

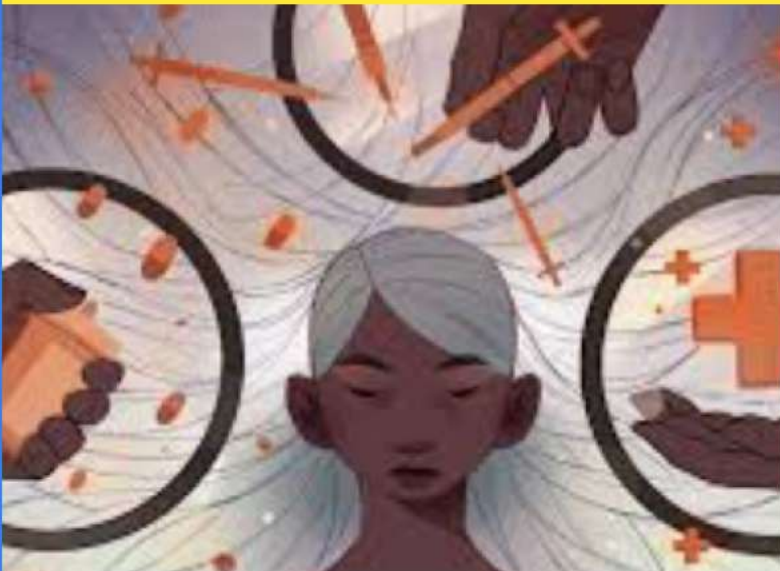
Monthly

prepp

Current Affairs

Notes

October 2022



**SINGLE WOMEN GET EQUAL
ABORTION RIGHTS**



**INDIA RANKS 107TH OUT OF 121 COUNTRIES
ON GLOBAL HUNGER INDEX (GHI)**



**BUDDHIST CAVES, TEMPLES IN
BANDHAVGARH TIGER RESERVE**



JUSTICE CHANDRACHUD AS NEW CJI

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GENERAL STUDIES 1

Indian Culture - Salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

SITTANAVASAL, A JAIN HERITAGE SITE IN TAMIL NADU, BATTLES THE ELEMENTS

Priority: Medium



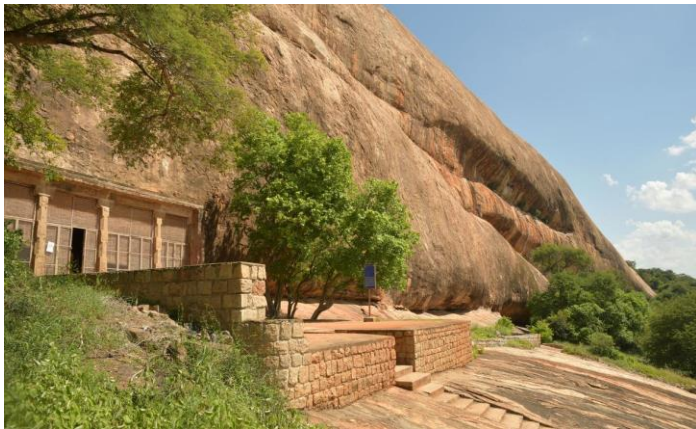
Primary Source: The Hindu

Prepp Prelims Booster: Jain Architecture

Prepp Mains Booster: Indian Culture - Salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

Context:

- Recently, Archaeological Survey of India (ASI) has undertaken conservation measures in Sittanavasal where much of the art either damaged or vandalised.
- Sittanavasal is the name used synonymously for the hamlet and the hillock that houses Arivar Kovil (temple of Arihats - Jains who conquered their senses), Ezhadipattam (a cavern with 17 polished rock beds), megalithic burial sites and Navachunai tarn (small mountain lake) with a submerged shrine.
- It is considered by historians to be one of the oldest inhabited areas in the Pudukkottai district, and a major centre of Jain influence. It is the only place in Tamil Nadu where Pandya paintings are seen.



About Sittanavasal Caves

- It is a 2nd-century Tamil Ramaa cave complex located in Sittanavasal hamlet in Pudukkottai district of Tamil Nadu. Sittanavasal literally translates in Tamil to "abode of the great saints".
- It is a rock-cut monastery located on the western side of the middle part of a hill. It is known as the Arivar Koil. It is the only Jain temple with sculptures.
- It dates from the 1st century BC to the 10th century AD, when Jainism was prevalent in the region.
- It has Jain stone beds (Eladipattam) on top of the hill, indicating that this area was a pilgrimage site during the Jain era, which lasted until 9th century AD.
- It is believed to be built by Pallava King Mahendravarma (580–630 AD) prior to his conversion from Jainism to Hinduism.

- There are also inscriptions crediting its restoration to a Pandyan king, Maran Sendan (654–670 AD) or Arikesari Maravarman (670–700 AD).

Painting of Arivar Kovil

- It is artwork on the ceiling of the sanctum and the ardha mandapam of Arivar Kovil.
- It is an early example of post-Ajanta cave paintings of the 4 to 6th centuries, done using the fresco-secco technique (a process that dispenses with preparation of the wall with wet plaster).
- The ceiling paintings show 'bhavyas' (exalted souls who work to achieve moksha or spiritual liberation) enjoying themselves in a pool, full of blooming lotuses.
- Natural colours were used for these paintings and mostly made of a mixture of plant dyes and mineral elements such as lime, lamp black, and clay pigments such as ochre for yellow and terre verte for the greyish-green tints.

Damage

- Unrestricted public access and general exposure to the natural elements has led to a gradual fading away of these paintings.
- At the Ezhadipattam, inscriptions on the beds have been vandalised beyond recognition.

UNESCO LISTS 50 ICONIC INDIAN TEXTILES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: UNESCO

Context:

- Recently, UNESCO released a list of 50 exclusive and iconic heritage textile crafts of the country. Some of the heritage textiles that made the cut are Sungadi and Toda needlework from Tamil Nadu, Himroo weaves from Hyderabad, and Bandha tie-dye weaving from Sambalpur in Odisha.
- Handmade for the 21st Century: Safeguarding Traditional Indian Textile outlines the origins and lore of the textiles, explains the intricate and closely guarded techniques used to create them, discusses the reasons for their waning appeal, and offers preservation tactics.



Major obstacles to preservation: According to UNESCO, the absence of good inventory and documentation is one of the major obstacles to the preservation of intangible cultural heritage in South Asia.

- The publication aims to bridge this gap, brings together years of research on the 50 selected textiles.

Some of the traditional crafts published in the list

- Khes from Panipat, Chamba rumals from Himachal Pradesh, Thigma or wool tie and dye from Ladakh, and Awadh Jamdani from Varanasi are a few of the famous handcrafted textiles from north India that have been documented.
- Ilkal and Lambadi or Banjara needlework from Karnataka, Sikalnayakanpet Kalamkari from Thanjavur, and other southern textiles have been added.
- The list of 50 famous textiles also includes Kunbi weaves from Goa, Mashru weaves and Patola from Gujarat, Himroo from Maharashtra, and Garad-Koirial from West Bengal.

UNESCO'S List of Intangible Cultural Heritage (ICH)

- Cultural heritage does not end at monuments and collections of objects.
- Oral traditions, performing arts, social practices, rituals, celebratory events, knowledge, and practices about nature and the universe, or knowledge and abilities to make traditional crafts are all examples of living expressions inherited from predecessors and passed down to our successors.
- Communities, organizations, and in some cases individuals recognize practices, representations, expressions, knowledge, abilities, as well as instruments, items, and artifacts linked with intangible cultural heritage as part of their cultural legacy.
- UNESCO created its lists of Intangible Cultural Heritage with the goal of better protecting and raising awareness about key intangible cultural heritages across the globe.
- The initiative seeks to raise awareness of the need of preserving intangible heritage by compiling a list of the many oral and intangible riches of humanity across the world.

Two lists have been created by the UNESCO program:

1. **Representative List of the Intangible Cultural Heritage of Humanity** - This list includes cultural practices and expressions that assist to highlight the variety of this heritage and raise awareness of its significance.
2. **List of Intangible Cultural Heritage in Need of Urgent Safeguarding** - This list is made up of cultural aspects that concerned groups and countries consider vulnerable and in need of immediate protection.

What is UNESCO's Intangible Cultural Heritage?

- UNESCO established its lists of Intangible Cultural Heritage with the aim of ensuring the better protection of important intangible cultural heritages worldwide and creating awareness of their significance.
- It aims to draw attention to the importance of safeguarding intangible heritage.
- Following UNESCO's 2003 Convention for the Safeguarding of the Intangible Cultural Heritage, this list has been classified into five broad domains in which intangible cultural heritage is manifested:
 - Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage

- Performing arts
- Social practices, rituals and festive events
- Knowledge and practices concerning nature and the universe
- Traditional craftsmanship

UNESCO

- The United Nations Educational, Scientific, and Cultural Organization (UNESCO) works to advance world peace and security through worldwide collaboration in education, the arts, sciences, and culture.
- The founding mission of UNESCO, which was influenced by the Second World War, is to advance peace, sustainable development, and human rights by facilitating collaboration and dialogue among nations.
- It pursues this goal through five major program areas: education, natural sciences, social/human sciences, culture, and communication/information.
- UNESCO was established in 1945 as the replacement for the League of Nations International Committee on Intellectual Cooperation.
- UNESCO supports initiatives that enhance literacy, offer technical education and training, advance research, safeguard free speech and the independence of the press, preserve regional and cultural history, and champion cultural diversity.

'OLDEST DOCK' LOTHAL TO GET HERITAGE COMPLEX: ITS FEATURES, SIGNIFICANCE

Priority: Medium



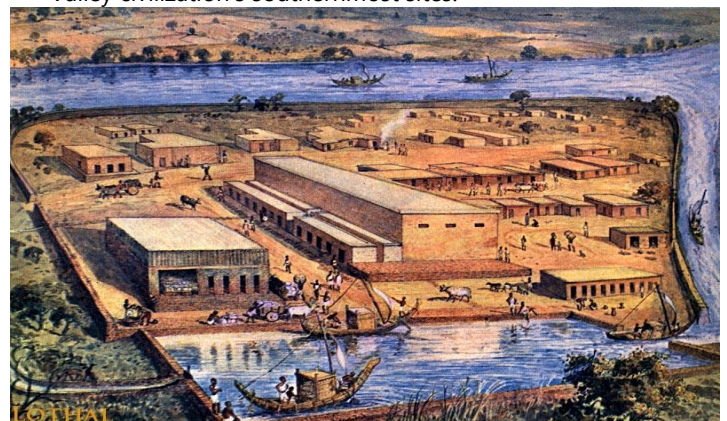
Primary Source: Indian Express

Prepp Prelims Booster: IVC

Prepp Mains Booster: Indian Heritage and Culture

Why in the news?

- Recently, Prime Minister Narendra Modi reviewed the construction of the **National Maritime Heritage Complex (NMHC)** site in Gujarat's Lothal.
- Lothal was not only a major trading centre of the Indus Valley Civilisation, but it was also a symbol of India's maritime power and prosperity.
- Lothal, located in the state of Gujarat, was one of the Indus Valley civilization's southernmost sites.



Where is Lothal?

