of 2021.

Way Forward

- The process will be carried out for the first time by a significant Asian borrower under the Belt and Road Initiative.
- China's strategy for Sri Lanka's debt restructuring and the volume of debt relief provided will serve as a model for its actions and behaviour in other nations.
- Despite the latest agreement, the road ahead for the IMF and Sri Lanka is not easy. Geo-political calculations ahead will play a role in Sri Lanka's economic decision-making.

What is the staff-level agreement?

- It is a formal agreement **between IMF staff and Sri Lankan government** to assist Sri Lanka's economic policies with a \$2.9 billion package over a 48-month period through the Extended Fund Facility (EFF).
- Although the IMF has agreed to help Sri Lanka, the EFF is subject to a number of conditions.

- The Fund has determined that Sri Lanka must immediately adopt a number of steps to address structural weaknesses and fiscal flaws, including increasing fiscal revenue, ensuring financial stability, and decreasing corruption vulnerabilities.

What is Extended Fund Facility?

- The EFF was established to provide assistance to countries experiencing serious payment imbalances because of structural impediments or slow growth and an inherently weak balance-of-payments position.
- An IMF lending facility created in 1974 to help members deal with balance of payments issues that are largely the result of structural issues and call for a longer period of adjustment than is allowed by a Stand-By Arrangement.

G20 SUMMIT: INDIA PITCHES FOR SDGS, DIGITAL PUBLIC INFRA AS TOP PRIORITIES

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: G20

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- India has formally taken over the G-20 presidency on December 1, 2022.
- In highlighting the importance of the **Global South**, India identified accelerated, inclusive, and resilient growth, as well as progress on the **Sustainable Development Goals (SDGs)**, particularly health and education, as key priorities for the **G20 Summit**.

Background

- Beginning the first formal meeting of the Sherpa track in Udaipur, **India's Sherpa Amitabh Kant** invoked **India's G20 presidency theme of 'Vasudhaiva Kutumbakam' — 'One Earth One Family One Future'**.
- Strategies for green development, fostering climate finance, technological transformation, and digital public infrastructure, preparing multilateral institutions for the twenty-first century, and a focus on the three Fs — **food, fuel, and fertilizers** — as well as the broader theme of women-led development were evolved.

The Indian Presidency in 2023

- During its G20 presidency, India will host nearly 200 meetings in 32 different sectors across the country.
- The focus of India's G20 presidency is "Vasudhaiva Kutumba-Kam," or "One Earth, One Family, One Future."
- India will work to ensure that there is "only one world," not a "first or third world."
- The G20 Theme embodies India's efforts to realize its vision of uniting the entire world in pursuit of a common goal and a better future.
- During its term, India will hold over 200 meetings in 50 cities, involving ministers, government officials, and members of civil society, leading up to the final summit in New Delhi in September 2023. The summit's timing is critical, as it occurs just before the 2024 general elections.

Observations Made

- The challenges we face today can only be solved by working together through hope, harmony, and healing, and our first concern should be towards whose need is greatest, so we must also focus on the Global South.
- Our G20 presidency will seek to advocate for the oneness of all in accordance with our theme of 'One Earth, One Family, One Future,' and our priorities will reflect not only the aspirations of all of you, the G20 partners, but also the Global South, whose voice is often unheard."
- The first day included discussions on 'Technological Transformation' and 'Green Development and Lifestyle for Environment (LIFE),' as well as a dialogue on 'Global & Regional Economy: Prospects & Challenges'.

- World's key economic challenges were discussed and emphasized the importance of the G20 working together to address them.
- A presentation on the pressing global economic challenges of the day, including the international debt situation and trade was given.
- The dialogue discussed ideas for the world to address such concerns and emerge more resilient to economic vagaries.



Topics to be discussed

The Sherpa track, which will set the agenda for the G20 leaders in September next year, will engage on topics from 13 working groups ranging from **energy, trade and investment, development, employment, tourism, agriculture, digital economy, health, education, culture, environment, and anti-corruption**, as well as points from the two new groups — Disaster, Risk and Resilience Group and Startup20 Engagement Group, brought to the forefront by India during its presidency.

Discussions Made on Various Field

On Trade and Investment

- It was stated that discussions on trade and investment will center on resilient global value chains, integrating small and medium-sized industries, and global trade and trade for growth and prosperity.

On Development

- On development, data for development, accelerating progress on sustainable development goals, and environmentally friendly lifestyles will be discussed.
- The employment working group will discuss addressing the global skills gap, sustainable financing for social security, the gig and platform economy, and social security, while the tourism working group will discuss green tourism, digitisation for transforming tourism, and tourism skills.

On Agriculture

- The agriculture group will discuss improving food safety and nutrition, sustainable agriculture with a climate-smart approach, and agricultural technology and digitisation.
- For the digital economy, we have focused on digital public infrastructure, quite a bit on our own experience of creating digital identities for everyone, creating bank accounts for everyone, which has enabled us to lift vast segments of the population above the poverty line through direct benefit transfers and fast payments.

On Health

- On the health front, prevention, preparedness, and response to health emergencies, digital health for universal access and improved service delivery, and strengthening cooperation for vaccines, therapeutics, and diagnostics will be discussed.

On Education

- On education, foundational literacy and numeracy, strengthening research and innovation, tech-enabled learning, and the future of work, which is critical," was raised.

On Energy

- The energy discussions will center on low-cost financing for energy transitions, future fuel, that is, G20 bio-energy cooperation, green hydrogen principles.
- It is very important to decarbonize the economy, and universal access to clean energy."

What is G20?

- The **Group of Twenty (G20)** is an intergovernmental forum comprised of 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, United Kingdom, and United States) and the European Union.
- The G20 members account for roughly 85% of global GDP, more than 75% of global trade, and roughly two-thirds of the global population.

When does the G-20 meeting take place?

- The G20 meetings take place at a time when the global economy is facing several headwinds, including rising global debt, runaway inflation, and a slowing growth rate, all of which will be discussed in the Sherpa track.
- The G20 is divided into two parallel tracks: the Finance track, led by Finance Ministers and Central Bank Governors, and the Sherpa track.
- The presidency steers the G20 agenda for a year, until the final summit next September.

Importance of G20 for India

- The G20 summit is more than just a diplomatic gathering for India. India sees it as a new responsibility for itself.
- The G20 is an intergovernmental forum of the world's major developed and developing economies, representing roughly 85% of global GDP, more than 75% of global trade, and roughly two-thirds of global population.
- India will host approximately 200 meetings in 32 different sectors across the country during its G20 presidency.

BIMSTEC A KEY TO A NEW SOUTH ASIAN REGIONAL ORDER

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: BIMSTEC

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- SAARC Charter Day is observed on December 8.** The **South Asian Association for Regional Cooperation (SAARC)**, an intergovernmental organization, was founded on this day 37 years ago.
- There has been **no SAARC summit since 2014**, leaving the organization rudderless and practically dead.

Key Highlights

- SAARC Charter Day is celebrated on December 8.** On this day 37 years ago, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka established the **South Asian Association for Regional Cooperation (SAARC)**, an intergovernmental organization, to promote economic growth in South Asia. Afghanistan later joined SAARC.
- However, SAARC has utterly failed to meet the majority of its objectives. South Asia remains the world's poorest and least integrated region.
- When compared to other regions such as the **Association of Southeast Asian Nations (ASEAN)** and Sub-Saharan Africa, intraregional trade and investment in South Asia are very low.
- Pakistan has taken an obstructionist stance within SAARC, repeatedly obstructing vital initiatives such as the motor vehicles agreement, which

aims to improve regional connectivity. The escalating hostility between India and Pakistan has exacerbated the situation.

- Since 2014, there has been no SAARC summit, leaving the organization rudderless and practically dead.

What is SAARC?

- The **South Asian Association for Regional Cooperation (SAARC)** was formed on December 8, 1985, with the signing of the SAARC Charter in Dhaka.
- It is an intergovernmental organization founded by Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. Afghanistan later joined SAARC.
- On January 17, 1987, the Association's secretariat was established in Kathmandu.
- The SAARC Charter's objectives are to promote the welfare of South Asian peoples and improve their quality of life; to accelerate economic growth, social progress, and cultural development in the region; to provide all individuals with the opportunity to live in dignity and realize their full potentials; and to promote and strengthen collective self-reliance among South Asian countries.



8 DECEMBER
37TH CHARTER DAY

What is BIMSTEC?

- The **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** is an international organization of seven South Asian and Southeast Asian countries with a combined population of 1.73 billion people and a gross domestic product of US\$4.4 trillion (2022).
- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation comprises seven countries: **Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar, and Thailand.**
- South Asia accounts for five of the seven members, including Bangladesh, Bhutan, India, Nepal, and Sri Lanka. **Thailand and Myanmar are from Southeast Asia.**
- BIMSTEC is made up of countries that border or are located near the Bay of Bengal and rely on it. It was established on June 6, 1997, as a result of the Bangkok Declaration. Its headquarters are in Dhaka, Bangladesh's capital city.
- BIMSTEC differs from other regional organizations such as SAARC or ASEAN because it is sector-driven.
- BIMSTEC connects the Great Himalayas and the Bay of Bengal ecologies, in addition to South and Southeast Asia.

Purpose of BIMSTEC

- BIMSTEC was formed as an alliance to combat the negative consequences of globalization by leveraging the physical proximity of the world's fastest-growing economies and utilizing local resources.
- South Asian and South East Asian nations collaborate economically and technologically along the Bay of Bengal coast.
- The alliance strengthens ties between the seven nations and serves as a link between South Asia and South-East Asia.

Importance of Regionalism

- Because South Asia, India's neighboring region, is critical to India's national interests. This is best exemplified by the current administration's **"neighborhood first" policy**.
- SAARC is South Asia's only intergovernmental organization. India can use it wisely to serve its interests throughout the region.
- But, in recent years, India has viewed SAARC through the lens of Pakistan.



(BIMSTEC Countries)

- As a result, the deterioration of India-Pakistan relations has coincided with the incapacitation of SAARC, much to Pakistan's delight.
- A weakened SAARC means greater insecurity in other promising regional institutions, such as the South Asian University (SAU), which is critical to bolstering India's soft power in the region.
- In South Asia, India can effectively pursue its interests through bilateralism rather than regionalism.
- While bilateralism is unquestionably important, it can only supplement, not replace, regional or multilateral efforts. Regionalism has had enormous success in other parts of the world, such as East Asia and Africa.

Neighbourhood First Policy of India

- India's Neighbourhood First Policy, a core component of India's foreign policy, focuses on peaceful relations and collaborative synergetic co-development with its South Asian neighbors of the Indian subcontinent, encompassing a diverse range of topics such as economic, technology, research and education, connectivity (digital, surface and air transport, energy grid connectivity, logistic chains, etc), space program, defense security, environment and climate challenge.
- This policy opens new doors while also leveraging existing regional cooperation initiatives such as SAARC, SASEC, BBIN, and BIMSTEC.
- It complements India's Look East policy, which focuses on Southeast Asia, and Look West policy, which focuses on the Middle East.

Importance of BIMSTEC for India

- Because South Asia cannot reject regionalism, reviving SAARC by injecting political energy into it and updating its dated Charter will be an ideal way forward. However, in the current situation, this is overly idealistic.
- As a result, the next best scenario is to look at other regional instruments, such as the Bay of Bengal Initiative for Multi-Sectoral, Technical, and Economic Cooperation (BIMSTEC), an intergovernmental organization founded in 1997.
- BIMSTEC is made up of five South Asian countries (Bangladesh, Bhutan, Nepal, India, and Sri Lanka) and two ASEAN countries (Myanmar and Thailand). Pakistan is not a BIMSTEC member.
- In recent years, India appears to have shifted its diplomatic focus from SAARC to BIMSTEC. After 25 years, BIMSTEC finally adopted its Charter earlier this year. The BIMSTEC Charter outperforms the SAARC Charter by a wide margin.
- For example, unlike the SAARC Charter, Article 6 of the BIMSTEC Charter addresses the 'admission of new members' to the group. This paves the way for countries like the Maldives to be admitted.

- Despite the improvements, the BIMSTEC Charter, which aims to promote economic integration, lacks the flexible participation scheme found in the ASEAN Charter. This adaptable scheme, also known as the 'ASEAN Minus X' formula, allows two or more ASEAN members to initiate negotiations for economic commitments.
- As a result, no country has veto power over economic integration among willing countries.
- Given the experience of SAARC, where Pakistan routinely vetoes several regional integration initiatives, it is surprising that BIMSTEC does not include such a flexible participation scheme.
- A flexible 'BIMSTEC Minus X' formula could have allowed India and Bangladesh or India and Thailand to continue their ongoing bilateral **free trade agreement (FTA)** negotiations under the broader BIMSTEC umbrella.
- This would have eventually strengthened BIMSTEC by allowing the gradual and incremental expansion of these binding commitments to other members. India should advocate for this amendment to the BIMSTEC Charter.

Way Forward

- BIMSTEC must not become another SAARC. For this, its member countries should raise the stakes.
- A high-quality FTA with deep economic integration, as Prime Minister Narendra Modi advocated at the recent BIMSTEC ministerial meeting, would be an ideal first step.
- India should look into legal avenues for moving successful SAARC institutions like SAU to BIMSTEC.
- These steps will strengthen BIMSTEC's roots and enable the establishment of a new South Asian regional order based on incrementalism and flexibility, ushering in prosperity and peace in the region.

THE SUSTAINED GROWTH IN REMITTANCES



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Remittances

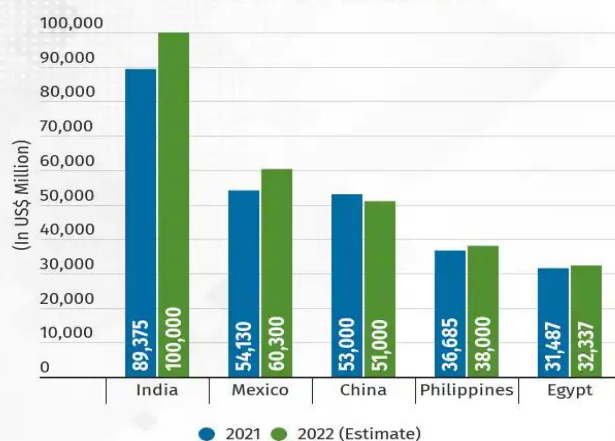
Prepp Mains Booster: Indian Diaspora; Liberalization

Context:

According to the World Bank's latest Migration and Development Brief titled, 'Remittances Brave Global Headwinds'.

- India received \$89.4 billion in 2021 — this is the first time a country will reach the \$100 billion mark.

TOP 5 RECIPIENTS OF REMITTANCES



Source: KNOMAD, World Bank.



What is a remittance?

- Remittances are typically transfers from a well-meaning individual or family member to another individual or household. They are targeted to meet specific needs back.
- In the case of India, the GCC nations (UAE, Bahrain, Saudi Arabia, Oman, Qatar, Kuwait) and the United States and United Kingdom have been the largest sources of remittances.

Significance of remittance:

- For LMICs, remittances are a crucial source of household income.
- They decrease poverty, improve nutritional outcomes, and are connected with increased birth weight and higher school enrolment rates for children in disadvantaged households.
- Research demonstrates that remittances aid recipient households in developing resilience, for instance by funding better housing and assisting in the recovery from disaster-related losses.

General trend

- World remittances are predicted to touch \$794 billion in 2022, up from \$781 billion in 2021.
- This represents a growth of 4.9%, compared to 10.2% in 2021, which was the highest since 2010.
- Out of the \$794 billion, \$626 billion was distributed to low- and middle-income countries (LMICs).
- In comparison to portfolio investment flows, official development aid (ODA), and foreign direct investment (FDI), remittances constitute an even bigger source of external financing for LMICs in 2022.
- India (\$100 billion), Mexico (\$60 billion), China (\$50 billion), the Philippines (\$38 billion), and Egypt (\$32 billion) are predicted to be the top five recipients this year, in that order.

Factors behind inward remittance flows

- **Structural Shift:** The top destination nations for remittances and the types of employment held by migrants hint at a structural change in India's remittance economy, according to the report.
- As a matter of fact, between 2016–17 and 2020–21, the remittances from the U.S., U.K. & Singapore rose from 26% to 36%, while the share from the five GCC states declined from 54% to 28%.
- With 20% of India's emigrants in the U.S. and the U.K., "the structural shift in qualifications and destinations has accelerated growth in remittances connected to high-salaried positions, notably in services," adds the research.
- It made a significant difference during the pandemic, when "Indian migrants in high-income countries worked from home and benefited from large fiscal stimulus packages," as opposed to the post-pandemic period, when "wage hikes and record-high employment conditions supported remittance growth in the face of high inflation."
- **Government assistance in GCC:** Indian immigrants benefited from direct government assistance programmes designed to keep inflation low in the GCC nations.
- **Decline of Rupee against dollar:** The analysis also suggests that Indian migrants may have "taken advantage" of the rupee's 10% decline against the dollar between January and September 2022 to enhance their remittances.

Future Trends

- **Stagnant growth:** The analysis projects that as high-income country GDP growth continues to stagnate, eroding migrants' salary gains, remittance growth will decline to 2% in 2023.
- For South Asia as a whole, the growth in remittances is predicted to reduce from 3.5% in 2022 to 0.7% in 2023.
- **Inflation:** In the U.S., increasing inflation paired with a slowdown will limit remittance flows, while the GCC countries will also see cooling of remittance inflows following a recession.

INDIA'S CENTRAL ASIA OUTREACH

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Central Asia

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- Recently, **National Security Advisor (NSA) Ajit Doval** hosted a meeting in New Delhi with his counterparts from five Central Asian countries: **Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, and Turkmenistan.**

Background

- The meeting followed the first India-Central Asia virtual summit on January 27 this year, which took place against the backdrop of the Russia-Ukraine conflict and the security situation in Afghanistan under the Taliban.
- The leaders of Central Asian countries had been invited to attend the Republic Day celebrations, but their attendance was thwarted by the Omicron-led Covid surge in India.

Relations between India and Central Asia

- India's relations with Central Asia have a long history. In terms of people-to-people contact, trade, and commerce, the two regions have shared deep cultural ties for over two millennia.
- Ancient kingdoms such as the Kushana Empire ruled over parts of both regions.
- Both regions were linked by the Silk Route from the 3rd century BC until the 15th century AD, when the sea route from Europe to India was discovered.
- The Silk Route connected both regions not only for the transportation of goods like silk and spices, but also for the exchange of ideas, religion, and philosophy.
- Buddhism followed this route from India to Central Asia and then to West China.
- The historical and civilizational ties have permeated many areas, including religion and culture.
- Contacts between the two regions were strengthened further during the medieval ages with the advent of Islam and later with the establishment of Muslim rule in India, many of whose rulers had Central Asian origins.

India's Engagement with Central Asia

- During a 16-day visit to the former Soviet Union in 1955, Prime Minister Jawaharlal Nehru visited Almaty, Tashkent, and Ashgabat, all of which became capitals of newly independent countries after the USSR collapsed in 1991.
- Prime Minister P V Narasimha Rao visited Kazakhstan and Uzbekistan in 1992, and Turkmenistan and Kyrgyzstan in 1995. Atal Bihari Vajpayee became the first Prime Minister to visit Tajikistan in 2003; he had previously visited Kazakhstan. Manmohan Singh visited Uzbekistan in 2006 and Kazakhstan's capital Astana in 2011.
- Despite India's focus on other relationships — the US (nuclear deal), China (2003 border pact), and Pakistan (in the aftermath of the 2008 Mumbai terror attacks) — diplomatic parts continued to move on Central Asia.
- India also attended Shanghai Cooperation Organisation summits, which were attended by Central Asian countries, and submitted its request for membership.
- Focused engagement began in 2012 with the "Connect Central Asia policy," which was boosted by Prime Minister Narendra Modi's historic visit to all five Central Asian countries in July 2015.



Battle for strategic space

- Central Asia has long been regarded as Russia's backyard: 20-30% of the population is of Russian origin, and Russian is widely spoken.
- Central Asia is extremely rich in mineral and natural resources. Kazakhstan has one of the world's largest uranium reserves, as well as coal, lead, zinc, gold, and iron ore reserves.
- The Kyrgyz Republic is rich in gold and hydropower, and Turkmenistan has one of the world's largest natural gas reserves. Tajikistan has enormous hydropower potential, and Uzbekistan has gold, uranium, and natural gas.
- The fact that China's President Xi Jinping chose to visit four Central Asian countries on his first overseas trip in September 2022, after two years of Covid-related disruption, demonstrates the region's strategic importance.
- For India, engagement with Central Asian countries is important for a variety of reasons, including security cooperation following the Taliban takeover of Afghanistan, countering China's influence in the region, plans for connectivity with Europe, including the International North South Transport Corridor (INSTC), meeting energy needs (Turkmenistan is part of the proposed TAPI gas pipeline), and old cultural links and trade potential.

India's Involvement

- The most recent engagement began on December 19, 2021, with a meeting of India's and Central Asia's foreign ministers. That meeting took place against the backdrop of the fall of Kabul in mid-August of last year, and a little more than a month after the NSAs of Central Asian countries, as well as the NSAs of Russia and Iran, attended the Afghanistan-focused Regional Security Dialogue in New Delhi. Turkmenistan, Uzbekistan, and Tajikistan all share borders with Afghanistan.
- External Affairs Minister S Jaishankar told his Central Asian counterparts on December 19 that their "concerns and objectives" in Afghanistan were "similar," and that their goal was "a truly inclusive and representative government, the fight against terrorism and drug trafficking, ensuring unhindered humanitarian assistance, and preserving the rights of women, children, and minorities."
- This was followed by Prime Minister Narendra Modi's virtual summit with the leaders of Central Asian countries on January 27, 2022, in which he called for an integrated approach to regional cooperation and highlighted Afghanistan as a common concern.
- China had hosted these leaders two days earlier at its own summit, which Beijing had hurriedly organized in response to India's announcement.
- Modi and the five Central Asian leaders agreed to hold a leaders' summit every two years, as well as regular meetings of their foreign and trade ministers, a joint working group on Afghanistan, joint counter-terrorism exercises between India and interested Central Asian countries, and a group to operationalize the use of Chabahar port by all five countries.

Future Prospects

- China, which has a direct border with the region, has a \$50 billion bilateral trade with Central Asia and has made significant investments in these countries through its Belt and Road Initiative. India's trade with the region is worth only \$2 billion.
- Overland transport access is a major challenge for India's Central Asian plans, with Pakistan blocking the way.
- India wishes to connect the INSTC with the Iranian port of Chabahar in order to gain access to the resource-rich region. The NSAs, who generally focus on security issues, discussed these connectivity corridors at their December 6 meeting.
- From a security standpoint, the NSAs discussed the challenges of extremism, terrorism, and radicalization in the region. With the Taliban's return in Afghanistan, the threat of radicalism and the possible regrouping of the Islamic State poses a serious security challenge for the region's countries. NSA Doval stated that financing is the "lifeline" of terrorism and that combating it should be a top priority.
- India does not want the Chinese to take over the post-Soviet space, and the NSA's involvement is a key tool in Delhi's arsenal.

INDIA URGED TO ADOPT ASEAN CONSENSUS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: ASEAN

Prepp Mains Booster: Bilateral Groupings & Agreements, Important International Institutions, Regional Groupings, Groupings & Agreements Involving India and/or Affecting India's Interests, Effect of Policies & Politics of Countries on India's Interests

Context:

Recently, Indonesian Foreign Minister Retno Marsudi stated that India and other countries should "respect" and adhere to ASEAN's policy on Myanmar rather than taking a "different" path.

Background

- It was stated that India's decision to engage the Myanmar military government, which took power in February 2021 after deposing the elected **National Unity Government (NUG)** and imprisoning thousands of leaders, including Aung San Suu Kyi, could make the 10-member **Association of SouthEast Asian Nations' (ASEAN)** efforts toward democracy "less effective."
- India and other countries were urged to follow the ASEAN "five point consensus," which calls for an immediate cessation of violence in the country, dialogue among all parties, the appointment of a special envoy, ASEAN humanitarian assistance, and the special envoy's visit to Myanmar to meet with all parties.

About ASEAN

- It is officially known as the **Association of Southeast Asian Nations**.
- It is a Southeast Asian economic union made up of ten member countries. They are: **Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Laos, Myanmar, Cambodia, and Vietnam**.
- It promotes intergovernmental cooperation and facilitates economic, political, security, military, educational, and sociocultural integration among its members and other Asian countries.

The ASEAN Five-point Consensus

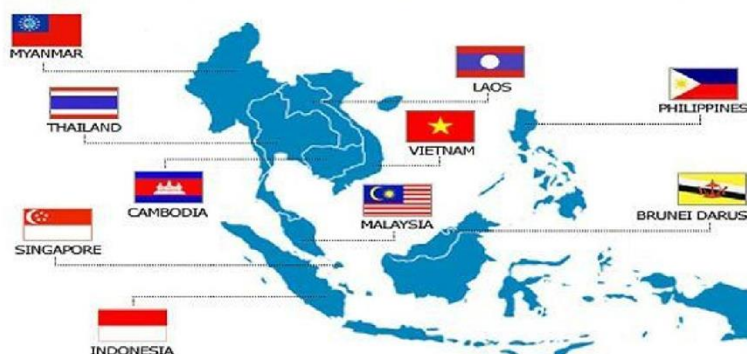
- It calls for an immediate cessation of violence in Myanmar.
- All parties must exercise extreme restraint; a constructive dialogue among all parties involved must begin in order to find a peaceful solution in the best interests of the people.
- With the assistance of ASEAN's secretary-general, an ASEAN Chair special envoy will facilitate mediation of the dialogue process.
- ASEAN will provide humanitarian assistance through the AHA Centre (ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management); and

- The special envoy and delegation will visit Myanmar to meet with all parties involved.

About Joint Construction Projects

- Concerning bilateral initiatives, it was stated that the two countries had made a "breakthrough" on the four-year-old pending project for India to develop the Sabang Port in Indonesia's Aceh province, which is less than 200 kilometers from India's southernmost island Indira Point (Campbell bay).
- It was also stated that the feasibility studies for Sabang port, which were launched by Prime Minister Narendra Modi and Indonesian President Joko Widodo in 2018, had now been completed, and that the joint task forces of both countries would meet later this month to discuss the next steps.

ASEAN Member Countries



Leading the Global South

- Given that India has now assumed the presidency of the G-20, and Indonesia is a member of the "troika" as the immediate past president, India and Indonesia are expected to strengthen their engagement in the coming year. Indonesia has also recently assumed the chairmanship of the ASEAN grouping.
- Mr. Modi and Mr. Widodo are expected to meet for the G-20 and ASEAN-India summits, as well as exchange visits, in 2023.
- The Russian war in Ukraine made Indonesia's task at the G-20 especially difficult, and that they were only able to reach an agreement on the joint communique on the summit's final day.
- It was stated that as India begins G-20 meetings, including the first Sherpa track meeting last week and the first Finance track meeting this week, both countries would work closely to ensure that developing-country issues remained at the top of the G-20 economies' agendas.

Significance of ASEAN to India

- **Convergence on the Indo-Pacific:** Engagement with ASEAN has been and will continue to be a critical component of India's 'Act East' policy and 'Indo-Pacific' initiative.
- **Security convergence:** India requires a close diplomatic relationship with ASEAN nations for both economic and security reasons.
- **Improving presence:** Connectivity with ASEAN nations can help India increase its presence in the region.
- **Connectivity with the Northeast:** These connectivity projects keep Northeast India at the center, ensuring the economic growth of the northeastern states.
- **Countering China:** Improved trade ties with ASEAN nations would mean a counter to China's presence in the region as well as economic growth and development for India.
- **Rule-based order in the region:** ASEAN is central to the Indo-Pacific rules-based security architecture. A rogue neighborhood is a liability of healthy growth.

THE ROLE OF THE 'CHINA TEST' IN INDIA'S GRAND STRATEGY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: China

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- Recently, it was stated that Smart China balancing in Southern Asia and beyond must be an important component of India's grand strategic planning and decision-making.

Concept of Principal Contradiction

- The concept of a principal contradiction is one that poses the most intense challenge to an individual/organization and has the power to shape its future choices and consequent outcomes.
- It is a useful method of optimizing and prioritizing strategic decision-making.
- Whether or not Indian policymakers acknowledge it, China is contemporary India's primary strategic contradiction.
- Every other challenge, whether it is Pakistan, internal insurgencies, or difficulties in relations with its neighbors, falls into the category of secondary contradictions.
- A prudent '**China test**' can help prioritize strategic decision making in the long run, at least as an analytical tool with potential policy utility.

Operational Components of 'China test'

- **Development:** An assessment of how a specific Indian decision or regional development squares with Chinese regional strategy or interests.
- **Modification:** An assessment of whether India's decision or a specific regional development would necessitate changes at the level of secondary contradictions.
- **Policy Changes:** Determine whether any major policy changes are required internally.

India-US relations

- New Delhi has had a complicated relationship with Washington, which is becoming more normalized and interest-driven.
- Despite its withdrawal from the region, Washington is seeking to re-engage with southern Asia (Pakistan, South Asia in general, the Indo-Pacific, and perhaps even the Taliban).

What would a 'China test' of India-US relations imply?

- Given Beijing's desire to dominate the region, an American reengagement in the region or growing India-US proximity is clearly not in Beijing's best interests.
- If this is the case, the lack of lukewarm India-US strategic engagement in the region is precisely what Beijing needs to achieve its long-term goals.
- A China test would imply that New Delhi should resist the short-term temptation to avoid being on the wrong side of China, given the long-term implications.
- While fears of such a relationship irking China are not entirely unfounded, they invariably play into China's strategy of boxing India in the region.

Is the China test a requirement for India to mend its relationship with Pakistan?

- For China, the best-case scenario is an India intensely focused on Pakistan, ensuring that India is not focused on China's growing threat, giving Beijing the opportunity to displace traditional Indian primacy in South Asia.
- So, even if it is only post facto, a course correction on Pakistan is strategically prudent for India.
- What India should actively seek is not a balance of power in South Asia with Pakistan, but rather a balance of Chinese power in Southern Asia.
- As a result, India's goal in South Asia should be to resolve conflicts with Pakistan so that it can concentrate on China.

- Similarly, India does not need to oppose American engagement with Pakistan for the same reason — it helps keep Pakistan from completely aligning with China.
- A Pakistan engaged with the US and the West is preferable to a Pakistan shunned by the US and the West.

India-Russia Relation

- India-Russia relations in the aftermath of the Ukraine war are among the most contentious bilateral relationships in the world today.
- The US and its allies would like India to stop engaging with Moscow and condemn its aggression against Ukraine, which India has so far refused to do.
- In exchange, greater accommodation of Indian interests, including possible diplomatic and political support against Chinese aggression, is on offer.
- There is also the growing proximity between Moscow and Beijing, which weakens India-Russia relations.

Consequences

- The consequences of New Delhi breaking completely away from Russia, as requested by India's US and Western partners will almost certainly benefit China.
- The extent of Sino-Russian cooperation is likely to increase in the absence of an India-Russia relationship, and India will be cut off from the continental space to its north and west.
- New Delhi continues to receive discounted energy, cheaper defense equipment (even if some of it must be retrofitted with more sophisticated technology from elsewhere), and UN Security Council support, and Moscow has been more understanding of New Delhi's 'political sensitivities' than its western partners.
- Many of these could come to a halt if India decides to break away from Russia, and China will undoubtedly benefit from this. This could also push Moscow toward Pakistan, with or without Beijing's encouragement.
- Moscow does not want China to dominate the strategic space around it and has sought to balance China's growing influence in Central Asia with partners such as New Delhi.
- The shift away from Moscow by New Delhi will ensure that China has a free hand in Central Asia as well.

Way Forward

- In the long run, a ready China test can help prioritize strategic decision making, at least as an analytical tool with potential policy utility.
- It will ensure that China has complete control over Central Asia.
- There are compelling reasons for India to maintain its relationship with Russia.
- Smart China balancing in Southern Asia and beyond must be a key component of India's grand strategic planning and decision making.

'US DUTY ON STEEL, ALUMINUM INCONSISTENT'

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: WTO

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests.

Context:

- Recently, **World Trade Organization (WTO)** dispute panel has ruled that the United States' decision to impose customs duties on certain **steel and aluminum products is contrary to global trade norms**.
- This decision was made in cases brought against these duties by China, Norway, Switzerland, and Turkey

About World Trade Organisation (WTO)

- The World Trade Organisation (WTO) is the sole international organization that deals with international trade rules.

- The WTO agreements, negotiated and signed by the majority of the world's trading nations and recognized by their parliaments, are at its heart.
- The World Trade Organisation is headquartered in Geneva, Switzerland.
- The Ministerial Conference, which is made up of all member states and meets twice a year, is the highest decision-making body of the organization.
- The World Trade Organisation (WTO) has 164 countries (160 UN countries, EU, Hong Kong, Macau, and Taiwan).

Background

- On the basis of national security, the United States imposed 25% and 10% import duties, respectively, on certain steel and aluminum products in 2018.
- In response to the imposition of duties by the United States, India raised customs duties on a variety of American products, including almonds, walnuts, iron and steel items.



Significance for India

- The WTO report is significant for India as well, as the country approached the Geneva-based WTO in 2018 in opposition to the US move to impose these duties. This ruling will also help strengthen India's case.
- India is willing to settle the dispute with the US amicably and on mutually agreed-upon terms.
- India previously stated that the imposition of high import duties by the US has had an impact on Indian businesses' exports of these products.
- India has also claimed that the US move violates global trade norms.

Recommendations

- According to the WTO ruling, the Panel recommends that the United States bring its WTO-inconsistent measures into conformity with its obligations under the **GATT (General Agreement on Tariffs and Trade) 1994**.
- According to the panel, there is no evidence that the measures were taken in time of war or other emergency in international relations.
- The ruling has been rejected by the United States Trade Representative.
- These WTO panel reports only serve to highlight the importance of fundamentally reforming the WTO dispute settlement system.
- The United States will not delegate decision-making authority over its vital security to WTO panels.
- According to WTO rules, a member country or countries may file a case with the Geneva-based multilateral body if they believe that a particular measure violates WTO norms.
- A bilateral consultation is the first step in resolving a dispute.
- If neither party is able to resolve the matter through consultation, either party may request the formation of a dispute resolution panel.
- The 164-member WTO, based in Geneva, is a multilateral organization that develops rules for global exports and imports and resolves trade-related disputes between two or more countries.

INDIA HITS OUT AT OIC CHIEF FOR VISIT TO LOC FROM PAKISTANI SIDE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: OIC

Prepp Mains Booster: Effect of Policies & Politics of Countries on India's Interests

Context:

- Recently, India strongly condemned the **Organization of Islamic Cooperation (OIC)**, claiming that the organization had "lost its credibility."
- The Ministry of External Affairs made the statement after **OIC Secretary-General Hissein Brahim Taha visited the Line of Control from the Pakistani side** and was briefed on the situation by the Pakistan military. Mr. Taha also prayed and met with those who were allegedly affected by shelling from the Indian side.

About Organization for Islamic Cooperation (OIC)

- The Organization of Islamic Cooperation is an international organization founded in 1969, with 57 member states and a collective population of over 1.8 billion people as of 2015, with 53 countries having a Muslim majority.
- According to the organization, it is "**the collective voice of the Muslim world**" and works to "safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony."
- The OIC has permanent delegations to the **United Nations and the European Union**. The official languages of the OIC are Arabic, English, and French.

Objectives of OIC

- The OIC works to build solidarity among its member countries.
- To advocate for the restoration of complete sovereignty and territorial integrity of any member state under occupation.
- To protect, defend, and combat defamation of Islam.
- To prevent growing discord in Muslim societies and to work to ensure that member states take a united stance at the United Nations General Assembly, Human Rights Council, and other international fora.

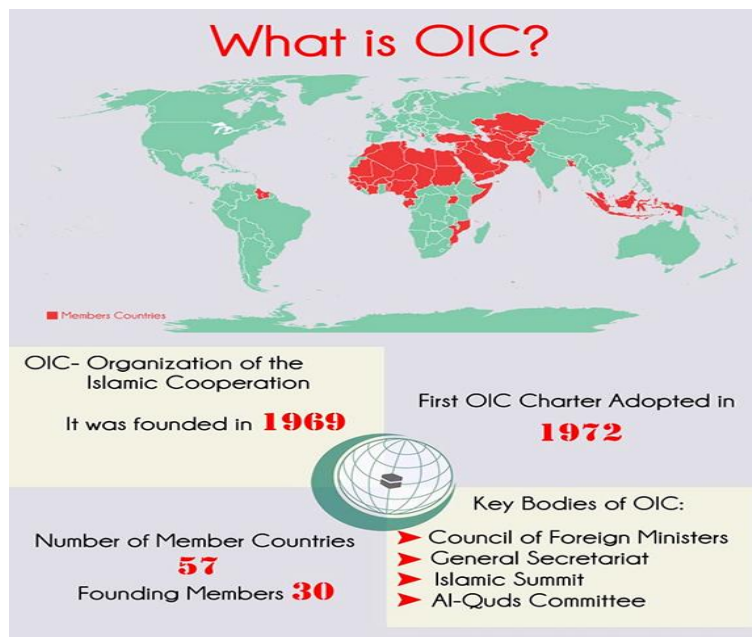
Recent Statements Made

- The OIC has no locus standi in matters pertaining to J&K, which is an integral and inalienable part of India.
- Any attempt by the OIC and its Secretary General to interfere and meddle in India's internal affairs is completely unacceptable.
- It was also claimed that the OIC Secretary General has become a "mouthpiece" for Pakistan and that the organization has taken a "blatantly communal, partisan, and factually incorrect approach to issues."

Status of India's relationship with the OIC

- India was invited to the founding conference at Rabat in 1969 as the country has the world's second-largest Muslim community but was humiliatingly ejected at the behest of Pakistan.
- India stayed away for several reasons:
 - It did not want to join a religion-based organization.
 - There was a risk that improving bilateral relations with individual member states would face pressure as a grouping, especially on matters like Kashmir.
- At the 45th session of the Foreign Ministers' Summit in 2018, Bangladesh, the host, proposed that India, home to more than 10% of the world's Muslims, be given Observer status, but Pakistan opposed it.
- After establishing close ties with powerful members such as the United Arab Emirates and Saudi Arabia, India is confident of riding over any statement issued by the grouping.
- India has consistently stated that J&K is an "integral part of India and a matter strictly internal to India," and that the OIC has no locus stand on the matter.

- India made its first visit as a "guest of honor" at the OIC Foreign Ministers' meeting in 2019. This 1st-time invitation was seen as a diplomatic victory for India, especially at the time of heightened tension in Pakistan in the aftermath of the Pulwama attack.



About Line of Control (LoC)

- The LoC emerged from the 1948 Kashmir War as a "ceasefire line" negotiated by the UN.
- Following the Shimla Agreement between the two countries in 1972, it was designated as the LoC. It is marked on a map signed by the DGMOs of both armies and has the international sanctity of a legal agreement.

The area under Indian control is known as the state of Jammu and Kashmir and Ladakh. The Pakistani-controlled portion is divided into Azad Jammu and Kashmir and Gilgit-Baltistan. NJ9842 is the Line of Control's northernmost point.

CHINA BUILDS ROPEWAY, ROADS NEAR TRI-JUNCTION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Border Security, Tawang

Prepp Mains Booster: India and its neighbourhood- relations

Context:

- Recently, it was stated that **China has built a ropeway near Torsa Nala on its side of the India-Bhutan-China tri-junction**, and is improving roads and other infrastructure throughout the entire eastern sector.
- Also, recently, The Chinese military defended its actions in the **Yangtse area of Tawang sector in Arunachal Pradesh**, blaming India for triggering the December 9 clash by "illegally crossing" the **Line of Actual Control (LAC)**.
- The People's Liberation Army was on a routine patrol on the Chinese side of the LAC when they were blocked by the Indian Army **illegally crossing the line**.

Background

- The Chinese military was said to be conducting a regular patrol in the Dongzhang area on "the Chinese side of the LAC" when they were blocked by the Indian Army illegally crossing the line.
- The Indian side was asked to strictly control and restrain frontline forces, and to work with the Chinese side to maintain peace and tranquillity on the border.
- It was stated that the "current border situation between China and India is generally stable" and "both sides have maintained unimpeded communication on border-related issues through diplomatic and military channels".

Key Highlights

- China increased patrols in the Yangtse area of Tawang sector several years ago to assert its claims in the area after discovering that their grazers could not move in and out.
- It was noted that what irks the **People's Liberation Army (PLA)** is that the Indian Army holds the dominating heights which give a complete view of the bowl.
- The Chinese patrol twice a year, before and after winter, and there are four major ingress points in the Yangtse area that the PLA uses to enter the region.
- Yangtse is located 30-35 kilometers northeast of Tawang at an elevation of approximately 17,000 feet.

Recent Issues

- The PLA has installed a ropeway close to the Torsa Nala on their side near the confluence point, and some new ropeway anchor points have recently been observed. There is also a lot of activity near the Torsa Nala near Doklam, which was the site of a 73-day standoff between Indian and Chinese forces a few years ago.
- According to intelligence sources, there has been a lot of activity and construction along the eastern sector, especially in the last few months.
- **The Line of Actual Control (LAC)** is divided into three sectors: **western (Ladakh), middle (Himachal Pradesh and Uttarakhand), and eastern (Arunachal Pradesh and Sikkim).**
- India has also been significantly upgrading its infrastructure along the LAC in recent years, with plans to ramp up further after the 2020 standoff in Galwan in eastern Ladakh.

No activity in Doklam

- In response to reports of new PLA activity in Doklam, Bhutanese officials stated that there was no such activity "in Doklam," drawing a distinction between the actual tri-junction that was the flashpoint for the India-China standoff in 2017.
- It was stated by Bhutan's Ambassador to India that the information about Chinese activities in Doklam is incorrect, adding that he had checked with the Royal Bhutan Army, which confirmed that **"there are no Chinese activities in Doklam."**
- After 24 rounds of negotiations that began in 1984, China and Bhutan reached an agreement in 2021 on a three-step roadmap to resolve their boundary issues, including the Doklam area.

Importance of Doklam

- Doklam is a high plateau and valley located between China's Chumbi Valley to the north, Bhutan's Ha District to the east, and India's Sikkim state to the west.
- Doklam is a disputed territory between China and Bhutan. It is a plateau and valley area near India on the Bhutan-China border.
- Doklam is strategically important because it is located between Tibet's Chumbi valley to the north, Bhutan's Ha valley to the east, and India's Sikkim state to the west.
- The Doklam area carries significant military advantages, and if it falls into the hands of China, it will jeopardize not only Bhutan's but also India's security.
- Access to the Tri-junction area (via road from Doklam) would allow China easy transportation of war machinery such as tanks and vehicles to India's border.

- If a war breaks out between India and China, the latter will have an advantage in conquering the Chickens Neck of India as well as the entire North-Eastern region of the country.

Differing Perspectives

- According to the Army's December 12 statement detailing the scuffle between Indian and Chinese troops on December 9, there are areas of differing perception along the LAC in the Tawang sector, where both sides patrol the area up to their claim lines.
- Along the 3,488 km-long LAC, India and China have mutually agreed on disputed areas and areas of differing perception.
 - For example, in eastern Ladakh, there are two mutually agreed-upon disputed areas, Trig Heights and Demchok, and ten areas of differing perception. Similarly, Yangtse is one of the eight major friction points in the eastern sector.



*Check this link

<https://prepp.in/news/e-492-as-india-pushes-china-back-on-lac-the-plas-growing-transgressions-risk-strategic-miscalculation-upsc-current-affairs>

THE NEW NORMAL IN THE INDO-PACIFIC CONTESTATION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indo-Pacific

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests, India and its neighbourhood- relations.

Context:

- With rising tensions between an aggressive China and an emerging India, the Indian Ocean and South Asian regions will face significant changes and challenges.
- The world is embracing a "new normal," with new fault lines being reconfigured in the Indo-Pacific.

Key Highlights

- Given their geopolitical and economic importance, as well as India's emergence as a major power, the Indian Ocean and South Asian regions are at the center of this contestation.
- As tensions between an aggressive China and an emerging India rise, New Delhi's Quad partners are also making inroads in its backyard, ushering in significant changes in the region.

About Indo-Pacific Region

- The Indo-Pacific concept is relatively new. The Indo-Pacific region first came to public attention about a decade ago, and its rise has been rapid.
- One of the reasons for the term's popularity is an understanding that the Indian Ocean and the Pacific are linked strategic theaters.

- In addition, the center of gravity has shifted to Asia. The reason for this is that the Indian Ocean and the Pacific provide sea lanes. The majority of the world's trade passes through these oceans.

China's Expanding Influence

- The competition for South Asia and the Indian Ocean is not new. China has long attempted to mark its influence in these regions and enhance its strategic ambitions, namely, to limit Indian influence, military power, and status while maintaining its energy supply and economic growth.
- With its economic boom in the early 2000s, Beijing's reach in South Asia expanded dramatically.
- It began to advance its strategic goals in the region through loans, financial incentives, and mega-infrastructure projects, which became more institutionalized with the launch of the **Belt and Road Initiative (BRI)** in 2013.
- As a result, Beijing was able to gain access to the Indian Ocean, strengthen political and security ties in the region, harbor military vessels and submarines, and lease certain islands and ports (including the Hambantota port of Sri Lanka).
- Only with the Galwan clashes in 2020 does Indian strategic thinking see Beijing as a greater threat than Islamabad.
- While the possibility of a two-front war remains, Pakistan's strategic isolation, economic and political fallout, and border and terror challenges from Afghanistan have reduced the likelihood of its aggression.
- Beijing's increased strategic and diplomatic presence, as well as its grand ambitions, have continued to cause concern in New Delhi.



Steps by India, the rest of the Quad

- Following Galwan, New Delhi has re-energized diplomatic efforts in its own backyard. In the Maldives, New Delhi is responding to President Ibrahim Solih's 'India First' policy with massive economic assistance, grants, and infrastructure projects, as well as cooperation on maritime security.
- Prime Minister Deuba's government in Nepal has attempted to improve Nepal's overall bilateral relations with India.
- India has provided \$4 billion in economic and humanitarian assistance and investments to crisis-hit Sri Lanka this year alone.
- India's leadership in South Asia and the Indian Ocean has piqued the interest of other Quad members (Japan, Australia, and the United States).
- These partners have worked closely together to push back against China and offer genuine alternatives to the BRI; they have also aided Sri Lanka throughout the crisis. Japan is also nearing the end of debt restructuring negotiations with Sri Lanka.
- Australia and the United States have committed to opening embassies and expanding cooperation in the Maldives.
- The United States signed a defense and security framework with the Maldives in 2020. To China's chagrin, Nepal also ratified the United States' Millennium Challenge Cooperation (Nepal Compact) earlier this year.