- Lothal was one of the Indus Valley civilization's southernmost sites, located in the Bhal region of what is now the state of Gujarat.
- The port city is thought to have been built around 2,200 years ago. In ancient times, Lothal was a thriving trade centre, with its trade in beads, gems, and ornaments reaching West Asia and Africa.
- In Gujarati, Lothal means "**the mound of the dead.**"
- In addition, the name Mohenjo-daro (also part of the Indus Valley Civilisation, now in Pakistan) means the same thing in Sindhi.

Discovery of Lothal

- After 1947, Indian archaeologists began looking for cities of the Harappan Civilisation in Gujarat's Saurashtra.
- Archaeologist SR Rao led the team that discovered a number of Harappan sites, including the port city of Lothal, at the time. Between February 1955 and May 1960, excavations were carried out in Lothal.
- Lothal had the world's oldest known dock, according to the **Archaeological Survey of India (ASI)**, connecting the city to an ancient course of the Sabarmati river.
- Furthermore, the National Institute of Oceanography in Goa discovered marine microfossils, salt, and gypsum crystals at the site, indicating that sea water once filled the structure and that it was undoubtedly a dockyard.
- ASI later discovered a mound, a township, a marketplace, and the dock. The archaeological site museum is adjacent to the excavated areas, and it houses one of India's most prominent collections of Indus-era antiquities.

Significance of Lothal

- Lothal was nominated as a UNESCO World Heritage Site in April 2014, and its application is still pending on UNESCO's tentative list. According to the UNESCO nomination dossier, "the excavated site of Lothal is the only port-town of the Indus Valley Civilisation." A metropolis with an upper and lower town had a basin with a vertical wall, inlet and outlet channels, and was identified as a tidal dockyard on its northern side.
- Satellite images show that the now-dry river channel would have brought in a significant volume of water during high tide, filling the basin and allowing boats to sail upstream. The remains of stone anchors, marine shells, and sealings that trace its origins to the Persian Gulf, as well as the structure identified as a warehouse, aid in understanding of the port's operation."
- Lothal's heritage value is comparable to that of other ancient port towns around the world, including Xel Ha (Peru), Ostia (Port of Rome) and Carthage (Port of Tunis) in Italy, Hepu in China, Canopus in Egypt, Gabel (Byblos of the Phoenicians), Jaffa in Israel, Ur in Mesopotamia, and Hoi An in Vietnam.
- In the region, it is comparable to the Indus port towns of Balakot (Pakistan), Khirasa (in Gujarat's Kutch), and Kuntasi (in Rajkot).

The Ongoing Project

- The project began in March 2022 and is being developed at a cost of Rs 3,500 crore. It will include several innovative features

such as the Lothal mini-recreation, which will recreate Harappan architecture and lifestyle through immersive technology, as well as four theme parks: Memorial theme park, Maritime and Navy theme park, Climate theme park, and Adventure and Amusement theme park.

- It will also house the world's tallest lighthouse museum, 14 galleries highlighting India's maritime heritage from Harappan times to the present, and a coastal states pavilion displaying the diverse maritime heritage of Indian states and union territories.
- The National Maritime Heritage Complex at Lothal will serve as a learning and understanding centre for India's maritime history.
- The NMHC is being built with the goal of displaying India's diverse maritime heritage while also assisting Lothal in becoming a world-class international tourist destination.

Other Harappan Sites

- Earlier, Haryana Chief Minister Manohar Lal Khattar urged the ASI to speed up excavations at another Harappan Civilisation site, Rakhigarhi.
- The Haryana government intended to build the world's largest museum of Harappan culture in Rakhigarhi, showcasing approximately 5,000-year-old Indus Valley artifacts.
- During the preliminary excavations, a cluster of seven mounds labelled RGR 1 to RGR 7 were discovered, which together formed the largest settlements of the Harappan civilization.
- For the first time, the ASI began excavations in a village in 1963. The ASI team, led by Amarendra Nath, resumed excavation between 1998 and 2001.
- Another excavation work led by V. S. Shinde, former Vice-Chancellor of Deccan University, Pune, was completed in 2013, 2016, and 2022.
- Since 1998, fifty-six skeletons have been discovered in Rakhigarhi. Shinde and his team discovered 36 of these. The skeletons of two women discovered in the excavation of Mound 7 date back approximately 7,000 years.

Role of Women and Women's Organization, Population and Associated Issues, Poverty and Developmental issues, Urbanization, their problems and their remedies.

WORLD BANK SAYS 70 MILLION PLUNGED INTO POVERTY IN 2020: WHAT CAUSED SETBACKS IN INDIA?

Priority: Medium



Primary Source: Indian Express

Prepp Mains Booster: Poverty and Developmental issues, Urbanization, their problems and their remedies.

Context:

- According to a new World Bank report titled "Poverty and Shared Prosperity 2022: Correcting Course," the Covid pandemic has been the most significant setback to global poverty alleviation in decades.
- "Without unprecedented rates of economic growth over the remainder of this decade, the world is unlikely to meet the goal of ending extreme poverty by 2030," the report concludes.

About World Bank

- The World Bank is an international financial institution that lends and grants to governments in low- and middle-income countries to fund capital projects.
- The World Bank is the umbrella term for the **International Bank for Reconstruction and Development (IBRD)** and the **International Development Association (IDA)**, two of the World Bank Group's five international organizations.
- At the 1944 Bretton Woods Conference, it was established alongside the International Monetary Fund.
- As of 2022, The World Bank is led by a president, 25 executive directors, and 29 vice presidents. IBRD and IDA have 189 and 174 member countries, respectively.

Poverty and Shared Prosperity in 2022: Correcting Course

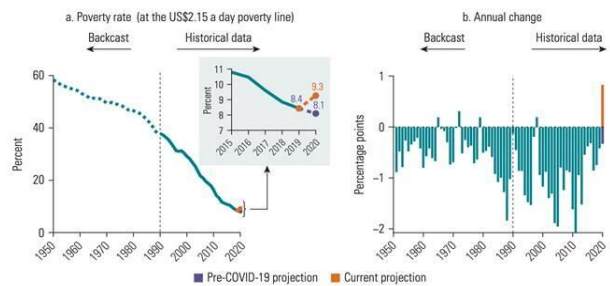
- Poverty and Shared Prosperity 2022: Correcting Course is the first comprehensive study of the pandemic's impact on poverty in developing countries. It identifies how governments can optimize fiscal policy to help correct course.
- Fiscal policies mitigated the impact of COVID-19 on poverty in many high-income countries, but only about one-quarter of the pandemic's impact in low-income and lower-middle-income countries.
- Improving support to households as crises persist will necessitate reorienting protective spending away from generally regressive and inefficient subsidies and toward a direct transfer support system—a first key priority.
- A second key priority identified by the report is reorienting fiscal spending to support growth.
- The report emphasizes how exploring underutilized forms of progressive taxation and increasing the efficiency of tax collection can help in this regard.
- Poverty and Shared Prosperity is a biennial series that examines global trends in poverty and shared prosperity.
- Each report also investigates a key challenge to poverty reduction and shared prosperity, assessing what works well and what does not in various contexts.
- This corporate flagship report provides a foundation for informed advocacy around ending extreme poverty and improving the lives of the world's poorest by bringing together the most recent evidence.

What has the report drawn?

- According to the report, global poverty reduction has been slowing since 2015, but the Covid pandemic and the war in Ukraine have completely reversed the trend.
- By 2015, the global extreme poverty rate had been reduced by more than half. Since then, poverty reduction has slowed in tandem with slowing global economic growth.
- The economic upheavals caused by COVID-19 and, later, the war in Ukraine resulted in a complete reversal of progress."
- As a result, the global goal of ending extreme poverty by 2030 would not be met.
- The number of people living in extreme poverty increased by more than 70 million in 2020, the largest one-year increase since global poverty monitoring began in 1990. As a result, an estimated 719 million people will be living on less than \$2.15 per day by the end of 2020.

FIGURE 0.1

The COVID-19 pandemic triggered a historic shock to global poverty



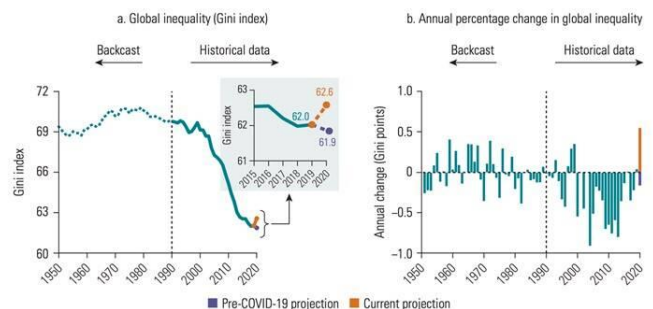
Sources: World Bank estimates based on Mahler, Yonzan, and Lakner, forthcoming; World Bank, Poverty and Inequality Platform, <https://pip.worldbank.org>; World Bank, Global Economic Prospects database, <https://databank.worldbank.org/source/global-economic-prospects>. Note: Panel a shows the global poverty headcount rate at the US\$2.15 a day poverty line for 1990–2020. "Historical data" for the period 1990–2019 are from the Poverty and Inequality Platform. "Backcast" estimates are extrapolated backward from the 1990 line up using growth in national accounts. National accounts data before 1990 are from World Bank, World Development Indicators database, <https://databank.worldbank.org/source/world-development-indicators>; International Monetary Fund, World Economic Outlook, <https://www.imf.org/en/Publications/SPRILs/world-economic-outlook-databases>; Bolt and van Zanden 2020. "Current projection" uses the nowcast methodology outlined in chapter 1 and a variety of data sources to project the latest 2019 lined-up estimate to 2020. "Pre-COVID-19 projection" extrapolates the 2019 line up to 2020 using per capita gross domestic product (GDP) growth forecasts from the January 2020 Global Economic Prospects database. Panel b shows the annual percentage point change in the global poverty headcount rate.

Rise of Inequalities

- Inequalities have also risen. The poorest people bore the brunt of the pandemic's costs: income losses averaged 4% for the poorest 40% of the income distribution, more than doubling the losses of the wealthiest 20% of the income distribution. As a result, global inequality rose for the first time in decades.
- In 2020, global median income fell by 4%, the first drop since median income measurements began in 1990.

FIGURE 0.2

Recent global inequality trends were reversed in 2020



Sources: World Bank estimates based on Mahler, Yonzan, and Lakner, forthcoming; World Bank, Poverty and Inequality Platform, <https://pip.worldbank.org>; World Bank, Global Economic Prospects database, <https://databank.worldbank.org/source/global-economic-prospects>. Note: Panel a shows the global Gini index for 1990 to 2020. "Historical data" for the period 1990–2019 are from the Poverty and Inequality Platform. "Backcast" estimates are extrapolated backward from the 1990 line up using growth in national accounts. National accounts data before 1990 are from World Bank, World Development Indicators database, <https://databank.worldbank.org/source/world-development-indicators>; International Monetary Fund, World Economic Outlook, <https://www.imf.org/en/Publications/SPRILs/world-economic-outlook-databases>; Bolt and van Zanden 2020. "Current projection" uses the nowcast methodology outlined in chapter 1 and a variety of data sources to project the latest 2019 lined-up estimate to 2020. "Pre-COVID-19 projection" extrapolates the 2019 line up to 2020 using per capita gross domestic product (GDP) growth forecasts from the January 2020 Global Economic Prospects database. Panel b shows the annual change in the global Gini index, in Gini points.

India's Poverty Level

- Poverty has increased in India as well. "Previous estimates suggested a 10.4 percent poverty headcount rate in 2017 at the US\$1.90 poverty line."
- According to the most recent estimate based on Sinha Roy and van der Weide (2022), poverty at the US\$1.90 poverty line was 13.6 percent in 2017."
- However, because there have been no official estimates of poverty since 2011, the report relies on data from the **Centre for Monitoring Indian Economy (CMIE)**.
- The most recent survey data used to measure poverty released by the National Sample Survey Office of India is the 2011/12 **National Sample Survey (NSS)**.
- Because of concerns about data quality, the government decided not to release the 2017/18 NSS round."

- However, it could not have left India out of the poverty estimates simply because India has the largest poor population.
- Because of India's size, the lack of recent survey data for the country has a significant impact on global poverty measurement, as demonstrated by Poverty and Shared Prosperity 2020.
- According to the report, given the country's size and importance in global and regional poverty estimates, the CMIE data fills an important gap.

Way Forward

- Fiscal policy, when used prudently and in light of the initial country conditions in terms of fiscal space, does offer opportunities for policymakers in developing economies to step up the fight against poverty and inequality.
- Without a fiscal response, the average poverty rate in developing economies would be 2.4 percentage points higher.
- However, government spending proved far more beneficial to poverty reduction in the wealthiest countries, which generally managed to fully offset Covid-19's impact on poverty through fiscal policy and other emergency support measures.
- Developing economies had fewer resources, so they spent less and achieved less: upper-middle-income economies offset only half of the poverty impact, while low- and lower-middle-income economies offset only a quarter of the impact.
- When it comes to fiscal policy, the World Bank has three recommendations.
 - Choose targeted cash transfers over broad subsidies.
 - Prioritize public spending for long-term growth.
 - Increase tax revenue without harming the poor.

ABOUT 41.5 CRORE INDIANS OUT OF MULTI-DIMENSIONAL POVERTY SINCE 2005-06

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: MPI

Prepp Mains Booster: Issues relating to poverty and hunger; Poverty and developmental issues; Growth and development

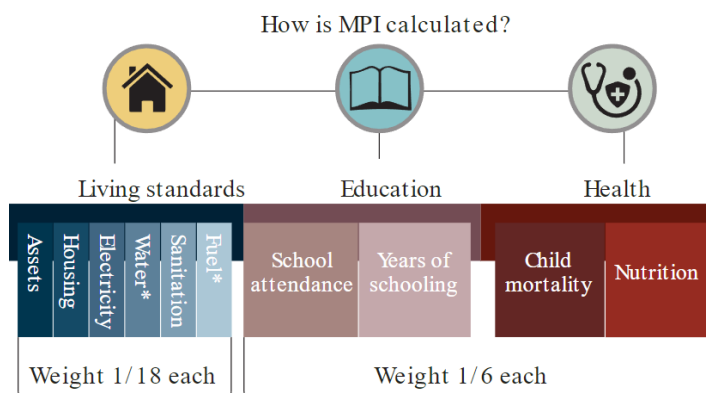
Context:

- According to the global Multidimensional Poverty Index (MPI) by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI), the incidence of poverty decreased from 55.1% in 2005/06 to 16.4% in 2019.
- 41.5 crore people in India were able to escape poverty over a 15-year period between 2005-06 and 2019-21, with two-thirds doing so in the first 10 years and one-third in the following five years.

What is the global MPI?

- The global Multidimensional Poverty Index (MPI) is an international measure of acute **multidimensional poverty covering over 100 developing countries**.
- The global MPI was developed by OPHI with the UN Development Programme (UNDP) for inclusion in UNDP's flagship Human Development Report in 2010.
- It has been published annually by OPHI and in the HDRs ever since.

- It complements traditional monetary poverty measures by capturing the acute deprivations **in health, education, and living standards that a person faces simultaneously**.
- The MPI measures **poverty on an individual level**.
- The global MPI classifies a person as "MPI poor" **if they are deficient in at least three out of ten (weighted) indicators**.
- The percentage of deprivations they are dealing with can also be used to gauge how severe their poverty is.
- The worldwide MPI provides information on who is poor and how they are poor, allowing for the creation of a complete picture of those who are poor.
- It enables comparisons between nations and world regions as well as between nations by ethnicity, urban/rural location, subnational region, age group, and other crucial family and community traits.



How is it calculated?

- The global **MPI uses ten indicators** from the categories of health, education, and standard of living to create a deprivation profile for each household and individual.
- Individually dimension's indications are each given the same weight.
- When a person's deprivation score is **at least one third or greater**, the global MPI classifies them as multidimensionally poor.
- The incidence of poverty and the average intensity of poverty are multiplied to arrive at the MPI.
- **The MPI ranges from 0 to 1, and higher values imply higher poverty.**
- The international poverty rate of \$1.90 per day, which was revised by the World Bank to \$2.15 per day last month, is supplemented by the global MPI by distinguishing who is poor, the type of their poverty (their deprivation profile), and how poor they are (their deprivation score).

Highlights of report

- **Poverty in South Asia has declined** due to reduction in poverty in India.
- It is for the **first time that it is not the region with the highest number** of poor people, at 38.5 crore, compared with 57.9 crore in Sub-Saharan Africa.
- 120 crore people, or 19.1% of the world's 610 crore population spread over 111 developing nations, live in multidimensional poverty.
- The majority of them are in severe poverty.
- The COVID-19 pandemic's effects on poverty in India are not fully evaluated in the study since 71% of the information from

the National Family Health Survey-5 (2019–2021), which was used to calculate the MPI, was gathered before to the pandemic.

Status in India

- The MPI value fell from 0.283 in 2005/2006 to 0.122 in 2015/2016 to 0.069 in 2019/2021.
- The **incidence of poverty fell** from 55.1 percent in 2005/2006 to 27.7 percent in 2015/2016 to 16.4 percent in 2019/2021.
- The MPI value in **absolute terms decreased the fastest in Bihar**, the State with the highest poverty rate in 2015–2016.
- The poorest States, however, have not caught up relative to other States.
- **Only one (West Bengal) of the ten poorest States in 2015–2016 was not among the ten poorest in 2019–2021.**
- The remaining states continue to be among the 10 poorest: Bihar, Jharkhand, Meghalaya, Madhya Pradesh, Uttar Pradesh, Assam, Odisha, Chhattisgarh, and Rajasthan.
- Despite the progress made, the report acknowledges that there is still much work to be done to alleviate poverty.
- **With 22.8 crore, India has by far the most poor people in the world, followed by 9.6 crore in Nigeria.**
- Compared to 5.5 percent in urban regions, 21.2 percent of individuals live in poverty in rural areas. The majority of the poor—nearly 229 million of them—live in rural areas, making up 205 million of the total.
- In India, more than one in five children (21.8%) are poor, compared to about one in seven adults (13.9 percent).
- The MPI value in India decreased at the fastest rate from 2005/2006 to 2015/2016 among children, the poorest age group.
- The **percentage of children living in poverty decreased** from 34.7% to 21.8%, and the **percentage of adults living in poverty decreased** from 24.0% to 13.9%.

Way forward

- Target 1.2 of the **Sustainable Development Goals calls** for countries to cut the percentage of men, women, and children of all ages who live in **poverty in all of its forms in half by 2030.**
- The development of India demonstrates the **reachability of this objective**, even on a large scale.
- "While poverty levels have not increased, levels of undernutrition remain very high.
- The rate of improvement between NFHS-3 and NFHS-4 and NFHS-4 and NFHS-5 does not significantly accelerate.
- Furthermore, as 71% of the NFHS-5 interviews took place before COVID, the MPI mostly covers the pre-COVID environment.

Salient features of Indian Society, Diversity of India.

Role of Women and Women's Organization, Population and Associated Issues, Poverty and Developmental issues, Urbanization, their problems and their remedies.

BCCI BATS FOR PAY PARITY, SAME MATCH FEES FOR WOMEN & MEN: 'NEW ERA OF EQUALITY'

Priority: Medium



Primary Source: Indian Express

Prepp Mains Booster: Social Empowerment, Gender Inequality

Context:

The Board of Control for Cricket in India (BCCI) recently announced a "pay equity policy," stating that its centrally-contracted men and women players will be paid the same match fees.

The decision of Equal pay was taken during the BCCI Apex Council meeting.

As we enter a new age of gender equality in cricket, match fees for both men and women cricketers will be the same.

- This implies that women's cricketers will now be paid Rs 15 lakh each Test match, Rs 6 lakh for an ODI, and Rs 3 lakh for a T20 International.
- They have previously given Rs 1 lakh for towns hosting a white-ball match and Rs 4 lakh for hosting a Test match.
- The yearly retainers for women cricketers stay at Rs 50 lakh for Grade A, Rs 30 lakh for Grade B, and Rs 10 lakh for Grade C, while men get paid Rs 1-7 crore depending on their grade.
- This is a huge step forward for the game and Indian players.
- Following the recent announcement on the women's IPL, it is another step toward gender equality in all sectors of the game in India and other countries across the world.
- The Indian women's team's on-field performance has improved dramatically in recent years.
- As a result, India became the second country in international cricket to implement equal pay.
- New Zealand Cricket announced equal match payments for its female players earlier this year.

Board of Control for Cricket in India (BCCI)

- Board of Control for Cricket in India (BCCI) is India's national governing organisation for cricket.
- The board was established in December 1928 as a society under the Tamil Nadu Societies Registration Act.
- It is a consortium of state cricket associations, and the state associations choose their delegates, who then elect the BCCI executives.
- The BCCI is not financially dependent on the government.
- In January 2015, the Supreme Court formed a committee led by Justice (Retd) RM Lodha to evaluate sanctions for individuals listed in the Mudgal Committee report and to recommend reforms for cricket in India, namely changes to the BCCI's systems.
- Recently, the former cricketer Roger Binny was chosen as the 36th President of the Board of Control for Cricket in India.
- Gender Inequality in payments in india
- The Gender Pay Parity, also known as the Gender Pay Gap or the gender wage gap, is the average disparity in pay between men and women who work.
- According to National Sample Survey Office (NSSO) labour force survey statistics, the gap narrowed to 28% in 2018-19.
- The gap increased by 7% between 2018-19 and 2020-21, according to the Periodic Labour Force Survey (PLFS).
- The World Economic Forum (WEF) recently rated India 135th out of 146 nations in its 2022 Global Gender Gap (GGG) Index.
- According to World Inequality Report 2022 projections, men earn 82 percent of labour income in India, while women earn 18 percent.
- A human-centred recovery strategy is required to promote productive and fair economic growth.

- Reducing the gender wage gap and increasing women's employment outcomes might be beneficial in this regard.
- At the present rate, closing the gender wage gap would take more than 70 years. Accelerated and decisive action is required to prevent the gender wage gap from expanding and, eventually, closing.