Recent Challenges

- India's and its partners' recent success is unlikely to deter China from expanding its presence in the region.
- With tensions rising against India and the Quad partners making inroads in South Asia, such an outcome appears unlikely.
- The Chinese surveillance vessel Yuan Wang-5 (which had docked in Sri Lanka in August) re-entered the Indian Ocean earlier this month.
- A similar incident occurred last month when another Yuan Wang series vessel entered the Indian Ocean during a test flight of an Agni-series missile.
- Beijing also hosted the first-ever China-Indian Ocean Region Forum to formalize its presence in the region and challenge new initiatives like the Quad and the Colombo Security Conclave.

Significance of Indo-Pacific Region for India

- **Strategic importance:** The Indo-Pacific region is a multipolar region that contributes more than half of the world's GDP and population. A stable, secure, and prosperous Indo-Pacific region is an important pillar of India's strategic partnership with other countries, particularly the United States.
- **Mineral Resources:** Maritime territories have also emerged as depositories of vital resources ranging from fish stocks to minerals and offshore oil and gas. The South China Sea, for example, is estimated to hold 10% of the world's catch of fish, as well as 11 billion barrels of oil and 190 trillion cubic feet (tcf) of gas.
- **Economic Growth:** According to an Asian Development Bank (ADB) report, countries in the Indo-Pacific produce more than 60% of global GDP, making the region the largest single contributor to global growth.
- **Commerce:** The region contains many of the world's critical choke points for global commerce, including the Straits of Malacca, which is critical for global economic growth. The Indo-Pacific region is also a crossroads of international trade, with approximately 32.2 million barrels of crude oil passing through annually and the region accounting for 40% of global exports.
- **Maritime Trade:** Pacific islands are strategically important from the perspective of New Delhi because they sit astride important sea lines of communication through which important maritime trade is conducted.

The Way Forward

- Beijing will continue to use its financial and economic might, as well as its political influence, in South Asia.
- South Asian countries would also hesitate to completely move away from China as they hope to exercise their agency by balancing with China and India — essentially making this competition a 'new normal'. This trend will only worsen as new players enter the region.
- With most South Asian countries currently experiencing economic and political turmoil, such a balancing outcome is very likely. The COVID-19 pandemic and Russia's invasion of Ukraine have continued to haunt the region.
- Nepal, the Maldives, and Bhutan are all dealing with depleting foreign exchange reserves. Bangladesh has agreed to a \$4.5 billion bailout with the International Monetary Fund.
- Sri Lanka is still trying to figure out how to get out of its economic crisis. Energy shortages, inflation, and negative or slow economic growth are also interfering with daily life in these countries.
- As a large part of South Asia goes to the polls in 2023, these economic grievances, combined with political opportunism, are likely to fuel further instability in the region. Protests in Bangladesh are a mere indication of what's to come.
- New Delhi and its partners, who have only recently begun to make inroads against China, should be prepared to meet these challenges.

SUSPENSION OF HIGHER EDUCATION RIGHTS FOR GIRLS IN AFGHANISTAN

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Education rights

Prepp Mains Booster: International relations - India and its neighborhood

Context:

- The Taliban Government in Afghanistan announced that it had decided to indefinitely suspend higher education for girls.
- The ministry of education said that the decision had been made in a cabinet meeting and would be effective immediately.



Background

- After returning to power in August 2021, the Taliban promised a softer rule than Taliban 1.0(1996-2001) but it has been systematically curbing the rights of its citizens, especially females.
- The Taliban believe in a rigid version of Islam's Sharia law in which women are not allowed a role outside the household.
- According to the order issued by the Ministry of Higher Education, women are barred from entering public and private campuses.
- Afghan security forces were deployed to implement the order which has seen widespread opposition with some male students walking out of classrooms in solidarity with their classmates.



Taliban and Women

- In a return to policies that were in force during the previous rule of the Taliban, the government has now decided to restrict the education of women.
- In the immediate aftermath of their return to power, separate classrooms were implemented for boys and girls in all educational institutions.
- In November, women were barred from entering amusement parks, fairs, gyms, and public areas. They are also not permitted to travel beyond the cities they live in unless accompanied by a male relative or guardian.
- Admissions to universities were allowed but with severe restrictions on the subjects they could choose. Engineering, Veterinary medicine,

agriculture, and agriculture were excluded while seats for journalism were limited.

- All women are now mandatorily required to cover their faces in public, even women journalists.
- Human Rights Watch recently reported that women civil servants have either been dismissed or paid a small portion of their salary and asked to stay at home.

Impact

- 50% of the Afghan population will now be denied the right to education and consequently the right to dignified labor. Afghanistan now becomes the only country in the world where girls are actively forbidden a modern education.
- According to a UNICEF report, the deprivation of education for girls cost the Afghan economy \$ 500 million (2.5% of the country's GDP) in the past year.
- The report further claims that the entry of three million of those girls into the workforce after completing their education would have earned Afghanistan around \$5.4 million.

Women's Right to Education

- SDG 4: ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- SDG 5: achieve gender equality by ending all forms of discrimination, violence and any harmful practices against women and girls in the public and private spheres

International Response

- Western nations like Germany and USA have criticized the move and threatened Afghanistan with consequences.
- Middle Eastern neighbors like Saudi Arabia and Qatar have responded to the move as disappointing and a violation of the legitimate rights of all women.
- The promise of international legitimacy and humanitarian aid amid the socio-economic crisis in Afghanistan is an opportunity for larger countries to influence the Taliban regime to revoke the ban.

India

- India has so far taken a hands-off approach, even attempting talks with the Taliban regime and reopening its embassy in Kabul.
- India's decision to deny visas to all Afghans will hurt the chances of female students looking to immigrate in order to continue their education.
- This is an opportunity for India to assume a regional leadership role and exert pressure on Afghanistan to respect the rights of its citizens.

Doha Talks

- It was a set of negotiations between The USA and the Taliban to end the conflict in Afghanistan mediated by Qatar in 2020.
- The USA agreed to withdraw from Afghanistan and revoke sanctions on Taliban leaders while the Taliban agreed to prevent terror organisations from using Afghanistan to attack other nations.
- A prisoner swap and discussions with the elected government were other features of this agreement.

FOCUS ON AFRICA, THE HEART OF THE GLOBAL SOUTH

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: US-Africa Summit

Prepp Mains Booster: Regional Groupings, Agreements affecting India's interests

Context:

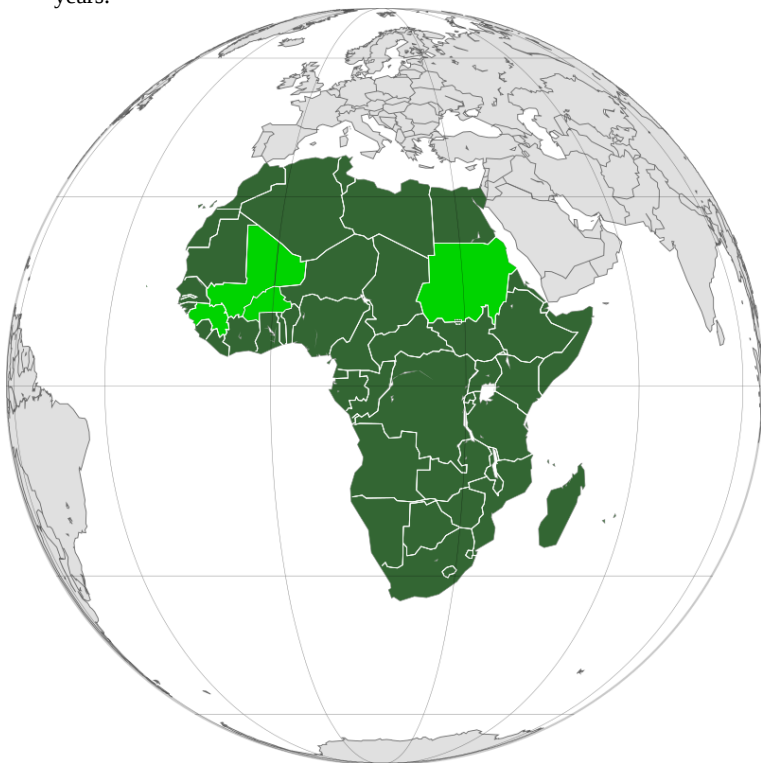
- Recently, the second **US-Africa summit** was held in Washington and was attended by 49 African countries and the chair of the **African Union** to discuss political, security, and economic cooperation.
- India's G20 presidency** for 2022-23 can be an opportunity to aid Africa.

What is the US-Africa summit?

- The US-Africa summit is a meeting of the leaders of the USA and invited nations of Africa.
- The summit held between 13th and 15th December was the second edition after the first held in 2014.
- Of the 54 countries of the African Union that were invited to the summit, 49 participated alongside the chairperson of the African Union.
- The summit broadly discussed **political, economic, and security cooperation** and specific topics such as **food security, climate change, Covid 19 and future pandemics, and diaspora**.
- It is part of the USA's attempt to become Africa's '**partner of choice**' despite African countries not wanting to choose.

What were the outcomes of the summit?

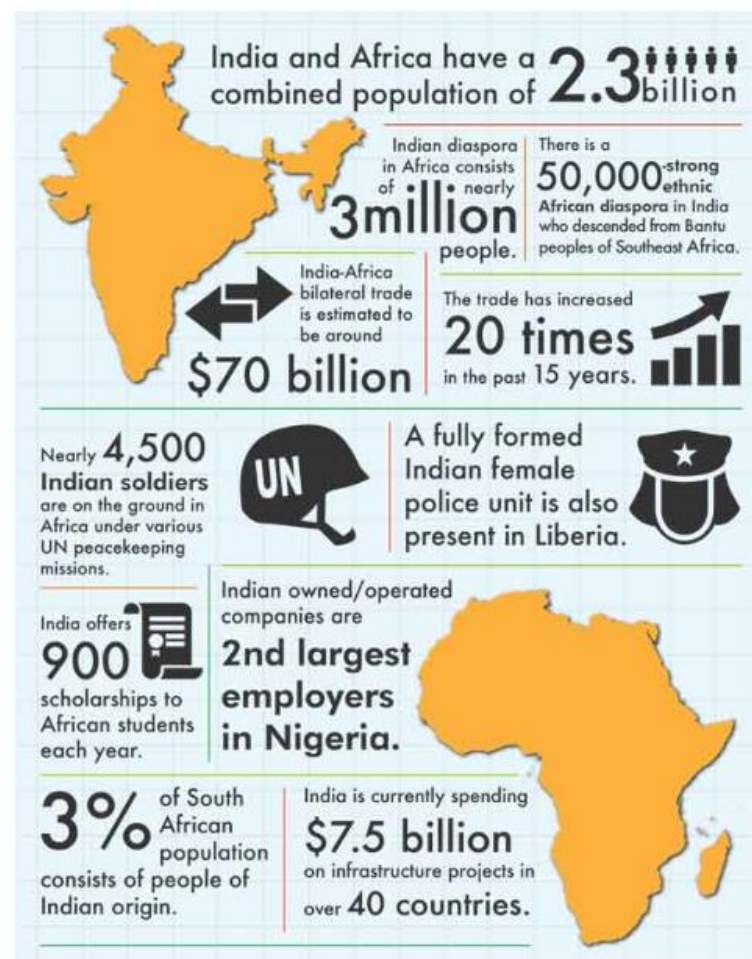
- The USA agreed to support the entry of the African Union into the G20 as a permanent member.
- The USA agreed on reforming the UNSC to allow permanent representation for Africa despite opposition from ASEAN and the European Union.
- The President and Vice-President will visit Africa in 2023.
- \$21 billion** to be granted to the **International Monetary Fund (IMF)** to improve access to financing in middle and low-income countries.
- A pilot program worth **\$10 million** to increase the security capacity of African nations was also announced.
- The USA has planned to invest **\$55 billion** in Africa over the next three years.



China's ties with Africa

- China has developed steady and extensive diplomatic and economic cooperation with Africa making it the continent's largest trading partner and fourth-largest investor.
- In 2021, China-Africa trade stood at **\$254 billion** compared to the US-Africa trade worth **\$44 billion**.

- In 2021, China's investment in Sub-Saharan Africa was **\$43.4 billion** versus the American investment of **\$30.1 billion**.
- The **Forum on Chinese-African Co-operation (FOCAC)** comprised of ministers and leaders from both parties was established in 2000. The body meets every three years, alternating between Beijing and an African capital.
- FOCAC sees the direct involvement of the Chinese President and has an inter-ministerial mechanism to ensure the timely implementation of decisions.
- The last edition of FOCAC held in Dakar(2021) saw African countries expressing support for **China's Belt and Road initiative, Global Development principle, One China principle**, and vision of a community with a shared future.
- China's diplomatic endeavors in Africa have followed the win-win policy which has seen it remain a favored ally despite problems with its economic initiatives.



What does it mean for India?

- India has had ties with Africa since the beginning of the millennium.
- The last two decades have seen India expand its cooperation with Africa across continental, regional, and bilateral levels.
- However, there has been a downturn in the relationship recently due to Covid, the Russia-Ukraine crisis, and the conflict with China.
- India is not actively pursuing any specific development goals in Africa like food security, health, energy, or infrastructure projects which has made Chinese investment attractive for Africans despite the closer and richer ties with India.
- Lack of synchronization between ministries has resulted in poor implementation of India's projects.

- Growing influence of other countries in Africa is a security risk as it provides access to the Indian ocean. An example of this is the Chinese naval base in **Djibouti**.

Why are countries looking to build ties with Africa?

- Africa is one of the world's **growth hotspots** since it hosts nations with the fastest economic growth this decade, including Rwanda, Senegal, Tanzania, and others.
- In the last ten years, real GDP growth in Africa and Sub-Saharan Africa has been more than twice as fast as it was in the 1980s and 1990s.
- With a population of over **one billion people** and a **GDP of 2.5 trillion dollars**, the African continent offers a sizable market.
- Africa is a country with abundant natural resources, including metals like gold and other metals, leather, gas, pulses and lentils, and crude oil, all of which India does not have access to in adequate amounts.
- **Oil supply diversification** away from the Middle East, Venezuela, and Russia

Way Forward

- The G20 Presidency is India's opportunity to restrengthen ties with Africa by ensuring the African Union receives permanent membership to the body.
- India and the US can work together in Africa to develop the continent and reduce Chinese influence on the region.
- The **India-Africa Forum Summit** should be conducted in 2024, to promote good working relationships as was done between 2014 and 2019.

African Union

- The African Union (AU) is a continental body made up of 55 member nations.
- The independent African states created the Organization of African Unity in 1963 to encourage collaboration among African nations.
- The **Organization of African Unity** was replaced by the African Union in 2002, which included accelerating the "economic integration of the continent" as one of its objectives.
- The organization's objectives cover human rights protection, economic and social growth, and global peace and cooperation.

Africa-India Forum Summit

- The official forum for relations between India and Africa is the India-Africa Forum Summit (IAFS).
- It has been held once every three years beginning from 2008 but has been postponed since 2015.
- Through its regular hosting of the India-Africa Forum Summit (IAFS) in cities like New Delhi (2008), Addis Ababa (2011), and New Delhi (2015), India has established relationships with the 54 African governments (AU).

INDIA ARMENIA RELATIONS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Armenia

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- Recently, **Armen Sarkissian**, a scientist and diplomat, Republic of Armenia's fifth prime minister and fourth president, stated that the **partnership between Armenia and India** is not solely driven by governments. Ordinary citizens from both countries are driving it forward to a large extent.

- He discusses how **Mahatma Gandhi's teachings** helped him become a better leader.



Background

- Armenia and India celebrated **30 years of bilateral diplomatic relations in 2022**.
- Armenia and India are ancient civilisations that have known each other for millennia.
- Given the vast distance that separates them, the familiarity and depth of mutual affection between the two countries is remarkable.
- India, the land where generations of Armenian diaspora communities thrived and gave shape to the dream of resurrecting the Armenian state, which had been obliterated by centuries of invasion and rule by foreign powers.
- Consider the Mamikonians, a revered aristocratic dynasty that ruled vast swaths of Armenia until the 8th century.
- A branch of the family moved between Armenia and India, and the greatest warrior it produced — the fifth-century military commander Vartan Mamikonian — had a Sanskrit name.

History with India

- Centuries before Vartan Mamikonian led his forces in defense of Christianity against the Persian army, a pair of Indian princes from Magadha sought refuge in Armenia and were even permitted to establish Hindu settlements.
- As late as the Mughal era, Indian rulers reciprocated that warmth and liberality. Armenians were highly valued for their artisanship in 17th-century India, and royal courts hired them as advisors.
- By the 19th century, Kolkata — home to the fabled classical singer Gauhar Jaan, among other Armenian-Indians — had earned a reputation as an Armenian city.
- It was in Chennai that the idea of resurrecting the Armenian state first germinated.
- As early as 1773, Shahamir Shahamirian, the great Armenian nationalist based in southern India, published his pamphlet on a future Armenian state - a work that has rightly come to be regarded as both a roadmap and a draft constitution for a reconstituted Armenia.
- Two decades after Shahamirian's book, the first Armenian language journal, Azdarar, was published from Chennai.
- Together, these two prints galvanized Armenian communities around the world and sparked a national consciousness.
- The Armenian republic, which existed for a brief period between 1918 and 1920, was the culmination of an aspiration that had taken wings in India.
- The Armenian republic, which was reborn in 1991, was recognized by India the day after the Soviet Union fell apart.
- New Delhi chose Yerevan, the Armenian capital, as the location for its first Caucasus embassy.

Lessons from India's Struggle for Freedom

- In 2018, just days after being sworn in as Armenia's fourth president, Armen Sarkissian faced the most formidable political challenge in the country's post-Soviet history, as tens of thousands of demonstrators gathered in the capital to demand the expulsion of the then-prime minister.
- The protest has since then titled as "velvet revolution," but there was nothing to suggest that it would end peacefully at the time.
- The slightest miscalculation on either side could have resulted in carnage. Every year on **April 24, Armenian Genocide Remembrance Day is observed.**
- The impetus for what followed came from the **readings of Mahatma Gandhi, who had set the highest standard for personal conduct in politics.**

Power of Non-Violence

- During the protest, Armen Sarkissian informed his advisors that he would be meeting with the protestors. They scoffed and stated unequivocally that his security detail could not guarantee his safety.
- Armen Sarkissian stated that 'The people gathered outside the presidential palace were my countrymen and If I feared them, I couldn't be their president. So I walked out of the palace and into the crowd, shaking hands with everyone.'
- They spoke freely after realizing that their first citizen was not some distant figure. This breakthrough was worth every risk to my life. Suddenly, there were cheers.
- Instead of a bloodbath, Armenia experienced a peaceful transfer of power in the weeks that followed. This story demonstrates the enduring power of nonviolence.

Role of India

- Over the last half-decade, India has emerged as Armenia's most important defense partner.
- The current Indian leadership is unafraid to speak bluntly about the ongoing aggression in the Caucasus, including the blockade of the Lachin corridor, which has cut off 1,20,000 Armenians from the rest of the world.
- Armenia's president treasured his excellent relations with India, and it is heartening to see Delhi's solidarity with Armenia in this time of crisis.
- Armenia and India's partnership is not solely motivated by governments. It is pushed forward to a large extent by ordinary people in both countries, just as it was two thousand years ago.

Diplomatic Relation between India and Armenia

- Armenian-Indian relations have been described as cordial. It was reported in 2022 that the two countries were looking into the possibility of long-term military cooperation.
- India recognized Armenia on December 26, 1991, three months after it declared independence from the Soviet Union.
- India and Armenia established diplomatic relations on August 31, 1992. On March 1, 1999, India opened its embassy in Yerevan.
- Armenia, which had opened an honorary consulate in April 1994, established an embassy in New Delhi in October 1999.
- In March 2020, Armenia signed an agreement with India to purchase four Swathi Weapon Locating Radars for US\$40 million.
- Armenia signed an agreement with India in September 2022 to purchase four batteries of Pinaka multi-barrel rocket launchers, anti-tank rockets, and various types of ammunition for Rs.2,000 crore (US\$250 million).

UZBEKISTAN FALLOUT: UNION GOVERNMENT ISSUES 'ETHYLENE GLYCOL (QUALITY CONTROL) ORDER, 2022'

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: Ethylene Glycol

Prepp Mains Booster: Issues relating to Health, Effect of policies of countries on India's interests

Context:

- Recently, on 29th December 2022, the **Department of Chemicals and Petrochemicals** had issued a notification titled **Ethylene Glycol(Quality Control) Order.**
- In December 2022, Uzbekistan had alleged that 18 child deaths were caused by an Indian cough syrup.

What does the order say?

- Under the heading 'Conformity to standards and compulsory use of standard mark', all goods and articles (ethylene glycol) are to meet the prescribed standards in IS 5295:1985.
- All products should possess the standard mark issued by the **Bureau of Indian Standards** as per the Bureau of Indian Standards (Conformity Assessment) Regulations 2018.
- The title 'Certification and enforcement authority' states that the Bureau of Indian Standards is the certifying and enforcing authority.
- The Order shall apply to any amendments made in the Bureau of Indian Standards to the Specifications for Ethylene Glycol.
- The order has mentioned that violations of the order shall be punished under the provisions of the Bureau of Indian Standards Act 2016.

What has Uzbekistan alleged?

- Uzbekistan has claimed that the use of **Doc-1 Max Syrup** produced by UP-based Marion Biotech has led to the death of 18 children in Samarkand.
- 18 of the 23 children who used the syrup died of respiratory ailments.
- The drug which had been manufactured solely for export purposes has been taken off the market in Uzbekistan.



What is ethylene Glycol?

- Ethylene Glycol is an organic compound also known as **Monoethylene Glycol.**
- It is **highly toxic, viscous, colorless, odorless, and sweet** to taste.
- It is used as an **antifreeze** and as a **raw material for the plastic industry.**
- Ethylene glycol is produced when ethylene oxide reacts with water and remains in **liquid state at room temperature.**

- Diethylene glycol and ethylene glycol are adulterants illegally used as **solvents in liquid drugs as an alternative to non-toxic solvents like glycerine or propylene glycol** to cut costs.
- Ethylene glycol intoxication can result in respiratory depression, central nervous system depression, nausea, vomiting, intoxication, euphoria, stupor, and diminished urine output. A coma, loss of reflexes, convulsions (rare), and inflammation of the brain's lining tissues can all be evidence of severe poisoning.

Similar Cases

- In October 2022, **Gambia** had reported that 66 deaths in the country could be linked to the use of an ethylene glycol-contaminated cough syrup produced by an Indian manufacturer.
- The WHO had confirmed that 4 out of 23 samples tested from Gambia contained traces of ethylene glycol. In December the **DCGI** denied this and said that samples showed no traces of contaminants.
- In 2020, 13 children had died in Himachal Pradesh after drinking adulterated cough syrups.
- 12 children in Jammu and Kashmir had died due to the consumption of ethylene glycol-laden cough syrup.

What are the rules regarding the export of drugs from India?

- The **CDSO i.e the Central Drugs Standard Control Organization** is the apex regulatory body for drugs, cosmetics, and medical devices. It can grant permission to any manufacturer to export drugs.
- At the time of the license issue, the drugs may be checked by the regulator but it is rarely done. State regulators are also expected to perform quality checks.
- The first point of testing is at the manufacturer level. Here the drug is tested to see if it follows the safety norms of **Indian Pharmacopoeia** and the rules of the exporting country. Manufacturer states are expected to rigorously maintain the standards of the destination countries.
- Usually, drug certification is country-specific while standards of countries like the USA and UK are globally accepted. The UN has its own pre-qualification programme to certify the sale of drugs.
- Countries do not often conduct internal testing at the point of entry.

CDSO

- The National Regulatory Authority (NRA) of India is the **Central Drugs Standard Control Organization (CDSO)** under the Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.
- In accordance with the provisions of the **Drugs and Cosmetics Act**, CDSO is in charge of approving new drugs, conducting clinical trials, establishing drug standards, monitoring the quality of imported drugs, and coordinating the operations of state drug control organizations by offering professional guidance to ensure consistency in the application of the Drugs and Cosmetics Act.
- For the licensing of specific specialized categories of important drugs such as blood and blood products, intravenous fluids, vaccines, and sera, CDSO and state authorities are equally responsible.

DCGI

- The Central Drugs Standard Control Organization (CDSO) in India is led by the Drug Controller General of India.
- The Medical Device Rules of 2017's DCGI serve as the primary licensing body for medical devices.
- Government of India's Ministry of Health & Family Welfare's Directorate General of Health Services oversees CDSO, which is led by the Drug Controller General of India.
- DCGI is in charge of:
 - Establishing regulations for the production, marketing, importation, and distribution of medicines in India.
 - Regulating pharmaceutical and medical equipment.
 - Serving as an appellate authority in the event that there is a disagreement regarding the drug's quality.

- Establishing and upholding the drug reference standard at the national level.
- Ensuring uniformity in the Drugs and Cosmetics Act's application.

2023: THE YEAR INDIA MAY REALISE ITS GLOBAL POWER ASPIRATIONS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Events of National and International Importance

Prepp Mains Booster: International Relations, Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests, Effect of policies and politics of developed and developing countries on India's interests

Context:

- In this article, Ram Madhav writes that **India may realize its global power ambitions by 2023.**
- As we begin the new year, **India has assumed leadership of key multilateral organizations such as the G20 and the SCO.**
- It has received accolades for its principled stance on the Russia-Ukraine conflict. The new year will provide India with the opportunity to realize its **"world power" ambition.**

Key Highlights

- Prime Minister Narendra Modi discussed making the United States a key partner "in realizing India's rise as a responsible, influential world power" during his first meeting with President Barack Obama in September 2014.
- This was in a way the first time that any Indian prime minister had talked about the country's ambition to grow into a "responsible, influential world power".
- That ambition has been reflected in the way the Modi government has operated over the last eight years.
- From wars to the economy to climate change, **India has become an integral part of the contemporary global discourse.**

India's Role in Global Politics

- India is not new to taking the lead in global politics. Since its inception, India's leadership has actively pursued an agenda that has favored the interests of developing or less developed countries.
- Whether it was during the **GATT negotiations or the Non-Proliferation Treaty**, India took a principled stance and stood up to the developed world's policy dominance.
- During WTO negotiations, India played a significant role in protecting the interests of the developing world. Murasoli Maran, the Minister of Commerce in the Vajpayee government, was instrumental in preventing developed countries from imposing their trade and commercial agendas.
- The UPA government maintained that approach, inviting opprobrium and occasional isolation from the interested parties.
- However, this did not deter India from opposing agendas that were seen as being against the interests of not only its people, but also the larger developing world.
- India's significant contribution in all of these forums was that it added a moral dimension to the developed world's monetary vision. However, India gained the reputation of being a skeptic and obstructionist in the process.

Shift in the Earlier Approach

- PM Modi influenced a shift in this approach. While defending the developing world and zealously defending its strategic autonomy, India began to take a proactive role in finding solutions.
- The Paris Climate Summit in 2015** provided India with its first major opportunity to highlight its new priorities. It was critical in securing the

climate deal while ensuring that the interests of the developing world were not jeopardized.

- PM Modi cogently articulated this stand in an article in the Financial Times on the eve of the Summit: "Justice demands that, with what little carbon we can safely burn, developing countries are allowed to grow. The lifestyles of a few must not crowd out opportunities for the many who are still at the bottom of the development ladder."
- Developed countries agreed to the principle of "common and differentiated responsibility" as a result of India's efforts.
- India also persuaded developed countries to accept the formulation of "**intended nationally determined contributions**," or **INDCs**, rather than externally imposed targets.



India's Role During the Covid Pandemic

- India's emergence as a major player on the global stage was bolstered by its proactive response to the Covid pandemic.
- Aside from undertaking the massive exercise of vaccinating its billion-plus citizens, India came to the aid of more than 90 countries by ensuring a timely supply of vaccines through its "**Vaccine Maitri**" program.
- As entering the post-Covid era, India's growing importance is evident in many areas. Its post-Covid economic recovery has been commendable, with the World Bank revising its 2022 GDP growth projections from 6.5 percent to 6.9 percent.
- The IMF estimated it to be 6.8 percent, while the rest of the world was expected to grow at 4.9 percent.

Relation with Other Countries

- The **India Africa Forum Summit (IAFS)**, founded in 2008 as a triennial event by then-Prime Minister Manmohan Singh, convened for the third time in 2015 in Delhi.
- India took a special interest in strengthening ties with African nations, which resulted in the highest-ever participation in the Summit. It is critical to resurrect the process. Similarly, India's relations with Latin American countries require greater impetus.

Role in G20

- At the G20 Summit in Bali, India played a critical role in ensuring that both Russia and its critics, such as the United States, had their say on the Russia-Ukraine conflict in a dignified and uninterrupted manner.
- India, for its part, conveyed to the Russian leadership that the time had passed for war. The new year will present an opportunity for India to play a role in ending the war.
- The Indian leadership's ability to manage that burden will determine the country's future status.
- As G20 chair, India has the opportunity to set a new agenda in front of the world's most powerful group of nations. It has always worked for the wise distribution of global public goods in the past. It is now time to make similar efforts for global digital and genetic goods.

- The advent of artificial intelligence and genetic manipulation technologies will upend the world. These technologies will devastate humanity's future if they are not globally regulated in a timely manner.

India's Position and Dialogues during Russia-Ukraine Conflict

- India's stance on the Ukraine crisis has been unwavering and consistent. India has expressed grave concern about the deterioration of the situation and has called for an immediate cessation of violence and the cessation of all hostilities.
- At the UNSC and UNGA, India has urged an immediate ceasefire and safe passage for stranded civilians. India has also emphasized the humanitarian assistance extended to Ukraine and its neighbors during this time of crisis.
- Since the beginning of this crisis, Prime Minister has met with the leaders of the Russian Federation, Ukraine, and its neighbors, as well as other major world leaders, and has conveyed to all parties involved that there is no other option but diplomacy and dialogue.

Challenges

- In global politics, India has always favored moralism. In climate talks, the Indian side is also relying on traditional wisdom to achieve global good. India must bring a moral dimension to new technological developments.
- There are a couple of stumbling blocks in India's ambition to become a global power. Externally, China may try to limit India's ambitions by keeping the border tense.
- Domestically, the escalation of religious and political fault lines for electoral or ideological reasons may jeopardize the leadership's ability to rise in global stature.
- Opportunities are accompanied by challenges. India will have both in the year 2023.

Way Forward

- The country is starting the new year on a high note. It now controls the leadership of important multilateral organizations such as the G20 and the SCO.
- It has received accolades for its principled stance on the Russia-Ukraine conflict. The new year will thus provide India with the opportunity to realize its "world power" ambition, which its leadership articulated in 2015.
- India must not lose sight of the principles it has always upheld: it must continue to be the voice of the Global South.
- It means it must increase its diplomatic, strategic, and political investments in Asia, Africa, and Latin America.
- With SAARC failing and BIMSTEC dead in the water, India's focus on the ASEAN and Indian Ocean region must intensify. Its Act East policy requires more strength and must be effective.

INDIA AUSTRALIA ECONOMIC AND COOPERATION TRADE AGREEMENT COMES INTO FORCE

Priority: High 
Primary Source: PIB

Prepp Prelims Booster: India-Australia

Prepp Mains Booster: International Treaties and Agreements, Bilateral and Regional groupings affecting India's interests

Context:

- Recently, on December 29th, the **India-Australia Economic Cooperation and Trade Agreement** came into force.
- The Agreement came into force thirty days after the Agreement was ratified in November.
- This is the second Trade Agreement India had signed in 2022, after the **India-UAE Comprehensive Economic Partnership Agreement**.



What is the ECTA?

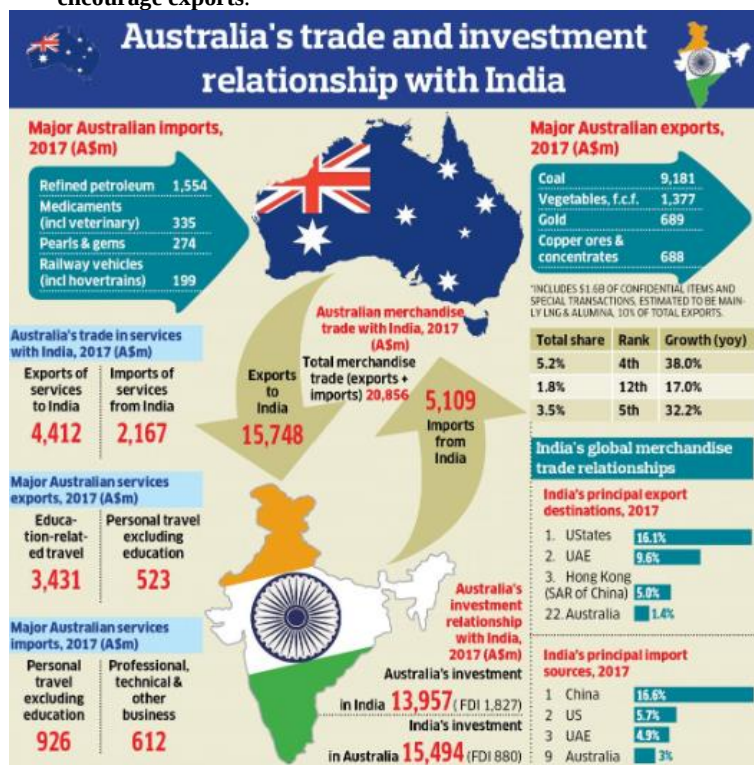
- An Economic and Cooperation Trade Agreement provides a formal framework for promoting and enhancing trade between the two nations.
- Nearly all of the tariff lines that India and Australia, respectively, deal with are covered by the ECTA.
- India will profit from Australia's offer of **preferential market access** on all of its tariff lines.
- The Agreement covers cooperation in the following areas across the whole spectrum of bilateral economic and commercial ties between the two friendly nations:
 - a. Trade in Goods and Origin Criteria
 - b. Exchange of Services
 - c. Technical Trade Barriers (TBT)
 - d. SPS (sanitary and phytosanitary) precautions
 - e. Settlement of Disputes, Movement of Natural Persons
 - f. Procedures for Telecom and Customs
 - g. Pharmaceuticals and other areas of cooperation
- This comprises all the labor-intensive export industries that India is interested in, such as textiles, leather goods, footwear, furniture, and gems and jewelry.
- While India will give Australia preferential access to more than 70% of its tariff lines, especially those involving raw goods and intermediaries like coal, mineral ores, wines, and so on.
- Indian STEM (Science, Technology, Engineering, and Mathematics) graduates will be eligible for extended post-study work visas under the terms of the agreement.
- Additionally, Australia will establish a scheme to issue visas to young Indians desiring to take working holidays there.
- A limit of 1800 visas will be issued each year to Indian chefs and yoga instructors.
- Additionally, it is predicted that ECTA will result in the creation of **10 lakh new jobs**.

Why was the ECTA needed?

- A tariff disadvantage of 4–5% currently exists between Indian exports and China, Thailand, Vietnam, South Korea, Japan, Indonesia, and Malaysia in many labor-intensive industries in Australia.
- India's **exports of goods could increase** if these obstacles were removed.
- Many Indian companies will benefit from **cheaper raw materials** and increase their competitiveness as a result of having **zero-duty access to 85% of Australian goods**, especially in industries like steel, aluminum, electricity, engineering, and so forth.
- It will dispel the idea that India is overly "**protectionist**" and answer doubts about India's willingness to conduct business with other countries.
- Strong Australia-India economic linkages will also pave the way for a stronger **Indo-Pacific economic architecture** that is built on establishing capacity-led links, complementarities, and durable commitments rather than just flows of physical commodities, money, and people.

What are the benefits of the Agreement?

- According to the minister of Commerce and Industry, Australia is a prime site for exports due to the low level of manufacturing.
- Australia is majorly a **raw material and intermediate producer** which will benefit Indian manufacturers.
- The increased import will result in greater choice for finished products in the Australian market and open up **new opportunities for employment**.
- **Removal of double taxation** will save millions and in the long term billions for the IT industry.
- Clauses have been included in the agreement to **protect the dairy and agriculture** sectors, which are crucial to both countries.
- Australia has made extensive commitments in roughly 135 subsectors and granted **Most Favoured Nation (MFN) status** in 120 subsectors.
- India has given Australia access to its market in about 103 subsectors and granted it **Most Favoured Nation status** in 31 subsectors including "business services," "communication services," "construction and allied engineering services," and so on.
- A separate **Annex on Pharmaceutical Products** has also been agreed to by both parties, allowing for the fast-track approval of proprietary, generic, and biosimilar medications.
- Additionally, it is anticipated that the agreement will **foster close ties between the two countries, expand investment opportunities, and encourage exports**.



India - Australia Ties

- Commercial links between Australia and India stretch back to the **18th century**. As India was a significant source of food and supplies for Australia, trade with Australia eventually became a significant component of the East India Company's operations in Bengal.
- **Australia has supported India's bid for a seat on a larger UN Security Council.**
- India and Australia are both participants in the **East Asia Summits and members of the G-20, Commonwealth, IOR-ARC, ASEAN Regional Forum, and the Asia Pacific Partnership on Climate and Clean Development.**
- Both nations have been working together as **FIP (Five Interested Parties) participants in the WTO.**

- Australia, a significant participant in APEC, has backed India's admission to the group.
- Australia joined SAARC as an observer in 2008.
- Both a **Joint Declaration on Security Cooperation** and an **MoU on Defense Cooperation** have been signed.
- The India-Australia defence relationship includes strategic discussions, coordination, and **information sharing; military drills involving ground, air, and maritime forces; exchanges and training; and defence, scientific and technological cooperation.**
- **India is Australia's fifth-largest trading partner, and Australia is India's eighth-largest trading partner.**
- The number of students enrolling from India has decreased dramatically as a result of revisions to student visa laws, general skilled migration rules, the negative effects of the spate of student attacks in 2009–10, and the growing cost of the Australian dollar.
- Australia has a sizable Indian diaspora.
- Along with the High Commission in Canberra, India also maintains Honorary Consulates in Brisbane, Sydney, Melbourne, and Perth.

17TH ASIA AND THE PACIFIC REGIONAL MEETING CONCLUDES WITH LAUNCH OF 'SINGAPORE STATEMENT'

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: ILO

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development, and employment; Inclusive growth and issues arising from it; Important International institutions, agencies and fora- their structure, mandate.

Context:

- Recently, 17th Asia Pacific Regional Meeting (APRM) of the International Labour Organization (ILO) was held in Singapore.
- The Singapore Statement was adopted by delegates at the APRM closing ceremony, and ILO Director-General Gilbert F. Hounbo hailed it as "a common vision of the region's goals for national action among the ILO members and with ILO support in the coming years."



Outcomes of the Meet-Singapore statement

- The Singapore statement identifies a number of priorities for national action in light of the difficulties and rising opportunities faced by Asia, the Pacific, and Arab States.
- Ratifying ILO core conventions and enhancing the abilities of government, employer, and worker representatives to conduct meaningful social dialogue are at the top of the list.
- **Access to labour protection:** Governments and social partners are urged by the Statement to ensure that everyone has access to labour protection by fostering their right to association and by effectively recognising their right to collective bargaining.
- It urges ILO member nations to consider ratifying and effectively **implementing relevant international labour standards**, accelerating

the shift from the **informal to the formal economy**, and **strengthening governance frameworks** to protect the rights of migrant workers.

- **Close Gender Gaps:** It also calls for action to close gender gaps. In the face of climate change, it also asks for a fair transition that aids in creating economies and society that are environmentally sustainable.
- **Skill development and Productivity:** The importance of reviving productivity growth and skills development is emphasised in order to create more and better employment, with an emphasis on lifelong learning, digital transformation, and the digital divide.
- **Social justice:** The Statement emphasises the requirement for strengthening the structural underpinnings of social and employment protection and resilience.
- **Social Security:** To address the rising cost of living, policies for adequate, fair, nondiscriminatory wages and the abolition of all forms of forced and child labour are necessary.
- These include extending social protection to all workers, enhancing labour inspection systems, improving occupational safety and health (OSH), and addressing the rising cost of living.
- The Statement further reaffirms that governments and social partners from many regions are committed to holding discussions in order to create a **global coalition for social justice.**

Steps to be taken

- **Employment:** Investment in job-rich and employment-rich sectors is the way forward.
- **Inflation:** Central banks are tightening the monetary space by making these monetary restrictions and the impact of this must be looked into in the job market.
- The decisions should help control inflation but they do not worsen the precarious situation.
- **Ukraine:** In addition to other difficulties, the situation in Ukraine is contributing to an inflation and energy catastrophe. Those who have nothing to do with the problem are the ones bearing the cost of it.
- Low paid citizens are those who are left behind, especially in light of inflation.
- They are compelled to spend a sizable chunk of their pay on essentials.
- Furthermore, the threat as a whole is that the multiple crises, such as the war in Ukraine, will cause a significant increase in the number of people living below the poverty line.

Way forward

- India is one of the nations that is recovering from the COVID-19 pandemic.
- Gilbert Hounbo said that as a member of the G-20, India is in a great position to advance.
- India can advance more by emphasising equality and job-rich growth. Gilbert Hounbo claims that he was extremely concerned about COVID-19's effects in India as well.
- Inequality in a nation like India can rise if the recovery is hampered by inflation and other factors. India needs policies that emphasise equality and job-rich growth.

International Labor Organisation

- The ILO, the **only tripartite U.N. organisation**, was founded in 1919 and since then has brought together governments, employers, and employees from 187 Member States to set labour standards, create laws, and create programmes to support decent employment for all women and men.
- It was created in 1919, as part of the **Treaty of Versailles** that ended World War I.
- The main aims of the ILO are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue on work-related issues.

GENERAL STUDIES 3

Growth development poverty employment and unemployment

WOMEN, UNEMPLOYED, RURAL POOR LAGGING DUE TO DIGITAL DIVIDE: OXFAM INDIA REPORT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian Inequality Report

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development, and employment; Issues relating to the development and management of Social Sector/Services relating to Health, Education, and Human Resources

Context:

- Recently, Oxfams' released 'India Inequality Report 2022: Digital Divide' report, states that the reach of digital technologies remains limited to largely male, urban, upper-caste, and upper-class households and individuals.
- According to the report, the percentage of men who own phones is as high as 61% while the percentage of women who own phones is only 31% in 2021.
- The report also claimed that India's growing inequalities based on caste, religion, gender, class, and location are being alarmingly replicated in the digital space.



Highlights of Report

- Gender:** According to the research, India performs the lowest in Asia-Pacific, with the largest gender disparity at 40.4%.
- Digital divide based on employment:** The report revealed that 95 percent of salaried permanent workers have a phone compared to only 50 percent of the unemployed (willing and looking for a job) have a phone in 2021.
- Rural-Urban:** Contrary to the popular perception, the use of computer devices decreased in rural areas according to report.
- Prior to the pandemic, only 3% of people in rural areas had access to computers. After the pandemic, this was reduced to 1%. The percentage of people who own computers is 8% in Urban areas.
- Internet:** According to the survey, just 31% of the rural population utilises the Internet, compared to 67% of their urban counterparts, although achieving a significant (digital) growth rate of 13% in a year. Bihar has the lowest internet penetration, followed by Chhattisgarh

and Jharkhand, while Maharashtra has the highest, followed by Goa and Kerala.

- Disparity across castes:** Less than 1% of the Scheduled Tribes (ST) and 2% of the Scheduled Castes (SC) own a computer or laptop, compared to 8% of the General caste.

Concerns

- The report said that the use of digital technologies in delivering essential services such as education and health is also reflecting the country's digital divide and its consequences.
- Digital Divide:** The widening digital divide is a contributing factor to India's rising inequality.
- Inequality:** Inequality based on caste, religion, gender, class, and location is becoming more prevalent, and this is mirrored in the digital sphere.
- As a result of access issues to **education, health, and other services**, those without devices and the internet become even more **marginalized**.
- The vicious circle of inequality in public services must be broken.
- Only approximately 9% of students who were enrolled in any course had access to a computer with internet, and 25% of students had access to the internet through any form of device, according to the NSS (2017–18).
- Digital transactions:** The pandemic's digital push caused India to experience the most real-time digital transactions in 2021 with 48.6 billion.
- However, in India, the richest 60% are four times more likely to make a digital payment than the country's lowest 40%.

Way forward

- According to the report, the government's initiatives to reduce India's present income disparity by raising the income of the poor are important and can have a significant impact.
- This can be achieved by establishing a fair minimum living income, reducing indirect taxation of the populace, and offering universal access to healthcare and education.
- According to the research, accessibility is the first step in closing the digital divide. It emphasizes that internet accessibility in remote and difficult-to-reach locations is either inconsistent, subpar, or nonexistent.
- Through public WiFi and internet connection points, service providers must guarantee its accessibility.

UN's e-participation Index (2022)

- The UN's e-participation index (2022) is a composite measure of three crucial e-government dimensions: **the availability of online services, telecommunication connection, and human capacity**.
- India is ranked 105th out of 193 countries in the world.

Pradhan Mantri Gramin Digital Saksharta Abhiyaan

- The objective of the Pradhan Mantri Gramin Digital Saksharta Abhiyaan is to digitally literate six crore people in rural areas across States and UTs, or around 40% of rural households, by covering one member from each eligible household by the end of March 2019.
- The Program intends to close the digital divide by focusing on the rural population, which includes minorities, women, people with disabilities, Scheduled Castes (SC) and Scheduled Tribes (ST), Scheduled Castes (ST), and Below Poverty Line (BPL) populations.

Digital Saksharta Abhiyan (DISHA) or National Digital Literacy Mission (NDLM)

- The Digital Saksharta Abhiyan (DISHA) or National Digital Literacy Mission (NDLM) Scheme has been designed to provide IT training to 52.5 lakh people, including Anganwadi and ASHA workers and authorized ration dealers in all the States/UTs across the country, in order to help the non-IT literate citizens participate actively and

effectively in the democratic and developmental process as well as improve their standard of living.