Some actions that might help close the gap are as follows:

- Hiring more women in various positions
- Creating a career allows women to stay in the workforce longer.
- Periodic gender-based wage data assessment to look for disparities
- Examining for conscious and unconscious biases, particularly at upper levels of the work hierarchy.

Distribution of Key Natural Resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).

BUILDING RESILIENT MINERAL SUPPLY CHAINS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Mineral Supply Chain

Prepp Mains Booster: Distribution of Key Natural Resources across the world (including South Asia and the Indian sub-continent);

Context:

- Prime Minister Narendra Modi urged the country to pursue atma nirbharta in energy by focusing on clean energy technologies.
- Concerns about the pricing and availability of oil and gas in the aftermath of the Ukraine crisis have fueled global policy debates about energy security.
- The fragility of clean energy supply chains obscures pathways for countries to reduce their reliance on fossil fuels.
- Imported inflationary pressures from volatile oil and gas markets also pose risks to macroeconomic growth and stability, particularly for India, which imports roughly 85% of its oil and half of its gas.
- Access to critical minerals like lithium, cobalt, nickel, and rare earth metals is critical for developing resilient and indigenous supply chains for clean energy technologies.



What are Critical Minerals?

- Critical minerals are elements that are the building blocks of essential modern-day technologies, and are at risk of supply chain disruptions.
- These minerals are now used everywhere from making mobile phones, computers to batteries, electric vehicles and green technologies like solar panels and wind turbines.
- Different nations develop their own lists based on their own requirements and strategic considerations.
- However, such lists mostly include graphite, lithium and cobalt, which are used for making EV batteries; rare earths that are used for making magnets and silicon which is a key mineral for making computer chips and solar panels.
- Aerospace, communications and defence industries also rely on several such minerals as they are used in manufacturing fighter jets, drones, radio sets and other critical equipment.

Challenges

- Reserves are frequently concentrated in geopolitically sensitive or difficult-to-do-business regions.
- Geostrategic competitors control a portion of existing output. China, for example, wields significant influence in cobalt mining in the Democratic Republic of the Congo through direct equity investments and its Belt and Road Initiative.
- Future mine production is frequently tied down in advance offtake agreements by buyers from other countries in order to meet upcoming demand.

Steps taken towards sourcing of Strategic Minerals

- The Indian government established **Khanij Bidesh India Limited (KABIL)** in 2019 as a first step toward sourcing strategic minerals, with the mandate to secure mineral supply for the domestic market.
- A task force comprising of the ministries of power, new and renewable energy, heavy industry, and science and technology to figure out the minerals requirements of the domestic industry.
- Creating five-year road maps with clear deployment and indigenous manufacturing targets for clean energy applications would give domestic investors more visibility.
- Examine the technology mix that will be used to support this deployment to determine the quantities of minerals required to support indigenous manufacturing based on this.
- Collaboration with domestic industry to determine where strategic government interventions are required for the purpose. KABIL may work with industry to improve its market intelligence capabilities for monitoring global supply-side developments.
- Develop a granular picture of available and committed production capacities, as well as economy-wide and sector-specific policy developments. If there is sufficient transparency on sourcing opportunities in favourable geographies, the private sector should be encouraged to secure minerals for its own needs.
- KABIL should enter into offtake agreements with global mineral suppliers in advance to secure future production by gathering a consistent supply of minerals for domestic needs and sign back-to-back sales agreements with domestic industry. Such

large-scale centralised national procurement could be carried out at preferential rates.

- The government should collaborate with geostrategic partners to invest in mining assets. KABIL should invest in mining jurisdictions that private sector investors may consider too risky.
- To reduce investment risks, it should make use of government-to-government partnerships.
- This could be accomplished through joint investments with geostrategic partners' sovereign entities or private sector entities with expertise in specific geographies.
- Conversations with partner countries could be initiated by the External Affairs Ministry. The Quad, for example, prioritises the establishment of resilient clean energy supply chains.
- Plans to support technologies that make use of locally available materials such as sodium-ion batteries that could reduce the need to source minerals from outside of India. While the current performance-linked incentive scheme for batteries is technologically agnostic, India could consider creating a tranche of capital to incentivize investments in technologies that rely on local raw materials. It could also propose co-development of such technologies with geostrategic partners.
- Finally, policies on urban mining should be developed with the goal of recycling mineral inputs from deployments that have reached the end of their useful life. These steps could help to reduce reliance on international sourcing even further. Other potential geopolitical flashpoints exist, in addition to Ukraine, against a backdrop of dwindling multilateral cooperation. India must act swiftly and decisively to address these threats to its energy security.

What has India done in the area of Critical Minerals?

- **Lithium Agreement:** In mid-2020, India signed an agreement with an Argentine firm to jointly prospect lithium in the South American country with the world's third largest reserves of the metal through a newly floated state-owned company.
- **Critical Minerals Investment Partnership between India and Australia:** India and Australia have decided to strengthen their collaboration on critical mineral projects and supply chains.
- Australia has the resources to assist India in meeting its ambitions to reduce emissions while also meeting the growing demand for critical minerals to support India's space and defence industries, as well as the production of solar panels, batteries, and electric vehicles.

Way forward

- Demand for these critical minerals is expected to skyrocket by 400-600% over the next few decades as the world transitions to a clean energy economy.
- Demand for minerals used in electric vehicle (EV) batteries, such as lithium and graphite, could increase by up to 4,000%.
- They are critical as the world rapidly transitions from a fossil-fuel-intensive energy system to a mineral-intensive energy system.

GENERAL STUDIES 2

Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

CONSTITUTIONAL BENCH TO CHECK IF GREATER CURBS CAN BE IMPOSED ON MINISTER'S SPEECHES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: GII

Prepp Mains Booster: Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

Context:

Recently, a constitution Bench has observed that it may be "difficult" to establish broad rules to prevent public figures, including political party presidents, government ministers, MPs, and MLAs, from making careless, derogatory, disparaging, and insulting remarks made in public.

What is the issue about?

- Currently the Constitution Bench led by Justice S. Abdul Nazeer is hearing on the question whether the right to free speech and expression of high public functionaries require "greater restrictions", over and above the "reasonable restriction" imposed under the Article 19(2).

What Constitutional Bench has observed?

- The SC constitutional bench observed that "reasonable restrictions" on the right to free speech under Article 19(1)(a) were already present under Article 19(2) of the Constitution.
- Right to freedom of speech and expression is essentially against the state. Article 19(2) imposes reasonable restrictions. When Article 19(2) is already there, there cannot be some other restriction over and above it. The Constitution does not recognise that.
- If a particular person has made a speech which is not liked by somebody, then there are remedies available to take action under other laws.
- The Bench said that there are other remedies like civil/criminal injunctions, torts, general laws, etc for the sensitive comment made by high public figures.



What is the Right to Freedom of Speech and Expression?

- Right to Freedom of speech and expression is One of the fundamental Rights granted under Article 19- Right to Freedom.

- The Right to freedom of speech and expression is guaranteed to all people under Article 19(1)(a).
- This implies that everyone has the right to freely express their opinions
- In addition to spoken words, this also refers to written words, images captured on film, moving pictures, advertisements, and other visual media.
- The right to silence is included with the right to speak.
- Only Indian citizens have access to this right; alien nationals do not.

Significance - Freedom of Speech and Expression

- **Basic Human Right:** Freedom of expression is guaranteed by the Indian Constitution as well as by international agreements like the Universal Declaration of Human Rights.
- **Essential for Healthy Democracy:** This is crucial because democracy can only be healthy when people are free to express their opinions about the government and, if necessary, to criticize it.
 - Absence of fundamental rights weakens democracy. The government will stifle free speech and start prioritizing the interests of a small group of people over the interests of the general populace.
 - Freedom of the press is essential to freedom of speech and expression.
- **Societal good:** The freedom to communicate ideas and thoughts without restrictions, especially without fear of repercussions, is crucial to the growth of a given society and, ultimately, for that state.
- **Self-development:** Free speech is a fundamental component of each person's right to self-actualization and fulfillment. Restrictions prevent our personality from developing. the thoughtful intellect, aware of possibilities and opportunities for development.

What is the present status of restriction?

- This right to freedom and expression is not absolute, and the State can impose "reasonable restrictions" on it.
- Article 19(2) allows the State to impose 'reasonable restrictions' in the interests of India's sovereignty and integrity, the state's security, friendly relations with foreign states, public order, decency, and morality, as well as contempt of court, defamation, and incitement to an offence.
- However, as per the Individual Privileges to Member of Parliament(MP) and Member of Legislative Assembly(MLA) under Article 105 of Constitution of India, have Absolute Freedom of Speech and Expression in the House of Parliament except for the Rules of House and Discussion on Judges.
- Thus other high public officials including Political Party Spokesperson, political party presidents, government ministers are subjected to the same restrictions as per the Article 19(2).

Why is there a need to put restrictions on high public figures?

- **Rise in cases of Hate Speech:** There has been a rise in the cases of hate speeches which are made by these high public officials. Ex Nupur Sharma case where derogatory remarks were made against a particular religious figure.

- **No speedy trial of cases:** Since in most cases remarks were made by party officials of ruling government, there has been hardly any cases against them. There has been a remarkable delay in dispensing trial and sentencing against already registered cases.
- **Comment has Larger disturbing impact on the population:** Due to their position in a political party or government, the derogatory remarks made by them have a negative impact on the large population. Ex. In 2017 Minister of then UP government made a remark on Rape Victims family as it is a conspiracy against his government.
- **Remarks for Political purpose:** In most cases, the remark is made consciously to make political gains in election or appeasing the particular section of the population.
- **Disturbs the Social harmony:** Long lasting impact of this is there is fear of declining of social peace and harmony in the society which will have effect on unity and integrity of the nations.
- **Self imposed regulation of speech is not followed:** In most time, the self imposed regulation for public speeches and remarks is not followed by these public personalities.

Way Forward

- Considering the rising cases of hate speeches and the consequences of derogatory remarks by high public personalities, there is an urgent need of regulating the aspect of public speeches.
- But it would be inappropriate that such an initiative would come from the judiciary.
- It will be the best that self regulation imposed by the political parties to be followed by them in true letter and spirit.
- Further, earliest resolution of hate speech cases will also create deterrence against any future use of hate speeches for political gains.

LIVESTREAMING SUPREME COURT PROCEEDINGS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Live streaming of supreme court proceedings

Prepp Mains Booster: Important aspects of governance, transparency and accountability, e-governance - applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

Context:

- On September 27, the Supreme Court enabled live streaming of case hearings. The Court's original decision on September 27, 2018, allowing live telecast of important proceedings, paved the way for this outcome.
- The bench of then-Court of Appeal Chief Justice Dipak Misra, Justice A M Khanwilkar, and Justice D Y Chandrachud ruled that live-streaming of court proceedings is in the public interest.
- They stated that the broadcast will enliven judicial labour for the benefit of the general public in order to strengthen constitutional values, democracy, and citizenship. Chief Justices M V Ramana and U U Lalit enthusiastically supported their vision.

- Four years later, on September 20, a full court of all Supreme Court judges, led by Chief Justice U U Lalit, unanimously decided to live-stream constitutional bench proceedings.
- **Justice Chandrachud, the Chairperson of the Supreme Court's E-committee** and the driving force behind the live streaming initiative, began the hearing in his courtroom by declaring, "We are virtual."