NPAS OF EDUCATION LOANS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: NPAs

Prepp Mains Booster: Growth and Development, Indian Economy and Related Issues

Context:

- The **high rate of defaults on low-value education loans** is a concerning sign.
- Poorer students in India, who need loans the most, are at risk of being excluded because it doesn't make as much business sense for banks, even in the public sector, **to provide education loans**.
- Unless the economy is able to create more and better jobs, forcing banks to make more loans will only result in higher NPAs, which will necessitate more taxes from the general public.



Key Highlights

- Data obtained under the **Right to Information Act** has revealed some concerning trends regarding education loans in the country.
- Approximately 8% of all education loans disbursed by 12 **public sector banks (PSBs)** where repayments have turned into **non-performing assets (NPAs)** or loans that never get repaid).
- This level of NPAs is higher than the overall NPAs in the banking system.
- It has been revealed that the majority of the defaults in banks' education loan portfolios are low-value education loans (that is, loans up to Rs 7.5 lakh).
- The default rate for loans disbursed to students in premier institutes, such as the IITs, IIMs, NITs, and AIIMS, is significantly higher than that for students in secondary institutes.
- If only four PSBs are considered — **State Bank of India, Canara Bank, Union Bank of India, and Indian Overseas Bank** — which account for 65 percent of the total loan portfolio among PSBs, the default rate for education loans to students in premier institutes is 0.45 percent, while the overall average of defaults is more than ten times that at 4.7 percent.

Education Loans

- In total, approximately 8% of all education loans disbursed by 12 PSBs where repayments have begun have become **non-performing assets (NPAs)**.
- Students who complete their studies are granted a moratorium period of up to 12 months on their education loans. In the case of a four-year BTech program, repayment begins only after the fifth year if the student does not find work. If the student starts working, the repayment period begins sooner.
- Following the high rate of defaults in PSB low-value education loans, banks have slowed such lending, affecting students enrolled in secondary schools across the country.

- PSBs are the largest lender in the education loan sector, accounting for approximately 91% of the market; RRBs (regional rural banks) and private banks make up the remaining 9%.

8% OF EDUCATION LOANS TURN NPAs

Bank	Total Active Education Loans*	NPAs (%age of total)
SBI	₹ 27,027 cr	₹ 603 cr (2.23 %)
Canara	₹ 13,192 cr	₹ 512.08 cr (3.88 %)
UBI	₹ 7,372.76 cr	₹ 611.18 cr (8.29 %)
IOB	₹ 4,046.21 cr	₹ 715.60 cr (17.69 %)
Total loans by 12 PSBs	₹ 79,902.19 cr	₹ 6,246.42 cr (7.82 %)

* Till June 30; PSBs account for over 95% of education loans

What is a Non-Performing Asset?

- NPA is a classification for loans or advances that are in default or are behind on scheduled payments of principal or interest.
- In most cases, debt is classified as non-performing when loan payments have not been made for a minimum of 90 days.
- Gross non-performing assets are the total of all loans that have been defaulted on by individuals who have obtained loans from the financial institution.
- The amount realized after deducting the provision amount from the gross non-performing assets is known as net non-performing assets.

Recent Concern

- Far from being a mere statistic of academic interest, this trend is already having real-world consequences.
- Banks have begun to avoid extending low-value education loans to PSBs due to a high rate of default.
- Earlier it was reported that the education loan disbursement target for public-sector banks for the current fiscal year has been set at about 13.5 percent less than total disbursement by all scheduled commercial banks in FY22.
- PSBs typically account for 90% of all study loans, and data show that the target for the country's 12 PSBs for the current fiscal year is Rs 20,450 crore, while loans totaling Rs 23,640 crore were disbursed in the previous fiscal year.

Slow Growth in Disbursement of Education Loans

- Poorer students in India who need loans the most are at risk of being denied because it doesn't make good business sense for banks, even those in the public sector, to provide education loans.
- The government, for its part, has expressed concern about the slowdown in education loan disbursement and has asked banks to speed up loan distribution.
- The key point to understand is why students from secondary schools do not pay back: The scarcity of adequate, or at least well-paying, jobs.
- Forcing banks to make more loans will only result in higher NPAs, which will necessitate more taxation from the general public unless the economy is enabled to create more and better jobs.

Macro economy; Public Finance, Government Budgeting, Taxation

INDIA NEED TO BRING DOWN ITS FISCAL DEFICIT WHICH IS HIGHEST AMONG G20 COUNTRIES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Fiscal deficit, G20

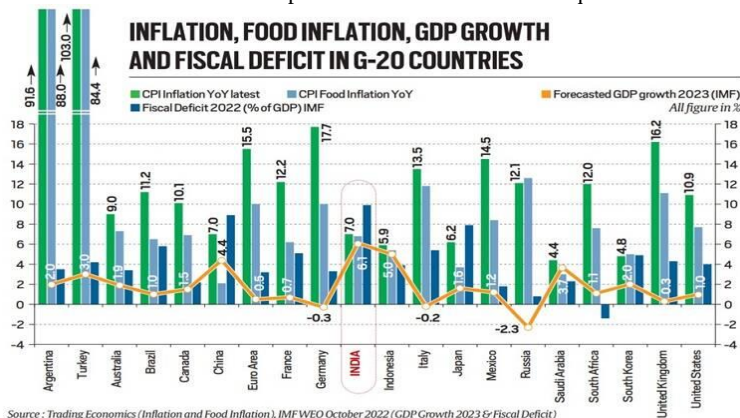
Prepp Mains Booster: Issues relating to development and management of Social Sector/Services, Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests. GS3 - Indian Economy and issues relating to planning, mobilization of resources, growth and development.

Context:

- As **India assumes the G20 presidency**, one of the major tasks under the finance track will be to ensure that G20 nations develop a credible policy framework to tame inflation, particularly **food inflation**, while protecting growth and ensuring overall financial stability.

About G20

- The G20 is an informal group of 19 countries and the European Union, as well as representatives from the International Monetary Fund and the World Bank.
- The G20 Presidency is rotated annually, according to a system that ensures regional balance over time.
- The presidency is chosen by dividing the 19 countries into five groups of no more than four countries each.
- The presidency is rotated between each group.
- Every year, the G20 elects a country from another group to serve as president.
- India is in Group 2, which also includes Russia, South Africa, and Turkey.
- The G20 does not have a permanent secretariat or headquarters.



Source: Trading Economics (Inflation and Food Inflation), IMF WEO October 2022 (GDP Growth 2023 & Fiscal Deficit)

Background

- The massive stimulus injected into almost all G20 nations to avoid recession during Covid-19 has come back to haunt them in the form of excess liquidity, causing inflation.
- The Russia-Ukraine conflict has increased fuel and food prices, while climate change, in the form of intense heat waves, floods, and droughts, is affecting food prices in several countries.
- G20 central bankers have been on the job, using monetary policy tools to reduce inflationary pressures.

Global Food Inflation

- Food inflation in Turkey has reached 103%. Argentina's food inflation rate is 91.6 percent.
- Even in Germany, food inflation has reached 17.7 percent, an unprecedented level in decades. With 7% food inflation, India is faring much better.
- Against this global backdrop of inflation and growth, India can certainly stand tall and teach the G20 a thing or two about how it has managed to keep food inflation under control while maintaining the highest rate of GDP growth.
- Food inflation has harmed not only the G20 economies, but also several African nations where people's purchasing power is extremely low. If India is to represent the Global South's agenda, it must invite the African Union to the G20.

- African countries are suffering from food inflation through no fault of their own and require assistance from the G20.

India's Position

- With 7% food inflation, India is faring much better. The RBI governor recently stated that the worst of the inflationary period has passed. Perhaps it's time to appreciate the RBI's inflation-control policy.
- India is taming inflation while achieving the highest GDP growth rate (6.1% in 2023), according to the IMF's World Economic Outlook.

Global Growth

- In terms of GDP growth, **China is expected to achieve 4.4%, the US 1%, the Eurozone 0.5%, and the UK 0.3%.**
- In addition, global growth is expected to fall from 6% in 2021 to 3.2% in 2022 and 2.7% in 2023. Growth in advanced economies is expected to be even lower, at 2.4 percent in 2022 and 1.1 percent in 2023.
- Similarly, China's growth has been reduced to 3.2% in 2022 (the lowest in more than four decades, excluding the initial Covid crisis in 2020), and slightly higher to 4.4% in 2023.

India's Fiscal Deficit

- As we approach 2023, India cannot afford to be complacent. While our GDP growth prospects are the best in the G20, and inflation is under control, our **fiscal deficit, at 9.9 percent (Centre and states combined)**, is the highest of any G20 country.
- The **Fiscal Responsibility and Budget Management Act of 2003 (FRBMA)**, passed by Parliament while Atal Bihari Vajpayee was Prime Minister, aimed to reduce the fiscal deficit to 3% of GDP. Since 2003, almost all governments have struggled to meet this challenge.

Way Forward

- India can certainly stand tall and may be able to guide the G20 on how it has managed to keep food inflation under control while maintaining the highest rate of GDP growth.
- If India is to represent the Global South, it should invite the African Union to the G20.
- The RBI, the Ministry of Finance, the Ministry of Food, and numerous other ministries must work together to manage inflation and growth.
- The government must reduce the fiscal deficit of the Centre in a calibrated manner, somewhere between 3 and 4 percent in the next year or two, without jeopardizing growth; this would be a real feather in India's cap for macroeconomic management.
- The best way to proceed is to form a high-level committee of credible professionals to investigate this and recommend ways and means to increase efficiency in the public expenditures of the Centre and the states, making them more growth-oriented, creating more jobs and livelihoods, and protecting the environment.

WORLD BANK RAISES INDIA'S GROWTH PROJECTION TO 6.9%

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian Economy

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment

Context:

- Recently, the **World Bank raised its growth forecast for India's economy this year to 6.9%** from 6.5% in October, citing resilience in economic activity despite a **deteriorating external environment**.

Background

- The Bank said it revised its GDP forecast in light of the strong upturn in the July-September quarter of 2022-23, when it grew 6.3% despite inflationary pressures and tighter financing conditions, "driven by strong private consumption and investment."

- The government's emphasis on increasing capital expenditure also boosted domestic demand in the first half of 2022-23.
- High frequency indicators indicate continued robust growth in domestic demand at the start of Q3 (October to December quarter)," the Bank noted in its latest India Development Report titled 'Navigating the Storm.'



Indian Economy

- India's economy has been remarkably resilient to the deteriorating external environment, and strong macroeconomic fundamentals have placed it in good stead in comparison to other emerging market economies.
- In response to a question about whether India is experiencing "jobless growth," it was stated that jobs are being created, but they are all in the informal sector. The renewable energy and green economy sectors have the potential to generate a large number of jobs.
- The Bank expects the Indian economy to grow at a slightly slower 6.6% in 2023-24, as a challenging external environment and slowing global growth will affect its economic outlook through various channels.

India's Challenging External Environment

- A challenging external environment will have an impact on India's economic outlook through various channels.
- It noted that rapid monetary policy tightening in advanced economies has already resulted in large portfolio outflows and depreciation of the Indian rupee, while high global commodity prices have caused the current account deficit to widen.
- India's economy is "relatively insulated from global spillovers when compared to other emerging markets," owing to the country's large domestic market and low exposure to international trade flows.
- India's external position has also improved significantly over the past decade, and the current-account deficit is "adequately financed by improving foreign direct investment inflows and a solid cushion of foreign exchange reserves."
- According to official data released last week, India's GDP expanded by 6.3 percent in the September quarter, slower than the 8.4 percent growth seen a year ago, as manufacturing output sputtered and the base effect faded.
- The September print, on the other hand, was better than analysts' expectations, which was one of the reasons cited by the World Bank for its latest growth upgrade.
- The World Bank cited the Russia-Ukraine war and tightening global monetary policy as factors weighing on India's economic outlook, lowering the country's growth estimate for FY23 by one percentage point to 6.5 percent. That was the lowest growth forecast for FY23 by any multilateral agency at the time.

Recent Growth Forecast

- According to the report, while a one percentage point decline in US growth is associated with a 0.4 percentage point decline in Indian growth, the effect is around 1.5 times larger for other emerging economies, and the result is similar for growth spillovers from the EU and China.

- It was stated that a well-crafted and prudent policy response to global spillovers is assisting India in navigating global and domestic challenges.
- However, the report warns about the trade-offs between attempting to limit the negative impact of global spillovers on growth and the available policy space.
- The Indian government's response to the external shock combined demand-side and supply-side policies, employing both fiscal and monetary policy levers.
- The RBI's gradual withdrawal of liquidity and policy rate hikes have been aimed at anchoring inflation expectations.
- However, this has increased borrowing costs, which, combined with rising input prices, may limit private investment. The central bank's management of short-term volatility in exchange rates has contributed to a decline in reserves, though they remain relatively high.
- Strong revenue growth would more than offset India's higher subsidy bill and lower fuel taxes, but these measures have slowed the pace of fiscal consolidation.
- The confluence of multiple external challenges poses a challenge to India's growth trajectory, but balanced policymaking that considers these trade-offs will help India navigate global headwinds.
- A widening goods trade deficit, driven by rising imports and softening exports, has increased India's current account deficit to 2.8% of GDP in Q2 this year, up from 1.5% in the first quarter, which adds that India ranks higher than only the Philippines and Thailand on this metric of macroeconomic stability.

India's Forex Reserves

- Despite a 10% drop in **forex reserves** this year, India's reserves are still over \$500 billion and provide an "adequate buffer against global spillovers," with an import cover of at least eight months, according to the Bank.
- Since the taper tantrum in 2013, India's forex reserves have nearly doubled and provide better coverage of external debt than other emerging market economies.
- While there are still some challenges in the financial sector, the adoption of several regulatory and policy measures, including the introduction of a new Insolvency and Bankruptcy Code and the establishment of the new National Reconstruction Company Limited, has facilitated an improvement in financial sector metrics over the last five years.

THE MINIMUM TAX ON BIG BUSINESSES

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Global Minimum Tax

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests; Liberalization Changes in industrial policy and their effects on industrial growth;

Context:

- Recently, the Members of the European Union agreed in principle to implement a minimum tax of 15% on big businesses.
- In order to enforce a minimum tax rate of 15% on large multinational firms, 136 countries came to an agreement last year.
- It is estimated that the minimum tax rate would boost global tax revenues by \$150 billion annually.

What is the issue?

- EU members have committed to apply a minimum tax rate of 15% on big firms in accordance with Pillar 2 of the **global tax agreement** drafted by the **Organization for Economic Cooperation and Development (OECD)** last year.
- Governments will be prepared to **impose additional taxes** under the OECD plan if it turns out that businesses are paying taxes the event that

it turns out that businesses are paying taxes that are deemed to be too low.

Significance:

- **Taxing rights:** On the other hand, Pillar 1 of the OECD's tax plan attempts to address the issue of taxing rights.
- Large multinational corporations have a history of paying taxes in their home nations even when the majority of their activity was conducted abroad.
- The OECD plan tries to give more taxing rights to the governments of countries where large businesses conduct a substantial amount of their business.
- Large U.S. technology firms may consequently be required to pay emerging nation governments higher tax rates.
- **Prevention of tax evasion:** It prevents large corporations with international operations from residing in tax havens in order to save money on taxes.
- **Promote social spending:** It will put an end to the global "race to the bottom" and assist governments in raising the funds necessary for social spending.
- **Reduce inequality:** It will also aid in reducing rising global inequality.



Concerns:

- **Global economic growth:** It is argued that without tax competition between governments, the world would be taxed a lot more than it is today, thus adversely affecting global economic growth.
- **Threat of tax competition:** In other words, it is the threat of tax competition that keeps a check on governments which would otherwise tax their citizens heavily to fund profligate spending programs.
- **Opposed by tax havens:** The OECD's tax plan may not be supported by all governments, especially those of traditional tax havens, which could delay its implementation.
- The minimum tax plan is more likely to be completely adopted by high tax jurisdictions like the EU since it spares them from having to compete with low tax jurisdictions.
- On the other hand, low tax nations are likely to oppose the OECD's approach unless they are **well compensated in other ways**.
- **Opposition within:** It should be emphasised that nations like **Poland** have already attempted to block the implementation of the global minimum tax idea within the EU, claiming a number of non-economic justifications.

What was reason behind declining global taxes?

- **Competition:** The corporate tax rates have decreased globally due to competition between governments to increase private investment and promote economic growth.
- **Globalization:** The international tax rivalry that was sparked by former U.S. President Ronald Reagan and former British Prime Minister Margaret Thatcher in the 1980s, global company tax rates have decreased from over 40% in the 1980s to around 25% in 2020.

Need

- **Declining government revenues:** The "race to the bottom" that has made it more difficult for governments to get the revenues necessary to sustain their increasing spending budgets is addressed by the OECD's tax strategy.
- **Raising Public debt:** The minimum tax suggestion is especially pertinent at this time, when public debt measurements around the world have become worse and governments' budgetary situations have gotten worse.

WHY ARE INDIA'S SLOWING EXPORTS A CAUSE FOR CONCERN?

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian Economics

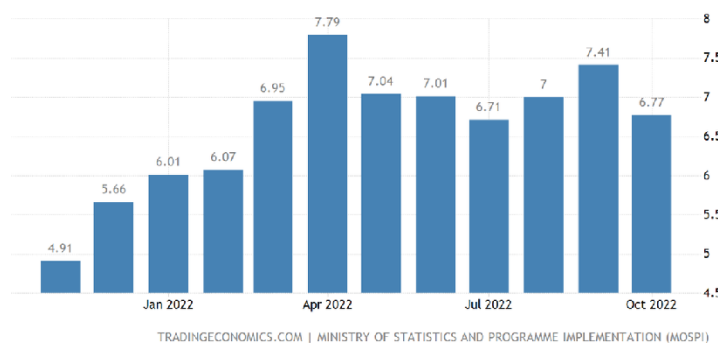
Prepp Mains Booster: Effects of liberalization on the economy, changes in industrial policy, and their effects on industrial growth.

Context:

- India's exports declined about 16.7% in October compared with the year-earlier period. This is the first slide reported for any month since February 2021.
- October imports rose at a much milder pace than earlier, most likely because of softening commodity prices worldwide, and trade deficit widened by as much as 50%.

How is the export sector faring?

- **Engineering goods:** Engineering goods, which have recently provided a solid backbone for India's exports of goods, fell 21%.
- Steel and related items saw a \$2 billion drop in exports for the month of October, the Commerce Ministry noted, underlining the fact that the government had imposed an export levy on these goods to help enhance local availability and control local prices.
- The Ministry also emphasised that workers frequently take time off during the month of Diwali each year, which has an impact on output.
- Therefore, it is best to wait and see if the fall in exports was really an exception or a long-lasting trend.
- **Reasons:** The Engineering Export Promotion Council of India, blamed the slowdown on:
 - the war in Russia-Ukraine,
 - high inflation in developed nations,
 - a decline in Chinese demand, and slowdowns in the EU and the US.



Other countries

- According to tradingeconomics.com, the export-heavy nation of **Vietnam** had a **4.5% increase** in exports from a year earlier to \$29.18 billion as a result of "continued overseas demand."
- Similar to this, the **Philippines'** exports **increased 20%** in October.
- According to the local government, there were "signs of rising overseas demand" in September, which led to the first increase in exports in three months.

- This year, **China** stands out because of the **harsh lockdowns** that are affecting **manufacturing output**, however the lockdowns are currently being loosened in response to protests against the restrictions.

Domestic demand

- The monthly Finance Ministry evaluation for October notes a scenario in which exports are declining but emphasises that **domestic demand will persist**.
- The report claims that a "confluence of stubbornly high inflation, rising borrowing rates, and geopolitical tensions" is what's causing the global downturn, but it also notes that local demand is "resilient."
- Investment cycle:** A "re-invigorated" investment cycle is also anticipated, which will promote growth and job creation in the near future.
- Easing commodity prices and Kharif crops:** It is claimed by the Ministry that domestic causes, such as increasing food costs, have recently driven up inflation more than imported ones, and that these pressures are expected to subside due to easing international commodity prices and the arrival of the Kharif crop.
- Fall in Inflation:** The consumer inflation declined in November, falling to 5.88%.
- In the monthly report, the Ministry also expressed optimism about the employment guarantee program MGNREGS's lowest sign-on rate of the year, which occurred in the previous month.
- It is hopeful that a surge in tractor sales in September and October is an indication of the improved sentiment.
- Private sector capital expenditure:** According to Chief Economic Adviser V. Anantha Nageswaran, the private sector capital expenditure is on track to reach 6 lakh crore this fiscal year, which would make it the biggest in the previous six years.
- This is one indicator that the economy is doing well.
- Private capital expenditures are frequently reliant on credit or loans from the banking sector. And that has shown recent excellent growth, reaching a high of 18% last month.
- Forex reserves:** About \$561 billion worth of foreign exchange reserves were held as of the week ending December 2.
- If we use October imports as a benchmark, which came in at \$56.7 billion (an eight-month low), we would have about 9 to 10 months' worth of import coverage, which is less than the 14 to 15 months' worth of cover we had during the epidemic.
- Economists believe that this is still better than 2013, when foreign investors started to leave India's financial sector. We had less than seven months' worth of import coverage at the time.
- In fact, soaring foreign exchange reserves in recent weeks suggest optimism for the future.

Steps to be taken

- Red tape and taxation:** State-level reforms in reducing red tape and complex laws including taxation.
- FTA:** Reduce the complexities of trade and business by signing free trade agreements.
- These remove non-tariff barriers such as administrative fees, labelling requirements, anti-dumping levies, and countervailing measures in addition to lowering tariffs and granting market access.
- FTAs aid in **streamlining policies** even though they may not instantly improve the trade balance.
- Institutions:** India also needs to work on institutions facilitating trade, processes for exports and imports and logistics that not only reduce trade and transaction costs but also ensure reliability and timely delivery.
- It is important to **address market- and sector-specific issues** so that India can fully benefit from exports in all industries. For instance, India has a close to \$58 billion in potential diamond and jewellery exports, but only \$30 billion is actually exported.

Way forward

- If we adopt proactive policies to leverage our export potential, investigate new markets, and reduce protectionism, the acceleration of goods and services exports might potentially propel the Indian economy closer to the \$5 trillion milestone sooner.
- Geopolitical tensions and efforts to diversify the world's supply chain portfolio can present possibilities.
- The "China+1" method should be utilised by India.
- However, we must avoid protectionism and inverted duty structures which may give temporary relief to domestic industries but will affect India's overall competitiveness.

TARIFFS ON NON-ESSENTIAL GOODS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Tariffs on Non-Essential Goods

Prepp Mains Booster: Indian Economy

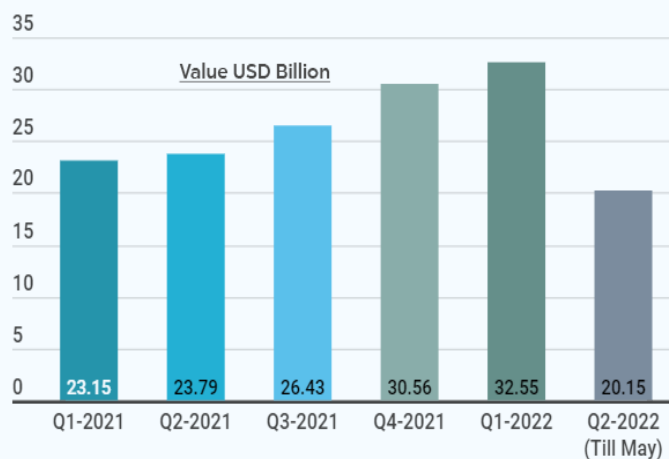
Context:

- According to reports, the Indian Government is planning to raise import duties on all "non-essential items". This article describes the possible implications of the move for businesses and consumers.

What is the government's proposed action?

- The government has proposed to increase the rate of import duties on products termed as "non-essential".
- The government has defined "non-essential products" as those with adequate manufacturing capacity in the country. This will not include luxury goods like high-end fashion or sports cars. Egs: Steel, cement etc
- Individual ministries have been tasked with assessing and compiling a list of such goods on a granular level. Duties will be levied on the basis of the conducted assessment.
- The government believes that this step will help domestic producers secure a greater share of the domestic market in line with its vision of "Going local".

India Imports From China Quarterly



Reason

- According to GDP data for the quarter between July and September 2022, imports are being used to fulfill domestic demand for goods rather than local manufacturing.
- Domestic manufacturing has weakened to (-)4% in October, a 26 month low.
- The production of Capital Goods (products used in the manufacturing process to produce consumer goods) has fallen indicating weak demand among buyers. Investor sentiment for Fast Moving Consumer Goods (FMCG) is also negative.

- Rise in imports and fall in exports increases the trade deficit resulting in a negative balance of trade. Year on Year exports fell 5.8% in Oct-Nov 2022 versus a 3% growth in the third quarter.
- This adversely impacts the MSME sector in India who consume what they produce. Import dependence leads to loss of revenues and unemployment in the sector that contributes 29% of GDP and 40% of India's exports.

Trade Deficit

- The term refers to a negative balance of trade when a country's imports costs exceed its exports costs in a financial year.
- It measures the level of international trade within a fiscal.
- It initially leads to better choices for consumers but eventually harms local industry, raises unemployment and a loss of value of the domestic currency.

- In this scenario, the government's options are to either promote exports or disincentivize imports.
- Experts suggest that the first option will be unsuccessful. This is because of a poor global growth outlook. The International Monetary Fund in the World Economic Outlook 2022 predicts that growth will slow to 3.2 % in 2022 and 2.7% in 2023 from 6% in 2021.
- This means the demand for exports will not increase in the next couple of years. So the government has opted to raise import duties in order to balance its trade deficit and protect the domestic manufacturing sector.

Traded Products

According to Organization for Economic Co-operation(OEC), India's top exports are:

Products	Value (in \$ Billions)
Refined Petroleum	25.3
Diamonds	16
Rice	8.21
Jewellery	7.57

India's top imports according to OEC are:

Products	Value (in \$ Billions)
Crude Petroleum	59
Gold	21.9
Coal Briquettes	20.9
Diamonds	15.8
Petroleum Gas	13.8

- India's major sources of imports are China(\$64.2B), United States (\$26.6B), United Arab Emirates (\$22.1B), Saudi Arabia (\$16.8B), and Iraq (\$14.4B).
- Products likely to be affected by the hike in duties include umbrellas and its separate parts, steel, solar panels etc.

Concerns

- During the post-economic reforms period between 1991-92 and 2007-08, customs duties on non-agricultural goods levied by the government had dropped from 150% to 10%.
- Between 2014 and 2021, the average import duties in India have risen from 13.5% to 18.3%. The range of products included under such action is diverse including solar cells, earphones, almonds and umbrellas.
- Import substitution and protection against foreign domination of markets was necessary when India was newly independent as its industries were undeveloped and incapable of competition.
- Today, the industry is capable of competition and it should be encouraged in order to leverage better returns for the consumer. This move can be interpreted as a return to protectionist policies which could impact continued foreign investment in India.
- The granular approach adopted is also a concern as products of one industry could be the raw material for another industry, like steel and automobiles respectively.
- Products that come under the same HSN(Harmonised System of Nomenclature) are charged a uniform tax. In this case, however, they would need to be charged separately.
- Great care will have to be taken in the assessment phase to classify goods to avoid inconsistencies. Consider the case of LED bulbs where the government may want to tax only single-wired bulbs and not all bulbs.

World Economic Outlook

- It is a survey published twice a year (April and October), by the International Monetary Fund, that analyzes and forecasts economic developments over the short term and medium term.

FMCG

- FMCG or Fast Moving Consumer Goods refers to packaged nondurable goods sold or consumed at regular intervals. They are typically cheap and include food and beverages, healthcare products and home care products. Eg: Chips, Toothpaste, Cleaning lotion etc.

PLAN TO INSTALL 500 GW OF RENEWABLE ENERGY CAPACITY BY 2030 TO COST ₹2.44 TRILLION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Renewable energy

Prepp Mains Booster: Infrastructure: Energy, Ports, Roads, Airports, Railways etc; Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- Recently, Union Minister for Power and New and Renewable Energy launched the plan "Transmission System for Integration of over 500 GW RE Capacity by 2030."
- The Plan titled "Transmission System for Integration of over 500 GW RE Capacity by 2030" was prepared by high-level committee constituted by Ministry of power in consultation with States and other stakeholders.

Highlights

- **Investment:** According to the committee constituted by the Central Electricity Authority (CEA), India's plan to install 500 GW (gigawatt) of renewable energy capacity by 2030 will involve an investment of at least ₹2.44 lakh crore or ₹2.44 trillion.
- At an estimated cost of Rs. 0.28 lakh crore, the transmission plan also includes the transmission system needed for the evacuation of 10 GW of offshore wind in Gujarat and Tamilnadu.
- **Transparent bidding process:** India will continue to rank among the top investment destinations for renewable energy thanks to the above transmission plan, which calls for 500 GW of non-fossil fuel capacity by

2030. It also includes a transparent bidding process, an open market, and a quick dispute resolution process.

- By 2030, the inter-regional capacity will have increased from 1.12 lakh MW to about 1.50 lakh MW thanks to the planned transmission system.
- **Transmission System:** The Ministry of Power had constituted a high-level committee under the Chairperson, Central Electricity Authority with representatives from Solar Energy Corporation of India, Central Transmission Utility of India Ltd, Power Grid Corporation of India Ltd, National Institute of Solar Energy, and National Institute of Wind Energy for planning the transmission system required for having 500 GW of non-fossil fuel based installed capacity by 2030.
- The Plan is an important step towards attaining the target of integrating 500 GW of non-fossil fuel based capacity by 2030 by outlining a comprehensive plan of the necessary transmission system for having 537 GW of Renewable Energy capacity by 2030.
- **Battery energy storage capacity:** The Plan also calls for the building of battery energy storage capacity of the order of 51.5 GW by 2030 to offer end users with round-the-clock power because renewable energy-based generating is only available for a brief period during the day.
- **Transmission:** Given that the gestation period of wind and solar-based production projects is substantially shorter than that of the related transmission system, a resilient transmission system must be in place in advance to enable the evacuation of power from the expected Renewable capacity by 2030. To achieve this goal, a thorough plan has been prepared.
- **Potential generation centres:** Anantapur, Kurnool RE Zones in Andhra Pradesh, Khavda in Gujarat, Fatehgarh, Bhadla, Bikaner in Rajasthan, offshore wind potential in Tamil Nadu and Gujarat, RE park in Ladakh, etc. have all been identified as major upcoming non-fossil fuel based generation centres in the country by the Plan, and transmission systems have been planned based on these potential generation centres.
- **Installed Capacity:** India has ambitious plans for the transition to a clean energy economy and aims to add 500 GW of non-fossil fuel-based electrical capacity by 2030, making clean fuels 50% of the installed capacity mix.
- **Visibility to developers:** The anticipated transmission network will give renewable energy developers visibility into prospective locations for generating and the size of investment opportunities.
- Additionally, it will give the Transmission Service Providers a picture of the expansion prospects in the transmission industry as well as the potential for 2.44 lakh crore in investments.

Chasing The Renewable Dream

1.3 - 1.5 billion tonnes
Expected demand for coal in India by 2030

175 GW
India's self-declared target for installed renewable energy by end of 2022

500 GW
India's commitment to installed renewable capacity by 2030 (Glasgow)

202 GW

Gujarat's capacity addition of wind power in Q1 of 2022 out of countrywide addition of 275 MW (Mercom)

800

Wind monitoring stations across the country installed by

\$223 billion

Investment needed to meet goal of wind and solar capacity installations by 2030 (Bloomberg NEF)



Source: Outlook Business Research

Current Status

- India has become one of the global leaders in the energy transition thanks to the world's fastest growth in renewable energy capacity.
- Currently, the country has a **409 GW installed energy producing capacity**, with **173 GW coming from non-fossil fuel sources**, or almost **42% of the total installed electricity generating capacity**.

Nationally Determined Contributions

- Nationally Determined Contributions, is a climate action plan to cut emissions and adapt to climate impacts.
- Each Party to the Paris Agreement is required to establish an NDC and update it every five years.
- India has made a commitment to cut its GDP's emissions intensity by 45 percent from 2005 levels by 2030 and to generate nearly half of all installed electric power capacity from non-fossil fuel sources by that year.

INDIA'S COAL PRODUCTION TO SURPASS A BILLION TONNES BY 2025: IEA ANNUAL REPORT

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: IEA

Prepp Mains Booster: Distribution of key natural resources across the world (including South Asia and the Indian subcontinent; Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests. Infrastructure: Energy

Context:

- According to **Coal 2022**, the IEA's annual report on coal trends, the coal-fired power generation in China and India is increasing to keep up with higher demand, whereas several European countries have been temporarily switching to coal due to **record-high natural gas prices**, low hydropower generation, and maintenance-related closures at nuclear plants.



Coal 2022 -IEA

- Coal 2022 provides a complete study of current changes in coal demand, supply, trade, costs, and pricing.
- Additionally, it offers projections for demand, supply, and trade through 2025, broken down by region and coal grade.
- It also includes a thorough examination of China, whose impact on the global coal market is unmatched by any other nation or source of fuel.

Highlights of the report

- **Raise in global consumption:** According to the IEA's annual report on coal, global coal consumption is expected to increase by 1.2% this year, breaking the previous record of 8 billion tonnes established in 2013 and breaking it for the first time.
- It also predicts that coal consumption will remain flat at that level to 2025 as falls in mature markets are offset by continued strong demand in emerging Asian economies.
- As a result, coal will still be by far the **biggest source of carbon dioxide emissions** in the entire global energy system.

- India is predicted to experience the biggest increase in coal demand, at 7%, followed by the European Union at 6% and China at 0.4%.
- There is **no indication that investment in export-driven coal projects** is increasing, despite the fact that the world's three largest coal producers—China, India, and Indonesia—are expected to set production records, resulting in high prices and comfortable margins for coal producers due to a surge in demand in Europe as a result of the Russia-Ukraine war.
- This illustrates the hesitancy of financiers and mining firms regarding coal's medium- and long-term prospects.
- China consumes more coal than any other nation**, with 53% of the world's demand.
- In 2021, China's use of coal climbed by 4.6% to 4,232 tonnes.

India

- India is projected** to add the largest **percentage increase in coal use** in the coming year globally ahead of China and the European Union.
- India will serve as the "**growth engine**" for global coal demand.
- India's coal consumption has doubled since 2007 at an annual growth rate of 6%.
- India has vowed to gradually transition to renewable energy sources, but has vehemently defended its intention to continue using coal because it is the quickest and least expensive resource it possesses for sustaining economic growth.
- India, the second-largest user of coal, saw an increase in demand of 128 Mt, or 14%, in 2021.

Reasons

- Russia-Ukraine conflict:** Some nations have switched to comparably **less expensive coal** this year as a result of **high gas prices** brought on by Russia's invasion of Ukraine and the resulting supply interruptions.
- Heat waves:** In other areas, heat waves and droughts have also increased electricity demand and **reduced hydropower**.
- Shut down of Nuclear Plants:** nuclear generation has also been very low, particularly in Europe, where France had to shut down nuclear reactors for maintenance.

Concerns

- It is bad for the environment, particularly in light of international climate change accords and efforts to **limit temperature increases to 1.5 degrees Celsius**.

What is International Energy Agency (IEA)?

The International Energy Agency (IEA) was founded after the 1973–1974 oil crisis to assist industrialised nations in responding to severe oil shocks.

- Since then, the IEA's mission has broadened to include clean energy, economic development, and overall energy security.
- A candidate country to the IEA must be a member country of the OECD

Founding members

- The founding members are Austria, Belgium, Canada, Denmark, Germany, Ireland, Italy, Japan, Luxembourg, The Netherlands, Norway (under a special Agreement), Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.
- They were followed by Greece (1976), New Zealand (1977), Australia (1979), Portugal (1981), Finland (1992), France (1992), Hungary (1997), Czech Republic (2001), Republic of Korea (2002), Slovak Republic (2007), Poland (2008), Estonia (2014), and Mexico (2018) and Lithuania (2022).
- Chile, Colombia and Israel are seeking full membership.
- The IEA has made an effort to involve important non-members in its activities as the global energy landscape has altered, including Brazil, China, India, Indonesia, South Africa, Thailand, Singapore, Morocco, and accession countries Mexico and Chile.

FUNDING THE ENERGY TRANSITION

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Low carbon strategy

Prepp Mains Booster: Environment, Environmental Pollution and Degradation, Growth and Development

Context:

- While the release of **India's long-term low-carbon development strategy** is an appropriate response, better guidance on the path to net zero is required.
- The principle of shared but differentiated responsibility should not be traded for the promise of financial gain.

Key Highlights

- Extreme weather events are becoming more common with each passing year, and countries are increasingly aware of this.
- However, there is still a divide between developing and developed countries, owing to disparities in the incidence of and financial responsibility for climate change. It is estimated that developed countries are responsible for 92% of historical excess emissions.
- However, vulnerable developing countries bear a disproportionate share of the economic costs of climate change. The 58 vulnerable countries (or V20) account for 5% of global emissions, with significant costs.
- One example is the recent flood in Pakistan, which cost the country more than \$30 billion.

Finance Required

- UNEP** estimates that climate adaptation efforts will require \$160-340 billion by 2030. However, current financial flows are insufficient, with developing countries receiving only one-third of what is required.
- The dual costs of transitioning away from fossil fuels and climate disasters are expected to erode fiscal resilience further as developing countries grapple with the pressures of slowdown, inflation, and excess sovereign debt.
- Recognizing these challenges, COP27 emphasized the need to accelerate finance. In its draft decision, the UN stated that meeting the scale of funding will necessitate a transformation of financial systems, structures, and processes. It will necessitate working with all financial actors.
- The recognition is not novel and is self-evident from estimated financial gaps. Nonetheless, the inadequacy in response persists, as the 2009 commitment of \$100 billion in transfers remains unfulfilled.

About COP27

- The 2022 United Nations Climate Change Conference, also known as the Conference of the Parties to the UN Framework Convention on Climate Change, or COP27, was the 27th United Nations Climate Change Conference, held in Sharm El Sheikh, Egypt, from November 6 to November 20, 2022.
- Since the first UN climate agreement in 1992, the conference has been held every year.
- It is used by governments to reach agreements on policies to limit global temperature rises and adapt to climate change impacts. As a result of the conference, the first loss and damage fund was established

Issues

- The issues of developing countries, particularly **small island developing states (SIDS)**, was palpable at COP27.
- In the past, funding facilities such as the **Green Climate Fund** were established to aid in adaptation and mitigation. However, there is widespread dissatisfaction with the pace and scope of access to such facilities.
- The announcement of a **Loss and Damage (L&D)** fund drew attention and is being hailed as a victory for SIDS. However, reflections on previous experiences are essential.

- The institutional architecture of multilateral funds has been demonstrably slow to deliver. Then there is the obvious reluctance to contribute among the major economies.
- To reclaim its lost legitimacy, the US made several announcements at COP27, but its lack of support for the L&D fund and financing of the global shield — meant to assist vulnerable countries in addressing climate change risks — must be considered.

About Loss and Damage

- It is used in UN climate negotiations to express the effects of climate change that outweigh people's ability to adapt.
- It disproportionately affects vulnerable communities, making addressing the issue a matter of climate justice.
- While the UNFCCC has not defined loss and damage precisely, it is caused by extreme weather events (cyclones, droughts, heatwaves) and slow-onset changes (sea level rise, desertification, ocean acidification).
- Climate change damages can be classified as either economic or non-economic losses (such as loss of life).

Private Capital

- As the demands placed on economies dwarf public finances, it is natural to expect private capital to step up.
- Policymakers are well-versed in the whims of private capital. For decades, developing countries have competed for private capital, resulting in shaky legal and tax systems.
- A regulatory response is required to tether capital flows to the needs of society. Even if private capital shifts to green sectors as a result of regulatory action, it is reasonable to expect that the pace will be slowed by financial expectations.
- Experts are beginning to associate climate actions with tax policy. This is evident from the reintroduction of the EU's long-delayed Financial Transaction Tax.
- Every announced package involves income redistribution both within and across countries. As a result, a general overhaul of tax architecture is unavoidable. Nonetheless, a dedicated national carbon tax is rarely discussed.

Discussions Made in COP27

- COP27 was a spectacle of distractions. Experts from around the world gathered in the comfort of their echo chambers, reciting the promise of the transition while policymakers reiterated the system's shortcomings.
- There is also increasing pressure on developing countries to give up their access to fossil fuels, ignoring the view that a hasty transition can harm growth.
- Then there have been repeated questions about why India uses the term "phase down" and its slow response.
- The hypocrisy of developed countries was stark, as countries chose to ignore India's call to phase out all fossil fuels, despite their own ignorance of their own responses to the looming energy crisis.

India's long-term low-carbon development strategy

- While the release of **India's long-term low-carbon development strategy** is an appropriate response, better guidance on the path to net zero is required.
- With India chairing the G-20 this year, the question of coal phasing out will be raised repeatedly. There is already growing interest in forming a just energy transition partnership with India.
- The lessons from COP27 must guide the G-20 presidency. It is also important to remember that dramatic policy shifts are pursued domestically, and that not all change is pursued by consensus.
- The principle of shared but differentiated responsibility should not be traded for the promise of financial gain.

About Long-Term Low-Emissions Development Strategy

- The 2015 Paris Agreement requires all parties to develop long-term low greenhouse gas emissions development strategies (LT-LEDS) based on

their respective responsibilities and capabilities in light of the various national-level circumstances.

- The COP26, held in Glasgow in November 2021, required parties who had not yet communicated their LT-LEDS to do so by COP27.
- India's LT-LEDS was developed following extensive consultations with various government entities, state governments, research institutes, and civil society organizations.
- The Union Minister for Environment, Forests, and Climate Change, Shri Bhupender Yadav, who led the Indian delegation to COP 27 in Sharm-el-Sheikh, Egypt, launched the Long-Term Low-Emission Development Strategy.

INDIA SAID TO PLAN \$2 BN INCENTIVE FOR GREENHYDROGEN INDUSTRY

Priority: Medium



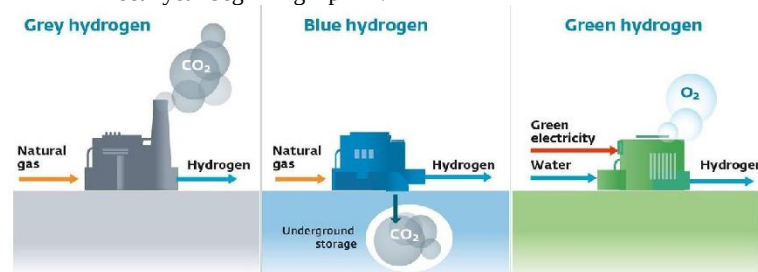
Primary Source: The Hindu

Prepp Prelims Booster: Green Hydrogen

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation; Changes in industrial policy and their effects on industrial growth

Context:

- India is planning a \$2 billion incentive program for the green hydrogen industry, in a bid to cut emissions and become a significant export player in the field.
- The ₹180-billion (\$2.2 billion) incentive aims to reduce the production cost of green hydrogen by a fifth over the next five years.
- The Indian aid could be announced in the February 1 Budget for the fiscal year beginning April 1.



India's plans for green fuel

- The Indian government anticipates industry to invest ₹8 trillion in green hydrogen and its derivative green ammonia by 2030.
- Green Hydrogen can be used by the fertilizer industry or as a fuel or convenient means of transporting hydrogen.
- The green hydrogen proposal is likely to be called "**Strategic Intervention for Green Hydrogen Transition (SIGHT)**" and will be split into ₹45 billion for electrolyser manufacturing for five years and the ₹135 billion for green hydrogen and green ammonia production for three years.
- The incentive for making green hydrogen is likely to be **₹50 per kg for three years**.
- India wants to sell 70% of its production to the European Union, South Korea, and Japan.
- According to various industry sources, the government forecasts that the need for green hydrogen would increase from slightly under 75 million tonnes in the present to more than 100 million tonnes by the year 2030.
- By 2030, India is expected to produce 5 million tonnes of green hydrogen annually, a goal that might double depending on global demand, according to plans released by the government in February.
- The country's manufacturing capacity for electrolyzers is expected to reach 15 gigawatts by 2030, according to the government's

projections. That would be roughly ten times the capacity of the entire world today.

Significance of the incentive

- **Lower production cost:** The current price of Hydrogen in India is ₹300 to ₹400 per kg. The incentive aims to **lessen green hydrogen's production cost** by a fifth in the next five years and it would do this in part by **increasing the scale** of the industry.
- **Exporter:** Additionally, India has the potential to become a major source of green ammonia exports.
- Between 2020 and 2050, hydrogen demand has the potential to increase by more than four times, reaching almost 29 million tonnes, according to NITI Aayog's "Harnessing Green Hydrogen Report."
- According to the analysis, green hydrogen will eventually rule the hydrogen industry entirely on the basis of cost-competitiveness.
- Green hydrogen can be an important component of both new greenfield investments and existing brownfield usage even in the year 2030.
- Green hydrogen can supply about 94 percent of the world's hydrogen needs in 2050, up from only 16 percent in 2030.
- In India, the market for green hydrogen could be worth \$8 billion by 2030 and \$340 billion by 2050

Plans by Companies

- The **first green hydrogen factory** in India opened in Bengaluru by **US-based Ohmium International**.
- Reliance Industries, Greenko, H2e Power, Larsen & Toubro, and others announced intentions to build gigawatt-scale facilities last year.
- In June, Adani Enterprises announced that the company with Total Energies for France would create the largest green hydrogen ecosystem in the world.
- The Greenko company and Singapore's Keppel Infrastructure inked an MoU in October to collaborate on a 250,000-tonne contract per year to supply green energy to Keppel's new 600Mw power plant in Singapore. This agreement will take effect in 2025.

What is Green Hydrogen?

- Hydrogen can be used as fuel.
- It is made by splitting water with an electrical process, **electrolysis**.
- If the electrolyzers are powered by **renewable energy**, the product is called green hydrogen, a **fuel free of greenhouse emissions**.

Other types

- **Grey hydrogen** is created by using **steam to split methane (CH₄)** into carbon dioxide (CO₂) and hydrogen (H₂).
- **Blue hydrogen:** Grey and blue hydrogen are made using the same process, however blue hydrogen requires extra technology in **order to capture and store the carbon dioxide created** when the hydrogen separates from the methane.
- However, not all of the carbon dioxide can be caught, and not all methods work well for long-term storage.
- However, the effect of hydrogen production on the environment can be greatly diminished by absorbing a large portion of the carbon dioxide.
- **Pink Hydrogen :** It uses nuclear power to electrolyse water, thereby splitting hydrogen from oxygen for use as a fuel.
- **Black and brown hydrogen:** Black (bituminous) or brown (lignite) coal is used in the production of black or brown hydrogen. Black and brown hydrogen, however, are hazardous to the environment because carbon dioxide (CO₂) and carbon monoxide formed during the process are not collected.
- **White hydrogen:** The naturally occurring form of white hydrogen is occasionally found underground, but there are few practical means to extract it, so experts instead try to artificially produce it.

Farming, Major crops and cropping patterns

THE RISE OF RURAL MANUFACTURING

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Annual Survey of Industries

Prepp Mains Booster: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

Context:

- Recent data from the **Annual Survey of Industries** for 2019-20, shows that the rural segment is a significant contributor to the manufacturing sector's output.
- A steady stream of investments in rural locations over the last two decades has ensured that 42% of factories and 62% of fixed capital is in the rural side.
- In terms of employment, it accounted for 44% but had only a 41% share in the total wages of the sector.

What is the reason behind shifting of Manufacturing Industries to Rural areas?

- **Urban-rural cost ratios:** Is India's Manufacturing Sector Moving Away from Cities? by Ghani, Ejaz et al., published by the World Bank in 2012), the World Bank highlighted the shift of manufacturing out of urban areas.
- Their findings suggested that this trend was brought on by increasing urban-rural cost ratios.
- **Lower expenditure:** Numerous factors have been identified in studies as contributing to rural manufacturing's relatively consistent growth and persistence.
- Because wages, property prices, and land costs are all lower in rural locations than they are in most metro areas, rural areas have historically attracted more manufacturing companies.
- **Limited floor space in Urban areas:** The limited supply of plant floorspace.
- These space limitations become more severe as areas get more urbanised and populated.
- Contrary to rural areas, manufacturing simply cannot be expanded in cities.



- **Lower operating costs:** Cities tend to have significantly greater operating costs for many businesses than do rural locations, which has an unavoidable impact on the firm's profitability and competitiveness.
- **Capital restructuring:** Large corporations will fully move production away from urban areas in order to benefit from the availability of less expensive, less skilled, and less unionised rural labour. Moving certain businesses from larger cities to smaller areas with lower labour costs was one strategy to reduce costs.

- **Liberalization:** Following trade liberalisation, import competition increased for many Indian businesses, driving them to explore for more affordable production techniques and locations.

Impact of manufacturing on rural India

- **livelihood diversification:** Manufacturing's importance as a source of livelihood diversification in rural India has been maintained as a result of the transfer of manufacturing operations from urban to rural areas.
- The decline in employment in several traditional rural industries was partially offset by this trend. By creating new jobs, rural manufacturing is growing, which gives the move away from agriculture a financial foundation.

Challenges

- **Cost of capital:** For businesses operating in rural areas, the cost of capital appears to be higher.
- The rural segment accounted for only 35% of the total rent paid, while it had 60% of the total interest payments.
- Manufacturers who primarily use low-wage labour are simply unable to maintain their competitive edge over the long term since this cost advantage eventually disappears.
- **Skill Shortage:** Due to the demand for more trained people in manufacturing to compete in the highly technical global "new economy," there is a "skills shortage" problem in rural areas.
- Higher trained workers are in short supply in rural areas, which is a problem for manufacturers.

Way forward:

- The provision of greater education and skill development for rural workers is the most crucial answer to the issues affecting rural manufacturing.
- Rural areas' comparative advantage of low salaries, higher dependability, and productivity will be established by a more educated and competent workforce, hastening the transition from agriculture to higher-earning livelihoods.

Annual Survey of Industries (ASI)

- Annual Survey of Industries (ASI) is conducted by the National Sample Survey Office (NSSO).
- The Annual Survey of Industries (ASI) is the principal source of industrial statistics in India.
- It provides information to assess the changes in the growth and structure of organized manufacturing sector comprising activities related to manufacturing processes, repair services gas and water supply and cold storage.

STATE OF BIO FERTILIZERS AND ORGANIC FERTILIZERS IN INDIA: HOW REGENERATIVE AGRICULTURE CAN HELP SAVE

Priority: High



Primary Source: Down To Earth

Prepp Prelims Booster: Regenerative agriculture

Prepp Mains Booster: E-Technology in aid of farmers; Agricultural issues and related constraints

Context:

- Recently, a report by the Centre for Science and Environment (CSE), titled '**State of Bio Fertilizers and Organic Fertilizers in India**', showed that Indian soils suffered from a severe and widespread deficiency of organic carbon and micronutrients.
- **Regenerative agriculture** is a technique that can help replenish the soil and reduce the wastage of water and other resources.
- The success of alternate methods like **Zero Budget Natural Farming (ZBNF)** in recent times has proved that regenerative agriculture is the way forward for Indian agriculture.

Background

- The **Green Revolution** that began during the 1960s transformed the Indian agrarian system from being short of food to a land of plenty.
- India turned into a net exporter of agricultural products like rice, wheat and maize.
- The Green Revolution introduced new techniques like High yielding varieties of seeds (HYVs), fertilizers, and modern irrigation to the Indian farmer.
- As a result, India has become the world's largest extractor of groundwater. The UN's **Water Development Report** for 2022 discovered that India extracted 251 cubic Km of groundwater annually, 90% of which was used for agriculture.
- This was over 25% of the total water extracted by the world.

State of Indian Agriculture

- A study by IIT Delhi in 2019 showed that over **39 million hectares** of the country's fields under rice, wheat, and maize cultivation had not shown any improvement in the last decade.
- The agriculture sector employs nearly half of the country's labor force and accounted for 17.5% of the GDP.
- Although the quantity of crops produced has increased every year, the **crop per unit of land or agricultural yield** is behind other top-producing nations like USA and Brazil.
- Farmers and scientists are now developing new methods of farming that use natural inputs and traditional cultivation techniques.

What is regenerative agriculture?

- **Regenerative agriculture** is an agricultural method that **prioritizes soil health**. It is aimed at not just maintaining soil and water but **improving its quality**.



- When the soil is healthy, more food and nutrients are produced, more carbon is stored, and biodiversity is increased.
- It includes the **utilization of natural inputs, minimal tilling, mulching, multi-cropping**, and the sowing of numerous native varieties.
- Natural inputs help improve soil structure and its organic carbon content.
- The frequency and intensity of irrigation are reduced when crops that use a lot of water and those that use little water are planted together or in alternate cycles.
- They are energy conservative compared to pumps.
- In order to limit the use of chemical fertilizers and pesticides and to cut input prices, the Union government of India is supporting regenerative agriculture.
- The scheme has gained popularity in Himachal Pradesh, Sikkim, Andhra Pradesh, Gujarat, and Uttarakhand.

How can regenerative agriculture help reduce India's water crisis?

- The UN FAO has said that healthy soil helps in water storage, transmission, filtering, and countering agricultural runoff.

- The Delhi-based think tank, the Centre for Science and Environment has discovered that **Indian soil is deficient in micro-nutrients and organic carbon**.
- Farmers and scientists have provided anecdotal evidence to link soil and water health with regenerative agriculture, but further proof is needed to prove it.
- According to Dinesh Kumar, principal scientist at the Indian Council for Agricultural Research-Indian Agriculture Research Institute (ICAR-IARI), Delhi, organic farming will help **improve soil structure and organic content**.
- Studies by ICAR-IARI and other agricultural institutes have demonstrated that practices used by organic farmers, such as **systematic rice intensification**, which involves spacing seeds farther apart and applying organic manure to increase yields, changing crop system patterns, leaving residue on the field, and micro-irrigation, improve water conservation.
- However, there have not been any structured studies on the water-saving potential of regenerative agriculture other than the **National Project on Organic Farming** by the ICAR-Indian Institute of Farming Research, Meerut, but even this has not measured water efficiency.
- The Central Arid Zone Research Institute, Jodhpur, has recently initiated a study on the topic.



Promising numbers

Trials of regenerative agriculture in Madhya Pradesh and Maharashtra have saved 14.5 billion litres of water

Activities followed under regenerative agriculture	Water saved across farms (billion litres)	Share (%) in total saving
Change in cropping pattern	5.53	37.0
Dry sowing	4.01	26.8
Soil fertility interventions	3.03	20.2
Drip irrigation	1.16	7.7
Change in crop variety	0.99	6.6
System of wheat intensification, Line sowing	0.21	1.4
Sprinkler	0.03	0.3
Total	14.5	100

Source: Samaj Pragati Sahyog

Field Evidence

- The **Kheti Virasat Mission**, a civil society organization in Punjab, found that in 2022-22, of the 350 organic farmers in the state, **93.6%** have found that organic farming has increased the rainwater holding capacity of their land.
- Irrigation requirements have been reduced by around **30-40%**.
- The **Rythu Sadhikara Samastha**, a not-for-profit set up by the government of Andhra Pradesh conducted studies on water and energy consumption.
- **Samaj Pragati Sahyog**, a Madhya Pradesh-based grassroots organization that works to promote natural methods of pest control, and the use of natural inputs like cow dung, and silt have conducted studies on 1000 farmers in 2000 ha of land in Madhya Pradesh and Maharashtra.
- The study showed that in 2018-19, **15 billion liters** of water could be saved through sustainable agricultural practices like micro-irrigation and changing crop patterns.
- Using water-saving crops like gram and chickpeas instead of water-intensive crops like paddy, wheat and sugarcane saved 5.53 billion liters.

Advantages of Regenerative Agriculture

- The Ministry of Housing and Urban Affairs has set the benchmark for urban and rural water supply at 135 and 55 liters per capita per day. Therefore saving water through **regenerative agriculture can provide water to 110 million urban and 270 million rural people**.
- Farmers have reported that the number of times irrigation has to be done has reduced for most crops and pump operation times have also come down. This has resulted in savings on electricity and water expenses.
- As a result of better water-holding capacity of the soil, farmers can also plant a rabi crop, which in turn improves soil health and increases revenue.
- According to the UN State of Food Security and Hunger in the world report 2022, India has **224.5 million** undernourished people. Improved crop output can help solve the problem of hunger and malnutrition.
- Regenerative agriculture can also reduce emissions from agriculture and help turn fields into carbon sinks, thereby contributing to climate change prevention.

Zero Budget Natural Farming

- **Subhash Palekar Natural Farming**, OR **zero-budget natural farming**, emphasizes the preparation and use of inputs made from fruit, cow dung, and urine, among other things. According to studies, natural farming uses less energy and uses irrigation less frequently over time.

Rice intensification

- It is a technique that increases yields by spacing seeds farther apart and using organic manure

Land Reforms, Technology Missions, Medical, biotechnology and related issues, Public Distribution system, Minimum Support Price, Food Subsidies and food Security, Food Processing Industries, Irrigation and farm Mechanization

WAYANAD RICE FESTIVAL PROMOTES CLIMATE - RESILIENT CROPS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Climate Resilient Crops

Prepp Mains Booster: Indian Heritage and Culture; The role of NGOs; Food Security

Context:

- Recently, Kerala based organization, Thanal gave the public an opportunity to experience their initiative by launching Ikki Jathre, or the Festival of Rice in tribal parlance.
- The initiative aims to sensitize people to the significance of conserving traditional crops that have the ability to withstand harsh climatic conditions.
- Thanal has embarked on a unique conservation experiment, planting 300 climate-resilient varieties of traditional rice on 1.5 acres of land at its agroecology centre in Panavally in the Wayanad district.

Ikki Jathre, or the Festival of Rice

- Since 2012, Thanal has organized yearly "rice field weeks." The festival was placed on hold until the NGO decided to restart it this year due to floods in 2018 and 2019, the COVID-19 epidemic, and other events.
- With a collection of 30 different types of rice, **Thanal** introduced the Rice Diversity Block (RDB) at Panavally as part of the **Save Our Rice campaign** in 2009. It now comes in 300 different variations.
- Most of the varieties came from **West Bengal, Kerala, Karnataka, Assam, Tamil Nadu, and Arunachal Pradesh**. There are three types of traditional rice from Thailand and Vietnam.

Significance

- **Collaboration:** The event also creates a forum for tribal farmers and experts to collaborate on knowledge creation and sharing.
- **Promotion of traditional rice varieties:** The farmers would bring back seeds from the festival and spread them by trading them with their friends when they got home. Traditional rice harvests are being promoted among customers.
- For instance, In terms of productivity, the traditional and well-liked Thondy type of rice among the people of Wayanad a few decades ago could compete with any hybrid rice.
- Moreover, traditional rice farming has **relatively low input costs** due to its innate resilience to pests and illnesses.
- NGOs play an important role in **preserving biodiversity** in agriculture for food, nutrition and health.



Climate-Resilient Agriculture (CRA)

- The goal of climate-resilient agriculture (CRA) is to increase long-term farm incomes and productivity by sustainably exploiting the natural resources already available through crop and livestock production systems.
- In the face of climate change, this strategy lessens hunger and poverty for future generations. Especially when done sustainably, CRA methods have the power to change the situation and maintain agricultural productivity on a local, national, and international scale.

Climate-resilient practises lead to improved access to and use of technology, open trade policies, increased resource conservation technology utilisation, and increased crop and livestock tolerance to climatic stress.

SC WORRIED OVER EFFECT OF GM CROPS ON LIVELIHOOD OF WOMEN FARM LABOURERS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: GM crops

Prepp Mains Booster: Government Policies & Interventions; Science and Technology: Awareness in the fields of Biotechnology

Context:

- Recently, the Supreme Court expressed concern about the plight of thousands of **women agricultural laborers in rural areas** who have traditionally worked in de-weeding and will be part of the human cost if the government allows commercial cultivation of **herbicide-tolerant crops such as GM mustard in India**.

What are Genetically Modified (GM) Crops?

- **GM crops** are plants whose genes have been artificially modified, usually by inserting genetic material from another organism, to give them new properties such as increased yield, herbicide tolerance, disease or drought resistance, or improved nutritional value.
- Golden rice is most likely the most well-known GM rice variety.

- Golden rice is made by combining genes from a plant - both daffodils and maize have been used - and a soil bacterium to create a grain rich in Vitamin A.
- Previously, India approved the commercial cultivation of only one GM crop, Bt cotton, but GEAC has recommended that GM Mustard be approved for commercial use.



Recent Observations on Women Farmers

- Women in rural areas are weed removal experts. They work in agriculture in India which provides them with employment.
- It was observed during a hearing on challenges to the government's environmental clearance of genetically modified mustard.
- The lead judge on the Bench agreed that women were an essential part of the Indian agricultural landscape, from paddy fields to tea estates across the country.
- They work in knee-deep water in the fields, bending all day.
- The widespread use of herbicide-tolerant crops would encourage farmers to spray chemical weed-killers, leaving toxic chemical residue in large amounts on the crops.

About Herbicide Tolerant Crop

- Genetic engineering (GE) refers to techniques used to manipulate an organism's genetic composition by inserting specific genes.
- Plant breeding has traditionally been used to improve desired traits. Herbicide-tolerant and plant-incorporated protectants are two common classifications for GE crops.
- Crops are also engineered or "stacked" to express multiple traits, such as resistance to multiple herbicides or resistance to herbicides and insecticides.
- Herbicide-tolerant crops are designed to withstand broad-spectrum herbicides that kill the surrounding weeds while leaving the cultivated crop unharmed.

GM Crops Not for India

- The Supreme Court's own **Technical Expert Committee (TEC)** stated that these GM crops were not intended for agriculture in India. They might be appropriate in a western context with large farms, but not here.
- There are 5,477 mustard varieties in India that would be threatened.
- It was claimed that the regulatory system overseen by the **Genetic Engineering Appraisal Committee (GEAC)**, which approved the environmental release of **Dhara Mustard Hybrid-11 (DMH-11)**, a genetically engineered variant of mustard, was "horrendous" and riddled with conflicts of interest.

- It was stated that the Department of Biotechnology funded DMH 11 and then became a part of the regulatory mechanism.
- Despite warnings from a parliamentary committee and a report from the Supreme Court's Technical Expert Committee, the environmental release of the hybrid mustard variety was cleared. The government had not made the biosafety dossier for the GM crop public.

Significance of GM Crops

- A Supreme Court-appointed member of the GEAC, had stated that commercial cultivation of GM Mustard would open the door wide for multinational corporations.
- It was stated that if approved for commercial cultivation, GM mustard would be the first genetically modified food crop available to Indian farmers. It was recalled how the BT Brinjal was withdrawn by the government years ago after the regulatory system was found to be riddled with inconsistencies.

Flawed testing of GM Crops

- It was stated that the GM crop testing was "completely flawed," and that there were no laboratories capable of performing bio-safety tests.
- The TEC proposed a 10-year moratorium on the release of any GM crop, with the interregnum used to strengthen our regulatory and testing systems.
- The majority of European countries have outlawed **genetically modified organisms (GMOs)**. Their release now would pose a serious bio-safety risk.
- The government, on the other hand, stated in an affidavit that the GEAC approval to the **Centre for Genetic Manipulation of Crop Plants (CGMCP)** came after an exhaustive review that began in 2010.
- According to the government, India is already importing oil derived from genetically modified crops.

Space and Missile Technologies, Development of Science and technology in India

UNDERSTANDING THE FUSION ENERGY BREAKTHROUGH ANNOUNCED BY US SCIENTISTS

Priority: Medium

Primary Source: Indian Express

Prepp Prelims Booster: Nuclear Fusion

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life.

Context:

- Recently, researchers at the Lawrence Livermore National Laboratory in California for the **first time** produced more energy in a fusion reaction than was used to ignite it, something called net energy gain.
- The fusion is seen as the future of energy by many policymakers, especially in Europe.

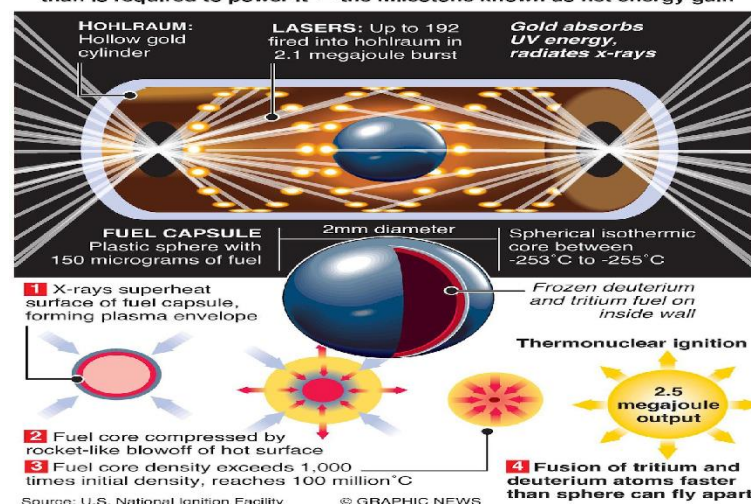
Significance

- Availability of fuel:** If nuclear fusion technology can be made commercially viable, it offers the potential for "basically unlimited" fuel. Deuterium is prevalent in saltwater, and researchers are working to create tritium insitu using lithium.
- High energy potential:** The energy potential of nuclear fusion is greater than that of any other known energy source.
- It can release four times as much energy as nuclear fission, the process now utilised in all nuclear power plants worldwide, and almost 4 million times more energy than chemical reactions like burning coal, oil, or gas.
- Defence and clean energy:** The achievement will pave the way for advancements in national defense and the future of clean power.
- Nuclear energy is seen as a carbon-free substitute for fossil fuels since it does not produce greenhouse gases during production; instead, its main byproduct is helium, an inert, non-toxic gas.

- Radio activity:** Additionally, it is a method that doesn't result in radioactive waste. Deuterium is not radioactive, but tritium is; these two elements are thought to be the most efficient for fusion energy. However, the radiation it emits is quite weak and short.

Nuclear fusion clean energy breakthrough

Scientists at the Lawrence Livermore National Ignition Facility in California have been able to produce more energy from a fusion reaction than is required to power it — the milestone known as net energy gain



Challenge:

- Despite how noteworthy the accomplishment is, it does little to further the objective of using fusion processes to generate electricity. According to all projections, it will still be two to three decades before the fusion process is used to generate electricity on a commercial scale.

Fusion reactions

- Fusion reactions are being experimented with in at least **two different** methods **inertial fusion and magnetic fusion**.
- These differ mostly in how the input energy is delivered to produce the intense heat necessary for fusion, but this also has an impact on design and capability.
- At the **Lawrence Livermore facility**, scientists use high-energy laser beams to achieve those temperatures, also called '**inertial fusion**'.
- Strong magnetic fields** are utilized for the same purpose at several other locations, such as the international collaboration project ITER in southern France, where India is a partner.
- In comparison to **magnetic fusion**, it is significantly simpler to reach break-even energy levels with **inertial fusion**.
- Nations like China and the United States, which is an ITER partner as well, are also experimenting with laser-based inertial fusion.
- This is primarily because fusion-based nuclear weapons, which would be much more potent and destructive than the current nuclear bombs, may be created using this technology.
- Fusion will need to generate substantially more power and for a longer period of time in order to be practical.

What is the difference between Nuclear Fission and Nuclear Fusion?

Nuclear Fission	Nuclear Fusion
- The nucleus of a heavier element is split into those of lighter elements in a controlled manner. - It produces radioactive waste. Fuel- Uranium	- In fusion, nuclei of two lighter elements are made to fuse together to form the nucleus of a heavier atom. - It does not produce radioactive waste.

- The Energy released in this process is lower than energy released in Fusion.
- All **nuclear power plants** in the world use fission reactors to generate electricity.
- **Risk:** Due to public fears of dangerous radiation fanned by incidents like the **Chernobyl tragedy**, the meltdown at **Fukushima**, and the **partial meltdown at the US Three Mile Island**, it is not a common source of fuel in the majority of countries.
- Fusion has a **higher energy yield** and is a carbon-free energy source.
- **Fuel:** Deuterium and Tritium
- The energy released is substantially higher than the energy released in Fission.
- **Risk:** At most generated energy that is "near break-even." That is energy consumed to generate enormous temperatures is utmost equal to the energy produced.
- Only at temperatures 10 times higher than those found at the Sun's core can fusion processes occur, and producing such an extremely hot environment in a laboratory demands a tremendous amount of energy.

ITER

- ITER ("The Way" in Latin) is one of the most ambitious energy projects in the world today.
- In southern France, 35 nations* are collaborating to build the world's largest **tokamak, a magnetic fusion device** that has been designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy based on the same principle that powers our Sun and stars.
- The experimental campaign that will be carried out at ITER is crucial to **advancing fusion science** and preparing the way for the fusion power plants of tomorrow.
- The ITER Members—**China, the European Union, India, Japan, Korea, Russia and the United States**—are now engaged in a 35-year collaboration to build and operate the ITER experimental device, and together bring fusion to the point where a demonstration fusion reactor can be designed.
- In 2005, India became a project participant.
- The principal organisation from the Indian side of the project is the **Institute for Plasma Research in Ahmedabad**, a facility run by the Department of Atomic Energy. India is constructing many ITER reactor components as a member nation and is also participating in numerous ITER-related research and development projects.
- **Tokamak** — a doughnut-shaped vacuum chamber that uses powerful magnets to turn fuel into a superheated plasma (between 150 million and 300 million degrees Celsius) where fusion may occur.

- Recently, **Moderna and Merck** announced positive results from a trial in which messenger RNA technology was used for the first time to create personalized vaccines for skin cancer patients.



Background

- Scientists have long believed that **mRNA technology** could aid in the fight against other viruses and diseases such as cancer.
- In a preliminary trial, 150 people who had their melanoma tumor surgically removed were given up to nine doses of the experimental vaccine alongside the skin cancer treatment Keytruda.
- The study found that patients who received only **Keytruda, an immunotherapy medication**, had a 44% lower risk of death or relapse.
- It was stated that today's results are extremely encouraging for the field of cancer treatment.

What is mRNA Vaccine Technology?

- mRNA vaccines use mRNA to teach our cells how to make a protein or a protein that causes an immune response within our bodies. That immune response, which produces antibodies, is what keeps us from becoming infected if the real virus enters our bodies.
- The researchers created an indigenous potential mRNA vaccine candidate against SARS-CoV-2.
- It is based on the Moderna model, but it was created using open source information and indigenous technology and materials.

Potential of mRNA

- "mRNA has been transformative for COVID-19, and now, for the first time ever, we have demonstrated the potential for mRNA to have an impact on outcomes in a randomized clinical trial in melanoma."
- Messenger RNA is a molecule found within cells that carries instructions for the formation of proteins. Scientists can engineer them to produce a specific protein in the body that aids in the fight against viruses and other illnesses.
- Moderna and Pfizer-BioNTech were the first to use the technology to develop the mRNA vaccines used to combat COVID-19.
- **Moderna and Merck, known as MSD** outside of North America, will soon publish the full results of the study, the findings of which have not yet been peer-reviewed. In 2023, the companies will launch a Phase 3 trial with a larger number of patients.

Melanoma Vaccine

- The melanoma vaccine is designed to prime the immune system so that a patient can generate a tailored antitumor response specific to their tumor mutation signature.
- Melanoma is the deadliest form of skin cancer, with nearly 325,000 new cases diagnosed in 2020. According to the statement, 8,000 people will die from melanoma in 2022.
- Moderna and Merck agreed in October to collaborate on the personalized skin cancer vaccine, sharing costs and profits.

MODERNA, MERCK SEE POSITIVE RESULTS FROM CANCER VACCINE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Cancer Vaccine

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health, GS3 - Achievements in science & technology

Context:

DEEPPAKE TECHNOLOGY: HOW AND WHY CHINA IS PLANNING TO REGULATE IT

Priority: High



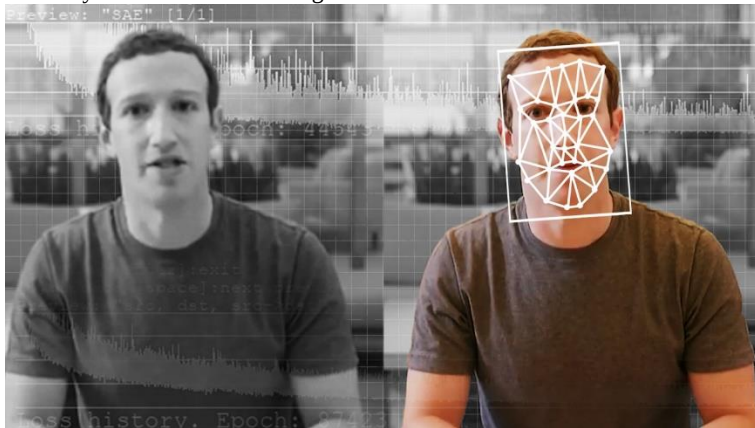
Primary Source: The Hindu

Prepp Prelims Booster: Deepfake Technology

Prepp Mains Booster: Awareness in the fields of IT, Computers, robotics; Cyber Security

Context:

- Recently, the Cyberspace Administration of China, the country's cyberspace watchdog, is rolling out new regulations, to be effective from January 10, to restrict the use of deep synthesis technology and curb disinformation.
- Under the guidelines of China's new rules, companies and platforms using the technology must first receive consent from individuals before they edit their voice or image.



What is Deep Synthesis?

- Deep synthesis is process of **generating text, images, audio, and video** to build virtual scenes using technologies like deep learning and augmented reality.
- Deepfakes**, in which the voice or face of one person is substituted for another using synthetic media, is one of the most notorious **uses of the technique**.
- With the development of technology, deepfakes are becoming more **difficult to identify**.
- Among other wrongdoings, it is used to create **fake news, make celebrity porn movies, and commit financial fraud**.

What are Deepfakes?

- Deepfakes are a **collection of fake images and audio** that have been stitched together using **machine learning algorithms** to spread misinformation and to **mimic the voice or appearance of a real person**.
- It has the ability to **construct fictional characters** and to make false statements and actions by actual individuals.
- When an anonymous Reddit user went by the name "Deepfakes" in 2017, that is when the phrase "deepfake" first appeared.
- This user created and posted pornographic videos using Google's open-source, deep-learning technology.
- The videos were altered using a process called **face-swapping**.
- According to a blog post by cybersecurity company Norton, deepfake technology is now being utilised for malicious activities **like scams and hoaxes, celebrity pornography, election meddling, social engineering, automated disinformation attacks, identity theft, and financial fraud**.
- Former American presidents Barack Obama and Donald Trump, Indian Prime Minister Narendra Modi, Facebook CEO Mark Zuckerberg, and Hollywood star Tom Cruise have all been impersonated using deepfake technology.

- China's new regulation attempts to stop the spread of misinformation using deepfake.

What is China's new policy to curb deepfakes?

- According to the South China Morning Post, the guideline mandates that **deep synthesis service providers** and users make sure that any content that has been altered using the technology is clearly identified and can be **tracked back to its source**.
- The law also requires those who use technology to alter someone's voice or picture to tell them and get their **permission before doing so**.
- Only sources on the government-approved list** of news organisations may be used for reposting news generated by the technology.
- The new legislation stipulates that deep synthesis service providers must also **follow ethics**, adhere to local regulations, and maintain the "right political direction and correct public opinion orientation."
- According to a South China Morning Post story, China's internet authority expressed concern that the unfettered development and usage of deep synthesis could result in its application in illegal activities including online scams or defamation.
- The nation recently made a move in an effort to reduce threats that could be brought on by activities offered by platforms that use deep learning or virtual reality to modify any online content.
- If effective, China's new regulations might serve as a model and **establish a set of guidelines that other countries could adopt**.

What steps are other nations doing to fight deepfakes?

European Union

- European Union** has amended its **Code of Practice** to prevent the dissemination of false information through deepfakes.
- The updated Code mandates that social media platforms like Twitter, Google, and Meta take action against deepfakes and fake accounts.
- Once they have agreed to the Code, they have six months to put their plans into action.
- The revised Code states that these businesses could be fined up to 6% of their annual global turnover if found to be in violation.
- The Code of Practice on Disinformation was introduced in 2018 and brought together global industry leaders for the first time to commit to battling disinformation.

USA

- The bipartisan **Deepfake Task Force Act** was introduced in the United States in July of last year to help the Department of Homeland Security (DHS) combat deepfake technology.
- The law requires the DHS to conduct an annual investigation into deepfakes, evaluate the technology involved, monitor how both domestic and foreign companies are using it, and develop potential defences against it.
- Some American States, including California and Texas, have enacted legislation making it illegal to broadcast and distribute deepfake videos with the intent to sway an election.

Canada

- The government of Canada is working with a number of local and international actors to conduct some of the most cutting-edge AI research in the country.
- Canada also participates in and assumes leadership roles in a number of related multilateral efforts, including the Global Partnership on Artificial Intelligence, the NATO Cooperative Cyber Defence Centre of Excellence, and the Paris Call for Trust and Security in Cyberspace.
- Through these forums, it can work with national and international actors to develop deepfake policies across a range of fields.

Global Partnership on Artificial Intelligence (GPAI)

- The Global Partnership on Artificial Intelligence (GPAI) is a **multi-stakeholder initiative** which aims to **bridge the gap between theory**

and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.

- It was **launched in June 2020** with 15 members, GPAI is the fruition of an idea developed within the G7.
- Members (29):** Argentina, Australia, Belgium, Brazil, Canada, Czech Republic, Denmark, France, Germany, **India**, Ireland, Israel, Italy, Japan, Mexico, the Netherlands, New Zealand, Poland, the Republic of Korea, Senegal, Serbia, Singapore, Slovenia, Spain, Sweden, Türkiye, the United Kingdom, the United States and the European Union.

Paris Call for Trust and Security in Cyberspace

- The Paris Call for Trust and Security in Cyberspace was launched on **12 November 2018** during the Paris Peace Forum.
- It aims to drive initiatives on emerging and, as yet, insufficiently regulated issues, by working with a variety of players including States, businesses and professional associations and civil society organizations.
- The Call proposes a vision for **regulation in cyberspace and the major associated principles**: the practicability of international law, responsible behaviour of States, State monopoly of legitimate use of violence, recognition of the specific responsibilities of private stakeholders, particularly as regards preventing security failures and refrain from using certain practices which may damage stability in cyberspace.
- The Call is the **first major international initiative** which is resolutely part of a multi-stakeholder approach including States, private companies and civil society organizations.

INDIA NEEDS INNOVATION TO ACHIEVE VISHWAGURU STATUS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Science and Technology

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- India will be presiding over the G20** in 2022-23 and innovation will be one of the major topics discussed.
- With the G20 presidency, India has the opportunity to set the global agenda and be in the spotlight for at least a year.
- This article discusses what India must do **to achieve Vishwaguru status**.

Background

- Since the end of the Second World war, **the USA has been the true Vishwaguru of the world** due to its technological and military strength as well as its open and competitive economy.
- This was the result of the culture of innovation promoted by the USA supported by investment in **research and development (R&D)**.
- The **Sustainable Development Goals** Agenda 2030 aims to build resilient infrastructure, promote sustainable and inclusive industrialization, and foster innovation.
- Under SDG 9.5, nations should foster innovation and R&D by increasing the number of innovators as well as the public and private spending on R&D.

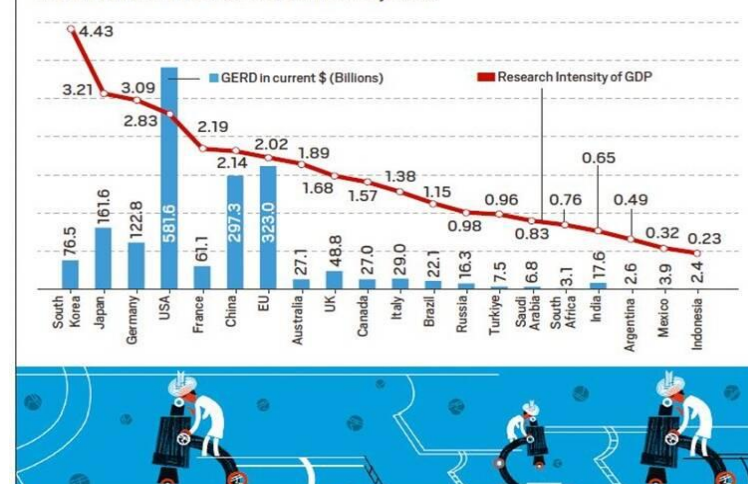
What is Research and Development (R&D)?

- Research and development refers to an innovative effort made by a stakeholder to create a new item or service or to improve the quality of an already manufactured item or service.

Present Status of Investment in Innovation

- According to the most recent report from UNESCO's Institute for Statistics (UIS), the G20 nations accounted for 90.6 percent of global GERD (current, PPP\$) in 2018.
- Global R&D expenditure has reached a record high of approximately 2.2 trillion current PPP\$ (2018), while Research Intensity (R&D expenditure as a percentage of GDP) has gradually increased from 1.43 percent in 1998 to 1.72 percent in 2018.

R & D INTENSITY OF G20 COUNTRIES, 2018



- Though looking at spending in PPP terms is a reasonable metric for measuring economic welfare, when it comes to technological prowess in high-end R&D activities, it all comes down to measuring hard currency in US dollars.
- The G20 nations make up 60% of the world's population in 2021 and 86.2% of global GDP. The USA leads with the most investment in R&D in the world.
- In 2018, the United States led the G20 in R&D spending with \$581.6 billion**, followed by the **European Union (\$323 billion)** and **China (\$297.3 billion)**. India is far behind, spending only \$17.6 billion on R&D in 2018.
- In terms of their relative shares of G20 R&D expenditure, the US leads with 36%, followed by the EU (20%), and China (18%). In dollar terms, India accounts for less than 1% of G20 R&D spending.

Country	Investment in R&D(in billion \$)
USA	581.64
European Union	323
China	297.3
India	17.6

Country	Research Intensity (as % of GDP)
South Korea	4.43
Japan	3.21
Germany	3.09
USA	2.83

China	2.14
India	0.65

How India can become a Vishwaguru?

- India has a long way to go before realizing its dream of becoming a Vishwaguru.
- The only way to do so appears to be to redirect its massive expenditures on various subsidies ("revdi" culture) such as food, fertilizers, PM Kisan, free power, and even the PLI scheme for manufacturing toward a multifold increase in expenditure on research and innovation.

Suggested Measures

- The Indian government should increase the amount spent on innovation by repurposing some of the huge amounts used to settle subsidy bills.
- Research Intensity is defined as the percentage of GDP spent on R&D. India's research intensity was the 17th lowest among all the G20 countries.
- Non-G20 countries like Israel have a higher research intensity (RI) but the absolute amount spent in such countries is low because of the small size of their economies.
- For instance, Israel has an economy worth \$18.6 Billion and research intensity RI is 5%. So total spending on R&D equals 0.9 Billion which is quite low compared to the USA and China.
- India should attempt to follow Israel's model in innovation as it can be a fundamental driver of the country's growth.
- The government should finance small and medium enterprises (SMEs), provide infrastructure for capital investment and assist startups in securing venture capital, develop incubators to aid new enterprises, promote university-industry linkages and improve access to high-quality education and reskilling and upskilling.
- Israel is an example that making investment in innovation a priority will lead to sustainable growth.
- India's G20 presidency will see the engagement group Science20 with the theme "Disruptive Science for Innovative and Sustainable Development" participate in discussions.
- Science20 will focus on holistic and universal health, clean energy, and connecting culture and science. India should leverage the wealth of knowledge in these sectors for global change.

Conclusion

India's innovation should not be in defense and technology only. It should safeguard the basics of land, water, and air as well. India is a global leader in IT, a similar breakthrough in other sectors and India will acquire the world leader status it deserves as it guides the world to a prosperous future.

Vishwaguru Status

- Coined by Prime Minister Modi, it refers to India's status as a leader of the world.

1.5 DEGREE WARMER WORLD LOOMS, BUT IT'S NOT THE END

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Climate change

Prepp Mains Booster: Environmental Pollution and Degradation, Disaster Management; Bilateral, regional and global groupings involving India's interests

Context:

- Recently, in November the **27th Conference of Parties or COP** had been conducted in Egypt where a decision was made to create a fund to help developing countries cope with climate change.
- 2022 has been expected to be **1.15 degrees warmer** than pre-industrial levels.



How is the global temperature rising?

- Studies have shown that global temperatures have risen by 1.1 degrees since the industrial revolution.
- 2016 has been the warmest year ever recorded. It saw temperatures 1.26 degrees above the pre-industrial baseline.
- In 2022, temperatures have been expected to rise by 1.15 degrees and would have been higher if not for the cooling effect of the unusually long **La Nina event**.
- According to the World Meteorological Organization (WMO), there is a 50% chance that the 1.5-degree mark would be breached within the next five years.
- A WMO study has also reported that there is a 93% chance that one of the next five years will be hotter than in 2016.

What is the 1.5-degree mark?

- The 2015 COP in Paris had concluded that **temperature rise had to be kept below 2 degrees and ideally below 1.5 degrees from pre-industrial temperatures**.
- COP 27 at Sharm El Sheik has agreed on the need to maintain the 1.5-degree mark.
- The Inter-Governmental Panel on Climate Change (IPCC) has reported that the 1.5-degree mark will certainly be breached in the next few years.

What will happen if the mark is crossed?

- The **1.5-degree mark** will not be a special trigger for adverse climate events.
- The major change will be that the rate of occurrence of adverse climatic events will increase.
- The 1.5-degree mark has been used to attempt to limit the rise in temperature to as low a limit as possible so as to minimize the effects of climate change although the latest scientific methods have claimed that **present levels of warming** have led to **irreversible, uncontrolled changes** that could lead to more adverse effects.

What losses have been caused by natural disasters?

- Even though there has been an increase in the number of natural disasters, the loss of human life has not increased.

- The **WMO Atlas of Mortality and Economic Losses from Weather, Climate, and Water Extremes 2021** reported that climate disasters increased from 711 between 1970-79 to 3,165 between 2010-19.
- Human lives lost due to these disasters, however, reduced from 556,000 to 185,000 in the same period.
- Economic losses rose from \$175 billion in the 1970s to \$1.4 trillion in the 2010s. This has been attributed to the rise in the frequency of disasters and the value of infrastructure.

Early warning and mitigation

- In India, the last decade has seen a **reduction of 90% in deaths** caused due to cyclones and heat waves due to the use of early warning and mitigation systems.
- Some disasters like cloudbursts, avalanches, and landslides cannot be reliably predicted but their effects can be reduced by proper mitigation and planning.
- However, nearly **half of the world's countries lack proper warning systems or rapid response mechanisms**.
- Reports have shown that **mortality increases by 8 times if the area lacks proper warning and response mechanisms**.

What are ongoing adaptation efforts?

- At COP 27, the WMO announced that it had planned to **extend the coverage of early warning systems to all countries within the next five years**.
- The programme, estimated to **cost \$ 3.1 billion**, will save lives and help avoid losses amounting to **\$ 3 - 16 billion annually**.
- The **Coalition for Disaster Resilient Infrastructure**, launched by India, has focussed on developing early warning systems in the small island states which are at risk from oceanic disasters.
- Developed countries already have the capabilities to cope with these events and have focussed on emissions reduction, as they see adaptation efforts as locally benefitting.

Way Forward

- Developing countries have demanded that at least **half of climate finance be spent on adaptation efforts** instead of the **present 20%**.
- **Short-term focus on adaptation efforts and long-term focus on emissions** is the way to go as it is key to the survival of vulnerable communities in developing nations.
- A **collective effort** from members of COP is needed to bring about long-term change. The present structure of nationally determined contributions (NDCs) is not optimal.

Conference of Parties

- The Conference of Parties (COP) is the principal organization responsible for making decisions under the United Nations Framework Convention on Climate Change (UNFCCC).
- Its objectives include
 1. examining the Parties' national communications and emission inventories.
 2. evaluating the results of the actions taken by Parties and the development of the Convention's goal
- Unless otherwise agreed by the Parties, the COP convenes **annually**.
- Berlin hosted the first conference (COP1) in 1995.
- In 2022, COP(27) was conducted at Sharm El Sheik in Egypt, and in 2023 it will be held in Dubai.

IPR and its Related Issues

GEOGRAPHICAL INDICATION TAG SOUGHT FOR BEYPORE URU

Priority: Medium

Primary Source: The Hindu



Prepp Prelims Booster: GI Tag

Prepp Mains Booster: Issues relating to intellectual property rights; Indian Heritage and Culture

Context:

- Recently, the District Tourism Promotion Council, Kozhikode has applied for a Geographical Indication (GI) tag for the famous Beypore Uru (boat).
- The wooden dhow is handcrafted by skilled artisans and carpenters in Kerala



What is Beypore Uru (boat)?

- It is a **handcrafted wooden dhow** (ship, sailing boat, or sailing vessel) made in **Beypore, Kerala** by talented artisans and carpenters.
- The Beypore Uru represent Kerala's **friendship** and business ties with the **Gulf nations**.
- The Beypore Uru are entirely constructed from excellent wood utilising **traditional methods**.
- Even today, Uru's wood is still **sawed by hand**, a process that takes a high skill level.
- Each Uru takes **one to four years** to construct, and everything is done by hand.

About Beypore

- According to historical documents cited in the case, Beypore has long been a renowned **trading port** since from all over the world, and the distinctive Uru ships Century C.E have been in high demand for around 2000 years.
- The experienced locals known as **Khalasis**, who helped launch Uru boats at Beypore, have a 2000-year history.
- Beypore, which is 10 kilometres from Kozhikode town (Calicut) in Kerala near the mouth of the **river Chaliyar**, was formerly a major harbour and marine hub.
- This historic harbour had seen a great lot of trade and dealings between West Asian Arabian traders, Chinese travellers, and later Europeans with the local traders.

Who are Odayis?

- Records indicate that a number of communities have a history of making urus.
- The prominent people among them are Odayis. They manage the technical matters of shipbuilding.
- Their surname is derived from the word "odam," which refers to a small ship that was once utilised for trading between the **Malabar coast and Lakshadweep**.
- **Khalasis**: After the Odayis, the Khalasis are a notable class also connected to uru-making. Since the bulk of them are Mappila Muslims, they are also known as **Mappila Khalasis**.
- They are renowned worldwide for their **skill and knowledge** in launching the finished Uru into the water using solely conventional techniques.

- They also haul the Urus in need of repairs back to the shipyard at Beyport.

What is a geographical indication (GI)?

- Geographical Indications of Goods are defined as that aspect of industrial property which refers to the geographical indication referring to a country or to a place situated therein as being the country or place of origin of that product.
- Typically, such a name conveys an assurance of quality and distinctiveness which is essentially attributable to its origin in that defined geographical locality, region or country.
- Geographical Indications are part of the intellectual property rights that come under the **Paris Convention** for the Protection of Industrial Property.
- Geographical Indications registration is administered by the **Geographical Indications of Goods (Registration and Protection) Act of 1999**.
- Agriculture, food, wine & spirits, handicrafts, and industrial products are among the common categories for which geographic indications are utilised.
- The Act is administered by the Controller General of Patents, Designs and Trade Marks- who is the Registrar of Geographical Indications.
- The Geographical Indications Registry is located in **Chennai**.

STATE'S FIVE AGRICULTURAL PRODUCTS GET GI TAG

Priority: High

Primary Source: The Hindu

Prepp Prelims Booster: Geographical Indication

Prepp Mains Booster: Indian Heritage and Culture;

Context:

- Recently, the Union government has granted the Geographical Indication (GI) tag to 9 products from across the country, including the Gamosa of Assam; Alibag White Onion from Maharashtra; Ladakh Raktsey Karpo Apricot; and Attappady Aattukombu Avara, among others.
- Of the 9 GI tags given, five were for products from Kerala. With this, the total number of registered GI products in India stands at 432.