Decisions made for the following reasons

Allowing ordinary citizens to observe the workings of the highest court

- It allows ordinary citizens to observe the workings of the highest court of the land without any barriers will go a long way toward instilling faith in the judiciary and fostering a critical dialogue with judicial functionaries.
- Transparency and accessibility in the justice delivery process will strengthen the country's democracy.
- Enabling citizens to watch live Supreme Court proceedings is another important step toward developing an informed citizenry.

Value of the rule of law

- The decision will help people understand the value of the rule of law. The move will help people understand how serious the judiciary is about protecting the rights of the poor, historically marginalised, and disempowered segments of society.
- There is no better way to "speak truth to power" than in a dignified and self-effacing manner.
- The immediate impact of this decision may not be quantifiable, but it has the potential to foster a culture of respect for the rule of law.

Increase Transparency

- It will increase transparency in judicial decision-making. Judges' decisions are rarely fully understood by the general public.
- Law and justice are too important to be left solely to lawyers and judges.
- Access to live court proceedings will allow millions of ordinary Indians, many of whom are not lawyers, to not only understand the background and context in which judicial decisions are made, but also to appreciate the competing values and conflicting rights at stake.
- The Supreme Court has demonstrated a strong sense of conviction by making its proceedings transparent. It speaks of the institution's honesty, integrity, self-reflexivity, and rectitude, all of which have long been its defining characteristics.

Improve legal profession

- The decision has the potential to improve the legal profession's quality and standards. Lawyers will be better prepared to appear in court and will be more careful not to make irresponsible remarks.
- An open approach to public scrutiny may nudge and enable lawyers to take the justice delivery mechanisms far more seriously than they have in the past.
- It also levels the playing field for younger members of the legal profession, as their readiness and intellectual prowess will be obvious to all.

Significance of live streaming proceedings

- The case for live streaming of Supreme Court cases of constitutional/national significance is compelling. Such incidents have an impact on many aspects of people's lives.
- As a result, the public's ability to participate in this conversation by watching these proceedings will not only increase legal literacy but may also improve the public's ongoing engagement with the Constitution and laws.
- Such direct engagement is preferable to a process mediated by some Delhi-based lawyers or court reporters, especially when low-cost technology allows for such live access.
- It will bring discipline and improve how judges and lawyers conduct proceedings because they will be aware that the public is watching.
- The broadcasting of court proceedings has enabled positive systemic corrections.

DECRIMINALIZING ADULTERY: CENTRE SEEKS CLARIFICATION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Adultery

Prepp Mains Booster: Mechanisms, Laws, Institutions and Bodies constituted for the Protection and Betterment of these Vulnerable Sections - women. Indian Constitution - Evolution, Features, Amendments, Significant Provisions.

Context:

- The Supreme Court has received a petition from the Union government asking for further information regarding a 2018 decision that decriminalised adultery.
- The court emphasised that adultery would cause suffering and potentially disrupt an officer's life. It further stated that "discipline is vital" for the military and that adultery in the armed forces cannot be taken lightly.
- The top court said that the Joseph Shine verdict from 2018 cannot be used to postpone disciplinary actions against military members found guilty of adultery.

The Supreme Court judgment referred to the list of countries where adultery is a crime and where it is not. India is now part of the second list

Countries where adultery is a crime

Afghanistan | Bangladesh | Indonesia | Iran | Maldives | Nepal | Pakistan | The Philippines | United Arab Emirates | Some states of the United States of America | Algeria | Democratic Republic of Congo | Egypt | Morocco | Some parts of Nigeria

Where adultery has been done away with as a crime

People's Republic of China | Japan | Brazil | New Zealand | Australia | Scotland | Netherlands | Denmark | France | Germany | Austria | Republic of Ireland | Barbados | Bermuda | Jamaica | Trinidad and Tobago | Seychelles | South Korea | Guatemala



Background

- In 2017, an NRI named Joseph Shine filed a petition in the Supreme Court against Section 497 of the Indian Penal Code (IPC) which criminalised adultery.
- In September 2018, a five-judge constitution bench struck down Section 497 of the IPC, ruling that it was unconstitutional and violated women's right to equality in treating them as inferior to their husbands.

What is the issue?

- The Ministry of Defence (MoD) had petitioned the Supreme Court, arguing that the decision on September 27, 2018, abolishing adultery as a crime, might prevent members of the armed services from being found guilty of adulterous activities.
- The government informed the bench that certain army members had received disciplinary procedures for adultery; nevertheless, the Armed Forces Tribunal (AFT) frequently overturned such actions by referencing the Joseph Shine decision.
- When jawans and officers are deployed to hostile environments, other officers look after their families at base camp, and the laws and regulations that specify consequences for engaging in adulterous or promiscuous **behaviour aid in upholding discipline.**
- Armed services soldiers who commit adultery with a coworker's wife may be cashiered from their jobs for acting unbecomingly.

Why did the court decriminalize adultery?

- **Discrimination:** The law itself is founded on discrimination because it solely punishes men while sparing women.
- **Against right to equality:** The law **violates article 14** of the constitution since it creates an irrational classification between men and women.
- **Women treated as property:** According to the law, married women are their husbands' "property" because their relationships with other married people depend on his "permission or connivance," which also means she can have an extramarital affair with his "consent."
- The legislation grants a husband the authority to regulate his legally wedded wife's sexuality. In order to assert this exclusive claim to his wife's body, the law permits the husband to exert control over his wife's sexuality.

SUPREME COURT DELIVERS SPLIT VERDICT ON KARNATAKA HIJAB BAN

Priority: High



Primary Source: The Indian Express

Prepp Prelims Booster: Freedom of religion

Prepp Mains Booster: Indian Constitution - Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

Context:

Recently, two-judge bench of the Supreme Court (SC) gave a split verdict in the Karnataka Hijab Ban Case, more than eight months after the Karnataka government banned the wearing of the hijab by girl students in state pre-university colleges, sparking a controversy and igniting debates across the nation.



What is the verdict of the SC Bench on the case?

- In the split verdict, Justice Hemant Gupta, who presided over the two-judge bench, upheld the Karnataka High Court's judgment upholding the ban, stating that "it was simply to create uniformity and encourage a secular environment" in schools.
- On the other hand, Justice Sudhanshu Dhulia, in dissenting judgement, set aside the state and High Court orders, stating that the girl child's education is what matters most.
 - He described the right to wear the hijab in classrooms as "a matter of choice," a "fundamental right," tied to the girl's "dignity and her privacy even when she is inside the school gates".

Judgement in favour of Ban:

- Justice Gupta, who presided over the two-judge bench held that, dismissed appeals and observe that:
 - Regardless of whether wearing the hijab is a religious practice, an essential religious practice, or a social behavior for women of the Islamic faith, the "interpretations by the believers of the faith about wearing a headscarf is the belief or faith of an individual."
 - The religious belief cannot be practiced at a secular school maintained by the State. The choice to wear a hijab or another mark that can identify someone to a specific religious belief, such as a tilak, is up to the students' discretion.
 - However, the State is within its rights to order that students not wear visible religious symbols to schools that are supported by State Funds.
 - Therefore, the State may restrict the use of the hijab in accordance with Government Order.

Dissenting Judgement:

- While giving dissenting judgement Justice Dhulia observed that,
 - A girl child's right to wear the hijab does not end at the school gate; it extends to both inside and outside of her home.
 - Even inside the school's walls, in her classroom, the youngster maintains her dignity and her privacy. She still has access to her basic rights. It is completely false to assert that these rights turn into derived rights when used in a classroom.

What will be the road ahead for the case?

- Due to the split verdict, the case will now be brought before the Chief Justice of India for further instruction; it will probably be heard by a larger bench.
- And the ban on the hijab in Karnataka schools would continue to be in effect till the Supreme Court gives any instructions.

What were the arguments of the petitioner in the Case Hearing?

- **Violates Right to Equality:** The ban on wearing a hijab by Muslim girl students in classrooms is discriminatory on the ground of sex and religion, which violates the Fundamental Rights of Equality under Article 14-15 and should not be viewed just as disciplinary action.
- **Imposes Restriction on Article 19 and 21:** The ban amounts to a restriction on Right to Freedom of Expression and the Right to Live life with dignity.
- **Violates Positive Secularism in India:** the ban violates positive secularism. India follows Positive Secularism which provides for equal treatment to all religions. Hence, the state must permit the practice of wearing hijab in school.

What was the Karnataka Hijab Ban Case?

- It is a dispute pertaining to school uniforms erupted in Karnataka in February 2022, when some muslim girl students of a Governemnt Pre-University College of Udapi who wanted to wear hijab to classes were denied entry on the grounds that it violates the Governemnt Order of college uniform rules.
- On behalf of the aggrieved students, petitions were filed with the Karnataka High Court.

What is the Judgement of Karnataka High Court?

- The Karnataka High Court upheld the Karnataka Government Order to ban the entry of girl students wearing a hijab in school stating that the right to wear a hijab is not an essential practice of religion and it is not constitutionally protected.
- The High Court held that wearing the hijab is not "religion-specific" and aggrieved party did not present sufficient evidence to prove that wearing a hijab is an essential religious practice of Islam.
- On the arbitrary nature of Karnataka Government's Order the court held that the Government has the jurisdiction to prescribe uniform rules as per the Karnataka Education Act, 1983.

Response to Karnataka High Court Judgement:

- The petitioner has challenged the Karnataka high court judgement in the Supreme Court on the ground of violation of Article 14 and 15 (Right to Equality) and Article 25.

How does the Constitution protect the freedom of religion?

- The Constitution of India under **Article 25** provides for the "freedom of conscience and the right to freely profess, practice, and propagate religion."
- Thus, the Right to Religion includes:
 - **Freedom of Conscience:** It refers to an individual's inner freedom to mold his relation with God or Creatures in whatever way he desires.
 - **Right to Profess:** It covers the declaration of one's religious faith and belief openly and freely.
 - **Right to Practice:** It covers religious worship, rituals, ceremonies, and exhibition of beliefs and ideas.
 - **Right to Propagate:** It covers the transmission and dissemination of one's religious beliefs to others, as well as the exposition of one's religion's belief.
- Right to Religion guarantees that the state must ensure that there is no interference or an obstacle to exercise the freedom of religion.

- However, the Right to Religion - **Article 25 is not sacrosanct** and like other fundamental rights, the state has the authority to impose reasonable restrictions on the freedom of religion on the ground to protect public order, morality, health, and other state interests.

What is the Essential Practice in religion pertains to?

- One of the questions in the Hijab Case was whether hijab is an essential practice to the religion, and is related to the Doctrine/ Test of Essentiality in the religious case.
- A seven-judge Supreme Court bench invented the "Doctrine of Essentiality" in 1954's "Shirur Mutt" case.
- Under the Doctrine of Essentiality, over the years the Supreme Court has evolved a practical test to determine which religious practices are constitutionally protected and which are not.
- It has become a controversial doctrine that SC has court developed to ensure that only those religious practices were protected that were fundamental and important to the faith.
- The Supreme Court decided that all rituals and acts that are "integral" to a religion fall under the umbrella word "religion," and it assumed the task of identifying which religious practices are important and which are optional.
- The Constitution Bench had decided in 1994, citing the Ayodhya case, that a mosque is not a necessary component of practising Islam and that Muslims may give namaz (prayer) anywhere, even in public.