About the Products:

- **Attappady Thuvara:** The Attappady Thuvara is a significant traditional crop grown in Kerala's Palakkad district among the Attappady tribal people. It is a woody shrub that is often raised as an annual crop.
- Attappady Thuvara seeds are larger and heavier than those of other red grams.
- This tasty red gram, which is used as a vegetable and dal, is high in calcium, magnesium, fiber, protein, and carbohydrates.
- In order to preserve the area's traditional crops and ensure the livelihood of the tribal people, the Kerala government created a unique program for Attappady under the Attappady Millet Village initiative.
- **Kanthalloor Vattavada Veluthulli (garlic):** Kanthalloor and Vattavada panchayats are the principal agricultural regions. Traditional garlic produced in these areas is renowned for having a distinctive flavor, pungency, taste, medicinal qualities, and a longer shelf life than garlic produced in other areas. Sigappuppoondu and Malaipoondu are the two primary varieties of indigenous garlic grown in the Kanthalloor and Vattavada region.
- **Kodungallur Pottuvellari (Kodungallur snap melon):** It is cultivated for its fully matured fruit used for making juice. In some states, it is used as a vegetable. In summer, Pottuvellari juice stalls are a common sight on the road in Kodungallur, Thrissur, Paravur, and Ernakulam.
- **Attappady Aattukombu Avara:** The Attappady Aattukombu Avara, cultivated by tribal farmers, and Onattukara Ellu. It is one of the ancient

and traditional annual oilseed crops cultivated in Onattukara region of Kerala.

- In addition to its ability to lower blood sugar, anthocyanin protects against cardiovascular illnesses. Besides this, the contents are also rich in calcium, protein, and fiber.
- It has a higher phenol content than other crops, which confers resistance to pests and diseases and makes it suited for organic farming.
- With the latest five GIs, 17 agricultural products of Kerala facilitated by the Kerala Agricultural University have received the GI status.



अतुल्य भारत को अमूल्य निधि : Invaluable Treasures of Incredible India

Products from other states

- **Gamosa:** The **Assamese** Gamosa holds immense significance. In every puja and "nam prasang" rites, both men and women wrap a gamosa around their necks. When working in a kitchen garden or a paddy field, men wear gamosa as headwear. Additionally, as a sign of respect during Bihu, the young present elders with Gamosa.
- **Alibag White Onion:** It is a traditional variety of white onion in Alibag tehsil of Raigad district in **Maharashtra**. It does not have a strong odour like the standard onion commonly available in the market. It has a sweet taste, different from other onions.
- **Tandur Redgram:** It is a traditional crop in the **Telangana region's rain-fed area**. It has a protein content of roughly 22–24%, which is almost three times that of grains.
- **Ladakh Raktsey Karpo Apricot:** It has a unique seed. Apricot fruits have brown seed stones everywhere in the world. The Raktsey Karpo fruit's seeds, however, have **white seed stones**.

What are GI Tags?

- A geographical indication (GI) is a sign used on products with a specific geographical origin and possess qualities or a reputation due to that origin.
- In order to function as a GI, a sign must identify a product as originating in a given place.
- Geographical Indications are part of the intellectual property rights that come under the **Paris Convention** for the Protection of Industrial Property.
- Geographical Indications registration is administered by the **Geographical Indications of Goods (Registration and Protection) Act of 1999**.
- Agriculture, food, wine & spirits, handicrafts, and industrial products are among the common categories for which geographic indications are utilised.
- The Act is administered by the Controller General of Patents, Designs and Trade Marks- who is the Registrar of Geographical Indications.
- The Geographical Indications Registry is located in **Chennai**.
- The top five states holding the maximum number of GIs are Karnataka, Tamil Nadu, Uttar Pradesh, Karnataka, and Kerala. Of these, 401 are Indian-origin products, 31 are foreign-origin.

- The states having the most Geographical Indicator (GI) tags are Karnataka and Tamil Nadu, then Kerala (35), Uttar Pradesh (34), and Maharashtra (31).
- A registered GI shall be valid for **10 years** and can be renewed on payment of renewal fee.

Impact of GI Tag:

- **Bio-piracy:** Agricultural GI protection stops bio-piracy, which is the unremunerated use of the natural resources of developing countries.
- **Brand equity:** Particularly for those whose manufacturing occurs in rural areas and for producers who are unable to invest in branding due to a lack of "marketing muscle," the product awareness is like an insurance or protection. The GI label assists these producers in building brand equity.
- **Harmonious interethnic relations:** This will encourage harmonious interethnic relations and improved appreciation of regional goods, expertise, and cultures.
- It is crucial to **safeguard GI stakeholders** from undue competition.
- The branding and promotional efforts must take into consideration the distinctive cultural characteristics of rural communities connected to GI products.

Disaster Management: Plan, Framework, Cycle Biodiversity and Conservation, Environment Pollution, Environmental Impact Assessment And Related Issues

BIODIVERSITY DEAL ADOPTED AT COP-15

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: CoP-15

Prepp Mains Booster: Conservation, environmental pollution and degradation; Important International institutions, agencies and fora- their structure, mandate.

Context:

- The United Nations Biodiversity Conference (COP15) ended in Montreal, Canada on 19 December 2022 with a landmark agreement to guide global action on nature through to 2030.
- COP 15 was chaired by China and hosted by Canada, resulted in the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF) on the last day of negotiations

Global Biodiversity Framework (GBF)

- The GBF aims to **address loss of biodiversity**, restore ecosystems, and defend the rights of indigenous people.
- **30-by-30:** The plan outlines specific actions to halt and reverse environmental loss, such as **protecting 30% of the planet's surface and 30% of its degraded ecosystems by 2030.**
- It also contains proposals to increase finance to developing countries.
- The Global Biodiversity Framework (GBF) consists of **four overarching global goals** to protect nature:
 - **stopping human-induced extinction** of threatened species and reducing the rate of extinction of all species tenfold by 2050;
 - **sustainable use and management of biodiversity** to ensure that nature's contributions to people are valued, maintained, and enhanced;
 - **fair sharing of the benefits** from the utilisation of genetic resources, and
 - digital sequence information on genetic resources; and that adequate protection of the environment is provided for all species.
 - and that adequate **means of implementing the GBF be accessible** to all Parties, particularly Least Developed Countries and Small Island Developing States.



The GBF also features 23 targets to achieve by 2030, including:

- **Conservation and management:** Effective conservation and management of at least 30 per cent of the world's land, coastal areas and oceans. Currently, 17 percent of land and 10 per cent of marine areas are under protection. Restoration of 30 per cent of terrestrial and marine ecosystems
- **Reduce to near zero the loss of areas** of high biodiversity importance and high ecological integrity
- **Halving global food waste**
- **Phasing out or reforming subsidies** that harm biodiversity by **at least \$500 billion per year**, while scaling up positive incentives for biodiversity conservation and sustainable use
- **Mobilizing at least \$200 billion per year** from public and private sources for biodiversity-related funding.
- **Raising international financial flows** from developed to developing countries to at least US\$ 30 billion per year
- Requiring **transnational companies and financial institutions to monitor**, assess, and transparently disclose risks and impacts on biodiversity through their operations, portfolios, supply and value chains.
- **Monitoring:** In an effort to prevent this agreement from sharing the same fate as comparable targets that were agreed upon in Aichi, Japan, in 2010, but never achieved, all the agreed-upon aims will be supported by systems to monitor progress in the future.
- National action plans will be created and evaluated in a manner akin to that used for greenhouse gas emissions in U.N.-led initiatives to slow climate change.

The Convention on Biological Diversity (CBD), Biodiversity Convention or the United Nations Convention on Biological Diversity (UNCBD)

- It is a **multilateral** treaty.
- The Convention on Biological Diversity (CBD) is an international **legal instrument** that has been ratified by 196 countries for "the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources."
- The CBD's governing body is the Conference of the Parties (COP).
- This ultimate authority of all governments (or Parties) that have ratified the treaty meets every two years to review progress, set priorities and commit to work plans.
- The Secretariat of the Convention on Biological Diversity (SCBD) is based in Montreal, Canada.

CLIMATE HYPOCRISY? GERMANY'S COAL-FUELLED POWER SECTOR MORE POLLUTING THAN INDIA, CHINA CURRENTLY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Coal Fueled Power sector

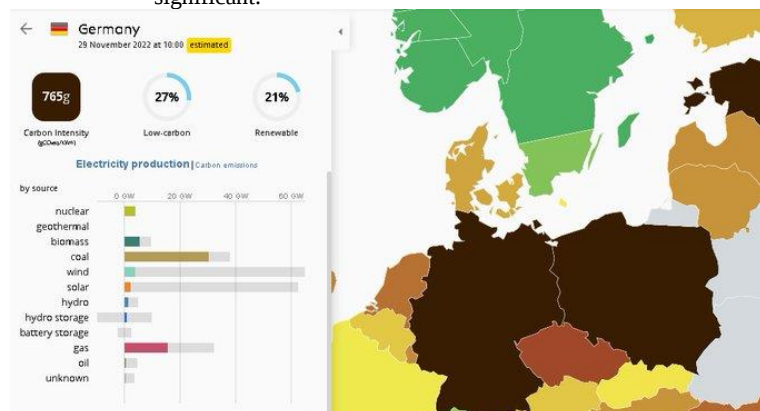
Prepp Mains Booster: Environmental pollution and degradation, Mineral & Energy Resources.

Context:

- According to recent reports, **Germany's coal-fuelled power sector is currently more polluting than India and China.**
- Germany's actions, while possibly a temporary reaction to an abrupt **reduction in Russian gas supplies**, call the country's and the EU's climate credentials into serious question.

Key Highlights

- The **carbon intensity of Germany's electricity generation has surpassed 700 grams of carbon dioxide equivalent per kilowatt hour (gCO₂eq/kWh)** and is on track to exceed 765 gm due to increased coal use in the power mix.
- For comparison, average hourly data from the **International Energy Agency (IEA)** for India show a maximum carbon intensity of 718.7 gm in 2018.
- According to data, China's annual carbon intensity of power in 2021 was 541 gm, India's was 626 gm, and South Africa's was 665 gm.
 - The same annual figure for Germany in 2021 was 352 gm, indicating that the current spike is anomalous but still significant.



Recent Data

- The data for November 2022 comes from Electricity Maps (EM). It states that in 2021, the carbon intensity of China's power generation was 550 grams per kilowatt hour (g/kWh).
- It was pointed out that this is most likely a one-time blip for Germany in the aftermath of the Ukraine war and the resulting energy crisis.
- According to EM's platform, the carbon intensity of power in Germany was 477g a month ago on October 29, with coal accounting for only 27 percent of the electricity.
- On November 30, carbon intensity increased to 747 g, with coal accounting for 48% of electricity generation. Coal is assigned an emissions factor of 1,152 gCO₂eq/kWh by the EM platform.
- Germany uses more lignite than anthracite to generate electricity, with the former emitting more CO₂ than the latter.

Energy Crisis

- Europe is experiencing a 'generational' energy crisis. The continent is scrambling for alternative energy sources as a result of the void left by the absence of Russian gas.
- Germany may be the worst-affected country because it was heavily reliant on piped gas from Russia — 55% of its gas imports from Russia in 2021.

- According to data from the EM platform, wind is a major source of power in Germany, with its contribution to power generation frequently equaling coal.

- Wind generation surpassed coal in February 2022, with the resulting carbon intensity of the power sector clocking in at 276g. Wind penetration has been significantly low in recent days, with only 5% of power coming from wind on November 30.



Germany's Policy

- Germany passed legislation in 2020 to phase out coal-fired power generation by 2038 as part of its clean energy policy, but then reinstated coal-fired power plants in the country's energy mix due to an escalating gas shortage.
- Some argue that Germany's strict anti-nuclear policy, which calls for the closure of its last nuclear power plants by 2022, has resulted in a shift back to coal when renewable energy sources are unable to meet demand.
- Germany also signed a 15-year agreement to import liquefied natural gas (LNG) from Qatar this month and is building four new floating LNG terminals.

EU's Decision

- The European Union's scramble to find diverse sources of energy to meet its needs, whether more coal, LNG, or nuclear, puts it in the shoes of the developing world, where coal-dependent countries have repeatedly called for a gradual shift to zero-carbon energy to avoid jeopardizing their energy access or developmental goals.
- However, the EU's positions in multilateral climate forums demonstrate a lack of understanding of this complexities.
- At the 26th Conference of Parties to the United Nations Framework Convention on Climate Change, they criticized India's support for a coal "phasedown." Or their threats to withdraw from COP27 discussions if the goal of stronger emissions cuts was jeopardized.
- At COP27, the EU supported India's call for a "phasedown of all fossil fuels."
- Germany's actions, while possibly a temporary reaction to a sudden reduction in Russian gas supplies, call the country's and the EU's climate credentials into serious question.

What is India's energy capacity?

- According to Climate Action Tracker projections, fossil fuel accounts for more than half of the country's installed energy capacity and is expected to reach 266 gigatonnes by 2029-2030.
- Domestic coal demand is expected to increase to 1,018.2 million tonnes by 2031-32, up from 678 MT in 2021-2022.
- This means that coal consumption in India will rise by 40%.

WHAT ARE CARBON MARKETS AND HOW DO THEY OPERATE?

Priority: Medium



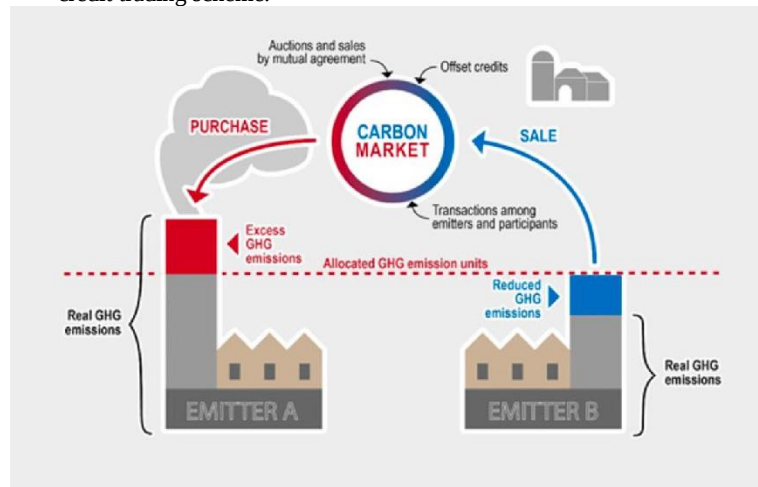
Primary Source: The Hindu

Prepp Prelims Booster: Carbon Markets

Prepp Mains Booster: Conservation, environmental pollution and degradation; Important International institutions, agencies and fora- their structure, mandate.

Context:

- Recently, the Energy Conservation (Amendment) Bill, 2022 was passed in Parliament on December 12.
- The Bill amends the Energy Conservation Act, 2001, to empower the Government to establish carbon markets in India and specify a carbon credit trading scheme.



- Global greenhouse gas (GHG) emissions must be cut by 25 to 50% during the next ten years in order to limit global warming to 2°C, and ideally no more than 1.5°C.
- Carbon markets is one of the mitigation strategy and therefore is growing in popularity with a number of nations as a means of achieving their NDCs.
- The Paris Agreement's Article 6 allows countries to use the global carbon markets to meet their NDCs.

What are Carbon Markets?

- The purpose of carbon markets is to provide trading platforms where carbon allowances or credits may be purchased and sold.
- They are essentially a method for placing a price on carbon emissions.
- A **carbon credit** is a kind of tradable permit that, per United Nations standards, **equals one tonne of carbon dioxide** removed, reduced, or sequestered from the atmosphere.
- Carbon allowances or caps, are determined by countries or governments according to their emission reduction targets.
- According to a report this year from the **United Nations Development Program**, 83% of the NDCs submitted by nations include their intention to use global market mechanisms to decrease greenhouse gas emissions.
- This indicates that interest in carbon markets is expanding globally.

Types of Carbon Markets

Carbon markets can be broadly divided into two categories: **compliance markets and voluntary markets.**

Voluntary Market	Compliance Market
- In voluntary markets, emitters—including businesses, individuals, and others—purchase carbon credits to compensate for the emission of one tonne of carbon dioxide or similar greenhouse gases. - These carbon credits are produced through actions that remove CO₂ from the	- Compliance markets are set up by policies at the national, regional, and/or international level. They are formally regulated. - The cap-and-trade principle, which is most common in the European Union, governs most compliance markets today (EU).

atmosphere, **including afforestation.**

- In a voluntary market, a business that wants to make up for its inevitable GHG emissions buys carbon credits from an organisation working on initiatives to eliminate, decrease, capture, or avoid emissions.
- In voluntary markets, credits are **verified by private firms** as per popular standards.
- Additionally, certified credits can be purchased via **dealers and online registries** where climate projects are listed.

- In accordance with the EU's emissions trading system (ETS), which went into effect in 2005, member nations **set a quota or limit on emissions** in a variety of industries, including waste management, manufacturing, oil, and power.

This **cap** is established in accordance with **national climate goals** and is gradually lowered to cut emissions.

Benefits

- Switch to cleaner fuels:** These markets might stimulate a decrease in energy consumption and a switch to cleaner fuels.
- Innovation:** Government-regulated trading schemes may encourage businesses to **innovate, invest in, and implement affordable low-carbon technologies** because they provide a clear trajectory, showing how emission restrictions will be tightened and allowances made less available.
- According to the World Bank, trade in carbon credits may cut the cost of implementing NDCs in half by 2030, to as much as \$250 billion.
- Around the world, there are also other national and sub-national compliance carbon markets in operation.
- In 2021, **China introduced the largest worldwide ETS**, which is expected to cover around one-seventh of all global carbon emissions from burning fossil fuels.
- Additionally, markets exist or are being developed in New Zealand, Australia, Switzerland, Japan, and South Korea.

Present Status

- According to a Refinitiv estimate, the value of the world's markets for tradable carbon allowances or permits increased by **164% last year to a record 760 billion euros (\$851 billion)**.
- The EU's ETS, which accounted for **90% of the global value at 683 billion euros**, made the biggest contribution to this increase. Voluntary carbon markets currently have a global value of \$2 billion, which is considerably less.
- The U.N. international carbon market envisioned in Article 6 of the Paris Agreement is yet to kick off as multilateral discussions are still underway about how the inter-country carbon market will function.
- Under the proposed market, nations would be able to offset their emissions by purchasing credits produced by initiatives aimed at reducing greenhouse gas emissions in other nations.
- In the past, the Clean Development Mechanism (CDM) of the Kyoto Protocol, 1997, provided a similar carbon market that was very beneficial to emerging nations, particularly India, China, and Brazil. The second-highest number of projects worldwide, 1,703 were registered in India under the CDM.
- However, the 2015 Paris Agreement transformed the world's situation because even emerging nations were required to set emission reduction goals.

Challenges

- Lack of market transparency:** The UNDP raises major concerns about the carbon markets, ranging from a lack of market transparency to double counting greenhouse gas reductions and the caliber and validity of climate projects that earn credits.

- **Greenwashing:** The practice of firms purchasing credits to only offset their carbon footprints rather than reducing their overall emissions or investing in clean technologies, which detractors refer to as "greenwashing," raises additional problems.
- ETSs may not always strengthen climate mitigation tools in regulated or compliant markets.
- **No automatic mechanism:** According to the International Monetary Fund, including high emission-generating sectors in trading schemes to offset their emissions by purchasing allowances **may actually increase emissions** overall and offer no automatic mechanism for giving cost-effective projects in the offsetting sector priority.

Energy Conservation (Amendment) Bill, 2022:

- The Centre is given authority under the Bill to define a carbon credits trading scheme.
- According to the Bill, companies or even individuals who are registered and in compliance with the plan would receive carbon credit certificates from the central government or a designated agency.
- These certificates for carbon credits will have a tradeable nature. Other people would be free to purchase carbon credit certificates.

Concerns:

- **Lack of clarity on mechanism:** The Bill's lack of **clarification regarding the mechanism** to be utilized for trading carbon credit certificates—whether it will be similar to cap-and-trade schemes or employ another method—and who will regulate such trading was brought up by opposition members.
- **Ministry:** Members questioned whether the power ministry should have introduced the bill rather than the Ministry of Environment, Forests, and Climate Change, noting that carbon market schemes in other countries like the United States, the United Kingdom, and Switzerland are designed by those countries' environment ministries (MoEFCC).
- **No clarity in existing certificates:** The fact that the Bill makes no mention of whether certificates under currently in place schemes would similarly be interchangeable with carbon credit certificates and tradeable for decreasing carbon emissions is another significant worry raised.
- Notably, Renewable Energy Certificates (RECs) and Energy Savings Certificates (ESCs) are the two forms of tradeable certificates that are already issued in India. These are given out when businesses conserve energy or use renewable energy, both of which cut carbon emissions.
- Therefore, the question is whether these certifications can all be swapped for one another. There are worries that conflicting plans could lessen the overall impact of carbon trading.

A NEW GLOBAL BIODIVERSITY FRAMEWORK

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Global Biodiversity Framework

Prepp Mains Booster: Environment; Conservation; Effect of policies and politics of developed and developing countries on India's interests; Important International institutions, agencies and fora- their structure, mandate.

Context:

- The United Nations Biodiversity Conference (COP15) ended in Montreal, Canada on 19 December 2022 with a landmark agreement to guide global action on nature through to 2030.
- Convention of Biodiversity, the United Nations agreement aims to conserve and sustainably use the planet's biodiversity, received a boost when 188 of the 196 member governments endorsed a new framework to stop the abrupt and steady loss of biological species.

What is Biodiversity?

- Biodiversity signifies the variety of species on earth, which are all connected and sustain the balance of ecosystems, enabling humans to coexist.

- They interact with the environment to perform a host of functions.

Importance of Biodiversity

- The ecosystem services provided by a variety of living things—of which plants and animals are the most obvious—are **the provision of food, fuel, fibre, shelter, and building materials** for humans.
- **Purification of air and water** and
- The regulation of climate as well as the mitigation of the effects of flood, drought, extreme heat, and wind.
- A disruption of these results in serious consequences like unsuccessful agriculture, abnormal climate patterns, and cascade extinctions of species that hasten the deterioration of the earth.



What does the Kunming-Montreal pact aim to achieve?

- **Sustainable use of Genetic resources:** The GBF aims and targets to encourage sustainable use of genetic resources and the sharing of their benefits rather than outright banning their use.
- **Trade of wild animals:** The use, harvesting, and trade of wild animals must all be "**sustainable, safe, and lawful, limiting overexploitation, minimising impacts on non-target species and ecosystems...**and decreasing the danger of disease spillover." This is stated directly in Target 5.
- **Rights of Indigenous communities:** The GBF places a strong focus on respecting the rights of indigenous populations who have historically protected forests and biodiversity as well as their participation in conservation initiatives.
- It supports giving women and local communities similar roles.
- **30 by 30:** It outlines goals for 2030 in areas such as protecting degraded areas.
- **Agriculture:** Significant attention is placed on agricultural methods. The agreement urges countries to implement biodiversity-supporting techniques such as agroecology and sustainable intensification in addition to emphasizing sustainable practices in agriculture, aquaculture, fisheries, and forestry.
- **Biodiversity inclusive Urban Planning:** One goal is to make cities hosts of biodiversity by increasing the quantity, calibre, and accessibility of urban green and blue spaces.
- Furthermore, urban development needs to promote native biodiversity, ecological connectivity, and integrity while also promoting people's health, happiness, and connection to the natural world.

Other targets:

- mobilising resources for conservation,
- compensating nations that protect biodiversity,
- halting human activity linked to species extinction,
- cutting the spread of invasive alien species (introduced plants and animals that affect endemic biodiversity) by half,
- reducing pollution to non-harmful levels, and
- minimising the effects of climate change and ocean acidification, among other things.

What is the roadmap to 2030 and 2050?

The four GBF goals for 2050 have four main components:

- sharing monetary and non-monetary gains from genetic resources and digital sequencing of genetic resources with indigenous people and local communities; maintaining ecosystem integrity and health to stop extinctions;
- measuring and valuing ecosystem services provided by biodiversity; and
- raising resources for all countries to close an estimated \$700 billion biodiversity finance gap.
- **Monitoring Mechanism:** Because the goals and targets are difficult, the GBF provides particular rules for implementing and monitoring how to implement and monitor them.
- **National biodiversity strategy:** A revised and updated **national biodiversity strategy** and action plan must be submitted by member countries at the conference in **2024**.
- In order to aid in the preparation of global evaluations, the parties to the CBD should also submit national reports in 2026 and 2029.
- In 2024 and 2026, high-level progress review discussions should take place.
- **Funding:** In order to implement the national action plans, the GBF anticipates that at least \$200 billion will be raised annually by all domestic, foreign, public, and private sources by the year 2030.
- By 2025 and 2030, developed countries should provide at least \$20 billion annually and at least \$30 billion annually in contributions to poor nations.
- The establishment of a **Special Trust Fund** to aid in the implementation of the GBF has been requested from the **Global Environment Facility (GEF)**, a multinational organisation that collaborates with nations and agencies, for the years 2023 through 2030.
- In addition to this, the GBF envisions providing indigenous peoples and local communities with access to justice and information about biodiversity while respecting their cultures and rights to their lands, territories, resources, and traditional knowledge.
- It also calls for protecting environmental human rights defenders to the fullest extent possible.

Steps to be taken

- In order to make sure that the national strategy and action plan sufficiently safeguard biodiversity, countries would need to **assess their current legal frameworks** in areas such as industry, agriculture, land use and the environment.
- Examples include the requirement for business and industry, notably multinational corporations, **to evaluate, track, and report on the risks and effects of their operations and portfolios**.
- They must adhere to the guidelines for **benefit-sharing and offer information** on sustainable consumption.
- The **elimination of harmful incentives** that harm biodiversity is necessary.
- **National biodiversity protection plans:** National biodiversity protection plans have invited voluntary participation from indigenous people, local communities, subnational governments, cities and local authorities, intergovernmental organizations, multilateral environmental agreements, non-governmental organizations, women, youth, research organisations, and the business and finance community.
- **Transparency:** As part of a transparency and reporting agreement, countries are required to report progress using a set of defined indicators.

Way forward

- The use of GDP as the primary determinant of development poses a significant obstacle to maintaining and enhancing biodiversity conservation.
- The UN's effort to measure wealth more broadly through its "Inclusive Wealth" (IW) report revealed in 2018 that while 135 countries performed better on inclusive wealth in 2014 compared to 1990, the global GDP growth rate significantly outpaced IW, averaging 1.8% per year on

average for IW compared to 3.4% for GDP per year during the same period.

- The GDP is based on a flawed application of economics that ignores "depreciation of assets" such as the environment, which is deteriorated by unrelenting resource extraction. valuing nature and calculating "inclusive wealth," which includes human, social, and ecological capital in addition to financial and generated capital is the way forward.

ARCTIC REPORT CARD 2022: THE ARCTIC IS GETTING RAINIER, SEASONS ARE SHIFTING, WITH BROAD DISTURBANCES FOR PEOPLE, ECOSYSTEMS

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: Arctic

Prepp Mains Booster: Conservation, Environmental Pollution and degradation, Bilateral and regional groupings involving India

Context:

- Recently, the **Arctic Report Card** had been released on 13th December by the **National Oceanic and Atmospheric Administration (NOAA)**.
- The report had found that the Arctic ecosystem is changing, with wide-ranging effects on humans, animals, vegetation, and industry in the region.



What is the Arctic Report Card?

- The Arctic Report Card is an annually updated peer-reviewed publication about observations on the **recent changes in the Arctic ecosystem** as compared with historical records.
- It has been presented annually every year since 2006 by the National Oceanic and Atmospheric Administration (NOAA).
- The 2022 report saw the participation of 11 countries and 150 experts.

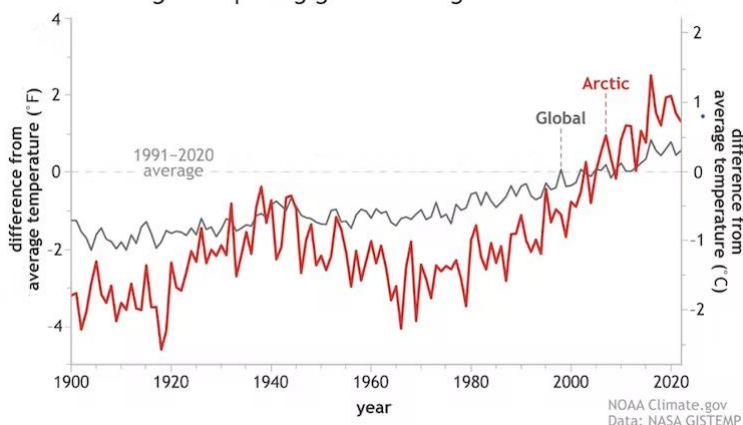
What has the 2022 report mentioned?

Rise in precipitation

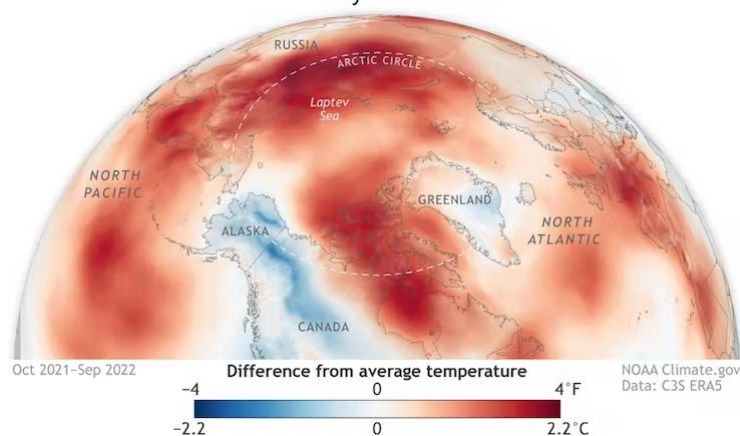
- The report had found that there had been a **shift in seasonal patterns** in the Arctic with **precipitation rising** throughout the year. The majority of the precipitation had fallen as rain, even in the frozen winter.
- As a result, roads had become icier and the **risk of flooding** had increased. Traditional reindeer herds have struggled to find vegetation to feed on under the increased ice.
- In December 2021. The Arctic had received 1.4 inches of freezing rain, creating a thick layer of ice which caused the uprooting of trees, displacement of communities, and starvation and death among animal herds.

- The increased melting of Arctic ice had led to **rising sea levels, exposing more moisture for evaporation**. Arctic sea ice has reduced by more than 40% over the 44-year average.
- The Arctic air is warming two times faster than the rest of the world, which increases its capacity to hold moisture. This process is called **Arctic Amplification**.
- Underground, the wetter ice has increased the rate at which the **permafrost has melted**.

Arctic warming is outpacing global average



2022 was Arctic's 6th-warmest year on record

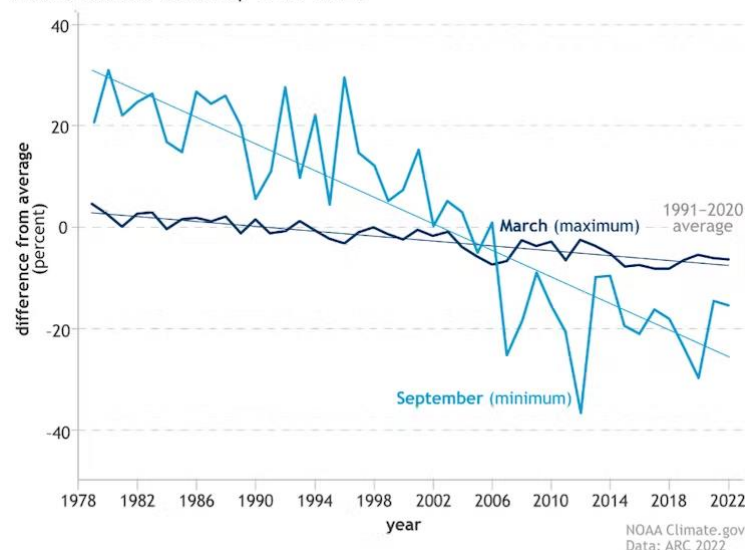


- This has impacted the infrastructure of the region like buildings, roads, and coastlines. Sinkholes have increased in frequency as well.
- Wetter ice also reduces the **formation of snowpacks** and river ice, which affects the indigenous communities' harvesting and food collection.
- Typhoon Merbok which had caused infrastructural and humanitarian damage across the Bering Sea coast in September 2022, was caused by rising temperatures in the Pacific.

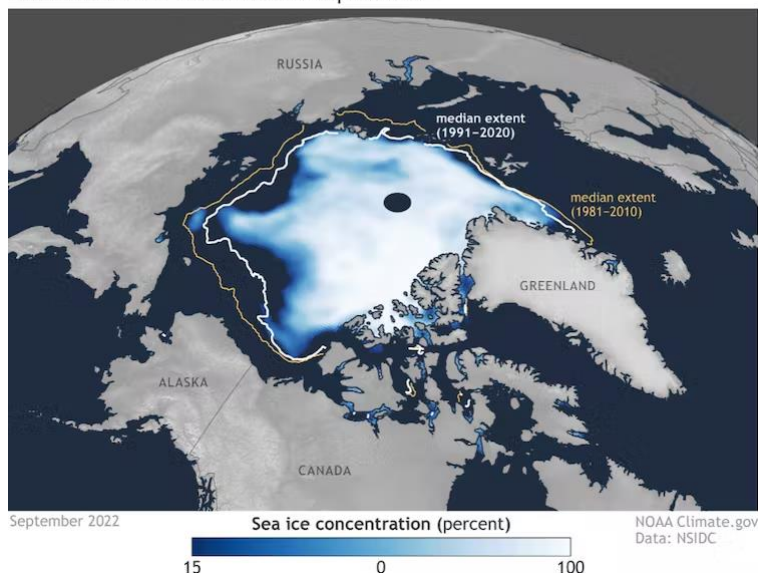
Arctic Melting

- Snow which is critical to the Arctic way of life is shrinking.
- The snow helps cool the Arctic by reflecting a majority of the sunlight back to the atmosphere rather than it being absorbed by the darker ground. This effect is called **albedo**.
- Melting of snow reduces albedo and contributes to further warming of the region and instability of the region through permafrost shrinking.
- The presence of the snow helps the ground and lakes retain moisture through the Spring season, which reduces the risk of wildfires.
- The snow is also a means of transportation for Arctic communities as well as a means of protection for animals.
- Despite there being no sun during the 6-month winter, temperature rises had been recorded.
- This has resulted in thinning of the ice, leading to fatal accidents.

Arctic sea ice decline, 1979-2022



2022 Arctic sea ice extent in September



Global effects

- In 2022, the **Arctic ice sheet had lost ice for the 25th consecutive year** increasing the threat of flooding and storms faced by coastal Arctic communities.
- Warming ocean waters have led to out-of-season ice melts with September 2022 having witnessed melting across 36% of the ice surface. NASA's Ocean Melting Greenland Report had confirmed the loss of ice due to ocean warming.

Human influence on the Arctic ice

- The present geological age has been termed the **Anthropocene era** due to the influence of human activities on nature, the climate and life.
- Increased ship traffic in the region has contributed to temperature rises.
- Geopolitical uncertainties in Russia and Ukraine have added to the stress on Arctic communities, ecosystems, and the climate.
- Partnerships between scientists and indigenous knowledge holders are necessary to ensure the continuity of the Arctic way of life.
- Cooperation and resilience building can help reduce risks, but global action on the governmental level is required to handle global warming.

Arctic Region

- At the northernmost point on Earth, there is a polar zone called the Arctic.
- The amount of snow and ice on the ground varies periodically in the Arctic.
- It includes sections of **Alaska (United States), Canada, Finland, Greenland (Denmark), Iceland, Norway, Russia, and Sweden**. It also includes the Arctic Ocean and other waters.

India's Arctic Policy

- The **Svalbard Treaty, which India signed in Paris in 1920**, marked the beginning of its involvement in the Arctic.
- India started its Arctic research programme in 2007, concentrating on local climate change.
- The goals included determining **how the Arctic climate and the Indian monsoon are connected**, identifying the **Arctic sea ice** using satellite data, and calculating the **impact on global warming**.

Additionally, India focuses on studying the dynamics and mass of Arctic glaciers and sea-level fluctuations, as well as evaluating the Arctic's flora and wildlife.

2022 Arctic-wide headlines

Storms and extreme weather
Wildfires, extreme weather, and other disturbances becoming more frequent.

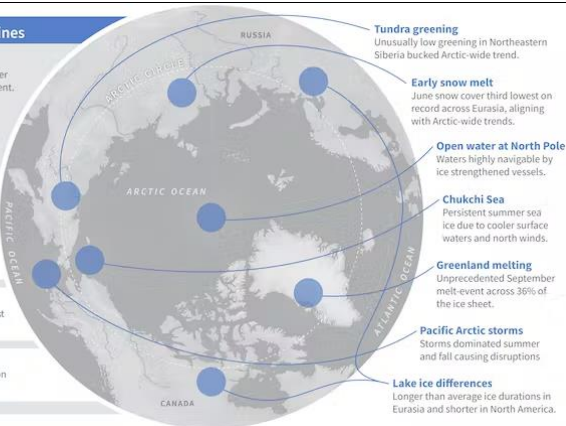
Sea ice thickness and volume
Rebounded from near-record low levels in 2021; still well-below 1980s-90s conditions.

Arctic warming
Annual surface air temperatures sixth warmest since 1900.

WIDESPREAD DISTURBANCES
Ocean traffic
Maritime ship traffic increasing as sea ice diminishes.

Seabird die-offs
Sixth consecutive year of beach-cast seabirds in Bering Strait region.

Increased precipitation
Significant increase in precipitation across all seasons since 1950s.



National Oceanic and Atmospheric Administration:

- It is a scientific and regulatory agency of the United States Department of Commerce that forecasts weather, monitors oceanic and atmospheric conditions, surveys the seas, performs deep sea exploration, supervises fishing, and protects marine animals and endangered species in the United States exclusive economic zone.

NO ACTION PLAN BY MOEF&CC TO HANDLE PLASTIC WASTE, FINDS CAG



Priority: Medium

Primary Source: Down to Earth

Prepp Prelims Booster: CAG, Waste Management rules

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation, Environmental impact assessment, Constitutional Bodies

Context:

- Recently, an audit by the **Comptroller Auditor General** had found that the **Union Ministry of Environment, Forests and Climate Change** lacked mechanisms to assess the collection and safe disposal of plastic waste.
- The report had also found that the **Plastic Waste Management Rules 2016** could not be implemented effectively and efficiently.

What are the Plastic Waste Management Rules 2016?

- It requires those who produce plastic garbage to take action to **reduce production, stop littering, and ensure segregated storage of waste at the source**, among other things.
- The regulations also specify how local governments, gram panchayats, trash producers, retailers, and street sellers are to handle the plastic waste.

- The minimum thickness of plastic carry bags should be raised to **50 microns**.
- Extend the jurisdiction of application from the municipal to the rural areas.
- Incorporating **producers' obligations** into the system for managing plastic waste and establishing a method for collecting plastic trash under **extended producers' responsibilities**;
- introduce the pre-registration of producers, importers, and sellers for the collection of fees for managing plastic waste;
- To encourage the **use of plastic waste in road construction** in accordance with Indian Road Congress guidelines, or energy recovery, etc. for the profitable utilization of waste, and to place more responsibility on waste generators, including the payment of user fees as set forth by the local authority, the collection and delivery of waste by institutional generators, and event organizers.
- The **Rules were amended in 2022**, and alongside the classification of plastics, In order to limit the use of new plastic material for packaging, the standards require the reuse of rigid plastic packaging material.
- Extended producer responsibility certificates will aid in the establishment of a market framework for the management of plastic waste

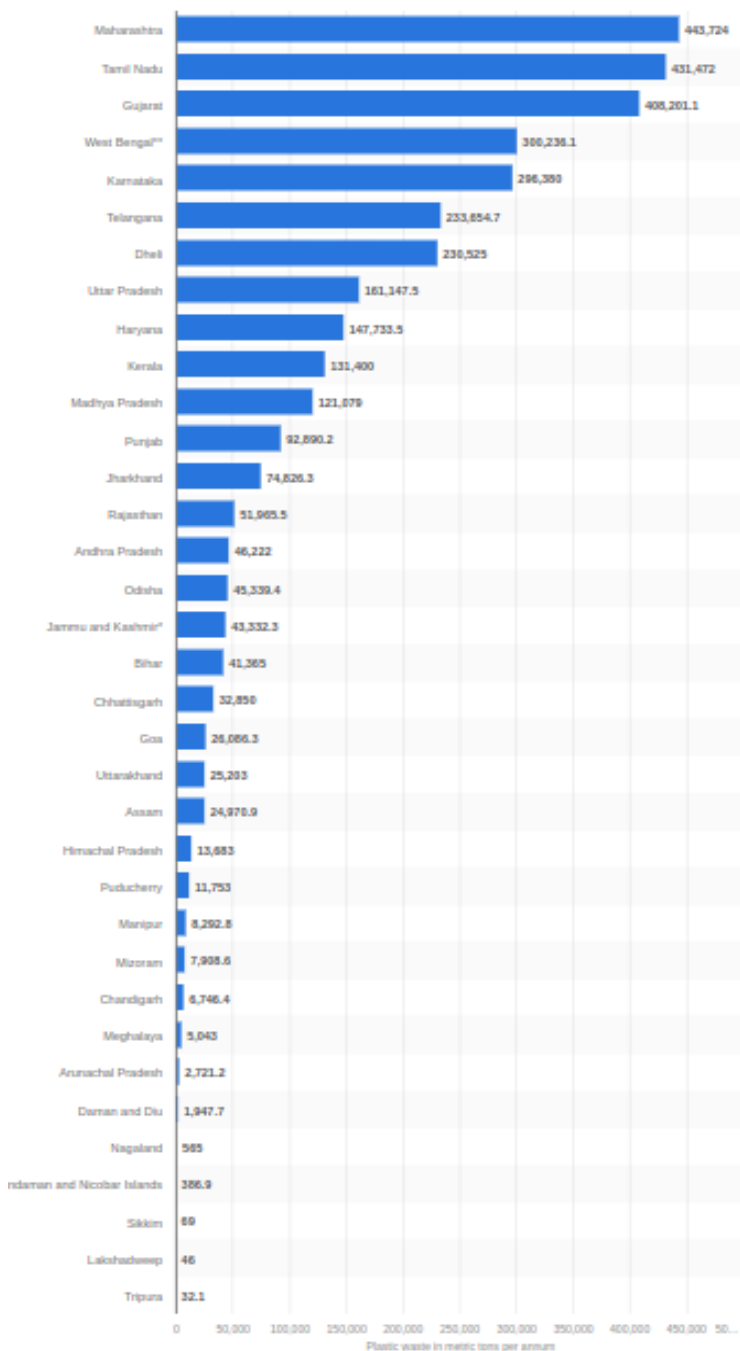


What had the CAG audit found?

- The CAG had conducted an audit on the **effectiveness and compliance of the Plastic Waste Management Rules** in managing plastic waste during 2015-19.
- The MOEF&CC had adopted a **three-pronged strategy** for effective implementation of the rules, which included **behavioral change, strengthening of institutions for collection, segregation, and recycling** of plastic waste, and **engagement with producers, importers, and vendors through extended producer's responsibility**.
- However, the report had found that there was no plan of action for the effective implementation of the strategy between 2015 and 2019.
- A comprehensive action plan had been initiated in 2021, but no progress had been made yet.
- The report identified that the stakeholders - the **MOEF&CC, Central Pollution Control Board (CPCB), and State Pollution Control Boards (SPCB)** were not working in a coordinated manner to handle the challenges of production, collection, generation, and recycling of plastic waste.
- The report had found that **data on the assessment of plastic waste** was necessary to create an effective policy. At present, the data collected by Urban local bodies was unscientific and based on assumptions.
- Policies were not uniformly implemented, according to the report. In East Delhi and New Delhi Corporations, plastic waste was assumed to be 10% of total municipal solid waste generated while in South Delhi it was 4.4 to 6%.

- The report had concluded that the **Rules were not comprehensive enough** to ensure effective implementation.

Year	Waste generated(Tonnes/day)
2015-16	4354.7 (19 states/UTs)
2016-17	4297.80 (21 states/UTs)
2017-18	1810.30 (14 states/UTs)



Consequences of poor waste management

- The report had identified **collection, processing, recycling, and disposal in a scientific and eco-friendly manner** as crucial elements of a waste management policy.
- Unscientific disposal strategies included burning and dumping. As a result of this toxic compounds spread in the atmosphere and soil.
- The **toxins accumulate in living organisms** causing diseases and health complications.

- Burial of waste in landfills causes chemicals from plastics to leach into groundwater and spread to lakes and rivers.
- Microplastics** are found in soil, marine ecosystems, and organisms due to partial decomposition due to improper disposal.
- Oceans have been filled with plastic waste leading to the formation of floating islands of plastic waste like the **Great Pacific Garbage Patch**.



Way Forward

- Develop **new plastic substitutes** and work toward **sustainable packaging**.
- Create a **circular economy** based on recycling, reuse, and repair.
- Protect aquatic environments as plastic garbage frequently winds up in seas, where it suffocates life there.
- Encourage citizens to adopt appropriate behavior so they can assist with garbage management.
- It is undesirable and difficult to enforce a nationwide ban on the use of plastic due to the lack of a suitable alternative.
- In order to develop a comprehensive strategy to address the issue, other wastes, such as e-waste management, need also be integrated.

CAG

- In accordance with the Indian Constitution, the CAG is a separate authority.
- He serves as both the chief Guardian of the Public Purse and the head of the Indian audit and account department.
- It is the institution that ensures that the government and other public authorities (all those who spend public funds) are accountable to the State Legislatures and Parliament, and via them, to the general public.
- The nomination of the CAG, the oath, and the terms of duty are all covered under Article 148.
- The duties and authority of India's Comptroller and Auditor General are covered under Article 149.

Challenges to Internal Security, Terrorism, External States, Non State Actors

MARITIME STOCKTAKING

Priority: Low

Primary Source: Indian Express

Prepp Prelims Booster: Navy day

Prepp Mains Booster: Indigenization of technology and developing new technology, Security challenges and their management in border areas.

Context:

- Navy Day**, observed annually to commemorate a famous naval victory and to remind us of our maritime heritage, also provides an opportunity for **“maritime stocktaking.”**
- The 30-month-long Sino-Indian military standoff in the Himalayas, as well as China's strategic posturing in the South China Sea, should

serve as clear indicators to India's decision-makers that **maritime power will play a critical role as a tool of state policy in future outcomes.**



About India Navy

- The Indian Navy is led by the President of India as its Supreme Commander.
- The Indian Navy's motto is Sam no Varunah which means that the God of water, Varuna, should be kind to us.
- Every year on **December 4th, Indian Navy Day** is observed to commemorate the Indian Navy's counter-attack in Operation Trident during the Indo-Pakistan war in 1971.