PUBLIC OFFICIALS CAN PROSECUTE FOR DEFAMATION AS INDIVIDUALS TOO: SC JUDGEMENT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: SC

Prepp Mains Booster: Indian Constitution - Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

Context:

The Supreme Court in a recent decision said that high constitutional functionaries, including the President of India and government ministers, do not need to rely on the state apparatus to pursue their defamation cases. And held that a political rival's challenge to a public office holder that he would 'expose' the latter's 'scam' would not amount to defamation.



What is the observation of the Supreme Court?

- SC Bench observed that for pursuing the case of defamation a constitutional functionary can choose to shed the identity of his high office and don the role of a private citizen to prosecute damaging comments made about his public functions in office.
- SC also noted that a political rival's challenge to a public office holder that he would "expose" the latter's "scam" would not amount to defamation.
- According to the SC Bench "A constitutional functionary or public employee has the option of going through the special procedure or choosing to contest it as a private citizen".
- SC noted that "Public servants have always had the right to sue for defamation in their individual capacities, in addition to the right they have to carry out their duties. He never lost his right simply because he started working for the government and since the accusations included his official performance of his job.

What is the issue?

- The SC bench was hearing the petition challenging the defamation suit against appellant by Mr Manish Sisodia in the individual capacity and not as in public officer capacity.

What are the implications of the SC Verdict?

- **Clarification:** The Judgement clarifies the Defamation regulation more clearly by distinguishing public official and individual in the defamation cases.
- **More caseload:** May lead to more defamation in the future as a public person may file a case of defamation without permission or state resources.
- **Reduce Misuse:** the judgement clarifies the accusation of exposing scam does not amount to defamation, will negate the basis of filing defamation cases in future.

What is Defamation?

- It is a harm to a person's reputation brought on by a false statement.
- Anyone who feels that they have been falsely accused of something by another person in public, whether through spoken words, written words, or by inference, may file a defamation lawsuit in a court of law, claiming that the false charge has damaged their reputation.
- Fundamentally, defamation must meet the following criteria:
 - The declaration must be made public (both oral and written forms publication)
 - The comment must make the subject's reputation look worse (damaging to the reputation of the person against whom charges have been made)

Types of defamation:

- In India, there are two distinct categories of defamation: Civil and Criminal.
- **Civil Defamation:** A person who has been falsely accused may file a lawsuit in either the High Court or lower courts and demand monetary damages as restitution. There is no jail sentence or other type of retribution.
- **Criminal Defamation:** Under this, the subject of a defamation claim may get a two-year prison term, a fine, or both.

Regulation of Defamation:

The Defamation in India is regulated under the Sections of Indian Penal Code (IPC)

- Section 499: The definition of defamation is provided in IPC Section 499,
- Section 500: It specifies the penalty for criminal defamation (two years in prison for those found guilty).

What are the concerns about defamation in India?

- **Curbs the freedom of Speech:** A healthy democracy needs media and speech freedom, and the mere prospect of legal action is enough to stifle the truth.
- **Frequent Misuse:** This clause is frequently misused by powerful individuals to silence any criticism of them.
- **Overuse of Criminal defamation:** The criminal provisions have frequently only ever been employed as a form of harassment.
- The **right to reputation** cannot be extended to institutions like the government that have the financial means to repair reputational harm.
- **Against Global trend:** It goes against the global trend of decriminalizing defamation, which has been done in numerous nations, including Sri Lanka, which is next door.

Way Forward

- This judgment brings more clarity on the filling of defamation cases by public officials and basis of it. This may lead to reduced harassment and misuse of defamation in the future.

SC AXES 51-YEAR-OLD CURB, SINGLE WOMEN GET EQUAL ABORTION RIGHTS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Abortion Rights

Prepp Mains Booster: Government Policies and interventions; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Context:

- In a recent ruling by the Supreme Court bench headed by Justice D.Y. Chandrachud that unmarried women in consensual relationships are also entitled to safe and legal abortions.
- It places a strong emphasis on women's right to bodily autonomy without requiring authorization from a third party was hailed as "progressive" and a "ray of hope" at a time when sexual and reproductive rights are under attack globally.
- Justice Chandrachud remarked that A statute's beneficiaries shouldn't be determined by strict patriarchal ideas of what constitutes appropriate sex.

Background:

- The Supreme Court's decision emerged in response to a petition seeking for unmarried women to be included by Rule 3B of the Medical Termination of Pregnancy Rules 2003, which were revised in October 2021 to allow abortions between 20 and 24 weeks of gestation.
- The law outlines seven different groups of women who are eligible for abortions throughout this gestation period, including minors, women who have changed their marital status while still pregnant, and survivors of sexual abuse, rape, or incest.

What is the significance of the Judgement?

- **Right to life and personal liberty:** According to Justice Chandrachud, an unmarried woman has the same freedom to decide whether or not to have children as a married woman under the **reproductive autonomy, dignity, and privacy rights guaranteed by Article 21 of the Constitution**.
- **Right to equality:** The court ruled that it was against the **right to equality** before the law and equal protection to deny single or unmarried pregnant women with pregnancies between 20 and 24 weeks access to abortion care while allowing married women with the same term of pregnancy to get it (Article 14).
- This decision **challenges the Medical Termination of Pregnancy Act, 1971** arbitrary classification and advances the interpretation of its provisions.
- It will ensure that single women seeking abortions beyond 20 weeks cannot be turned down on the basis that the statute is too restrictive.
- **Reproductive autonomy:** The SC stated that reproductive autonomy "means that every pregnant woman has the intrinsic right to choose to undergo or not to undergo abortion without any approval or authorisation from a third party", acknowledging this gap and labelling the law as "provider-centric".
- The right to bodily autonomy underlies the choice of whether to carry a pregnancy to term or end it prematurely.
- **Doctors need not report identity of minors seeking abortion:** The Court clarified that the Registered Medical Practitioner, only on request of the minor and the guardian of the minor, need not disclose the identity and other personal details of the minor in the information provided under Section 19(1) of the POCSO Act.
- **Marital Rape:** According to Justice Chandrachud the Medical Termination of Pregnancy Act recognises a husband's act of sexual assault or forced intercourse committed on his wife as 'rape'. Marital rape, however, is not a crime under the Indian Penal Code (IPC).

Reasons Behind courts decision:

- The fact that **India's right to abortion is conditional rather than absolute, and that women lack autonomy** because they must ask a doctor's permission before having an abortion, is frequently lamented by activists and campaigners.
- The court liberally interpreted Section 3 B and stated that a number of changes in "material circumstances" could be justification for getting an abortion between 20 and 24 weeks, including "a woman losing her job, if domestic violence is committed against her, if she suddenly has dependents to support," "being diagnosed with an acute, chronic, or life-threatening disease which impacts her decision on whether to carry the pregnancy to term," and "being diagnosed with an acute, chronic, or life-threatening disease."
- The court stated that the "continued crisis" of unsafe abortions has been addressed by the Medical Termination of Pregnancy (Amendment) Act of 2021.
- **Every day, about eight women in India die** as a result of unsafe abortions. Studies have rated 67% of the abortions performed in the country between 2007 and 2011 as dangerous.

- The women who were unmarried and who came from low-income households were forced to seek risky or illegal methods to end unwanted pregnancies.

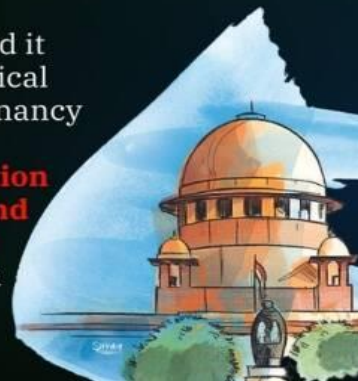
What are the concerns?

- **Female foeticide:** More liberal law for abortion might add to the problem of female foeticide.
- **Shortage of qualified personnel:** There is a shortage of qualified doctors and despite the new law, the access for women to safe abortions may still be impaired.
- **Ethical:** There is an ethical perspective to the issue of abortion as well. People opine that the state has to protect all life including the life of the unborn foetus.

WHAT SUPREME COURT SAID ON ABORTION RIGHTS

Major breakthroughs:

- On July 21, the apex court allowed a 25-year-old woman to **abort her 24-week pregnancy** from a consensual relationship.
- On August 23, SC said it would interpret Medical Termination of Pregnancy Act and the rules to **eliminate discrimination between married and unmarried women** for allowing abortion till 24 weeks of pregnancy.



Way forward

- This **progressive ruling "stands out as a beacon of hope at a time when sexual and reproductive health and rights are under danger globally.."**
- The ruling will be a step toward a more liberal and pro-women abortion policy.
- The practise of abortion as a woman's choice must be recognised by legislation, as it is in more than 70 other nations. We must make sure that our laws do not morally condemn women who choose to abort.

Medical Termination Pregnancy Act 2021

- The Medical Termination of Pregnancy (MTP) Act of 1971 was amended by the 2021 Act.
- **Increased Gestational Limit:** For some women, the gestational limit for terminating a pregnancy has been raised from 20 to 24 weeks.

- The following are the seven distinct categories:
 - Pregnant women in humanitarian circumstances, disasters, and emergency situations
 - If the kid is born, he or she may suffer from serious physical or mental impairments due to a foetal abnormality that has a significant risk of being incompatible with life.
 - Women who are mentally ill.
 - Women who have physical disabilities.
 - During the course of the pregnancy, there may be a change in marital status (widowhood and divorce).
 - Minors.
 - Those who have experienced sexual assault, rape, or incest.
- A state-level medical board will be established to determine whether a pregnancy can be terminated after 24 weeks due to foetal abnormality.
- Within three days of receiving the request, the medical boards must accept or reject the application for medical termination of pregnancy.
- The abortion procedure must be completed within five days of the board's receipt of the request.
- The new rules will help to achieve the Sustainable Development Goals (SDGs) 3.1, 3.7, and 5.6 by reducing preventable maternal death.
- SDG 3.1 is about lowering the maternal death rate, whereas SDGs 3.7 and 5.6 are about providing universal access to sexual and reproductive health and rights.
- The new rules will broaden the scope of safe abortion services available to women and ensure dignity, autonomy, secrecy, and justice for women who need to end their pregnancies.

ALIVA: IN ODISHA'S NAYAGARH, A DATA-DRIVEN SOLUTION TO CHILD MARRIAGE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Child Marriage

Prepp Mains Booster: Government Policies & Interventions, Issues Related to Women and Child

Context:

Nayagarh, a small district in Odisha, has taken a novel data driven approach in the form of "Aliva" to eradicate child marriage by meticulously compiling data on all district adolescent girls.



What is the Aliva Initiative?