Background

- Still smarting from the humiliation of its — government-imposed — inaction in the 1965 Indo-Pak war, the navy's leadership had determined that maritime power would play a critical role in the 1971 conflict.
- On the night of December 4, 1971, a force of small missile boats boldly approached Karachi port, unleashing missile salvos that sank warships, set ablaze massive fuel reserves, bottled up the Pakistan Navy, and blockaded merchant shipping.
- While INS Vikrant's aircraft launched sustained attacks on East Pakistan's airfields, ports, and riverine traffic in the Bay of Bengal, its escorts formed a naval cordon that prevented the Pakistani army from receiving reinforcements or evacuation.
- The fact that maritime dominance hastened Pakistan's surrender has failed to lift the pall of "sea-blindness" over Raisina Hill.

Maritime History

- This is also an appropriate time to remind our fellow citizens of some outstanding figures from our maritime history.
- The navy of 10th century South Indian Emperor Rajendra Chola defeated the Sumatra-based Sri Vijaya thalassocracy, establishing Chola power across modern-day Malaysia and Indonesia.
- The zealous and visionary zamorins of Kozhikode waged a 90-year-long naval campaign to drive the Portuguese out of Malabar, led by the captains of the Kunjali Marakkar clan.
- Maratha "sarkhel" or admiral Kanhoji Angre's Konkan fleet relentlessly pursued the British, Dutch, and Portuguese in the 17th century, scoring numerous victories.

Shipbuilding Pioneers

- In 1736, Lovji Nusserwanji Wadia of Bombay began a seven-generation tradition of Wadia master shipbuilders building superb merchantmen and warships for the British.
- In 1941, the visionary Seth Walchand Hirachand resurrected Indian shipbuilding by establishing Scindia Shipyard Ltd. in Visakhapatnam.
- In 1948, the first modern Indian-built merchant vessel, MV Jalusha, joined Seth Walchand's Scindia Steam Navigation Co.

Warship Production

- India's foresighted naval leadership persuaded a hesitant government in the 1960s that the country needed to invest in indigenous warship production.
- Mazagon Docks delivered the first licence-built frigate, **INS Nilgiri**, in **1972**, despite widespread skepticism. Over the past half-century, Indian shipyards have launched over a hundred warships ranging from patrol boats to destroyers, hydrographic vessels to nuclear submarines.
- The navy's audacious vision was realized in 2013 when Cochin Shipyard Ltd. launched India's largest indigenously designed and built warship — an aircraft carrier.
- The Prime Minister commissioned the reincarnated **INS Vikrant** in **September 2022**, and the conception and successful completion of this complex project represented a significant achievement for our naval staff, ship designers, and builders.
- Initiated by the Directorate of Naval Design in the late 1970s, the aircraft carrier project gained urgency when it became clear that both the navy's carriers, Vikrant and Viraat, would be retired by the end of the century.
- Even as the navy considered ship designs, aircraft options, and other variables, the government rejected the project in 1990, citing "sea-blindness."
- It took 12 years and the persuasive powers of successive chiefs to obtain approval for a 37,500-ton ship capable of operating the "navalised" Russian MiG-29K fighter from a ski-jump.

Observation regarding Warship Production

- While the sight of this massive, Indian-built warship inspires justifiable pride, there should be pause for reflection, especially among our defense R&D scientists, when it is described as an "indigenous product."
- Many of the ship's major systems, such as gas turbine engines, guns, missiles, and radars, are imported.
- Equally concerning is the foreign origin of aviation-related facilities such as workshops, aircraft lifts, arrester wires, and landing aids, which are essential for flying operations.
- Vikrant will be combat-ready only after all of these items have been delivered, installed, and passed flight tests.
- The delay between ordering, launch, and commissioning of Vikrant may be excessive by international standards, but this prolonged gestation would have served a purpose if the invaluable experience gained and the priceless skills acquired were ploughed back into a bigger/better follow-on carrier; with much greater involvement and contribution from our scientists.
- Even as China awaits the third ship in its carrier-building program and envisions a carrier-led Indian Ocean task force, the case for IAC-2 remains dormant.

Importance of Navy Day Stocktaking

- The Navy Day stocktaking demonstrates that the Indian Navy has achieved many of its long-held goals in all three dimensions of capability over the last decade.
- Domestic shipyards are delivering new, indigenously designed destroyers and frigates that are stealthy in appearance, equipped with long-range sensors, and heavily armed with missiles, guns, and anti-submarine weapons at a slow but steady pace. However, gaps remain in mine counter-measures, amphibious-lift, and fleet-support capabilities.
- The addition of six modern, license-produced French boats will temporarily stop the hemorrhaging of our diesel-submarine strength.
- However, the government must urgently approve Project 75 (I) so that submarine serial production can begin.
- With PLA Navy units frequently patrolling the Indian Ocean, aerial surveillance and anti-submarine warfare have taken on strategic significance.
- Recent inductions of US-built shipborne helicopters and maritime reconnaissance aircraft will not only improve the Indian Navy's surveillance and anti-submarine capabilities, but will also improve interoperability with partner navies.

Way Forward

- In the half-century since the Bangladesh War, our navy has evolved into a small but powerful and professional force.
- Given the political leadership's regional/global ambitions, the service can make a significant contribution — whether as a Quad member or as the regional "net security provider."
- The role of the navy must be defined, and its force architecture must be defined and funded accordingly.
- This is only possible if the national security elite develops a comprehensive "maritime vision" and articulates it in a "National Strategy for Maritime Security."

HOW GENE THERAPY COULD CURE CANCER

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Base Editing

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life; Awareness in the fields of Biotechnology.

Context:

- Recently, a new gene editing technology called base editing was used to modify immune cells and successfully treat a teen with treatment-resistant leukemia.
- A month afterward, 13-year-old Alyssia was in remission, and she continues to do well several months later.
- Alyssia was the first person to receive an experimental form of gene therapy known as "base editing."
- This trial was led by doctors and scientists at the University College, London, and Great Ormond Street hospital.



About the treatment

- The treatment is a modification of chimeric antigen receptor, or CAR, T-cell therapy.
- However, the doctors altered donor immune cells using the more accurate base editing technique rather than altering the patient's immune cells using the CRISPR gene editing method.

What happens in T-cell acute lymphoblastic leukaemia?

- The **T-cells**, a class of **white blood cells** designed to **track down and neutralize threats** to the body, turn against the body in this type of blood cancer and end up harming good cells that ordinarily aid in immunity.
- Chemotherapy and radiation therapy are typically used to treat the disease since it progresses quickly.

What is 'base editing'?

- Base editing allows scientists to zoom into a precise part of the genetic code and then alter the molecular structure of just one base, converting it into another and changing the genetic instructions.
- A person's genetic code is several permutations of four bases: Adenine (A), Guanine (G), cytosine (C), and thymine (T).

- Similar to letters in the alphabet, these bases are organized into sequences that form **genes**, which serve as **instructions** for producing the vast diversity of **proteins required for bodily functioning**.
- Perhaps due to an incorrect arrangement of the bases, Alyssia's T-cells developed malignancy.
- A solution to this **misalignment** could result in a **stronger immune system**.
- A method that enables genes to be changed and faults to be "corrected" has captured the attention of the biomedical engineering community in the past two decades.

What is CRISPR-Cas 9?

- CRISPR-Cas9, which is short for Clustered Regularly Interspaced Short Palindromic Repeats and CRISPR-associated protein 9.
- The CRISPR-Cas 9 system employs an enzyme that functions like molecular scissors to cut off and store portions of a virus' genes, an approach that some bacteria adopt to protect themselves against viruses.
- It can be made to cut a piece of DNA at a precise location and a guide RNA can be used to insert a changed genetic code at the sites of the incision.
- There are various ways to make these alterations, but the CRISPR-cas9 system is the quickest and most adaptable method.
- The CRISPR-cas9 method has been modified by David Liu of the Broad Institute in Massachusetts so that respective bases can be changed directly.
- For example, a C can be turned into a G and a T into an A.

How did base-editing work for Alyssia's therapy?

- In the case of T-cell leukemia, the goal of gene therapy was to fix the patient's immune system so that it would no longer produce malignant T cells.
- Healthy T-cells were first taken from a donor and edited in a number of steps.
- The first base alteration disabled the T-cells' mechanism for targeting Alyssia's body, the second base edit removed the CD7 chemical marker on all T-cells, and the third base edit stopped chemotherapy drugs from killing the cells.
- Finally, CD7-marked cells were programmed into the T-cells to be destroyed, whether protective or malignant.
- She received a second donor transplant to help her immune system regenerate, including healthy T-cells, after she had spent a month in remission.
- **Effectiveness:** According to the BBC, her cancer appeared to return three months after treatment, but the most current investigations indicate no symptoms.
- Alyssia was one of the 10 participants who received the therapy in the trial.
- It has been 1.5 years since her first diagnosis, and it is still unknown whether the medication has successfully and wholly restored her immune system.

GENERAL STUDIES 4

HOW WILL GLOBAL LAYOFFS IMPACT INDIA?

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Global Layoffs

Prepp Mains Booster: Effects of liberalization on the economy; Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Context:

- Recently, Numerous American multinational corporations, including the tech behemoths Amazon, Meta, Intel, and Twitter as well as the financial

behemoths Citi and Morgan Stanley, have announced significant layoffs during the past two months.

- The export potential for India, particularly in the information technology (IT) sector, will undoubtedly be impacted by these changes.



Reason

- **Rising interests by Centra Banks:** Since March of this year, central banks have been frantically trying to control the rising pace of inflation by raising interest rates, making it more expensive to borrow money and buy goods.
- Jobs and economic growth will eventually be impacted by this.
- Given the **pandemic and ongoing Russia-Ukraine conflict**, the International Monetary Fund (IMF) labelled the 2022 and 2023 global GDP growth predictions as pessimistic.
- In spite of the financial crisis of 2008, the IMF's predictions for this year and the one after remain the poorest since 2001.
- **Potential economic recession:** The Conference Board's CEO confidence revealed that Western top executives haven't been as pessimistic since the 2007–2009 recession.
- 136 CEOs were questioned about the economic climate they expect to experience in the following 12 to 18 months.
- 98% of respondents stated they were getting ready for a U.S. recession, while 99% said they were getting ready for an EU recession.

What is Layoff?

A layoff or downsizing is the temporary suspension or permanent termination of an employee's or a group of employees' employment for business reasons such as personnel management or downsizing (cutting the size of) an organization.

Ethical issues involved:

Balancing the interests of the two important stakeholders – investors and employees:

- Investors need to be persuaded of the possibility of long-term gains because financial losses are only transient. Employees should be urged to further their careers and put in extra hours to help the business get through tough times rather than being laid off.
- Their interests can be balanced in this manner.

Utilitarianism:

- The effect of a mass layoff on the welfare of the population as a whole must be taken into account from a utilitarian perspective. While lower profits (and maybe short-term losses) will damage shareholders and investors, employees and their families will bear the penalty of job loss.
- Employees must be given a notice period before requesting to quit the organisation, according to the clause. A business or employer is required by law to behave in the best interests of its employees.

Corporate governance and business ethics:

- It demands that employees must be given a notice period before asking to leave the company. It is the legal obligation of a company or employer to act in the best interest of its employees.
- Unlike investors, who are middle-class individuals with limited funds or retirees who have put the majority of their savings into this company, CEOs have significant savings to live on for a long time. While employees are living on less than they can afford, investors are wealthy people. The HR manager would be required by a utilitarian approach to estimate (however subjectively) the costs to the economy and society.
- Utilitarianism, the most widely recognised consequential theory, contends that a deed is morally good if it increases the long-term happiness of all involved parties. An HR manager must evaluate how decisions will affect the welfare of the population as a whole from a utilitarian perspective. While lower profits (and maybe short-term losses) will damage shareholders, employees and their families will pay a price for any job losses.
- Executives and managers occasionally believe that their options are limited. Others view the procedure as a practical approach to get rid of extra workers and exit particular company sectors. However, layoffs can negatively affect both the morale of the remaining staff and the idle labour. The layoff decision has ethical ramifications as well, which fundamentally reflect corporate culture and principles.
- As is common knowledge, a company can obtain capital from four different sources: financial capital, material capital, technological capital, and human capital. Knowing which motivator is in charge is helpful when firing employees. If a company's core resource is its human capital, one will go to great lengths to preserve that resource so that future difficulties can be met with the knowledge, experience, and history of the current workforce. In order to set the company for survival and growth during the economic recovery, it is ethical to appreciate employee importance and devotion.

PRELIMS

ISRO INKS MOU TO ESTABLISH SPACETECH INNOVATION NETWORK

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: SpaceTech Innovation Network (SpIN)

Context:

- Recently, the Indian Space Research Organisation (ISRO) and Social Alpha signed an MoU to launch SpaceTech Innovation Network (SpIN).
- It is India's first dedicated platform for innovation curation and venture development for the burgeoning space entrepreneurial ecosystem.



About SpaceTech Innovation Network (SpIN)

- It is a **one-of-its-kind public-private collaboration** for start-ups and SMEs in the space industry.
- SpIN will primarily focus on **facilitating space tech entrepreneurs in three distinct innovation categories:**

- Geospatial Technologies and Downstream Applications;
- Enabling Technologies for Space & Mobility; and
- Aerospace Materials, Sensors, and Avionics.

Significance

- **Commerce Potential:** This innovative cooperation will aim to **uncover and unleash the commercial potential** of India's most promising **space tech inventors and entrepreneurs**.
- **Space reforms:** It also represents a significant step forward in providing additional impetus to India's recent space reform measures.
- **Innovation:** There are currently over 100 active space start-ups in India, according to the Economic Survey Report 21-22; the number of start-ups in this industry has more than doubled in the past year alone.
- Through this agreement, ISRO will encourage active collaboration to ensure the success of early-stage space start-ups and assist the development of an open innovation and scale-up platform for all space ecosystem stakeholders.
- In accordance with the collaboration announcement, SpIN has announced its first innovation challenge.
- In accordance with the current regulations, the chosen start-ups and innovators have access to the infrastructure and resources of both Social Alpha and ISRO.
- In addition to other technical and business inputs, they will receive active support in key areas such as access to product design, testing and validation infrastructure, intellectual property management, go-to-market strategy, and access to long-term patient financing.



Way Forward

- Space science, technology, and data have the potential to help achieve a number of Sustainable Development Goals, with particularly high-impact applications in assuring food security, lowering disaster risks, averting humanitarian crises, and monitoring natural resources.

Social Alpha

- Social Alpha is a multistage innovation curation and venture development platform for science and technology start-ups that address the most critical social, economic, and environmental challenges through the power of entrepreneurship and market-creating innovations.
- Since its inception in 2016, Social Alpha has supported more 200 start-ups including 60+ seed investments.

GSAT COMMUNICATION SATELLITE COSTING RS 508 CRORE UNUSED FOR HALF ITS LIFETIME: CAG REPORT

Priority: Medium



Primary Source: Down to Earth

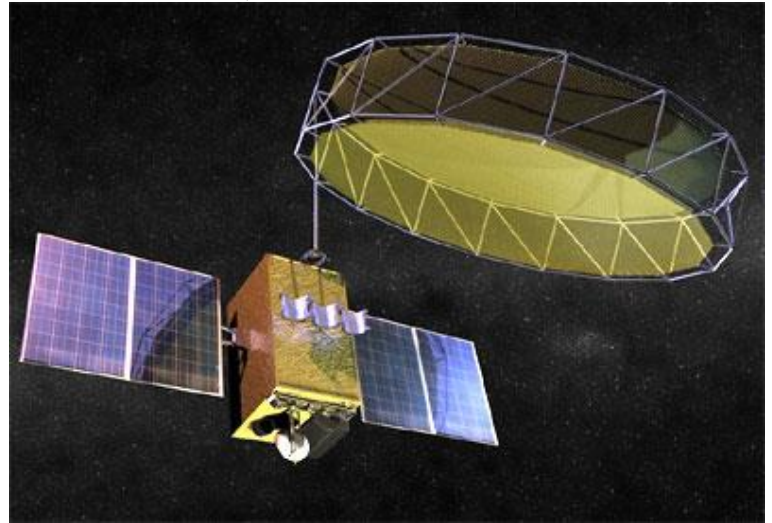
Prepp Prelims Booster: GSAT

Context:

- A recent report by the **CAG** discovered that the **GSAT** satellite was underutilized due to a lack of coordination between the **Defence Research and Development Organisation (DRDO)** and the **Department of Space (DoS)**.

What is the GSAT-6 Satellite?

- According to the Indian Space Research Organisation (ISRO), the GSAT-6 satellite was designed to provide **communication for strategic purposes** through the s-band and via a national beam in the c-band.
- The twelfth in the GSAT series and the twenty-fifth geostationary communication satellite of India GSAT-6 had five predecessors launched in the years 2001, 2003, 2004, 2007, and 2014.
- GSAT-6 joined the group of India's other **operating geostationary satellites** after being put into service.
- It was launched in 2015 at a cost of Rs 508 Crore and was expected to function for 12 years.
- The project had two main components - the space segment and the ground segment of which the space segment was meant to meet the strategic communication needs.
- The GSAT 6 satellite is controlled from the Master Control Facility of the ISRO at Hassan, Karnataka.



Who was responsible for the project?

- The **DoS** was responsible for **building and launching** the space segment and the **DRDO** was in **charge of the ground segment**.
- As per the revised utilization plan, the DoS required Rs 235 Crore to develop the space segment and the DRDO required 63 Crore to build the ground segment.

Current Status

- The project was intended to be launched in the second quarter of 2014 but was delayed to August 2015 due to unknown reasons.
- The satellite will act as a technology development platform for next-generation satellite-based mobile communications systems, showcasing the usage of big, expandable antennae on spacecraft, portable ground terminals, and network management strategies.
- Additionally, it will offer satellite digital multimedia broadcasting (S-DMB) services across a number of digital multimedia terminals or consoles.

What are the findings of the CAG report?

- The CAG report found that there was a **lack of coordination** between the DoS and the DRDO.
- A **memorandum of understanding** was **not signed** between the DoS and the DRDO to develop the ground station.

- **No target-based action plan** was created which led to the DRDO not completing the project within the expected time before the satellite was launched.
- In 2013, a subsidiary of the DRDO, the Defence Electronic Application Laboratory was tasked with developing two projects:
 - a. An S-band hub and satellite communication terminals which were completed only in 2018. This resulted in an expenditure of Rs 40.17 Crore.
 - b. A dedicated hub to provide services to civil society agencies and strategic users which was only completed in 2020.
- As a result of the **non-completion of the ground segment**, the launched satellite has remained unused in space despite it completing half of its expected lifecycle.
- The report by the CAG concluded that the project which cost Rs 508 Crore and was launched after a delay of 1 year failed to fulfill its objectives.
- The DoS had in 2021 confirmed that clearance was provided to the ground system in November 2015 but that it had no updates on the present status of the system.

GSAT-6 at a glance	
Physical Properties	Lift off Mass : 2117 kg Main Structure : I-2K Overall size(m) : 2.1 x 2.5 x 4.1
Power	Generated power 3100 W
AOCS	Momentum biased 3-axis stabilised
Antennas	One 0.8 m (fixed) and one 6 m unfurlable antenna (transmit and receive)
Communication payloads	i. S-band payload with five spot beams covering India for user links ii. C-band payload with one beam covering India for hub links S-band payload uses 6 m unfurlable antenna and C-band uses 0.8 m antenna.
Mission life	9 years

THE UNCONTROLLED RE-ENTRIES OF SATELLITES

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Space Debris

Context:

- Recently, the Outer Space Institute published the International Open Letter on Reducing Risks from Uncontrolled Reentries of Rocket Bodies, the third international open letter developed and released by the OSI.
- It demands that national and international efforts be made to limit uncontrolled re-entries, the phenomenon in which rocket components fall back to Earth without guidance after their missions are complete.
- The letter is written to S. Somanath, the head of the Indian Space Research Organization (ISRO), among others.

Space debris

- Space debris encompasses both natural meteoroid and artificial (human-made) orbital debris. Meteoroids are in orbit about the sun, while most artificial debris is in orbit about the Earth (hence the term "orbital" debris).
- Orbital debris is any human-made object in orbit about the Earth that no longer serves a useful function. Such debris includes nonfunctional

spacecraft, abandoned launch vehicle stages, mission-related debris, and fragmentation debris.



- A rocket can have several stages.
- The rocket sheds a stage after it has boosted the rocket's altitude and speed by a particular amount. Before reaching the target orbit, some rockets burn up all of their main stages.
- A smaller engine then propels the payload into its ultimate orbit.
- Others transport the payload to the orbit before starting their descent with a deorbit manoeuvre. The return of rocket stages occurs in either controlled or uncontrolled ways.
- The rocket stage just **falls** during an **uncontrolled re-entry**.
- **Factors:** Shape, angle of fall, air currents, and other features all affect how it descends. Additionally, as it drops, it will fall apart.

Concerns

- **Debris:** Some of the parts completely burn up, but others don't. However, the pace at which the debris moves makes them potentially lethal.
- "A hit **anywhere on an airliner** with the debris of mass beyond 300 grams would generate a catastrophic failure, meaning all people **on board would be killed**," according to a 2021 assessment by the **International Space Safety Foundation**.
- Because more water is on the earth's surface than on land, most rocket pieces have ended up in oceans. However, several **have also fallen to the ground**.
- **Radius of impact:** The possible radius of impact on the ground will grow as the smaller fragments scatter out.
- **Chemical contamination:** Chemical contamination in the atmosphere and on land is another possibility if re-entering stages still contain fuel.
- **Explosion:** These satellites encounter more atmospheric drag than they would have if they had been more extensive, but they also have a higher chance of exploding during re-entry.

Examples

- The OSI letter mentioned instances of **rocket fragments from Russia in 2018 and Chinese Long March 5B rockets in 2020 and 2022** hitting locations like Indonesia, Peru, India, and the Ivory Coast.
- Although recent news stories have emphasized **Chinese violations**, historically speaking, the **U.S. has been the top offender**.
- Two "**refrigerator-sized fuel tanks**" were among the SpaceX Falcon 9 components that crashed in **Indonesia in 2016**.

India

- After 13 years in low-Earth orbit, India's 300-kg RISAT-2 satellite re-entered the atmosphere in October.
- A month prior, the ISRO monitored it using its system for managing safe and sustainable space operations.

- It used its own models to plot the projected trajectories. On October 30, the RISAT-2 finally crashed into the Indian Ocean.

Challenges

- Absence of international agreements:** Neither a legally binding international agreement on the technology to be used to ensure that rocket stages always perform controlled re-entries exists.
- The 1972 Liability Convention mandates that nations pay for damages, not take steps to limit them.
- Steps to be taken:** These technologies are wing-like attachments, de-orbiting brakes, additional fuel on the re-entering body, and design modifications that reduce debris generation.

Estimates

- Conservative estimates, according to the letter, "put the casualty risk from uncontrolled rocket body re-entries as being on the **order of 10%** in the next decade" and that the "Global South" countries face a "disproportionately larger" chance of casualties.
- According to the U.S. Orbital Debris Mitigation Standard Practices (ODMSP), every launch must keep the possibility of a re-entering body casualty to 0.01%. However, the NASA and the US Air Force have repeatedly disregarded this requirement.
- This threshold, which some other countries have also adopted, was discovered to be "arbitrary and makes little sense in an age when new technologies and mission profiles enable controlled re-entries" as well as because many areas have become denser populated, according to a study carried out by Canadian researchers in July 2022.

Convention on International Liability for Damage Caused by Space Objects

- Agreement was reached in the General Assembly in 1971 (resolution 2777 (XXVI)), and the Convention entered into force in September 1972.
- The Liability Convention provides that a launching State shall be absolutely **liable to pay compensation for damage** caused by its space objects on the surface of the Earth or to aircraft, and liable for damage due to its faults in space.
- The Convention also provides for **procedures for the settlement of claims for damages**.

WHAT IS OPENAI'S CHATGPT CHATBOT?

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Science and technology

Context:

- Recently, an artificial intelligence tool called **ChatGPT** was released on the internet.
- ChatGPT was introduced by OpenAI**, a research institute founded in 2015. It is a 'conversational' AI that will answer questions like a human.

What is ChatGPT?

- ChatGPT is a chatbot powered by artificial intelligence that can be used to ask questions.
- This chatbot is designed in such a way that the responses to queries are both technical and jargon-free.
- It is a **natural language processing (NLP)** model that works with a large corpus of conversational data.
- It can generate human-like responses, allowing for natural conversation between the user and the virtual assistant.
- The chatbot employs Reinforcement Learning from Human Feedback (RLHF) technology. It is, however, altered to appear more human-friendly.
- It is based on GPT-3.5, a deep-learning language model that generates human-like text.

- Because it improves over time and understands queries better through machine learning, the technology will produce different answers for the same question in the future.

About OpenAI

- OpenAI is a research institute and company dedicated to developing artificial intelligence technology in a responsible and safe manner.
- It was founded in 2015 by a group of entrepreneurs and researchers that included Elon Musk, Sam Altman, and Greg Brockman.



ChatGPT - Language Model

- ChatGPT is a Language Model, not a chat bot.
- A language model is software that prints out a sequence of words as output that are related to some words given as input with appropriate semantic relation; in practical terms, this means that it can perform tasks such as answering questions and conversing with humans.
- It is frequently used in **natural language processing (NLP)** applications such as speech recognition, automatic translation, and text generation.

ChatGPT as a neural network

- It can be thought of as a large network of computers that can fine-tune its word output based on feedback provided to it during training stages.
- ChatGPT has been through this training process.
- Reinforcement Learning is the name given to both the training process and the technology.
- All of these technologies are components of artificial intelligence (also called Machine Learning).

Other language models

- BERT (Bidirectional Encoder Representations from Transformers) from Google.
- Google's Language Model for Dialogue Applications (LaMDA).

ONE STEP CLOSER TO A UNIVERSAL FLU VACCINE: WHAT A NEW STUDY SAYS

Priority: High



Primary Source: Indian Express

Prepp Prelims Booster: Universal Flu Vaccine

Context:

- Recently, a new study describes successful animal tests of the **Universal flu vaccine**, which can prepare the body to fight every known strain of influenza. The vaccines rely on **mRNA**.

Key Highlights

- The experimental flu vaccine, like the COVID vaccines produced by Pfizer-BioNTech and Moderna, is based on mRNA.

- The vaccine is still in its early stages, having only been tested in mice and ferrets, but it provides important evidence that a single shot could be used to combat an entire family of viruses.
- If the vaccine proves effective in humans, the approach could be applied to other virus families, possibly including the coronavirus.
- The vaccine would not replace annual flu shots, but it would provide protection against severe disease and death from potential pandemic threats.

What is a Universal Flu Vaccine?

- A universal flu vaccine is one that is effective against all influenza strains, regardless of virus subtype, antigenic drift, or antigenic shift. As a result, it should not need to be modified from year to year.
- Due to the diversity of flu viruses and the variable efficacy of vaccines to prevent them, new vaccines against currently circulating influenza variants are required every year. A universal vaccine would eliminate the need to develop vaccines for each year's variants.

Why is there a need for a universal flu vaccine?

- Current influenza vaccines protect against seasonal flu but offer little protection against a new strain that could emerge as a pandemic threat.
- During the 2009 H1N1 swine flu pandemic, conventional vaccines provided little protection against the virus.
- The main impediment to developing such a vaccine was technical difficulties and the diversity of the flu virus. There are 20 influenza subgroups, each representing thousands of viruses.
- Current vaccines can only target four subgroups.
- However, the experimental vaccine contains all 20, and it would be easier to produce.
- In ferrets and mice, the vaccine elicited high levels of antibodies against all 20 flu subtypes.

Advantages

- The vaccine provided significant protection, implying that it would protect against at least severe illness, if not infection, from a novel pandemic flu virus.
- This phenomenon is similar to the current COVID vaccines: Although the most recent omicron variants are so different from the ancestral virus that the original vaccine no longer prevents infections, it still protects the majority of people from severe illness. This property may be a distinct advantage of mRNA vaccines.
- Conventional flu vaccines only target the viruses for which they were designed. However, mRNA vaccines appear to produce antibodies that protect the body against viruses other than those included.

Challenges

- Antibodies in test animals were lower after vaccination, but still sufficient to fight influenza.
- It is difficult to create a universal vaccine for all age groups.
- It is unknown how long such a vaccine will provide protection.

What is mRNA Vaccine Technology?

- mRNA vaccines use mRNA to teach our cells how to make a protein or a protein that causes an immune response within our bodies.
- That immune response, which produces antibodies, is what keeps us from becoming infected if the real virus enters our bodies.

INDIA TEST-FIRES AGNI-V BALLISTIC MISSILE HAVING RANGE OF 5,000 KM

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Agni-V

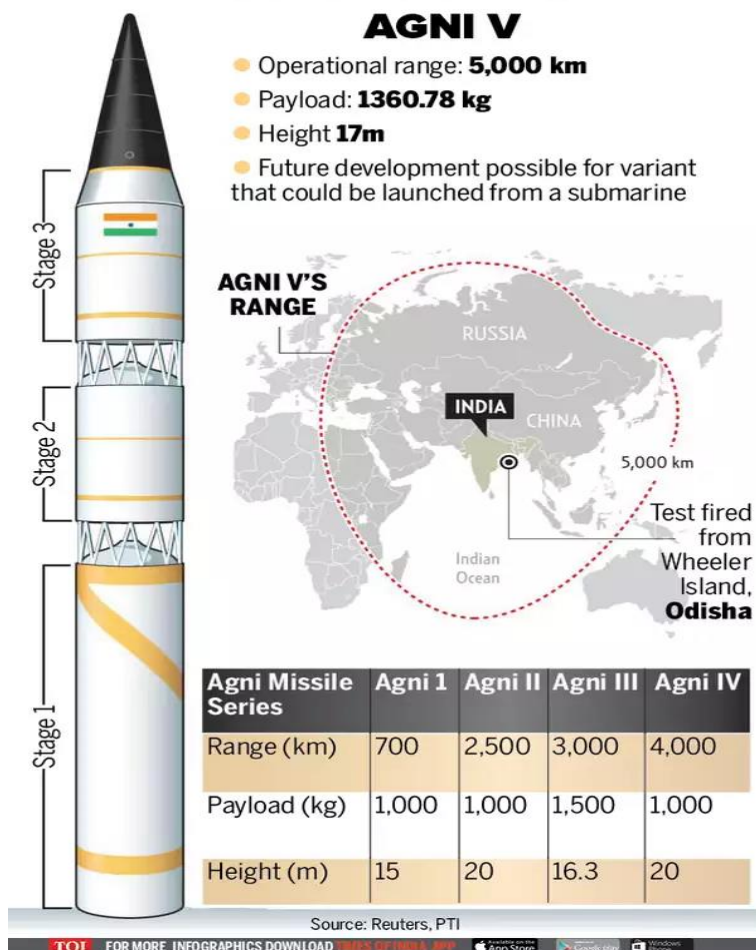
Context:

- Recently, India successfully test-fired a nuclear-capable Agni-V ballistic missile having a range of over 5,000 km, from the Abdul Kalam Island off Odisha coast came amid India's lingering border row with China.
- It marks a significant boost to the country's strategic deterrence.

AGNI SERIES OF LONG RANGE BALLISTIC MISSILES

AGNI V

- Operational range: **5,000 km**
- Payload: **1360.78 kg**
- Height **17m**
- Future development possible for variant that could be launched from a submarine



About Agni-V

- The Agni-V project aims to increase India's nuclear deterrence against China, which is reported to possess missiles with ranges between **12,000 and 15,000 kilometers like the Dongfeng-41**.
- Nearly all of Asia, including the **far north of China** and **some areas of Europe**, are within the striking range of **Agni-V**.
- The **700 km to 3,500 km** range of **Agni 1 to Agni 4** missiles has already been serviced.
- The test firing of the missile is part of the process for its induction into the **tri-services** strategic forces command.
- India has significantly increased its overall military power over the past few years.
- India's military capabilities were strengthened in June with the successful night launch of the nuclear-capable Agni-4 ballistic missile.
- The Strategic Forces Command (SFC) which operates the Agni-5. The Defence Research and Development organisation (DRDO) developed the nuclear-capable missile using a three-stage solid-fuelled engine.
- It is a fire-and-forget missile, which cannot be stopped without an interceptor missile.

About Agni Missiles

- The name Agni originates from Sanskrit word for fire and is taken in the context of Agni being one five primary elements or Panch Mahabhutas. Others are Akash (Space), Aapa (Water), Prithvi (Earth),

and Wayu (Air). The missiles created by the DRDO have been given the names Prithvi and Akash.

- Agni missile development began in early 1980 under the **Integrated Guided Missile Development Program**, led by Dr. APJ Abdul Kalam, the 11th President of India and a key figure in India's missile and space programmes.
- The Integrated Guided Missile Development Programme (IGMDP) program had five missiles **P-A-T-N-A, Prithvi, Agni, Trishul, Nag, and Akash**.
- The **Prithvi ballistic missile** is the **first indigenously-built ballistic missile** developed under the Integrated Guided Missile Development Program.
- The ranges of the medium to intercontinental Agni missile systems 1 to 5 range from 700 kilometres for Agni-1 to 5000 kilometres and beyond for Agni-5.
- The new generation **nuclear-capable ballistic missile Agni P**, an upgraded version of the Agni series of missiles, was successfully tested by the DRDO in June last year.
- The range of the canisterized missile Agni P is between 1,000 and 2,000 kilometres.
- **Agni-6** is reportedly rumoured to be in development, with a far more extensive range starting at 8000 kilometres and the ability to carry multiple independently targetable re-entry vehicles, though the DRDO has yet to confirm this publicly.

Strategic Forces Command (SFC)

- It is a key tri-services formation that manages and administers all the strategic assets and falls under the purview of India's Nuclear Command Authority.

Intercontinental ballistic Missile:

- ICBM is a missile with a minimum range of 5,500 kilometers designed for delivery of conventional and nuclear warheads (delivering one or more warheads simultaneously).
- Similar to nuclear weapons, ICBM can deliver conventional, chemical, and biological warheads and are also capable of delivery with varied degrees of efficacy.
- The only nations that have ICBMs are India, Russia, the United States, North Korea, China, Israel, the United Kingdom, and France.

Nuclear Command Authority:

- The **Nuclear Command Authority** comprises a **Political Council and an Executive Council**.
- The Political Council is chaired by the Prime Minister. It is the sole body which can authorize the use of nuclear weapons.
- The Executive Council is chaired by the National Security Advisor.
- It provides inputs for decision making by the Nuclear Command Authority and executes the directives given to it by the Political Council.

FIFTH SCORPENE-CLASS SUBMARINE VAGIR DELIVERED TO NAVY

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: INS Vagir

Context:

- Recently, the fifth Scorpene submarine, **Vagir of Project - 75 Kalvari Class submarines** has been delivered to the Indian Navy by Mazagon Dock Shipbuilders Limited (MDL) Mumbai.

- The submarine would shortly be commissioned into the Navy and enhance its capability.



About INS Vagir

- It is fifth submarine of Project 75 to build **Kalvari class diesel-electric attack** submarines.
- Vagir has been named after a **Sand Fish**, a predatory marine species.
- Kalvari means Tiger Shark, Khanderi has been named after an Island Fort built by Chhatrapati Shivaji, which played a key role in his Navy.
- Karanj has also been named after an Island located South of Mumbai.
- The other ships in the class are the INS Vela, INS Vela, INS Vela, INS Khanderi, INS Karanj, and INS Vagsheer.
- Of them, the Kalvari and Khanderi have been put into service in 2017 and 2019, respectively.
- Vela and Karanj are currently undergoing sea trials, Vagir has just been launched, and Vagsheer is still being built.

About Kalvari Class Submarines

- The current Kalvari-class submarines were named after previously **decommissioned submarine classes** with the same name, including Kalvari, Khanderi, Karanj, and Vela class, which included Vela, Vagir, and Vagshir.
- One of the first submarine classes to join the Indian Navy after independence was the Foxtrot class of vessels, which included the now-decommissioned Kalvari and Vela classes.
- The design of Kalvari class of submarines is based on Scorpene class of submarines designed and developed by **French defence major Naval Group formerly DCNS and Spanish state owned entity Navantia**.
- The majority of the submarines in this class are **attack submarines, or "hunter-killer" types**, which are intended to target and sink hostile naval vessels. They use **Diesel Electric transmission systems**.
- The submarines of the Kalvari class are capable of engaging in a **variety of naval warfare situations**, including as minelaying, anti-warship, and anti-submarine operations.
- When surfaced, it can travel at a top speed of 11 knots, and underwater, 20 knots.

Significance

- India now has 14 submarines in its fleet, 14 of which are diesel-electric and belong to the Kalvari, Shishumar, and Sindhu classes.
- India currently operates one submarine each in nuclear powered Classes of Chakra and Arihant.
- **Intelligence-gathering devices:** The Scorpene class of modern submarines have an innovation known as Air Independent Propulsion (AIP), which enables **non-nuclear submarines** to function for **extended periods of time without access to surface oxygen**.
- Submarines of the Kalvari class can fire a variety of torpedoes and missiles and are fitted with a **variety of observation and intelligence-gathering devices**.

- It should be noted that the Defence Research and Development Organization (DRDO) is now working on a project to develop an AIP system based on fuel cells for Indian Naval Submarines.
- Role in Carrier battle group:** The nuclear powered and diesel electric submarines have their designated roles in the Carrier Battle Groups.
- Strategic deterrence:** As a part of basic principles of submarine deployment. A minimum number of nuclear and diesel electric submarines are to be maintained.
- Currently India has less number of submarines than what is required with some more of those from both types being at various stages of construction.

Project-75

- In the late 1990's, around the time of Kargil war, a three-decade plan took shape for indigenous construction of submarines known to have two separate series of submarine building lines – codenamed Project 75 and Project 75I — in collaboration with foreign entities.
- Project-75 includes the indigenous construction of six submarines of Scorpene design.
- These submarines are being constructed at Mazagon Dock Shipbuilders Limited (MDL) Mumbai, under collaboration with Naval Group, France.
- The number 75 in Project 75 refers to such **unique identifier** which was assigned to a programme for series production of submarines in India.
- All six submarines constructed under Project 75 are referred to as Kalvari Class of submarines. (INS Kalvari, INS Khanderi, INS Karanj, and INS Vela INS Vagsheer and INS Vagir).

Mazagon Dock Shipbuilders Limited

- Mazagon Dock Shipbuilders Limited is aptly called “Ship Builder to the Nation”.
- It is one of India's leading **Defence public sector undertaking** shipyard under the **Ministry of Defence**.
- Its main activities are construction of warships and submarines with facilities situated at **Mumbai and Nhava** (under development).
- It has the capability to build **warships, submarines, merchant ships** upto 40,000 DWT since 1979.

MISSILE DESTROYER INS MORMUGAO COMMISSIONED INTO INDIAN NAVY

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: INS MORMUGAO

Context:

- Recently, the second of the Project 15B stealth-guided missile destroyers built by Mazagon Dock Shipbuilders Limited (MDSL), INS Mormugao (Pennant D67), was commissioned into the Indian Navy.
- The ship, named after a key port in Goa, was commissioned a day before the Goa Liberation Day celebrations.

About INS Mormugao

- The **second ship** of the **Project 15B** stealth-guided missile destroyers being constructed at Mazagon Dock Shipbuilders Limited (MDL) was delivered to the Indian Navy on November 24th as Y 12705 (Mormugao).
- On January 28, 2011, the agreement for **Project 15B's** four ships was signed.
- This project is a continuation of the Kolkata class (Project 15A) destroyers that were commissioned in the last decade, and the project's **flagship ship**, **INS Visakhapatnam**, was previously commissioned into the Indian Navy on November 21.
- The four ships of the Project are named after major cities from the four corners of the country: **Visakhapatnam, Mormugao, Imphal, and Goa**.

- They were designed by the Warship Design Bureau, the Indian Navy's internal organisation, and built by M/s **Mazagon Dock Shipbuilders Ltd., Mumbai**.



Significance:

- The INS Mormugao is reportedly equipped with cutting-edge armaments, sensors, surface-to-surface and surface-to-air missiles, as well as contemporary observation radar that feeds target information to weapon systems.
- The warship can reportedly travel at speeds of exceeding 30 knots and engage in combat with nuclear, biological, and chemical weapons.
- Destroyers are a type of **warships** that can accompany larger ships in a fleet or a carrier combat group, also known as a **carrier strike group**, thanks to their high speed, maneuverability, and durability.
- Modern destroyers **protect fleets and carrier battle groups** from the close-range surface, air, and subsurface attacks.
- They are quick, sleek, and difficult to detect. In addition to anti-surface operations, guided missile destroyers can engage in anti-aircraft and anti-submarine warfare.
- Guided missile destroyers are a valuable asset in a variety of naval operations, mostly offensive, due to their speed, manoeuvrability, and striking capabilities.

US FED HIKE RATES AND WAYS TO TACKLE

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Interest rate hike

Context:

- Recently, the **US Federal Reserve raised interest rates by 50 basis points** at its final meeting of the calendar year. The federal funds rate is now between 4.25 and 4.5 percent.
- According to recent data, the sharp slowdown in advanced economies is already **affecting India's export and industrial performance**. Policymakers in India must be aware of the risks to growth and macroeconomic stability as they attempt to steer the economy through this uncertain period.

About US Federal Reserve System

- The United States has the world's largest economy, and the Federal Reserve System is the world's largest central bank.
- The Federal Reserve is in charge of the three monetary policy tools: open market operations, discount rates, and reserve requirements.
- The Federal Reserve's function is to conduct US monetary policy in order to promote maximum employment and stable prices:
- Promoting financial system stability and attempting to reduce and contain systemic risks through active monitoring and engagement in the United States and abroad;

- promoting the safety and soundness of individual financial institutions and monitoring their impact on the financial system as a whole;
- Increasing the safety and efficiency of the payment and settlement system by providing services to banks and the federal government that facilitate US-dollar transactions and payments;
- Promoting consumer protection and community development through consumer-focused supervision and examination, research and analysis of emerging consumer issues and trends, and administration of consumer laws and regulations.

Background

- The projections accompanying the policy statement point to another 75 basis point hike in interest rates over the next year as the central bank fights inflation.
- This would raise the federal funds rate to 5.1 percent, up from 4.6 percent previously expected.
- While the magnitude of the December rate hike was lower — the previous four consecutive rate hikes were of 75 basis points — the tone of the policy remained hawkish as the central bank sought to dispel any doubts about the direction of monetary policy.

Recent Data

- Data released show that inflation has indeed moderated, though it remains far above the central bank's target of 2%. Consumer prices rose at the slowest pace in a year in November.
- The core CPI, which excludes volatile food and fuel components, rose 6% in November, down from 6.3 percent in October. The sequential month-on-month momentum also suggests an easing of price pressures in the economy.
- According to the projections accompanying the policy statement, inflation (as measured by the price index for personal consumption expenditures) is expected to fall from 5.6 percent in 2022 to 3.1 percent in 2023.

Economic Growth

- However, the projections for economic growth and unemployment highlight the pain that the economy is likely to experience during this period.
- The economy is now expected to grow at 0.5 percent next year, down from 1.2 percent previously predicted, while the unemployment rate has been raised to 4.6 percent in 2023 and is expected to remain there for some time.
- Reducing inflation is likely to require a sustained period of below-trend growth and some softening of labor market conditions.
- The revised projections also indicate that the central bank is unlikely to cut interest rates anytime soon. Rates are not expected to begin falling until 2024.
- Tighter global financial conditions and slower growth in advanced economies like the United States will have an impact on India.
- Indeed, recent data show that the sharp slowdown in advanced economies is already having an impact on India's export and industrial performance.
- As they attempt to steer the economy through this uncertain period, policymakers in India must be mindful of the risks to growth and macroeconomic stability.

India's Exports

- With rapid growth over the last two years, India's manufacturing exports have reached USD 418 billion in fiscal year 2022 (FY22).
- Despite having the **world's fifth-largest economy**, contributing 3.1% of GDP, India's export contribution to global trade is still only 1.6%, due to a variety of factors such as rising protectionism and deglobalization, a lack of basic infrastructure, and low market penetration in high-income countries.
- As a result, it encourages India to focus on accelerating Free Trade Agreements, lowering tariffs, and addressing supply-side bottlenecks in order to address export challenges.

India's Uncertain Environment

- India's imports have increased just as its merchandise exports have begun to decline. The world is currently experiencing unprecedented levels of uncertainty.
- In such an uncertain environment, foreign investors prefer to invest in safe assets such as US government bonds rather than emerging markets such as India.
- This trend has become even more pronounced in recent months, as the **Fed's consistent rate hikes** have made US financial assets even more appealing.
- As a result, India will experience significant outflows of foreign capital in 2022-23.
- If India is unable to attract the required amount of capital inflows, the RBI's foreign exchange reserves may be used to pay for imports. However, this strategy is neither appropriate nor sustainable.
- The reserves are intended to tide the country over short-term problems such as commodity price spikes. The large CAD, on the other hand, is a long-term problem that necessitates a long-term solution.
- India's merchandise exports, in particular, have been structurally weak and stagnant for the past decade, until the pandemic induced a brief boom.

India's Current Account Deficit (CAD)

- India's CAD reflects a mismatch between the demand and supply of foreign exchange; more dollars are demanded than we have access to because we import more than we export.
- To restore balance, the price must first adjust, i.e. the rupee must depreciate. When this occurs, exporting becomes more profitable, causing an increase in the number of firms to explore foreign markets.
- Meanwhile, foreign demand rises as the rupee falls in value, making Indian products more competitive in terms of price. As a result, exports rise while the CAD falls.

Significance of Exports

- Exchange rate depreciation can help to sustain growth. Exports fueled the Indian economy's recovery from the pandemic.
- India's merchandise exports increased by 46% between April and January 2021-22, compared to the same period the previous year. However, with exports now declining, India's access to this vital source of growth has become uncertain.
- Private sector investment remains sluggish and is unlikely to pick up in an uncertain economic environment. There is also no room for fiscal stimulus because government deficits and debt must be reduced.
- Even though the Indian economy is considered consumption-driven, private consumption cannot sustain a growth rate of 7% on its own, especially when all other sources of growth are underperforming.

Way Forward

- Strengthening the export sector is thus critical for sustaining growth.
- Policy must become significantly more export-oriented and less protectionist.
- Import tariffs on average have risen in recent years. Imposing high import duties hinders exports in a world where manufacturers rely on global supply chains.
- This barrier cannot be overcome by providing subsidies to a select few producers.
- Allow the rupee to depreciate, encourage foreign firms to produce in India by allowing them access to their supply chains, encourage domestic firms to compete, and create a level playing field for all players.