- In January 2022, the initiative was introduced in the Nayagarh District of Odisha.
- Every adolescent girl in the her area was to be identified, and were to be monitored by anganwadi workers.
- Aanganwadi centres in the district include records called Aliva that contain information about adolescent girls, such as the date of their birth registration, their Aadhaar number, their family details, their skill training, etc.
- The headmaster of the neighbourhood school, the girl's father, the supervisor, and the Child Marriage Prohibition Officer(CMPO) all have to approve the girl's age .
- Currently, the Nayagarh district has 48,642 adolescent girls' information recorded in the Aliva registries.
- District administration and the police consult registers to confirm girls' ages when they are tipped off about child weddings.
- The district has made the decision to keep the record for ten years, from 2020 to 2030.

What is the Relevance of Aliva Registers?

- **Data of Adolescent girls for 10 years:** The Aliva registers, which track girls' lives and age for a decade, are by far proved relevant in tracking and checking the child marriages in tribal region of Odisha.
- **Checking Child Marriage:** Law enforcement agencies have found the register to be helpful as parents try to misrepresent the age of their daughters in order to avoid punishment.
- **Plugging loopholes:** The registry has been quite helpful for monitoring the health of girls, especially if they are anaemic, even though it was designed to discourage child marriages.
- **Health parameter:** This will be helpful in improving the health parameter in the adolescent girls.
- **Nutritional Improvement:** This will be particularly helpful in improving nutritional status of Adolescent girls, help in decreasing Anemia in girls, stunting, wasting, maternal mortality.

What is Child Marriage?

- Child marriage is a marriage practice where the both, bride or groom, or any one of them is not adult.
- It is a social practice that occurs in various Indian societies where a young child (typically a girl) is under the age of eighteen marries an adult man or both bride and groom has not attained the legal marriage age according to the law.

What is the status of child marriages in India?

- According to estimates from the United Nations Children's Fund (UNICEF), India is home to the biggest number of child brides in the world, making up a third of the total, with at least 1.5 million girls under the age of 18 getting married annually.
- In contrast to the 26.8% reported in NFHS-4, 23.3% of women polled in NFHS-5 wed before becoming 18 years old. Men's underage marriage rates are 17.7% (NFHS-5) and 20.3% respectively (NFHS-4).
- With over 41% of such women apiece, West Bengal and Bihar had the highest rates of girl child marriage.
- According to NHFS-5, the states with the lowest rates of underage marriage are J&K, Lakshadweep, Ladakh, Himachal Pradesh, Goa, Nagaland, Kerala, Puducherry, and Tamil Nadu.

- In the past five years, the proportion of women ages 20 to 24 who wed before turning 18 has decreased from 27% to 23%.
- In Rajasthan, Madhya Pradesh, and Haryana, the proportion of underage marriages was reduced to the greatest extent.

What are the Impacts of Child marriage?

- **Halts Education:** It disproportionately affects girls, limiting their educational opportunities, endangering their health, and keeping them in poverty, which harms their prospects and potential.
- **Exploitation:** Child brides encounter assault, abuse, and exploitation in addition to being cut off from their families, friends, and communities.
- **Early Pregnancies:** Girls who marry young frequently become pregnant while they are still in their early teens, posing serious hazards to both their own health and that of their unborn children.
- **Rise in School dropouts:** Girls who get married before turning 18 are less likely to be in school than their peers, and girls who drop out of school are more likely to be married. These relationships between child marriage and school drop-out are obvious.
- **Forced marriage:** Rescued children are not produced in most cases before the Child Welfare Committees (CWCs) and are often sent back to their parents if they are produced before the CWC resulting in forced marriage in secrecy.
- **End of aspiration and ambition of girl child:** Others are forced to reside in the same socioeconomic cultural situation, leading to frustration and anxiety.
- **No empowerment:** Those who stay with their parents, face adversity and humiliation every day and such instances are discouraging adolescents to raise their voice against child marriage.

What measures are taken for reducing child marriage?

- The **Child Marriage Restraint Act of 1929** prohibits child marriage.
- **Prohibition of Child Marriage Act 2006** was passed in order to address and correct the problems with the previous Child Marriage Restraint Act.
- The **Special Marriage Act of 1954** and the **Prohibition of Child Marriage Act** of 2006 set the minimum age of consent for marriage for males and women, respectively, at 18 and 21 years old.
- The **Juvenile Justice Care and Protection Act of 2015** gives authorities to protect children's best interests in India.
 - Child Protection Committees, Child Protection Units, and CWCs have been established and are operating at the district level for this reason.
- **Committee appointed by the Ministry for Women and Child Development:** To investigate issues relating to maternal age, the necessity of reducing the Maternal Mortality Ratio (MMR), and the enhancement of women's nutritional status.
- **District Child Protection Unit (DCPU):** Charged with locating and rescuing children in need of attention and security.
- **Child Protection Committee for the District:** These are nodal organisations at the district level that examine and oversee the work connected to guaranteeing child rights. They are led by the Chairperson of the Zilla Parishad.

- By 2030, **state governments** hope to eradicate child marriage completely.
- **Sustainable Development Goal (SDG) 5:** In order to stop child marriage, it addresses gender equality and the empowerment of all women and girls.

What steps need to be taken to stop Child Marriage?

- Following the dissolution of a child marriage, the family members should be watched over and the child should get support and protection.
- Methods to put off or avoid child marriage:
 - Give girls knowledge, abilities, and support systems.
 - Give girls and their families financial aid and incentives.
 - Inform and mobilise local residents, including parents.
 - Increase girls' access to top-notch education
 - Promote supporting legislation and regulations.
- **Legal measures:** Policymakers must pay attention to these initiatives while continuing to try novel approaches and evaluation methods if they want the upcoming generation of development programmes to prioritise stopping child marriage.
- In order to offer girls more control over their own lives and prospects, attention should be paid to the girls who are most at danger and those who have sway over families and the larger community should be mobilised.
- **Behavioural improvement:** In order to address the multiple components of this detrimental behaviour, especially in underprivileged groups, programming across sectors should be implemented.
- **Addressing social issue:** Ending child marriage requires addressing the myriad issues, such as gender discrimination and inequality, lack of education, and poverty, that support this human rights violation.

DUTY OF COURT TO PROVIDE MEANINGFUL LEGAL AID TO ACCUSED AT STATE'S EXPENSE: SUPREME COURT

Priority: Medium



Primary Source: The Indian Express

Prepp Prelims Booster: Judiciary

Prepp Mains Booster: Structure, organization and functioning of the Executive and the Judiciary.

Context:

- The Supreme Court stated that it is the court's duty to provide appropriate and meaningful legal aid to an accused at the expense of the State.
- According to the Supreme Court, the State must ensure a fair defence for an accused, and it is the court's responsibility to see and ensure that an accused put on a criminal trial is effectively represented by a defence counsel.

What is Legal Aid?

- Article 39A of the Indian Constitution states that the state shall ensure that the operation of the legal system promotes justice on a basis of equal opportunity, and shall in particular provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen due to economic or other disability.

- Articles 14 and 22(1) also require the state to ensure equality before the law and a legal system that promotes justice on the basis of equal opportunity for all.
- Legal aid works to ensure that the constitutional pledge is fulfilled in letter and spirit, and that equal justice is available to the poor, oppressed, and vulnerable segments of society.

News Summary

- A three-judge bench led by Chief Justice UU Lalit made the observation while vacating a man's death sentence under Section 302 of the Indian Penal Code for murdering his wife and four children in the **Uttar Pradesh district of Lakhimpur Kheri in 2010**.
- The bench said "though the offence is gruesome and revolts the human conscience, an accused can be convicted only on legal evidence and if only a chain of circumstantial evidence has been so forged as to rule out the possibility of any other reasonable hypothesis except the guilt of the accused".
- It stated that:
 - if an accused is unable to retain counsel of his choice due to indigence, poverty, illiteracy, or any other disabling factor, it is the court's responsibility to provide him with appropriate and meaningful legal aid at the expense of the State.
 - "The employment of a defence counsel for the sake of employing a defence counsel is not what is meant by the State's duty to ensure a fair defence to an accused. It must be the provision of a counsel who vigorously defends the accused to the best of his ability."
 - "While the quality of the defence or the calibre of the counsel would not militate against the guarantee to a fair trial sanctioned by Articles 21 and 22 of the Constitution, a threshold level of competence and due diligence in the discharge of his duties as a defence counsel would undoubtedly be the constitutionally guaranteed expectation," the bench, which also included Justices S Ravindra Bhat and J B Pardiwala, stated.
- The presence of counsel on record means an effective, genuine, and faithful presence, not a mere farcical, sham, or virtual presence that is illusory, if not fraudulent.
- Indigence should never be used to deny a fair trial or equal justice.

Recommendations

- The Supreme Court stated that this case "provides us with an opportunity" to remind District and Sessions Judges across the country who are conducting sessions trials, particularly those involving serious offences with harsh penalties, to appoint experienced lawyers who have handled similar cases in the past.
- It is preferable that in such cases, a senior advocate practising in the trial court be requested to conduct the case on behalf of the undefended accused or, at the very least, to provide good guidance to the advocate appointed as amicus curiae or an advocate from the legal aid panel to defend the accused persons' case.
- Then only effective and meaningful legal aid to the accused would be said to have been provided.

National Legal Services Authority

- The National Legal Services Authority (NALSA) was

established under the Legal Services Authorities Act of 1987 to provide free legal services to the weaker sections of society and to organise Lok Adalats for amicable dispute resolution.

- NALSA is based in New Delhi. Every state has established a State Legal Services Authority to carry out the NALSA's policies and directives, provide free legal services to the people, and conduct Lok Adalats.
- The State Legal Services Authority is led by the Hon'ble the Chief Justice of the respective High Court, who also serves as the State Legal Services Authority's Patron-in-Chief.
- District Legal Services Authorities have been established in each district to carry out legal services programmes. The District Legal Services Authority is located in each District Courts Complex and is chaired by the District Judge of the respective district.

GUBERNATORIAL PROCRASTINATION IS UNREASONABLE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Governor

Prepp Mains Booster: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies; Comparison of the Indian constitutional scheme with that of other countries.

Context:

- Recently, the governor's assent has generated debate in at least two States, Kerala and Tamil Nadu.
- After much delay, the Governor of Tamil Nadu forwarded the Bill for the National Eligibility Cumulation Entrance Test (NEET) exemption to the President.
- While the Governor of Kerala officially declaring that he would not support the Lokayukta Amendment Bill and the Kerala University Amendment Bill, the situation has taken an odd turn.
- Therefore, it becomes extremely important to determine whether a governor is authorized under the Constitution to create uncertainty when it comes to assent to bills passed by State legislatures.

Significance of the governor's assent to the bill

- The Governor plays a significant role in the adoption of legislation. It is only complete when he gives his assent, indicating his approval.
- The Governor's approval, therefore, becomes the most important step in the entire legislative process.
- The Governor has certain options under Article 200 of the constitution when the bill is sent to him for assent:
 - He can **either assent to it or send it back to the Assembly** with a request that it reexamine certain provisions or the entire Bill.
 - In this instance, the Governor will be required to sign the Bill if the Assembly approves it without making any changes and sends it back to them.
 - This clause in Article 200 (proviso) unequivocally affirms the legislature's supremacy in the legislative process.