CORE SECTOR OUTPUT RISES 5.4% IN UNEVEN RECOVERY

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Indian Economy

Context:

- Recently, the output growth of **India's eight core sectors** rebounded to 5.4% in November, up from a revised estimate of 0.9% in October, the slowest in 20 months.
- Overall production levels in November 2022 remained unchanged from the previous month.

Key Highlights

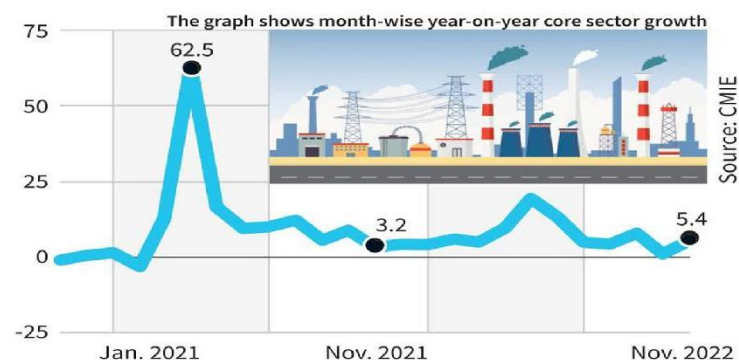
- The recovery in the year-on-year growth rate bodes well for the country's industrial output numbers in November after a shocking 4% drop in October, as core sectors account for roughly 40% of the **Index of Industrial Production (IIP)**.
- The November IIP will be released on January 12, and economists expect the index to return to growth, albeit in the low single digits.
- Cement:** Cement output increased 28.6% in November after falling 4.3% in October.
- Coal and Electricity:** coal and electricity production increased 12.3% and 12.1%, respectively.
- Steel:** Steel output increased at the fastest rate in six months, 10.8%, but production levels were 2.35% lower than in October 2022.
- Fertilizer:** Fertilizer production increased 6.4% from November 2021 levels.

About Eight Core Industries

- Natural Gas, Coal, Refinery Products, Crude Oil, Cement, Electricity, Steel, and Fertilizers** are among the eight core industries.
- These industries are referred to as core industries because of their significant impact on general economic and industrial activities.
- These industries account for 40.27% of the total weight of the items in the Index of Industrial Production (IIP).**
- The Refinery Products Industry currently has the highest weight in the Index of Eight Core Industries.

Expanding core

The surge seen in the output of eight core industries outpaced the **3.2% growth seen a year earlier** and the **weak 0.9% rise** witnessed in October



Recovery not widespread

- The recovery in these sectors was offset by a continued drop in **crude oil, natural gas, and refinery output**.
- Refinery products:** It fell 9.3% in November, a 21-month low, after falling 3.1% in October.
- Crude oil:** The output fell 1.1% in November, marking the sixth consecutive month of decline.
- Natural gas:** The output fell 0.7%, marking the fifth month of decline.
- Compared to October 2022, the index of infrastructure industries remained flat in November 2022, but the momentum of month-on-month seasonally-adjusted growth turned positive. It was emphasized that the **recovery is not yet broad-based**.



Trail of Core Sectors

- It was stated that the recovery from October's tepid core sector performance was partly driven by base effects, but disaggregated trends were highly varied, with four sectors growing by double digits and three contracting.
- While the IIP will also show an improvement to 3-4% growth in November from the previous month's contraction, given the drag imposed by weaker exports.
- The Commerce and Industry Ministry, which publishes the Index of Core Industries data**, also revised the index for August 2022 upward, raising the output growth rate for that month to 4.2% from 3.3% previously estimated.

What is the Index of Industrial Production (IIP)?

- IIP is an indicator that measures the changes in the volume of production of industrial products during a given period.
- It is compiled and published monthly by the Central Statistical Organization (CSO), Ministry of Statistics and Programme Implementation.
- It is a composite indicator that measures the growth rate of industry groups classified under:
 - Broad sectors, namely, Mining, Manufacturing, and Electricity.
 - Use-based sectors, namely Basic Goods, Capital Goods, and Intermediate Goods.
- Base Year for IIP is 2011-2012.

Future Prospects

- According to India Ratings, the IIP will grow in the "low single digits" in November.
- Core sectors will grow around 5% in December.
- While power generation is up 13.3%, the steel and cement sectors are expected to grow in the near term due to sustained capex support from both the state and central governments.

FPIS PULL OUT ₹1.34 LAKH CR IN 2022, HIGHEST-EVER YEARLY OUTFLOW SO FAR

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: FPIs

Context:

- Recently in 2022, Indian markets had experienced the biggest-ever withdrawal of **Foreign Portfolio Investors (FPI)**.
- A net outflow of **₹1.34 lakh crore** has been recorded alongside the global economic slowdown.



What is FPI?

- Securities and other financial assets that foreign investors hold passively make up foreign portfolio investment (FPI). It does not provide the investor actual ownership of financial assets and, depending on market volatility, is relatively liquid.
- Stocks, bonds, mutual funds, exchange-traded funds, American depositary receipts (ADRs), and global depositary receipts are a few examples of FPIs.
- FPI is reflected in a country's **balance of payments** and is included in its capital account (BOP).
- FPI is frequently referred to as "**hot money**" due to its willingness to leave at the first hint of economic distress. FPI is riskier than FDI since it is more volatile, liquid, and liquid.

Status of FPI in India

- According to data from NSDL, FPI inflow to India in 2021 was ₹50,089 crore, ₹1.03 lakh Crore in 2020, and ₹1.35 lakh Crore in 2019. In 2017 it had gone as high as **₹2 lakh crore**.
- In 2018, ₹80,419 Crore was withdrawn by FPI over concerns about rising bank rates.
- In 2022, FPIs have withdrawn **₹1.21 lakh crore** from the stock market and **₹16,682 crores** from the debt market.
- Between October 2021 and July 2022, FPI investors have net sold \$32 billion worth of equity and purchased \$15 billion.

Why are FPIs pulling out?

- The major reason for the withdrawal has been the rise in **inflation** and subsequent **rate hikes by central banks**.
- The US Federal Reserve or Fed has raised interest rates by 425 bps this year, restricting investors from investing in assets.
- Since May 2022, the Reserve Bank of India has raised rates by a total of 225 base points in order to manage rising inflation.
- The Monetary Policy Committee had recommended increases of 40 bps in May and 50 bps in the three meetings that followed.
- The **Russia-Ukraine crisis** and the **global economic slowdown** are two other major reasons for the withdrawal.
- Concerns about **Covid spreading in China** and the **hawkish stance of the US Fed** (raising bond yields but lowering equity yields) have made FPIs cautious.
- The pandemic has affected the **manufacturing industry** and made FPIs cautious over its recovery.
- Experts have suggested that a **low appetite for investment** could affect FPI inflows into emerging markets (EM) in Asia in FY23 as well.

BPS

- Basis points or bps are a financial tool used to describe the **percentage change in an index**.
- One bps is equal to 0.01% or 0.0001.

It is used to refer to changes in interest rates and yields.

Can Domestic Investment make up for lost FPI?

- In the last 12 months, domestic institutional investors have been more impactful. DII showed **\$40 billion in inflows** in the same period that FPIs showed \$20 billion in outflows.
- Insurance(\$12 billion), Employees Provident Fund Organization EPFO(\$7-8 billion), and Systematic Investment Plans SIP(\$18-20 billion)** are the major contributors to domestic institutional investments.
- FPI shares in the BSE have dropped to 18.3%(a 9-year low) while DII shares have risen to 15%(highest ever).

Impact on India

- India's weight on the MSCI EM index has remained stable despite the heavy selling by FPIs.
- According to experts, this has suggested that outflows were mainly due to the redemption pressures at global markets.
- FPI withdrawal will impact India's **Foreign Exchange Reserves** and lead to the **depreciation** of the rupee's value.
- As a result imports of oil and other commodities could rise, contributing to higher inflation.

Domestic Institutional Investment

- Institutional investors known as DIIs are those who make investments in the financial assets and securities of the nation in which they currently reside.
- Indian Mutual Funds, Indian Insurance Companies, Local Pension Funds, and Banking & Financial Institutions** are the four categories of DIIs.

They are subject to government regulation as well, but less than FPIs.

LOWER THE BARRIER: NEW CHALLENGES IN FTA

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: FTA

Context:

- Recently, the government of India has started negotiations with different countries to sign trade agreements which has raised concerns among Indian businesses that non-tariff measures imposed by other countries could affect trade.
- India had recently decided to raise non-tariff barriers on '**non-essential goods**' to increase the adoption of domestically manufactured goods.

Background

- India has in the past year been attempting to agree on pacts with countries like the USA, Australia, and the European Union in order to boost trade volumes and exports.
- India's export target of **\$450-500 Billion** depends on the successful free trade agreements.
- An early harvest deal with economies like the UK, Canada, the GCC, Bangladesh, Israel, European Union, and the Southern African Customs Union would help India achieve the **\$2 Trillion target by 2030**.

What is an FTA?

- A **free trade agreement (FTA)** is a contract between two or more countries where the parties agree on obligations regarding **investor protection, intellectual property rights, and commerce in products and services**.
- With little to no constraints from the government in the form of taxes, subsidies, quotas, or prohibitions, a free trade policy permits the purchase and sale of goods and services across international borders.
- Preferential Trade Agreements (PTAs), Comprehensive Economic Cooperation Agreements (CECA), and Comprehensive Economic Partnership Agreements (CEPA)** are three types of FTAs.



Why are Indian negotiators concerned?

- In recent times, FTAs have evolved to include non-tariff issues like **carbon emission norms, climate action, labor and gender balance**, etc.
- The addition of such clauses to agreements would enable countries to impose non-tariff protectionist measures on Indian products.
- As a result, Indian products would not be able to take proper advantage of the agreements.

How will this affect trade?

- Consider the case of the European Union, India's 3rd largest trading partner accounting for **10.8%** of Indian trade.
- Recently the European Union has agreed on a carbon border adjustment mechanism that targets carbon-intensive industries like iron and steel, cement, aluminum, and fertilizers.
- The framework, which will be applicable from October 2023, mandates the **imposition of levies on imported goods in proportion to the emissions produced during the manufacturing process**.
- This will equalize the price of carbon between domestic production and imports and ensure the EU's climate action goals are not affected by increased imports from less environment-committed countries.
- The suggested policy will act as a **non-tariff barrier** on Indian goods putting Indian manufacturers and exporters at a disadvantage when compared to developed nations like the USA where production processes are more carbon efficient.

Suggested Course of Action

- Policymakers have agreed that these issues need attention but they should not compromise the successful agreement of the FTA.
- Domestic reforms should be conducted in a way that the rewards from FTAs can be maximized.
- India should use these reforms to become an attractive destination for firms looking to implement a '**China + 1**' policy or leaving China due to supply chain challenges

Benefits of FTAs

- Increased growth and economic development
- Removal of **protectionist** barriers promotes competition and the growth of global trade.
- Government spending on subsidies can be reduced due to increased demand for products and clauses prohibiting excessive subsidization.
- FTAs contribute to the country's growth by increasing FDI inflows into domestic enterprises.
- Expertise can be shared between countries so that both can take advantage of the best practices available in the field.

Concerns with FTAs in India

- There is very little **transparency** in Indian FTA negotiations. Additionally, there are no authorities for scrutinizing the process.
- Previous FTAs signed with countries like Japan have not been very successful. India still has a negative trade balance with partners like Japan and ASEAN despite increased exports.
- India opted out of the **(RCEP) Regional Comprehensive Economic Partnership with ASEAN** over fears of dumping and Chinese domination of the market.
- India is dependent on other countries for its oil supplies. The global supply chain can be impacted by geopolitical tensions like the Russia-Ukraine crisis, thus affecting the global economy.
- The **Vocal for Local and Aatmanirbharata** campaigns give the impression of trade protectionism which reduces interest among foreign nationals in trade with India,

European Union

- 27 nations make up the European Union, which functions as a unified economic and political bloc.
- The official currency of 19 of these nations is the euro.
- Bulgaria, Croatia, Czech Republic, Denmark, Hungary, Poland, Romania, and Sweden are among the eight EU nations that do not utilize the euro.
- A desire to create a single political entity for all of Europe led to the creation of the EU. This was done in an effort to put an end to decades of conflict between European nations, which culminated in World War II and devastated much of the continent.
- A uniform set of regulations that are applicable in all member states in situations where they have decided to act jointly has helped the EU create an internal single market.

China + 1

- China Plus One, commonly referred to as Plus One, is a business strategy that aims to diversify investments outside of China.
- It was first used as a global corporate strategy in 2013.
- Due to the cheap labour in China, many foreign businesses originally relocated there, but these businesses are now reevaluating their position and diversifying their manufacturing approaches.
- The driving forces include a variety of geopolitical reasons, including a decline in China's cost advantage in recent years and a rise in mistrust between China and the West.
- In industries including machinery, autos, transportation, and electrical equipment, the EU, Mexico, Taiwan, and Vietnam have emerged as the clear beneficiaries of the China-plus-one model.
- India is seeking to present itself as an attractive location for these businesses.

NASAL COVID VACCINES

Priority: High



Primary Source: Down To Earth

Prepp Prelims Booster: NASAL Covid Vaccine

Context:

- Michael W Russell, an immunologist, and microbiologist at the University of Buffalo describes the development, working, and possible implications of a nasal vaccine.
- Rising cases of covid 19 in China and the USA have put the spotlight on vaccinations and booster doses

What is a Nasal Vaccine?

- A Nasal vaccine is a vaccine administered through the nose and does not involve the use of a needle.
- It develops immunity through the inner surface of the nose which comes into contact with numerous microbes.



How does the body respond to a virus?

- The immune system is composed of the mucosal system and the circulatory system.
- The mucosal system provides protection at the mucosal surfaces like mouth, nose, ears, mammary and other glands, and the gastrointestinal, respiratory and urogenital tracts.
- Sticky secretions containing antibodies and anti-microbial proteins cover these surfaces which also have immune cells within their lining to prevent attacks from pathogens.
- The circulatory system generates and distributes antibodies to internal organs through the bloodstream. These antibodies do not often reach mucosal surfaces.

Mucosal Immunity

- In response to alien bodies like viruses and bacteria, the immune system generates proteins called antibodies or immunoglobins.
- Antibodies bind to antigens, which are the specific parts of the virus that generate an immune response. This allows the antibody to neutralize or destroy the alien.
- Secretory IgA or SIgA are specialized antibodies located in the mucosal secretions namely tears, saliva, nasal and intestinal secretions, and breast milk.
- They are superior to other antibodies in destroying toxins, viruses, and bacteria and are more resistant to digestive enzymes, unlike regular antibodies.

How does Covid 19 infect the body?

- Covid19 enters the body as droplets or aerosols that pass through the eyes, nose or mouth. If it enters the lungs it can trigger an overactive inflammatory immune response which can be severely fatal.
- As a result, the insides of the mouth, nose and eyes are the body's first points of contact with the virus. Samples of covid positive patients displayed traces of SIgA in saliva, tears, and mucus.

How do Nasal Vaccines work?

- Nasal vaccines are administered through the nose or mouth and induce the immune system into producing SLgA.
- In the case of nasal vaccines, immune cells within the tonsil or nose lining would absorb the viral antigens meant to boost the immune system.

- Researchers think nasal vaccinations function similarly to oral mucosal vaccines even though conclusive studies have not been conducted.
- In mucosal regions, vaccine antigens cause B cells to develop into plasma cells that release an IgA subtype. After that IgA travels throughout the body's mucosal secretions where it transforms into SIgA.



Advantages of Nasal Vaccines

- Of the available mucosal vaccines, only the flu vaccine is nasal.
- Researchers believe that the virus could be isolated and neutralized by the use of SIgA before it enters the lungs, preventing severe harm.
- The presence of SIgA in the eyes, nose, and mouth can help control an epidemic by preventing the transmission of infected secretions. Greater traces of SIgA can stop transmissibility by stopping the virus at the point of entry.
- The existing nasal vaccines only generate circulating IgA which prevents serious lung damage but is not as effective as SIgA in preventing the spread.
- They can be a supplement to other vaccines
- It can be used to overcome vaccine hesitancy due to the absence of needles.

Status of a Nasal Vaccine

- Nearly 100 oral or nasal Covid vaccines are in development around the world and have shown positive results in testing on animals.
- According to the WHO, 14 intranasal covid vaccines are under trial as of now. However little information is available on their results.
- On 23/12/2022, the Indian Government introduced iNOVACC, the nasal vaccine of Bharat Biotech on the Cowin platform.
- The two-drop vaccine can be taken as a heterologous booster dose and was approved by the DCGI (Drug Controller General of India) in November.

GIRLS AGED 9 TO 14 TO GET CERVICAL CANCER VACCINES THROUGH SCHOOLS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Cervical Cancer

Context:

- The government will provide vaccines for the prevention of cervical cancer to girls aged between 9 and 14 years through their schools.
- The decision was based on the National Technical Advisory Group for Immunisation (NTAGI) recommendation to introduce the Human Papillomavirus (HPV) Vaccine in the Universal Immunisation Programme.

A SHOT AT PROTECTION**WHAT ARE HUMAN PAPILLOMAVIRUS VACCINES**

- HPV vaccines protect against infection with human papillomaviruses (HPV)
- HPV is a group of more than 200 related viruses, of which more than 40 are spread through direct sexual contact
- Among these, two HPV types cause genital warts
- About a dozen HPV types can cause certain types of cancer (cervical, anal, oropharyngeal, penile, vulvar, and vaginal)

**NUMBER OF DOSES**

- The HPV vaccine is given as a series of shots
- Different dosing schedules, depending on the age when the vaccination series is started
- Children who start the vaccine series before 15 years of age need only two doses to be fully protected
- People who start the series at 15 or older and those who have certain conditions that weaken the immune system need three doses to be fully protected

Highlights

- By the middle of 2023, India is anticipated to begin administering the locally made CERVAVAC vaccine.
- The vaccine has been authorised for use in the public health programme by the government advisory council NTAGI and the Drugs Controller General of India.
- Young women aged 9 to 14 will receive a one-time catch-up vaccination.
- It will thereafter be introduced at age nine.
- Due to the large enrollment of girls, vaccinations will mostly be distributed through schools.
- The vaccine will be administered at a medical facility to the girls who are unable to attend school on the day the immunisation campaign is organised.
- According to a statement from the Education Ministry, community outreach and mobility teams would be used to reach out to out-of-school girls.

What is Cervical cancer?

- Cervical cancer is a preventable and curable disease, if it is detected early and managed effectively.
- The **Human Papilloma Virus (HPV)** is linked to the majority of cervical cancers, and the HPV vaccination, if administered before girls or women are exposed to the virus, can prevent the disease in most cases.
- **Prevention through vaccination** is one of the pillars of the global strategy adopted by the World Health Organisation (WHO) for the elimination of cervical cancer.
- Cervical cancer is the fourth most common cancer in women Worldwide.

Status in India

- The **second most frequent** cancer among women in India is cervical cancer.
- The **burden** of cervical cancer **worldwide** is primarily borne by India.
- According to a recent study published in *The Lancet*, India accounted for nearly one in every four deaths globally due to cervical cancer.

Human Papilloma Virus

- It is one of the most prevalent viruses of the **reproductive system**, the human papillomavirus (HPV), is linked to a number of cancers and other diseases in **both men and women**.
- The International Agency for Research on **Cancer** has categorised several of them as "**high risk**" (human carcinogenic).

- Nearly 70% of cases of cervical cancer, as well as numerous cases of penile cancer, anal cancer, oropharyngeal carcinoma, and malignancies of the head and neck, are caused by the most prevalent carcinogenic forms of **HPV-16 and HPV-18**.
- HPV transmission is influenced by **sexual activity and age**.
- A minimum of one HPV type is anticipated to be present in over 75% of sexually active adults.
- However, the majority of infections go away on their own and only a tiny fraction (1%) of HPV infections result in cancer.
- Although vaccines are allegedly effective in both males and females, adolescent girls and women are being targeted more for vaccination because they are more likely to get cancer from an HPV infection.

About CERVAVAC

- It is the first indigenously developed vaccine for cervical cancer prevention in India.
- CERVAVAC is a **quadrivalent vaccine**, meaning it is effective against **at least four variants** of cancer-causing Human Papilloma Virus (HPV)
- It has resulted from a partnership of DBT's Biotechnology Industry Research Assistance Council (BIRAC), and the Bill and Melinda Gates Foundation that supported Serum's development efforts.
- CERVAVAC is developed utilising a method that delivers **virus-like particles (VLPs)** to trigger the body's immunological response, which produces antibodies.
- The Drug Controller General of India gave their approval to SII's CERVAVAC in July 2022.
- A quadrivalent vaccination (Gardasil, sold by Merck) and a bivalent vaccine (Cervarix, marketed by Glaxo Smith Kline), in addition to CERVAVAC, are two more that are globally licenced and accessible in India. Recombinant DNA technology is used to create non-infectious VLPs (Virus Like Particles) that contain the HPV L1 protein for both vaccinations.
- Despite being accessible for more than ten years, the majority of Indians cannot afford these vaccines, thus CERVAVAC is anticipated to be more popular because it will be roughly ten times less expensive.

Universal Immunization Program

- The universal immunization program is earlier known as the expanded program of immunization (EPI).
- The WHO (world health organization) took the initiative to launch globally in 1974. Against the six most common preventable diseases such as polio, diphtheria, tuberculosis, measles, pertussis, and Tetanus.
- After 4 years it came to India in 1978. The government of India officially launched the program in 1985 and renamed it a universal immunization program.
- UIP is a component of the RCH program (Reproductive and child health program).
- It was launched in 1997. And runs under the umbrella of the National Health Mission of India (NHM).
- The main aim of UIP is to provide several vaccines to infants, children, and pregnant women.
- Earlier UIP's purpose is to prevent six killer diseases that are diphtheria, pertussis, tetanus, polio, measles, and tuberculosis.
- These were the six diseases; the reason for the death rate was high among children. Currently, UIP is prevented against the 12 diseases – Diphtheria, pertussis, tetanus, oral polio vaccine, diarrhoea, tuberculosis, measles, mumps, rubella, hepatitis B, pneumonia, and Japanese encephalitis.

PRESIDENT INAUGURATES 'PRASAD' PROJECT TO CREATE A SLEW OF FACILITIES AT SRISAILAM

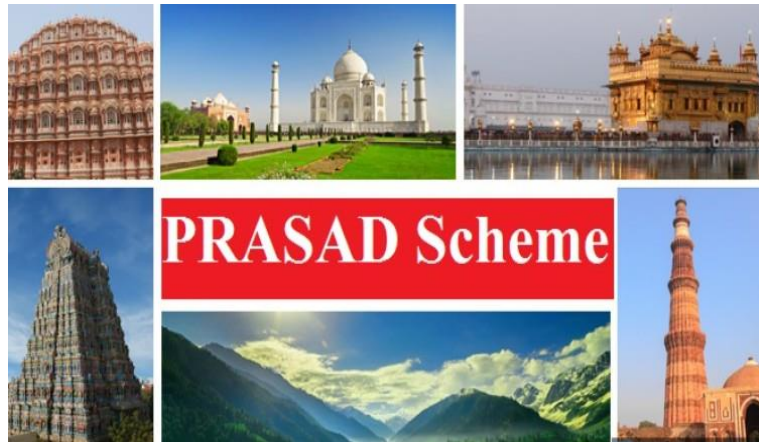
Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Project PRASAD**Context:**

- Recently, **President of India Droupadi Murmu inaugurated the 'PRASAD' project** at the tourism facilitation center in the pilgrim town of Srisailem, Andhra Pradesh. She was accompanied by **Telangana Governor Tamilsai Soundararajan**.
- The President also paid a visit to Shri Chhatrapati Shivaji Spoorthi Kendram, and later met with Chenchu tribal women to learn about their concerns.

**About PRASAD Scheme**

- The PRASAD scheme was launched by the Government of India in 2014-2015 under the Ministry of Tourism.
- The PRASAD scheme stands for '**Pilgrimage Rejuvenation And Spiritual Augmentation Drive**' in its entirety.
- The name of the scheme was changed from PRASAD to "National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD)" in October 2017.

Objectives of the Scheme

- This program focuses on developing and identifying pilgrimage sites throughout India to enhance the religious tourism experience.
- It aims to integrate pilgrimage destinations in a prioritized, planned, and sustainable manner to provide a comprehensive religious tourism experience. The growth of domestic tourism is heavily reliant on pilgrimage tourism.
- To fully realize the potential of pilgrimage tourism, the government must invest in the holistic development of the chosen pilgrimage destinations, in collaboration with other stakeholders.
- The PRASAD scheme aims to pave the way for the development and promotion of religious tourism in India.

Funding Under the Scheme

- Under it, the Ministry of Tourism provides Central Financial Assistance (CFA) to state governments to promote tourism at designated destinations.
- The Central Government will provide a 100% match for public funding components under this scheme.
- It also seeks to involve Public Private Partnership (PPP) and Corporate Social Responsibility (CSR) for improved project sustainability.

Facilities at Srisailem

- The hill town will receive a pilgrim complex, amenities centers at Hatakeswaram and Sikhareswaram:
 - renovation of the Pushkarini,
 - aesthetic illumination at the temple,
 - laying of Krishnaveni Road from the bus station to Pathalaganga,
 - an amphitheatre,
 - sound and light show,
 - digital intervention, parking areas, a toilet complex, souvenir shops, food courts, ATM and banking services, and

- a total outlay of 48.03 crore under the PRASAD scheme.

INDIA PUSHES FOR NEW BIODIVERSITY FUND**Priority: High****Primary Source:** The Hindu**Prepp Prelims Booster: Bio diversity****Context:**

- Recently, India stated at the **United Nations biodiversity conference in Montreal, Canada**, that there is an urgent need to establish a new and dedicated fund to assist developing countries in successfully implementing a post-2020 global framework to halt and reverse biodiversity loss.

Key Highlights

- Biodiversity conservation must be based on '**Common but Differentiated Responsibilities and Respective Capabilities**' (CBDR), as climate change has an impact on nature.
- As the 196 **Convention on Biological Diversity (CBD)** parties finalize negotiations for a post-2020 **Global Biodiversity Framework (GBF)**—a new set of goals and targets to halt and reverse biodiversity loss.
- There have been repeated calls for the CBDR principle to be included in finance-related targets.

What is the Convention on Biodiversity (CBD)?

- The CBD is a legally binding international treaty that commits governments all over the world to protect biodiversity.
- It encompasses all life on Earth - ecosystems, animals, plants, fungi, and microorganisms - and focuses on achieving sustainable development - that is, human progress without jeopardizing biodiversity.
- The CBD was signed in Rio de Janeiro in 1992 and went into effect on December 29, 1993.
- The governing body meets every two years to review what has been accomplished and what remains to be done to protect biodiversity around the world.

Recent Issues

- At CBD COP15, developing countries demanded a new and dedicated biodiversity fund, claiming that existing multilateral sources are incapable of meeting the GBF's requirements.
- Differences with rich countries on the issue prompted representatives from developing countries to walk out of crucial financing talks last week.
- According to India, developing countries bear the majority of the burden of implementing biodiversity conservation targets and, as a result, adequate funds and technology transfer are required.
- The most significant challenge is the availability of resources for GBF implementation. Greater ambition comes at a higher cost, and the burden of that cost falls disproportionately on the countries that can least afford it.
- It emphasized India's position that the GBF's goals and targets should be both ambitious and realistic.
- Because climate change has an impact on biodiversity, biodiversity conservation must also be based on Common but Differentiated Responsibilities and Respective Capabilities.

CBDR Principle

- CBDR was established as the seventh principle of the Rio Declaration, which was adopted at the Earth Summit in 1992, and is defined as states having common but differentiated responsibilities in light of their various contributions to global environmental degradation.
- However, applying the CBDR principle to biodiversity conservation has been more difficult than applying it to climate negotiations, and there have been repeated disagreements between the global north and south on the issue.
- At the CBD COP15, the parties are also attempting to reach an agreement on eliminating environmentally harmful subsidies, such as those for fossil

fuel production, agriculture, forestry, and fisheries, by at least \$500 billion (one billion = 100 crore) per year and reinvesting the money in biodiversity conservation.

India's View

- India does not agree on reducing agricultural subsidies and redirecting the savings to biodiversity conservation because there are many other national priorities.
- Agriculture is a critical economic driver for rural communities in developing countries, and the critical support provided to these sectors cannot be redirected.
- The majority of India's rural population is dependent on agriculture and related sectors, and the government provides a variety of subsidies, including seed, fertilizer, irrigation, power, export, credit, agriculture equipment, and agriculture infrastructure, to support the livelihoods of small and marginal farmers.
- When it comes to food security, prescribing numerical targets for pesticide reductions is unnecessary, according to India, and should be left up to countries to decide based on national circumstances, priorities, and capabilities.
- Some of the measurable targets in the draft GBF include a two-thirds reduction in pesticides.

COP15

- The most important biodiversity gathering in a decade, COP15, began on December 7.
- It aims to achieve a historic agreement to halt and reverse biodiversity loss on par with the 2015 Paris Agreement on climate change, in which all countries agreed to keep the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels.
- The draft GBF, which will replace the **Aichi Biodiversity Targets**, includes 22 targets and four goals for 2030—a stepping stone toward the 2050 goal of Living in Harmony with Nature.
- Among the GBF targets are reduced pollution, pesticides, environmentally harmful subsidies, and the rate of introduction of invasive alien species.

About the Global Biodiversity Framework

- GBF is a new draft released by the UN Convention on Biological Diversity (CBD) Secretariat to guide global actions to minimize biodiversity loss and preserve nature through 2030.
- Its proposed goals include reducing pesticide use by at least two-thirds and eliminating the most harmful subsidies, such as fisheries and agricultural subsidies.
- The GBF's 30x30 target is to protect at least 30% of the planet (especially areas of particular importance - land and sea - for biodiversity) by 2030.
- Once approved unanimously by all 195 countries under the CBD, the GBF will be signed as a global agreement to take specific measures under 23 proposed targets by 2030.
- Targets that are not accepted by one or more countries will not be included in the Framework.

Way Forward

- The successful implementation of a post-2020 GBF will depend on the ways and means put in place for an equally ambitious 'Resource Mobilization Mechanism'.
- There is a need to establish a new and dedicated mechanism for providing financial resources to developing-country parties. Such a fund should be established as soon as possible in order to ensure that all countries implement the post-2020 GBF effectively.
- So far, the **Global Environment Facility**, which caters to multiple conventions such as the UNFCCC and the UN Convention to Combat Desertification, is the only source of funding for biodiversity conservation.
- It was emphasized that biodiversity conservation requires ecosystems to be conserved and restored holistically and in an integrated manner. It was believed that ecosystem approaches to biodiversity conservation, rather than nature-based solutions.

- The GBF must be framed with science, equity, and countries' sovereign rights over their resources in mind. GBF must recognize developing countries' responsibility for poverty eradication and long-term development.

UN-WATER RELEASED THE GLOBAL ANALYSIS AND ASSESSMENT OF SANITATION AND DRINKING WATER (GLAAS) REPORT

Priority: Medium

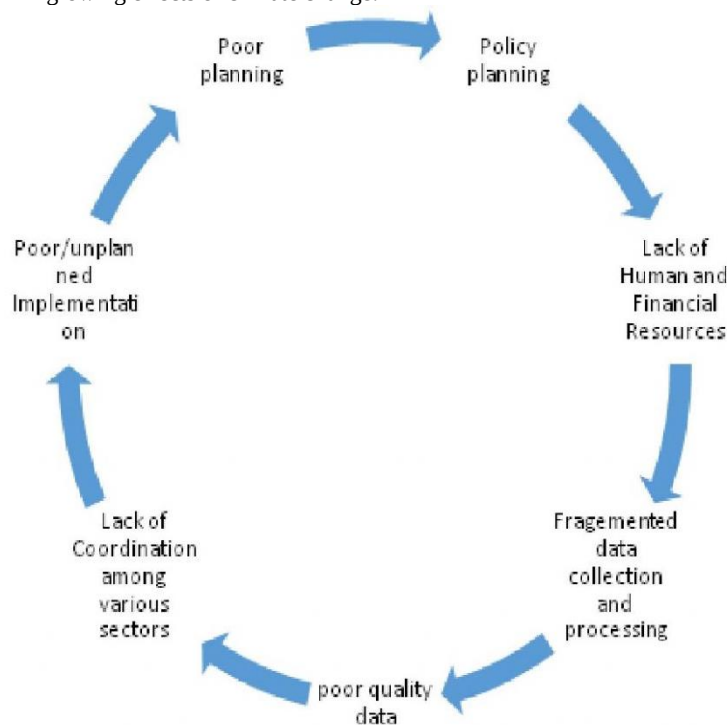


Primary Source: The Hindu

Prepp Prelims Booster:

Context:

- In December 2022, UN-Water released the Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) report.
- The United Nations report has gathered important data and examined the state of water and sanitation in 121 countries and 23 external supporting organizations.
- It examined the situation in 2019 following the COVID-19 break and assessed whether or not the country was prepared to deal with the growing effects of climate change.



Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) 2022 report

- The UN-Water **Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) 2022** report compiles new data on drinking water, sanitation, and hygiene (WASH) from 121 countries and territories and 23 external support agencies (ESAs).
- It is prepared by World Health Organization, UN-Water
- It serves as a **global reference to inform commitments, priority-setting, and actions** during the second half of the 2030 Agenda for Sustainable Development and for the 2023 Conference for the Midterm Comprehensive Review of Implementation of the United Nations Decade for Action on Water and Sanitation (2018–2028) (UN 2023 Water Conference).
- The study also highlights chances to move forward more quickly in **crucial WASH areas that have an impact on the caliber and**

sustainability of WASH services and delivery, pandemic readiness, and climate change resilience.

Significance

- The UN-mandated 2030 Sustainable Development Goal (SDG)-6 targets still need to be met in eight years.
- **Progress:** The report would give governments the option to choose the targets' progress rate.
- The resolution calling for a thorough midterm evaluation of the International Decade for Action's implementation in 2018 was approved by the UN General Assembly.
- The paper is timely for the UN 2023 Water Conference, also known as the **Midterm Comprehensive Review of Implementation of the United Nations Decade for Action on Water and Sanitation (2018-2028)** Conference.
- The conference is set to take place in New York, United States, from March 20–24, 2023.
- The GLAAS data will increase **hopes for renewed commitments, pledges, and initiatives at the UN Water Conference in 2023**, which will discuss the water for health, cooperation, sustainable development, environmental protection, and other topics.

Concerns

- **Implementation:** Countries have formal policies and plans but need help to reach water and sanitation targets. 52 percent had a formal policy in place without considering the cost necessary for policy implementation, but the financial and human resources were insufficient.
- Despite having plans and rules, governments must also implement these measures into action and monitor their success in getting more women and girls involved.
- The research emphasized that regulatory agencies are also not carrying out their responsibilities to guarantee prompt data gathering and recommend appropriate actions for implementation.
- **Rural Vs Urban:** The report noted that when it comes to monitoring activities and using the data to drive policy decisions, urban areas are given more attention than their rural counterparts.
- **Drinking water quality vs. sanitation:** Additionally, under the national framework, drinking water quality surveillance is given more weight than sanitation indicators.
- According to the survey, just over half of the respondents' nations have a national coverage goal for hand hygiene.
- On the other hand, in their national preparedness and action plan for COVID-19, more than 90% of countries took into account aspects of hand hygiene, drinking water, sanitation, waste management, and behavioral change.
- **Absence of climate vulnerabilities in planning:** The research also draws attention to the fact that these plans and strategies do not take into account the harsh realities of climate change or the creation of resilient technologies and systems to address the vulnerabilities of WASH.
- Climate change will disproportionately harm the world's population, it must be tackled, funded, and closely monitored to ensure fair resource distribution.
- **The decline in funding:** Since 2010, financing for building climate change resilience has increased thanks to donor focus and support. Despite this, the report revealed a **5.6% decline in overall funding from 2017 to 2020**.
- The East and Southeast Asia region received 20% support, up from 11% in previous years, as donors' funding priorities have changed. In comparison to before, when Sub-Saharan Africa received 32%, just 23% was given.
- **Lack of human and financial resources** also hinders user and community engagement, which is a need of SDG goal 6.b.1.
- According to the reports, only 20% of the countries reported having enough qualified personnel.

- **Involvement of women:** Women are crucial to the WASH sector because they are the strata most impacted by the WASH domain, hence gender inequality must also be taken into account.

Way forward

- In order to meet their goals by 2030, the nations need at the very least manage their financial resources and fully utilize them.
- As some nations fall short of the goals, they must now increase their efforts severalfold.
- Plans, goals, and progress all need to be reviewed on time. The analysis demonstrates unequivocally that the 2030 agenda is nothing more than a pipe dream at the current rate.

THE GREAT BARRIER REEF IS 'IN DANGER': AUSTRALIA PUSHES BACK

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Great Barrier Reef

Context:

- Recently, a joint report by the **International Union for Conservation of Nature (IUCN)** and **UNESCO's World Heritage Centre (WHC)** expressed concern about the state of Australia's **Great Barrier Reef (GBR)**, recommending that it "be inscribed on the List of World Heritage in Danger."

What is the Great Barrier Reef?

- **The Great Barrier Reef (GBR)** is the **world's largest coral reef system**, with over 2,900 individual reefs, 900 islands, and an area of approximately 344,400 square kilometers. It is located off the coast of Queensland, Australia.
- The GBR is an irreplaceable component of the global ecosystem, serving as both a biodiversity hotspot and a carbon sink.
- The GBR is an important contributor to the Australian economy, supporting over 64,000 jobs and generating billions of dollars in annual revenue.
- To protect it from exploitation, up to 99 percent of the property is located within the GBR Marine Park. It is managed as a "multiple use area," with a variety of commercial and tourism activities permitted.
- A zoning plan is the foundation of GBR management, determining what is permitted and where. Development and land use activities in coastal and water catchment areas adjacent to the property have a significant impact on the property and are managed by the Queensland Government.
- Aboriginal populations engage in traditional marine resource activities to provide traditional food, practice their living maritime culture, and educate younger generations about traditional and cultural rules and protocols. They are one of GBR's most important custodians.

About Coral Reefs

- A coral reef is an underwater ecosystem characterized by reef-building corals. Reefs are made up of colonies of coral polyps held together by calcium carbonate. The majority of coral reefs are made up of stony corals with polyps that cluster together.
- Coral is a member of the animal phylum Cnidaria, which also includes sea anemones and jellyfish.
- Shallow coral reefs, also known as sea rainforests, are home to some of the planet's most diverse ecosystems.
- Coral reefs thrive in ocean waters with few nutrients. They are most commonly found at shallow depths in tropical waters, but deep-water and cold water coral reefs exist on smaller scales in other areas.

What does the IUCN-WHC report say?

- Despite Australia's ongoing and scientific efforts to manage the property, the GBR is currently being adversely and significantly impacted by climate change factors, affecting its resilience to sustain and regenerate itself.

- Many reefs have become sterile due to frequent bleaching events. Water quality degradation is a particular danger.
- According to the report, property management currently lacks clear climate change goals.
- The implementation of existing conservation plans has fallen short, particularly in terms of water quality management and fishing activities.
- Inshore land-based activities, often outside the protected area, are particularly to blame for GBR's degraded water quality.
- Pollutants from agricultural and construction activities have been harmful, and other proposed developments along the Queensland coast are cause for concern.



Recommendations of the Report

- The first step is to add the GBR to the List of World Heritage in Danger.
- Monitoring and evolving farming practices, increased commitments to reduce greenhouse gas emissions, addressing coastal land erosion, and adopting sustainable fishing practices are among the recommendations.

What does adding GBR to the List of World Heritage in Danger entail?

- According to UNESCO, "the List of World Heritage in Danger is intended to inform the international community of conditions that threaten the very characteristics for which a property was inscribed on the World Heritage List, and to encourage corrective action."
- In accordance with the 1972 World Heritage Convention, inscribing a site on the List allows the WHC to provide immediate assistance from the World Heritage Fund to the endangered property while also garnering international support and attention to the site.
- While some countries welcome the additional support that comes with inclusion on this list, many have frequently protested and attempted to prevent this from happening, seeing it as a major embarrassment for the country.
- Furthermore, while it is difficult for UNESCO to enforce any of its recommendations, inclusion on the list does bring increased scrutiny to the site.
 - This is especially true when discussing ecological heritage sites, where conservation and economic development are frequently at odds.
 - Inclusion on such a list can have a tangible impact on all types of development projects, which can be politically significant for governments.

Australia's Reaction

- While it is in Australia's economic and political interests to preserve the GBR, there are numerous other interests at play that muddy the waters. Australia's response must be viewed in this light.
- For example, if it adopted the panel's recommendation to phase out "gill net fishing," which indiscriminately harms marine life, it would have to make significant investments to compensate for fisheries that rely on such

a method. It may also lose political support among Queensland fishermen, who form a voting bloc.

- When this issue arose in 2021, the Scott Morrison government rejected the possibility of adding the GBR to this list and vigorously lobbied UNESCO to prevent it.

WORLD SOIL DAY – 5TH DECEMBER

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: World Soil Day

Context:

- World Soil Day (WSD) is observed on December 5 every year. The guiding theme of **WSD 2022 'Soils: Where food begins'**.
- It is a means to raise awareness on the importance of maintaining healthy soils, ecosystems and human well-being by addressing the growing challenges in soil management, encouraging societies to improve soil health, and advocating sustainable soil management.



What is Soil?

- Soil is the loose surface layer that covers the majority of land.
- It is made up of inorganic particles and biological materials.
- Soil offers structural support for agricultural plants as well as a source of water and nutrients.
- Soil chemical and physical qualities vary widely. Leaching, weathering, and microbial activity all work together to create a wide range of soil types.

What is World Soil day?

- The annual World Soil Day (WSD) is celebrated on **5 December** to draw attention to **the value of healthy soil and order to draw attention to the value of healthy soil and to promote the sustainable management of soil resources**.
- **Background:** The International Union of Soil Sciences (IUSS) proposed a day of celebration for soil in 2002.
- FAO has backed the official launch of WSD as a platform for spreading awareness around the world under the direction of the Kingdom of Thailand and the auspices of the Global Soil Partnership.
- The FAO Conference unanimously endorsed World Soil Day in June 2013 and requested its official adoption at the 68th UN General Assembly.
- The first official World Soil Day was declared on December 5, 2014, as a result of the UN General Assembly's response in December 2013.
- **Theme of WSD 2022 'Soils: Where food begins'.**

Significance of Soil:

- Healthy soils are essential for our survival. They encourage robust plant development, **which improves our nutrition, and water percolation, which preserves groundwater levels.**
- **Carbon sink:** As the second-largest carbon sink after the oceans, soils play an essential role in regulating the world's temperature by storing carbon.
- They support the upkeep of a landscape that is more resistant to the effects of floods and droughts.
- **Food Security:** It should come as no surprise that healthy soil is essential for producing wholesome food since it forms the foundation of food systems.
- Soil degradation also endangers agricultural output, the preservation of in-situ biodiversity, the quality of the water supply, and the socioeconomic well-being of people that depend on the land.

What is Soil degradation?

- Soil degradation is the decline in soil condition caused by its poor management or improper use, usually for agricultural, industrial, or urban purposes.

Causes of Soil Degradation:

- Industrial operations, mining, waste management, agriculture, fossil fuel extraction and processing, and emissions from transportation are the main causes of soil degradation.
- The burning of crop residues is one of the causes of soil nutrient loss, along with soil erosion, runoff, leaching, and other factors.
- Nearly 3.7 million hectares suffer from nutrient loss in soil (depletion of soil organic matter, or SOM). In addition, irrigation with tainted effluent and excessive fertilizer and pesticide use can pollute the land.
- The effects of soil degradation are extensive and may have permanent effects on ecosystem and human health.
- Approximately 29% of India's total geographical area is impacted by soil degradation in one way or another.

Steps taken by India

- A five-pronged approach for soil conservation is being carried out by the Indian government. This entails removing chemicals from the soil, preserving its biodiversity, improving SOM, preserving soil moisture, reducing soil degradation, and halting soil erosion.
- **Soil Health Card:** The Soil Health Card (SHC) programme was introduced by the Indian government in 2015 to address these problems.
- By monitoring changes in soil health over time, the SHC can be used to evaluate the current state of soil health.
- Farmers are directed to apply the essential soil amendments by the SHC's display of soil health indicators and the descriptive terms that go along with them.
- **Pradhan Mantri Krishi Sinchayee Yojana:** It aims to minimise soil erosion, regenerate native vegetation, collect rainwater, and recharge the groundwater table, is another important project.
- **National Mission for Sustainable Agriculture (NMSA):** It offers programmes that support traditional indigenous practises like organic and natural farming, which reduce reliance on pesticides and other agri-inputs and ease the financial strain on smallholder farmers.
- In order to help the Government of India's efforts in soil conservation and the development of sustainable agrifood systems, the Food and Agriculture Organization of the United Nations (FAO) engages in a number of programmes.
- **Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission's (DAY-NRLM):** The Community Resource Persons are supported by the FAO in collaboration with the Ministry of Rural Development to develop their skills in supporting on-farm livelihoods for the adoption of sustainable and resilient practises, organic certification, and agri-nutri-gardens.
- The FAO promotes crop diversification and landscape-level planning in eight target States: Madhya Pradesh, Mizoram, Odisha, Rajasthan, Uttarakhand, Chhattisgarh, Haryana, and Punjab.

- The FAO is working with the State of Andhra Pradesh and the Indian Council of Agricultural Research (ICAR) to assist farmers in making sustainable transitions to organic and agroecological farming practises.

Way forward

- In order to identify, manage, and restore degraded soils and implement preventative measures, there is a need to improve communication between academia, policymakers, and society.
- These will make it easier for timely, fact-based information to reach all pertinent parties.
- Greater collaboration and partnerships are essential to ensuring knowledge is accessible, best practices are shared, and everyone has access to clean, sustainable technologies, leaving no one behind.
- We can make a difference as consumers and citizens by planting trees to protect topsoil, creating and maintaining home and kitchen gardens, and eating primarily locally sourced and seasonally produced foods.

For More info on Soil - Soil

Food and Agriculture Organization (FAO)

- The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger.
- Its objective is to ensure that everyone has access to enough wholesome food on a regular basis to lead active, healthy lives.
- FAO operates in more than 130 nations around the world and has 195 members, including 194 countries and the European Union.

Indian Council of Agricultural Research

The Indian Council of Agricultural Research (ICAR) is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India.

SC SEEKS CENTRE'S RESPONSE ON EVOLVING A PROGRAMME TO PROTECT GREAT INDIAN BUSTARD

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Great Indian Bustard

Context:

- The Supreme Court recently requested the government's response on developing a '**Project Great Indian Bustard**' conservation program similar to '**Project Tiger**' to draw attention to the critically endangered bird species' plight.
- The government touts 'Project Tiger' as one of the most successful conservation programs for a single species in the world.
- The court was hearing petitions highlighting **numerous deaths of Great Indian Bustards in Gujarat and Rajasthan** as a result of power transmission lines criss crossing their habitat.

About Great Indian Bustard

- The Great Indian Bustard (*Ardeotis nigriceps*), Rajasthan's state bird, is considered India's most critically endangered bird.
- It is regarded as the flagship grassland species, representing the health of the grassland ecology.
- Its population is primarily concentrated in Rajasthan and Gujarat. Small populations can be found in Maharashtra, Karnataka, and Andhra Pradesh.
- The bird is constantly threatened by collisions/electrocution with power transmission lines, hunting (which is still prevalent in Pakistan), habitat loss and alteration as a result of widespread agricultural expansion, etc.

Distribution

- Its population in Rajasthan accounts for 95% of its total global population.
- They are mostly found in Rajasthan's Jaisalmer district, including **the Desert National Park, the species' natural habitat.**

- Kutch Grasslands in Gujarat, which is home to India's second-largest bustard population.
- It is the **state bird of Rajasthan** and can be found in arid areas of Maharashtra (Solapur), Karnataka (Bellary and Haveri), and Andhra Pradesh (Kurnool).



What is the Status of Protection?

- Red List of the International Union for Conservation of Nature (IUCN): Critically Endangered
- Appendix 1 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- Appendix I of the Convention on Migratory Species (CMS).
- Schedule I of the Wildlife (Protection) Act of 1972

Expert Committee for the Programme

- In its order, the Special Bench, which included Justices A.S. Bopanna and V. Ramasubramanian, directed the Chief Secretaries of Gujarat and Rajasthan to conduct and complete a comprehensive exercise within four weeks to determine the total length of the transmission lines in question and the number of bird diverters required in priority areas of the birds' habitats.

The Protection Status of the Great Indian Bustard	
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Appendix 1
Convention on Migratory Species (CMS)	Appendix I
International Union for Conservation of Nature Red List	Critically Endangered
Wildlife (Protection) Act, 1972	Schedule 1

- The court was unwilling to agree to the Centre's request to expand the expert committee formed in April 2022 to study the problem. The government asked the court to allow the Additional Secretary of the Renewable Energy Ministry and the Chief Operating Officer of the **Central Transmission Utility of India Limited (CTUIL)** to join the committee as transmission line domain experts.
- The Bench stated that the expert committee was free to consult the CTUIL officer for his expert opinion for the time being. The court also ordered the government to consult with institutional experts from the IITs on electricity transmission and related study areas.
- The court requested a report on the steps taken for the tendering process and the installation of bird diverters. It stated that the bird diverters must follow the quality standards established by the expert committee after consultation with the CTUIL officer.

What is Project Tiger?

- Project Tiger was established in 1973. It was one of the most significant conservation efforts launched in India to protect tigers.
- It was the first project of its kind in India to maintain the population of tigers and protect them from poaching and other threats.
- The NTCA addresses ecological and administrative issues related to tiger conservation.
- It establishes a legal framework for the protection of tiger reserves and strengthens institutional safeguards for ecologically sensitive areas and endangered species.
- Project Tiger was made a statutory authority (NTCA) by inserting enabling provisions into the Wild Life (Protection) Act of 1972 via an amendment, the Wild Life (Protection) Amendment Act of 2006.
- The Jim Corbett Tiger Reserve in Uttarakhand was India's first tiger reserve.
- In the early years of this project, India had only nine tiger reserves. There are currently 53 such reserves in India.

About Desert National Park

- It is located on India's western border in the districts of Jaisalmer and Barmer in Rajasthan.
- This park is home to Great Indian Bustards, the Rajasthan State Animal (Chinkara), the State Tree (Khejri), and the State Flower (Rohida).
- It was designated a UNESCO World Heritage Site in 1980 and a National Park in 1992.

CENTRE RULES OUT AN INCREASE IN MSP FOR COTTON, BUT FARMERS SEEK MORE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: MSP

Context:

- Recently, **cotton farmers in several states** have demanded an increase in the crop's **minimum support price (MSP)**.
- The Centre has stated that it is "watching" the cotton production scenario and will make a decision accordingly.

What is Minimum Support Price (MSP)?

- The MSP is the rate at which the government purchases crops from farmers, and it is calculated at least one-and-a-half times the farmers' production costs.
- MSP is a "minimum price" for any crop that the government considers as remunerative for farmers and hence deserving of "support".

Key Highlights

- It was stated that prices are good because of the global situation. Farmers are getting good prices because imports have decreased.
- It is demanded that cotton imports be prohibited at all costs. Cotton seed imports should also be prohibited.
- Cotton seeds have a high demand and price because they are used as cattle and poultry feed.

Recent Issues

- Domestic cotton prices are currently higher than the MSP. It was stated that the Cotton Corporation of India will also begin procurement if the market is unable to ensure MSP for cotton.
- The MSP for medium staple cotton for the 2022-23 kharif season is Rs.6,080. Farmers claimed they were paid much more than MSP for their produce, but this was insufficient given the rise in the price of inputs such as seeds, pesticides, and fertilizers.
- Cotton income has been low over the last four years.
- A farmer is currently able to obtain Rs.8,500 per quintal which is higher than the MSP. Some farmers received up to Rs.15,000 per quintal in March, but production was extremely low.
- Given the increased input costs, the MSP should be at least Rs.10,000 per quintal.

- Crops are sold for Rs.8,500 because of immediate household and farm needs.

Issues in States

- Punjab's cotton harvest has concluded. Farmers in Fazilka, a major cotton belt in Punjab, are getting around Rs.8,200 per quintal on average. An acre here produced only three quintals on average.
- At least 15 quintals from one acre was obtained. There is a demand for compensation for cotton farmers. The major culprits for the losses are seed-supply companies.
- The Maharashtra secretary of the All India Kisan Sabha stated that some farmers in Maharashtra have received as much as Rs.12,000 per quintal. However, some have had low production due to the pink bollworm attack



Significance of Minimum Support Price

- Better price for their crops:** As the MSP rises, farmers will receive a higher price for their products, and procurement will take place.
- Crop Diversification:** MSP rises for pulses, oilseeds, and coarse cereals are slightly greater, which aids in the goal of crop diversification.
- Differential remuneration and farmer protection:** It aids in crop diversification and land use pattern diversification. It protects farmers from unjustified price fluctuations caused by foreign price fluctuations. Any severe drop in a commodity's market price may be handled since MSP acts as a shock absorber.
- Repair the demand-supply imbalance:** Oilseeds, pulses, and coarse cereals have benefited from concerted attempts to realign MSPs. It encouraged farmers to cultivate wider areas of these crops and to implement best technology and farming techniques in order to remedy the demand-supply mismatch.
- Concentrate on nutrient-dense crops:** The increased emphasis on nutrient-rich nutri-cereals is intended to encourage their production in locations where rice-wheat cannot be produced without long-term negative consequences for groundwater tables.
- Consumer demands:** MSP guarantees that the country's agricultural production reacts to changing consumer needs.
- Forward chain:** The MSP increases agricultural earnings, which encourages farmers to invest more on inputs, technology, etc.

Cotton Cultivation

- Cotton is grown in tropical and subtropical climates. A **minimum temperature of 15 degree C** is required for better germination in field conditions.
- The optimum temperature for **vegetative growth** is 21-27 degree C, and it can tolerate temperatures up to 43 degree C, but temperatures below 21 degree C are harmful to the crop.
- Warm days and cool nights with large diurnal variations during the fruiting period promote good boll and fibre development.

- Cotton is grown on a variety of soils, ranging from well-drained deep alluvial soils in the north to black clayey soils of varying depth in the central region and black and mixed black and red soils in the south zone.
- Cotton is semi-tolerant of salinity and sensitive to water logging, so it prefers well drained soils.

INDIA TOPS THE INDEX ON SOCIAL HOSTILITIES RELATING TO RELIGION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Social Hostilities Index

Context:

- India has been ranked first in the Social Hostilities Index (SHI), which measures acts of religious hostility by private individuals, organizations, or groups in society, according to a report titled "**How COVID-19 restrictions affected religious groups around the world in 2020**" compiled by the **Pew Research Center**.
- India was one of only four nations in the world to experience pandemic-related societal hostilities involving physical violence or vandalism against religious groups by private persons or organisations. The other three were the US, Argentina, and Italy.

Hostility during a pandemic

The data are sourced from the report titled "How COVID-19 restrictions affected religious groups around the world in 2020," compiled by the Pew Research Center



Chart 1: The chart plots SHI against GHI for 198 countries in 2020

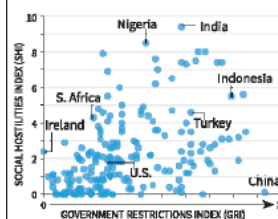


Table 2: The table shows the SHI score of select countries in 2007, 2019 and 2020

Nations	2007	2019	2020
India	8.8	9.1	9.4
France	3.4	3.5	4.7
Egypt	6.1	6.5	7.4
Nigeria	4.4	8.4	8.5
Afghanistan	8.5	5.6	8
Bangladesh	8.3	6.7	7
Mexico	5.5	4.5	5
Indonesia	8.3	4.8	5.5
Iran	6	1.5	1.9
Sudan	6.5	2	2.4
Ghana	4.9	1.8	2.6
Philippines	3.7	4.9	4.8
Libya	1.4	7.7	7.4
Ethiopia	5.3	5.9	4.5
Brunei	4.2	1.3	1.3
Pakistan	8.9	8.1	7.5
Iraq	10	7.7	7.3
Yemen	6.2	5.1	3.5

Table 3: The table shows India's score in the 13 indicators considered to measure SHI. The scores range from 0 to 1; 0=least hostility, 1=highest hostility

Question	2007	2019	2020	Relative rank
Were there violent crimes or malicious acts motivated by religious hatred or bias?	1	0.86	1	3 nations out of 198 countries had a score of 1 in 2020
Was there mob violence related to religion?	1	1	1	13 of 198 had a score of 1 in 2020
Were there acts of sectarian or communal violence between religious groups?	1	1	1	13 of 198 had a score of 1 in 2020
Were religion-related terrorist groups active in the country?	1	1	1	22 of 198 had a score of 1 in 2020
Was there a religion-related war or armed conflict in the country?	0.5	0.5	0.25	15 of 198 had a score of >=0.25 in 2020
Did violence result from tensions between religious groups?	1	1	1	27 of 198 had a score of 1 in 2020
Did groups use force to control public life, including preventing religious groups from operating?	1	1	1	59 countries out of 198 nations had a score of 1 in 2020
Did religious groups themselves attempt to prevent other religious groups from operating?	1	1	1	55 of 198 had a score of 1 in 2020
Did individuals or groups use violence/threat of violence to enforce religious norms?	1	1	1	71 of 198 had a score of 1 in 2020
Were individuals assaulted/ displaced from homes in retaliation for religious activities, considered offensive to the majority faith?	1	1	1	51 of 198 had a score of 1 in 2020
Were women harassed for violating religious dress codes?	0	1	1	60 of 198 had a score of 1 in 2020
Were there incidents of hostility over proselytizing?	1	0.5	1	11 of 198 had a score of 1 in 2020
Were there incidents of hostility over religious conversions?	1	1	1	25 of 198 had a score of 1 in 2020

vignesh.r@thehindu.co.in | rebecca.varghese@thehindu.co.in

Highlights

- It is the 13th edition of the Pew survey, which started in 2007.

- The SHI uses 13 indicators to calculate social hostility. The higher the rank, the higher the hostility.
- This index covers many forms of religious intimidation or abuse, such as war or terrorism motivated by religion, mob or sectarian violence, harassment for wearing specific clothing, etc.
- The Government Restrictions Index (GRI), which evaluates laws, policies, and government acts that impose restrictions on religious beliefs and practises, gave India a relatively low ranking (33 out of 198 nations).
- The restrictions increase in degree with rank.
- The GRI consists of 20 limitations, including attempts by the government to outlaw some religions, forbid conversions, restrict preaching, or favor one or more religious groups. Top in this category was China.
- While the SHI in nations like Afghanistan and Bangladesh decreased between 2007 and 2019, it rose during the epidemic year. Between 2007 and 2019, it rose in the Philippines, and it dropped during the pandemic year. In Pakistan, it constantly fell during the time periods under consideration.

- The Constitutional Provisions (Exceptions) For The Right To Freedom Of Religion
- Right to the freedom of religion has many elements. There are extensive provisions in the constitution regarding this right. The Article 25 to 28 are about this right. These article provides for;
 - **Article 25:** Freedom of conscience and free profession, practice, and propagation of religion
 - **Article 26:** Freedom To Manage Religious Affairs
 - **Article 28:** Freedom to attend religious instructions or religious worship in certain educational institutions

WORLD BANK'S FLAGSHIP GENDER TOOLKIT LAUNCHED

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: World Bank

Context:

- Recently, a Gender Toolkit based on “Enabling gender-responsive urban mobility and public spaces” was launched in a session conducted by the World Bank and the Chennai Urban Metropolitan Transport Authority.

What is Worldbank's Gender Toolkit?

- The World Bank developed a two toolkit that outlines a **four-pillar implementation structure for urban entities** to construct a gender-responsive urban transportation and public spaces programme.
- **Assessing the ground situation:** The first pillar involves evaluating the current reality on the ground, which includes comprehending gender variations in mobility patterns, safety issues, and infrastructure and policy inadequacies.
- **Strengthening planning and policies:** The second pillar calls for improving planning and policies, which calls for incorporating gender as a lens into plans and encouraging gender inclusion among institutions and policymakers.
- **Building awareness and capacity:** The third pillar focuses on increasing knowledge and capability.
- **Infrastructure:** The fourth pillar prioritizes infrastructure improvement with a gendered lens.
- Additionally, the World Bank has provided guidance on each of the pillars.

What is the need?

- The safety and unique travel requirements of women are not generally taken into account while designing public transportation systems.
- Their access to jobs, education, and lifestyle options are severely constrained by this.

- India has amongst the lowest female labor force participation rates globally, at 26.2 percent in 2020-21.
- In Indian cities, women make up a significant portion of the public transportation users.
- According to estimates, public, intermediate public, and non-motorized transportation accounted for 84 percent of the trips made by women for work.
- There are fundamental differences between how men and women travel. Comparatively, 45.4 percent of women and 27.4 percent of males typically walk to work.
- More women take the bus than men do, and they are more inclined to plan their trips after considering affordability. Due to the higher cost of speedier modes of transportation, they frequently select slower ones.



Recommendations

- The research also suggests a number of transportation and public space improvements, particularly for women who frequently use non-motorized transportation, such as enough street lighting and enhanced walking and cycling paths.
- According to the survey, developing fair fare rules can increase the number of females and other genders.
- Setting up a good grievance redressal structure will assist in fast-track sexual harassment reports.

Significance

- The toolkit from the World Bank attempts to highlight the **gender-related problems with urban planning and mobility**.
- Men, women, and gender minorities all have diverse perspectives on cities.
- The World Bank toolkit offers resources to help these groups better understand and address gender-disaggregated mobility patterns, reinforce policies, and create an infrastructure that will suit their requirements.
- This toolkit will be helpful in discussions on urban planning and mobility as Indian urban local bodies and transport agencies start to comprehend the demands of different commuters.

World Bank

- The International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), two of the World Bank Group's five international entities, are known as the World Bank.
- It was formed with the International Monetary Fund at the 1944 Bretton Woods Conference.
- The World Bank Group is a global partnership of 189 countries and five constituent organizations committed to alleviating poverty and promoting prosperity.
- The World Bank Group's five development institutions are:
 - International Bank for Reconstruction and Development (IBRD)

- International Development Association (IDA)
- International Finance Corporation (IFC)
- Multilateral Guarantee Agency (MIGA)
- International Centre for the Settlement of Investment Disputes (ICSID)

The development objective of the Chennai City Partnership : Sustainable Urban Services Program-for-Results Project for India

- It is to strengthen institutions and improve the quality and financial sustainability of selected urban services in the Chennai Metropolitan Area (CMA).
- Government of Tamil Nadu's new Chennai 2030 program (2021-2030) aims to accelerate Chennai's transformation into a green, livable, competitive, and resilient city.

- The Covid-19 pandemic exposed the exploitative nature of the Kafala system in the Middle East.
- Data from the Kerala Government has revealed that between June 2020 and June 2021, **1.7 million** migrants returned to the state. **1.5 million** of these migrants suffered from job loss and faced an uncertain future.

What are the problems faced by migrants?

- The pandemic has resulted in **unemployment, under-employment, salary reductions** and **non-payment of compensation**, and dues to migrants.
- Migrants suffer from **wage theft** and have been denied basic labor rights in many countries, especially in Syria, Yemen, and Iraq.
- Most countries do not have suitable **grievance redressal** mechanisms or a **transparent judicial system** that migrants can approach.
- **Abuse at the workplace** and **sexual harassment** are others concerns faced by migrant laborers.

Way Forward

- Indian female nurses and caregivers have migrated to volatile places like Syria, Palestine, Iraq, Yemen, and Papua New Guinea. The Government should develop **women-centric rights-based migration policies** to protect them.
- Monitoring recruitment agencies to prevent the trafficking of women and students and enacting a strict regulatory code for employers.
- The government should pass the **Emigration Bill 2021**, in order to prevent the exploitation of Indian migrants.
- Focus has to be placed on **inclusive growth** and **poverty reduction** to prevent **distress-induced migration** and achieve **Sustainable Development Goals**.



Emigration Bill 2021

- The bill, which seeks to replace the Emigration Act of 1983, calls for comprehensive emigration management, legal safeguards for Indian people working abroad, and a framework for emigrant welfare.
- A three-tiered institutional system is suggested by the bill:
 1. It introduces the **Central Emigration Management Authority**, a new emigration policy agency within the MEA.
 2. It suggests creating a **Bureau of Emigration Policy and Planning** as well as a **Bureau of Emigration Administration** to manage day-to-day administrative tasks and keep an eye on emigrant welfare.
 3. To ensure the welfare and protection of the emigrants, it suggests nodal organizations working under a **Chief Emigration Officer**.
- It enables government officials to fine employees up to Rs 50,000 for infractions and to revoke or suspend their passports as a form of punishment.

Concerns with the bill

A RETELLING OF THE MIGRANT WORKER'S PLIGHT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: World Migration Report

Prepp Mains Booster: Social Justice, Indian Economy

Context:

- Recently, on December 18th International Migrants Day has been celebrated.
- The International Organization on Migration has reported in the **World Migration Report 2022** that there were **281 million migrants** in 2020.

What is migration?

- Migration is the process through which individuals move from one city, state, or country to another for a career, a place to live, or for other reasons.
- In India, the number of people moving from rural to urban areas has surged recently.
- Internal and external migration was caused by a variety of reasons like employment, education, social factors, and environmental factors.

Data on migration

- According to the World Migration report 2022, there were a total of 281 million migrants in 2020, of whom two-thirds were labor migrants.
- Labor migrants dropped globally from 169 million in 2019 to 164 million in 2020.
- South Asians are the major population among the migrants (40% of the total) with the **South Asia-Middle East** corridor being the most popular route.
- The data has shown that over the long term, migration is non-uniform and influenced by factors like economy, geography, and demography. This has resulted in the formation of distinct migratory patterns.

What is the government's policy on migration?

- As per the UN report on international migration, **India is the largest source** of immigrants (**17.5 million**) and has received the most remittances (**\$ 78.6 billion**).
- Despite this, the country has lacked a comprehensive migration policy that ensures safe movement and decent living for its migrants.
- Emigration in India has been governed by the **Emigration Act of 1983**, which has become outdated due to the changes in migration over the last four decades.

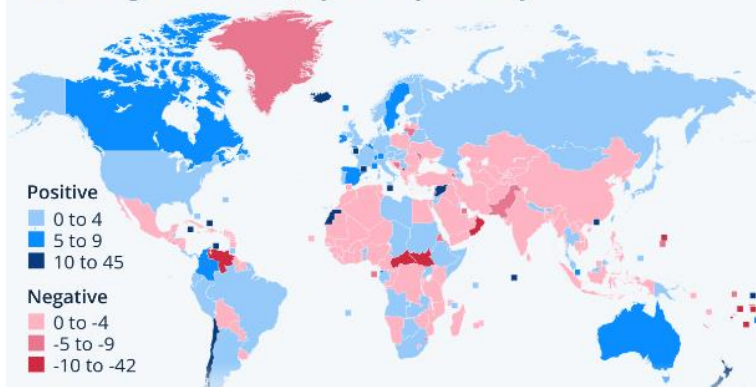
Status of Indian migrants

- According to data presented in the winter session of Parliament 2022, there are nine million Indian migrants in the Gulf countries.
- Despite many Gulf countries passing laws to protect the rights of migrants, grassroots implementation has remained poor.

- The bill is criticized for lacking a **human rights framework** intended to protect the rights of immigrants and their families.
- Contrary to international standards, the Bill allows staffing companies to charge workers' service fees and even gives agents the freedom to impose their own restrictions.
- Additionally, this Bill does not fully address how **gender** affects labor migration.

A Global Overview of Human Migration

Net annual migration per 1,000 population (average 2017-2021), by country/territory



* Forced and voluntary migration. Some Caribbean islands have been grouped and attributed an average figure.

Source: United Nations Population Division

NORMS TO RANK CITIES BASED ON FINANCIAL GOVERNANCE LAUNCHED

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: City Finance Ranking, City Beauty Competition

Context:

- Recently, the Centre launched the **City Finance Rankings 2022** and **City Beauty Competition** to encourage **urban local governments to improve and strengthen cities' public infrastructure** based on key financial parameters.



News Summary

- The Union government issued guidelines for a new **finance-based ranking of cities** that would evaluate urban units on 15 key parameters

such as resource mobilization, expenditure performance, and fiscal governance.

- A separate ranking will evaluate cities in terms of beautification.
- The rankings are intended to motivate city and state officials to implement municipal financial reforms.

Key Highlights

- India has launched the most ambitious **urban revitalization plan** in the world. A healthy sense of competition instills pride in the best performing cities.
- Cities will be ranked at the national level based on their scores in one of four population categories: above 4 million, between 1-4 million, 100,000 to 1 million, and less than 100,000.
- The top three cities in each population category will be recognized and rewarded at the national level, as well as within each State.

New initiatives for urban revitalization in India

- The Ministry of Housing and Urban Affairs launched two key initiatives to accelerate India's urban revitalization efforts.
- **The 'City Finance Rankings'** were created to evaluate, recognize, and reward ULBs based on their performance across key financial parameters.
- **The 'City Beauty Competition'** seeks to encourage and recognize transformational efforts made by Indian cities and wards to create beautiful, innovative, and inclusive public spaces.

Significance of the plan

- The effort aims to identify areas in the cities' financial performance where they can improve.
- This will enable them to provide quality infrastructure and services, and thus a high quality of life for citizens.
- The participating urban bodies will be invited to submit the necessary data or documents via the website www.cityfinance.in.
- All cities and urban local bodies, totaling over 4,500, would be encouraged to participate in the **City Finance Rankings 2022**.

City Finance Rankings, 2022

- The 'City Finance Rankings, 2022' aim to evaluate, recognize, and reward India's cities (Urban Local Bodies or ULBs) based on the quality of their current financial health and improvement in financial performance over time.
- The rankings are intended to motivate city/state officials and decision makers to implement municipal finance reforms.
- The participating ULBs will be assessed on 15 indicators across three key municipal finance assessment parameters: resource mobilization, expenditure performance, and fiscal governance.
- The cities will be ranked at the national level based on their scores in any of the four population categories listed below:
 - More than 4 million
 - Between 1-4 million
 - 100,000 to 1 million
 - Less than 100,000
- The top three cities in each population category will be recognized and rewarded on a national and state/state cluster level.

About City Beauty Competition

- The 'City Beauty Competition' aims to encourage and recognize transformational efforts made by cities and wards in India to create beautiful, innovative, and inclusive public spaces.
- Wards and public spaces in cities would be evaluated based on five broad pillars: accessibility, amenities, activities, aesthetics, and ecology.
- It aims to encourage and recognize the transformative efforts made by cities and wards in India to create beautiful, innovative, and inclusive public spaces.
- The city beauty competition would honor the most beautiful wards and public spaces on a city-wide scale.
- While selected wards would be honored at both the city and state levels, the most beautiful public spaces in cities, such as waterfronts, green

spaces, tourist and heritage spaces, and market and commercial areas, would be honored first at the state level and then shortlisted for national awards.

Way forward

- The journey of urban revitalization in India has been slow but steady. More initiatives at the state and city levels are needed to address the major six dimensions of urban revitalization: cultural, environmental, economic, social, and physical.
- The Indian experience with urban revitalization is relatively new, though several cities, particularly metropolises, have been attempting to address the problem of decline and dilapidation through ad hoc initiatives.
- Because of the diverse and complex nature of Indian society, problems differ, contexts differ, and needs change, and thus policies and programs to deal with each city and town would also differ.

GLOBAL WAGE REPORT 2022-2023: ILO

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Global Wage report

Context:

- Recently, **International Labour Organisation (ILO)** released two reports indicating the **post-pandemic global employment scenario**.
- The 'Global Wage Report 2022-2023: The Impact of inflation and COVID-19 on wages and purchasing power' discuss the twin crises, **inflation and economic slowdown**, which created a "striking fall" in real monthly wages around the globe.
- Another report, the 'Asia-Pacific Employment and Social Outlook 2022: Rethinking sectoral strategies for a human-centred future of work' stated that the Asia-Pacific region lost about 22 million jobs in 2022.

Global Wage Report 2022-23

- The 2022-23 edition also provides evidence on how salaries have changed since the COVID-19 crisis and how the present inflationary environment is limiting real wage growth in the majority of global economies.
- According to the report, real wage growth has fallen to negative levels for the **first time in the twenty-first century** as the disparity between **real productivity growth and real wage growth is growing**.

Highlights of the report

- The ILO report on wages looked at employees' real and nominal wages.
- The objective of Global Wage Report the objective is to collect wage data from as many countries and territories (about 190).
- Then they are grouped into five separate regions.
- The nominal monthly salary in **India increased from Rs. 4,398 in 2006 to Rs. 17,017 in 2021**.
- The Ministry of Statistics and Programme Implementation of the Indian Government provided the data. However, after accounting for inflation, **India's real wage growth dropped from 9.3% in 2006 to -0.2% in 2021**.
- China saw a decline in growth from 5.6% in 2019 to 2% in 2022. The growth rate of Pakistan is -3.8%.
- After the pandemic, **India's economic development began to decline**.
- According to the survey, lower-income households are more affected by the rising cost of living because they must spend the majority of their disposable money on necessities, which often see higher price rises than non-essential items.

Concerns:

- **Rebound in only in high-skilled jobs:** Only high-skill employment had a rebound from the COVID-19 crisis at the Asia-Pacific level, which is true for all subregions.

- The ILO claimed that growing inequality is a problem. While there is a 1.6% increase in employment for high-skill individuals between 2019 and 2021, there is no comparable growth for low- to medium-skill workers.
- **Disparity between advanced and developing G-20 Nations:** The survey found a large disparity between advanced G-20 nations and developing G-20 nations, including India, in terms of the average level of real earnings.
- In industrialized economies, it is on the order of \$4,000 per month, whereas in emerging ones, it is \$1,800 per month. According to the paper, between 75 and 95 million people were driven into extreme poverty during COVID-19.



Steps to be taken

- The paper offers a number of policy ideas and solutions to the dilemma caused by rising living expenses.
- **Future nominal wage:** It stated that a sufficiently **high but reasonable price expectation** should be included in the bargaining process for any future nominal salary hikes.
- **Inflation:** It is said that preventing a harmful wage-inflation cycle could help to defend the quality of living of households, particularly low-income households, against unanticipated future inflation spikes.
- **Strengthen wage policy and labor market institutions:** According to the analysis, wage policy and labor market institutions need to be strengthened.
- **Income distribution:** According to the ILO, the development of decent formal wage employment is a requirement for more equal pay and income distribution and is a major factor in equitable and long-term wage growth.
- **Gender Pay Gap:** It urges policymakers to pay attention to the **gender pay gap** because women are less likely than males to re-enter the workforce after leaving it.
- **Multilateral strategy:** The paper emphasizes that a multilateral strategy is essential for resolving the challenges in the world.

Way forward

- There is an urgent need to address the harmful effects of climate change, rising inequality, poverty, discrimination, violence, and exclusion experienced by millions of people, including the discrimination that women and girls continue to participate in many parts of the world, the lack of vaccines and adequate access to sanitary conditions and primary healthcare for all, and the widening digital divide between developing and developed nations.

International labor organisation:

- The ILO, the only tripartite U.N. organisation, was founded in 1919 and since then has brought together governments, employers, and

employees from 187 Member States to set labour standards, create laws, and create programmes to support decent employment for all women and men.

- It was created in 1919, as part of the Treaty of Versailles that ended World War I.
- **Wage:** The term “wage”, is defined as the total gross remuneration including regular bonuses received by employees during a specified period for time (monthly for the report) worked as well as for time not worked, such as paid annual leave and paid sick leave.
- **Nominal wage:** The nominal wage data shows the adjusted figures after accounting for consumer price inflation while real wage growth refers to the year-on-year change in real average monthly wages of all employees.

FLOATING SOLAR FARMS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Floating Solar Farm

Context:

- Recently, the Delhi Power Department has proposed to generate electricity from solar panels floating on water bodies within its jurisdiction.
- The project will be implemented on a pilot basis on the Bawana Lake in Outer Delhi.

What is the proposed project?

- The power department has proposed to set up floating solar panels on lakes and other water bodies in Delhi.
- IPGCL or the Indraprastha Power Generation Company Limited, the state's official electricity company, will be the installing agency.
- Bawana lake will be a pilot and if the government approves the project, it can be extended to lakes and ponds and even the Yamuna at Wazirabad.

How does it work?

- The main requirement for the scheme is fast-running water with good flow.
- First, the floaters will be installed on the surface of the water bodies.
- Second, solar panels will be set up on top of the floaters.
- A wire attached to the floaters and panels will be connected to the transformer placed near the water body.
- Electricity generated by the panels will be stored in the transformer and grid to be distributed as necessary.
- According to officials, the project at Bawana is capable of producing around 1 MW, which can be used to meet the needs of the 1500-1600 MW power plant at Bawana.

What are the advantages of the scheme?

- According to officials, a similar scheme in Jordan helped address water scarcity by reducing evaporation by about 40% and generated 425 MWh of power annually.
- There is a shortage of land in Delhi for solar farms to be set up, and since there are numerous water bodies it is an apt scheme for the state.
- Floating panels are also cheaper and easier to install than rooftop panels.
- The proximity of the power plant at Bawana.

Concerns associated with the project

- The scheme requires moving water with a good flow which removes still water bodies as sites.
- It is yet to receive approval from various authorities and the government.
- The government could decide to go ahead with other projects like the non-floating solar panel model which is cheaper or the rooftop model which has so far generated 230 MW of energy.

CURBING AIR POLLUTION IN INDIA NEEDS EFFORTS ACROSS SOUTH ASIA: WB REPORT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Air Pollution

Context:

- A new World Bank report ‘**Striving for Clean Air: Air Pollution and Public Health in South Asia**’ show that there are economically feasible, cost-effective solutions to achieve clean air in the region, but this requires countries to coordinate policies and investments.
- South Asia is home to 9 of the world's 10 cities with the worst air pollution, which causes an estimated 2 million premature deaths across the region each year and incurs high economic costs.
- Various scenarios to **reduce air pollution** with varied levels of policy execution and **international cooperation** were examined in the paper.



Highlights of report

- According to a new report titled **Striving for Clean Air: Air Pollution and Public Health in South Asia**, concentrations of fine particulate matter (PM 2.5), which includes soot and small dust, are up to **20 times higher than** what the **WHO** considers healthy (5 g/m) in some of the region's most impoverished and densely populated areas.
- Large industries, power plants and vehicles are dominant sources of air pollution around the world, but in South Asia, other sources make substantial additional contributions.
- Currently, an average of 35 g/m³ of PM_{2.5} is exposed annually to nearly 60% of South Asians.
- According to World Bank research, it rose to as much as 100 g/m³ in some areas of the Indo-Gangetic Plain (IGP), which is more than 20 times the World Health Organization's recommended upper limit of 5 g/m³.
- **Impact:** Children's **cognitive development** can be stunted and their **immune systems** can become infected, leading to chronic and **life-threatening illnesses**.
- This increases **healthcare expenditures**, reduces a nation's capability for production, and leads to lost days worked.

India

- According to the report, government initiatives can reduce particle matter, but the considerable reduction is only attainable if the regions across the airsheds enact coordinated policies.
- The report presents various scenarios and the costs associated with lowering the typical South Asian's exposure to particulate matter using a modeling technique over South Asia as a whole.

- There are **six significant airsheds** in India, some of which are shared with Pakistan.
- The six major airsheds in South Asia where air quality in one affected the other were:
 - **West/Central IGP:** Includes Punjab (Pakistan), Punjab (India), Haryana, part of Rajasthan, Chandigarh, Delhi, and Uttar Pradesh.
 - **Central/Eastern IGP:** Bihar, West Bengal, Jharkhand, Bangladesh;
 - **Middle India:** Odisha/Chhattisgarh;
 - **Middle India:** Eastern Gujarat/Western Maharashtra;
 - **Northern/Central Indus River Plain:** Pakistan, part of Afghanistan; and
 - **Southern Indus Plain and further west:** South Pakistan, Western Afghanistan extending into Eastern Iran.
- When the wind was primarily from the northwest to the southeast, Punjab Province in Pakistan was responsible for 30% of the air pollution in Indian Punjab, while Dhaka, Chittagong, and Khulna, Bangladesh's three major cities, were responsible for 30% of the pollution on average.
- This suggests that even if Delhi National Capital Territory fully implemented all air pollution management measures by 2030 and other regions of South Asia continued to execute the current regulations, pollutant exposure would still be above 35 g/m³.
- When comparing different pollution management strategies, it is important to take into account the **interconnectedness of air quality** among South Asian airsheds, the paper stated.
- The most cost-effective option, which asks for complete coordination between airsheds, would lower South Asia's average PM 2.5 exposure to 30 g/m³ at a cost of **\$278 million (about 2,400 crore) per g/m** of reduced exposure and save more than 7,50,000 lives a year.



Steps to be taken

- Given the results, it is thought that experts from India, Pakistan, Nepal, Bangladesh, and other South Asian nations need to start a dialogue about how to combat air pollution using an **"airshed approach."**
- This is how the issue has been handled in other regions, such as **ASEAN**, the Nordic countries, and China as a whole.
- If states want to lower air pollution for their citizens, they must stop pointing the finger and adopt a **cooperative strategy**.
- **The report offers a three-phased roadmap:**
- **Phase 1:** Sets the condition for airshed-wide coordination by expanding the monitoring of air pollution beyond the big cities, sharing data with the public, and creating or strengthening credible scientific institutes.
- **Phase 2:** Abatement interventions are broadened **beyond the traditional targets** of powerplants, large factories and transportation. During this phase major progress can be made in **reducing air pollution from agriculture, solid waste management, cookstoves, brick kilns, and other small firms**. At the same time, airshed-wide standards can be introduced.

- **Phase 3: Economic incentives** are finetuned to enable private-sector solutions, to address distributional impacts, and to exploit synergies with climate change policies. In this phase trading of emission permits can also be introduced to optimize abatement across jurisdictions and firms.

Way forward

- A severe public health catastrophe has been brought on in South Asia by persistently dangerous levels of air pollution, which calls for **immediate action**.
- In order to effectively reduce air pollution, **local and national jurisdictional borders** must work closely together in addition to addressing the problem's individual origins.
- **Regional collaboration** can assist with the implementation of **affordable** collaborative plans that capitalise on the interdependence of air quality.

National Clean Air Campaign (NCAP)

- The National Clean Air Campaign (NCAP), a program the Center initiated in 2019, aims to lower air pollution in 131 of India's most polluted cities.
- The goal was originally to reduce pollution by 20% to 30% over 2017 levels by 2024, but it has since been changed to a 40% reduction by 2025-26.
- Under NCAP, city-specific action plans have been prepared which include measures for strengthening the air quality monitoring network, reducing vehicular and industrial emissions, increasing awareness, etc.

PLACES IN NEWS

BELGAVI

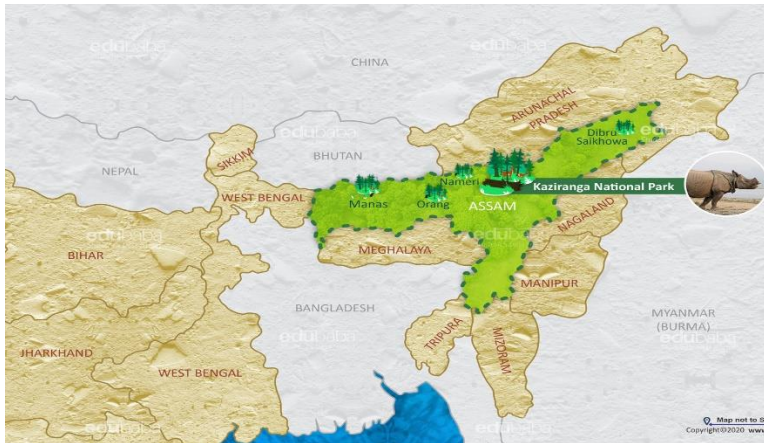
- An ongoing **inter-state conflict between Karnataka and Maharashtra** that dates back to the time of independence and the 1956 reorganisation of states along linguistic lines has sparked new unrest in the Karnataka region of Belgavi after Maharashtra authorities asserted new claims on the state's Marathi-speaking regions, including Belgavi.



KAZIRANGA PROJECT

- The **Assam Project on Forest and Biodiversity Conservation (APFBC)** includes the Kaziranga project, for which the Agence Française de Développement (AFD) has pledged funding of €80.2 million over a ten-year period, from 2014 to 2024.

- They include creating artificial highlands where animals can flee during floods, more than 200 anti-poaching camps, reforestation of 33,500 hectares of land, and training for alternative livelihoods for local communities.



UDAIPUR

- The 1st Sherpa Meeting of India's G20 Presidency commenced on 04 December 2022, in Udaipur Rajasthan.
- The **Sherpas of the G20 Members**, invited nations, and international organisations will meet for four days in December 2022 (December 4–7) to prepare for an important discussion on some of the most pressing issues of the day, such as technological change, green development, and LiFE, highlighting women-led development, hastening the implementation of the SDGs, and promoting inclusive and resilient growth.



VIZHINJAM PORT

- The **Vizhinjam International Seaport strike** was called off, and the Kerala government and Adani Group resolved to resume construction on the 7,500 crore all-weather port. The concessionaire firm, Adani Vizhinjam Port Private Limited, which designs, builds, finances, operates, and transfers the port has lost around 140 days due to the protracted strike by the fishermen.

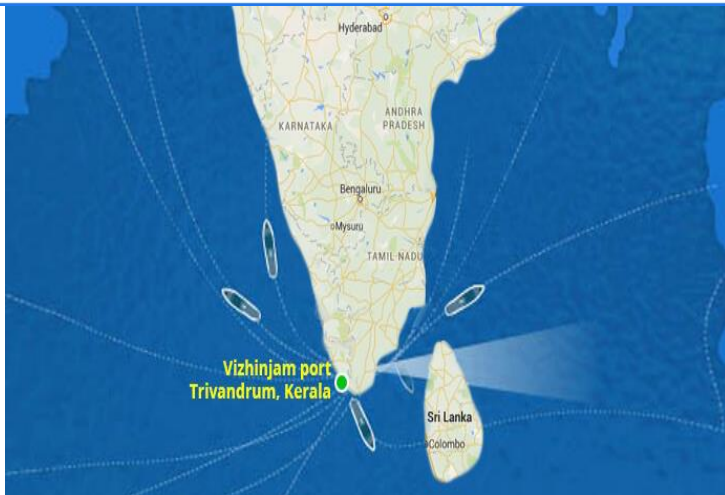
GOA

- Prime Minister Narendra Modi recently opened the **new Goa Manohar International Airport**, Mopa, which was built by GMR Goa International Airport Limited (GGIAL), a fully owned subsidiary of GMR Airports Infrastructure Limited.



TAWANG

- In the early hours of December 9, **Indian and Chinese troops engaged** in combat in the Tawang region of Arunachal Pradesh, engaging in their closest exchange since the tragic Galwan incident in eastern Ladakh in June 2020.



BELGIUM

- Belgian police conducted **additional raids at the offices of the European Parliament** as the legislature's President promised to open an internal investigation into allegations of corruption and the union's top official called for the establishment of an independent ethics body for the entire EU.
- Prosecutors investigating alleged influence peddling by a Gulf country at the European Parliament charged four people over the weekend with corruption, participation in a criminal group and money laundering.



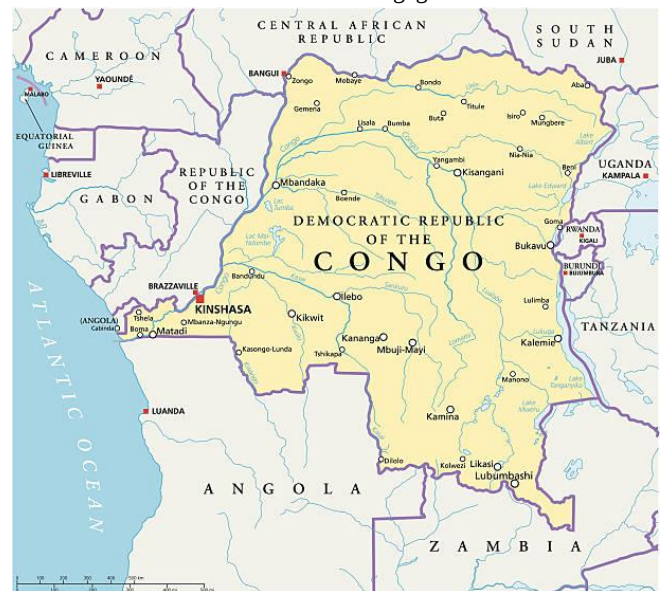
COLOMBIA

- At least 34 persons were killed when a **MUDSLIDE** caused by excessive rain buried a bus and damaged two other vehicles on a highway in central Colombia.



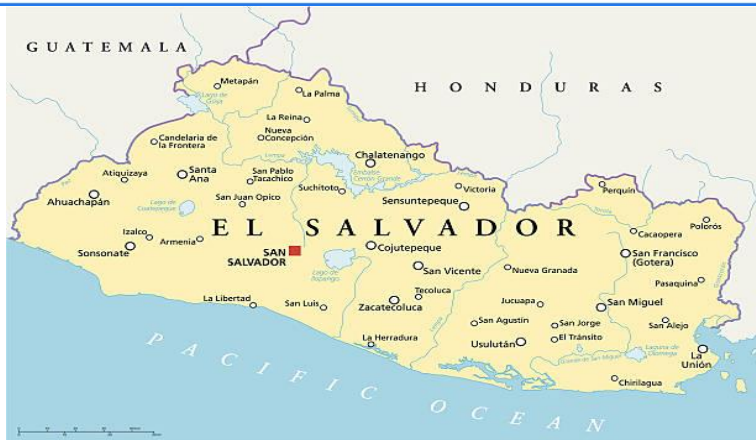
DEMOCRATIC REPUBLIC OF CONGO

- Democratic Republic of Congo's armed forces said **M23 rebels and their allies killed 50 civilians** in a massacre in the eastern town of Kishishe, which the M23 denied.
- In the unrest-ridden east of the country, the Congo's army and the Tutsi-led militia M23 have been engaged in combat for months.



EL SALVADOR

- According to President Nayib Bukele, **10,000 soldiers have encircled the city of Soyapango** in El Salvador as part of a significant gang-related crackdown.
- Soyapango is one of El Salvador's largest cities and has long been known as a hub for gang activity.



ESTONIA

- Estonia, a NATO member and Russia's neighbour, is expanding its **defence capabilities by acquiring** the most sophisticated rocket artillery system ever made by the United States.
- A contract was inked for the High Mobility Artillery Rocket System, which comprises training and equipment costing more than USD 200 million.



GERMANY

- In raids across Germany, 25 persons were detained on suspicion of planning to topple the government.
- The group of far-right and ex-military leaders allegedly planned a **"Day X" invasion of the Reichstag and takeover of power.**
- They claim that Heinrich XIII, a member of a long-standing aristocratic family, played a key role in their scheme.



PERU

- Pedro Castillo, a former president of Peru, appeared in court for the first time following his detention on charges of rebellion and conspiracy. Dina Boluarte, Castillo's vice president, was sworn in as the country's next leader, becoming the country's sixth president in the previous five years and the first woman to govern the 33 million-person country.



SAUDI-ARABIA

- President Xi Jinping was received by Saudi Crown Prince Mohammed bin Salman, who expressed Riyadh's willingness in strengthening relations with Beijing. The two presidents met in person and signed several strategic agreements, including one with tech giant Huawei and a broad strategic collaboration pact.



TURKEY

- After weeks of deadly Turkish airstrikes in northern Syria, Kurdish forces and international players are trying to gauge whether Ankara's threats of a ground invasion are serious.
- Following a deadly blast in Istanbul on November 13, Turkish President Recep Tayyip Erdogan has frequently warned of a new land incursion to force Kurdish organizations away from the Turkish-Syrian border.



UAE-ISRAEL

- The comprehensive economic partnership deal between Israel and the United Arab Emirates has been ratified.
- 96% of the items moved between the countries would no longer be subject to tariffs thanks to the free trade agreement, which was first signed in May.



AFGHANISTAN

Recently, Taliban Rulers in Afghanistan suspended Educational Rights of Women in Afghanistan. Human Rights Watch criticized the ban on Tuesday, calling it a “shameful decision that violates the right to education for women and girls in Afghanistan.”

Monthly

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Current Affairs Notes

December 2022