- **Reserving the Bill for the President's consideration is the third choice.**

Practices Abroad

- **UK:** In the UK, a bill must have royal approval in order to become law, and the crown has the authority to refuse assent. But it is a dead letter.
- By convention and usage, the crown no longer has veto authority in England.
- Moreover, refusal of royal assent on the grounds that the monarchy strongly disapproves of the Bill or that the Bill is very controversial is considered unconstitutional.
- **United States:** The Constitution of the United States gives the President the authority to veto a bill and send it back to the House, but if both Houses pass it again with two-thirds of each, it becomes law.
- The conclusion from these customs is that refusal of assent is not a custom that other democracies follow.
- Additionally, in some circumstances, it is unconstitutional or the Constitution itself offers a remedy, allowing the legislature's passed legislation to become a law notwithstanding the refusal.
- However, the Indian Constitution does not offer such a remedy. The Governor's refusal to assent to the Bill has also been largely accepted by the courts.
- As a result, the entire legislative process will be useless. It conflicts with the ideal procedures in old and mature democracies.

Challenges

- A Governor or President cannot be sued by the court for any actions taken while acting within the scope of their authority, according to **Article 361 of the Constitution. They enjoy complete immunity from court proceedings.**
- There is **no time limit for governor to give assent to the bill.** He can wait for however long he wants before taking any action as the Constitution does not specify a deadline for him to decide whether to assent.
- It should be underlined that the Governor must state his reasoning for withholding assent when announcing his decision. Being a high constitutional power, the Governor is required to provide justification for withholding assent and cannot act arbitrarily.
- The Governor's refusal may be declared unconstitutional if its reasons reveal **ulterior motives, superfluous factors, or supra vires.** In **Rameshwar Prasad and Ors. v. Union of India and Anr.**, a Constitution bench of the Supreme Court decided this issue.

Way Forward

- The Governor cannot sit on a bill that has been enacted by an Assembly indefinitely just because no deadline has been set. Such a choice is not provided for in Article 200.
- One of the options listed in that Article must be used by the Governor. All constitutional powers are obligated to behave sensibly. Activities that are unreasonable are not legal acts.

Devolution of powers and finances up to local levels and challenges therein; Important aspects of governance, transparency and

accountability, e-governance- applications, models, successes, limitations, and potential

THROTTLED AT THE GRASSROOTS: HOW TO STRENGTHEN DECENTRALIZED GOVERNANCE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Decentralized Governance

Prepp Mains Booster: Devolution of powers and finances up to local levels and challenges therein;

Context:

- 30 years ago in 1992, the 73rd Constitution Amendment Act was passed, and it took effect on April 24, 1993. It paved way for democratic decentralization at the grassroots level.
- The 73rd Amendment calls for a three-tier Panchayat Raj System at the village, intermediate, and district levels was first introduced in the Parliament.
- However, the local governments remain inefficient and constrained, serving only as lower-level government agents.

What is decentralized governance?

- Bringing **government to the people's doorsteps and establishing a direct line of communication between the client and the administration** are the two main goals of decentralized governance.
- Decentralized governance depends heavily on local institutions, the private sector, and civil society organizations.
- Decentralized governance involves grassroots organizations like self-help groups in an effort to access local initiatives and practises.
- Democratic decentralization' is an extension of the democratic principle that aims at widening the area of the people's participation, authority, and autonomy through the dispersion or devolution of powers to people's representative organizations.

Why decentralization is important?

- **Better Understanding :** A decentralized **government benefits the populace.** The general populace will understand government activities better.
- **More autonomy:** It operates autonomously to carry out policy decisions and is founded on the idea that the people have a right to initiate.
- It is a **more efficient method** of addressing regional requirements.
- **Adaptable:** Additionally, it offers a system adaptable to the many situations found in various locations.
- **Participatory policy making:** Another important feature of decentralized governance is Participatory policy making which leads to decentralized decision-making.
- **Responsive and representative government:** Decentralization is a key strategy for making democracy really responsive and representative.
- **Better penetration of government policies:** There is a chance for closer communication between locals and government representatives. It can allow better penetration of national policies to remote places.
- **Equitable resource distribution:** More political, religious, ethnic, and tribal groups will be represented in development

decision-making, which could result in more equitable resource distribution.

- The managerial and technical capabilities of local institutions will advance.
- It will make **coordination better**.
- It will institutionalise public engagement and information sharing.
- It will **counteract the elites' influence**.
- It can **reduce red tape**.

Concerns of decentralization in India:

- Little progress has been made in this direction more than 30 years after the 73rd and 74th constitutional amendments (which required the establishment of panchayats and municipalities as elected local governments) devolved various powers and responsibilities and made them accountable to the people for their implementation.
- Local administrations **remain inefficient and constrained**, acting as **mere agents for higher-level governments**.
- Despite around 32 lakh people's representatives being elected every five years amid much anticipation and ceremony, **democracy has not improved**.
- **Lack of finances:** The restriction is the design of the financial streams that distribute money to local governments. They don't set aside enough money to cover their basic needs.
- A large portion of the funding is rigid; even untied grants required by the Union and State Finance Commissions have a number of restrictions on how they can be used. Not enough money is spent on empowering and supporting local governments to levy their own taxes and user fees.
- **Lack of Personnel:** The municipal governments lack the personnel to carry out even the most elementary duties.
- **Lack of accountability:** Additionally, because most staff members are hired by higher-level departments and deputed to local governments, they do not feel accountable to the latter; Instead, they work as part of a vertically integrated departmental structure.
- **Compensation:** The Panchayats are not compensated for the huge work imposed on them by other departments.
- **Violation of the constitutional mandate of five-yearly elections to local governments:** Panchayat elections in Tamil Nadu have not taken place for more than two years, costing the State grants from the Union government's finance commission.
- **Centralization:** Local participation in various centrally planned programs has received a lot of attention from succeeding Union

governments, but this is not decentralization.

- Panchayats are nothing more than front offices for a number of Union government programs, and the current Union administration has further centralized service delivery by leveraging technology.
- **Corruptions:** Elections for local governments draw contractors and criminal elements who are enticed by the massive amounts of money currently available to them.
- By buying votes and making deals with other organisations, they win elections. Furthermore, in order to clear plans, approve estimates, and make payments, higher officers posted at the request of legislators frequently demand bribes from local governments.

Steps to be taken:

- Gram Sabhas and Ward Committees in metropolitan areas need to be revitalised in order to stop these tendencies.
- **Use of technology:** Modern (SMS) Short Message Service platforms or social media groups could be used to facilitate conversations between grama sabha representatives.
- **Strengthening local governance:** The organizational frameworks for local governance must be strengthened.
- Through service-level agreements, local governments must be given the tools necessary to hold State departments responsible and deliver high-quality, corruption-free services.

Way forward

- One of the biggest experiments in improving democracy is India's decentralisation efforts. Decentralization is always a messy type of democracy.
- The Constitution's definition of devolution goes beyond simple delegation.
- It entails that clearly defined governance obligations are explicitly delegated to local governments by law, supported by an adequate transfer of financial grants and tax revenues and that these governments are provided with employees so they have the resources they need to carry out their duties.
- Above all, local governments should answer more to their voters than to higher level institutions.
- The strength of democracy and public engagement is gauged by the presence of a robust local-level democracy. Its loss will undoubtedly have a significant impact.

COOPERATIVE ACT AMENDMENTS CLEARED

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Cooperative Act

Prepp Mains Booster: Development Processes and the Development Industry — the Role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

Context:

- Recently, the Union Cabinet approved an amendment to the cooperative societies law aimed at making multi-State cooperative society governance more democratic, transparent, and accountable.
- The **Multi-State Cooperative Societies (Amendment) Bill, 2022**, incorporates the provisions of the 97th Constitution Amendment, which granted cooperative societies constitutional



status and protection and made the right to form cooperative societies a fundamental right (Article 19).

- The amendments include provisions for establishing a cooperative election authority.

What is Cooperative Society?

- A co-operative is a self-reliant collection of individuals who have voluntarily joined forces in order to run a democratically governed and jointly owned enterprise in order to meet their shared economic, social, and cultural needs and goals.
- Their foundation is on the values of independence, responsibility, democracy, equality, equity, and solidarity. Co-operative members share their founders' belief in the moral principles of truthfulness, frankness, social duty, and compassion.
- Gandhiji believed that cooperation was necessary to create a socialist society and completely decentralise power. One of the most important methods to empower individuals, in his opinion, is through cooperation.

Multi-State Cooperative Societies

- Many societies have members and operations in more than one state.
- For example, most sugar mills along the Karnataka-Maharashtra border buy cane from both states.
- The Multi State Cooperative Societies (MSCS) Act of 2002 was enacted to govern such cooperatives.

Provisions of Cooperative Act Amendment

- The Bill will "incorporate provisions of the 97th Constitutional Amendment." It will improve governance, reform electoral processes, "strengthen" monitoring mechanisms, "improve" board composition, increase transparency and accountability, ease of doing business, increase financial discipline, and enable multi-state cooperative societies to raise funds.
- Provisions for the establishment of cooperative election authorities, cooperative information officers, cooperative ombudsman, and so on have been proposed in order to make governance of multi-state cooperative societies more democratic, transparent, and accountable.
- The election authority will ensure that elections are held in a fair, free, and timely manner, which will help reduce complaints and malpractices.
- The proposed Bill will include a three-year ban on offenders and more "electoral discipline." The cooperative ombudsman will establish a mechanism for resolving member grievances "in a structured fashion."
- The Bill proposes to appoint a Cooperative Information Officer who will "enhance" transparency by providing members with timely access to information.
- Provisions relating to the representation of women and Scheduled Caste/Scheduled Tribe members on the boards of multi-state cooperative societies have been included to promote equity and facilitate inclusiveness.
- To promote professional management, provisions have been made to bring in co-opted directors with experience in banking, management, cooperative management, and finance, or

specialisation in any field relating to the objects and activities undertaken by such multi-state cooperative society."

- The bill includes provisions for the establishment of a Cooperative Election Authority, a Cooperative Information Officer, and a Cooperative Ombudsman to improve the governance of multi-state cooperative societies.

Cooperative societies in India

- According to government data, there are approximately 8,55,000 cooperatives in India. There are 1,77,000 credit societies, 700,000 cooperative societies, 17 national-level cooperative unions, and 33 state cooperative banks out of this total.
- There are over 63,000 active Primary Agricultural Credit Societies (PACS) in the country, with over 12 crore members. Cooperatives exist in approximately 91% of the villages.

About Multi-state Cooperative Societies Act, 2002

- The Multi-State Co-operative Societies Act, 2002 was passed in order to support the democratic operation and independent operation of multi-State cooperative societies in accordance with recognised cooperative principles.
- A perceived need to alter the Act has arisen in order to boost the cooperative movement in the multi-State Cooperative societies sector and bring it into compliance with the 97th Constitutional Amendment.

THE DEMOCRATISATION OF INDIA, THE MANDAL WAY

Priority: Medium



Primary Source: The Hindu

Prepp Mains Booster: Governance, Constitution, Polity, Social Justice.

Context:

- Recently, the founder and leader of Samajwadi Party Mr. Mulayam Singh Yadav has passed away. In this context, in the article "The Democratisation Of India, The Mandal Way", author quotes Mulayam Singh, after being a member of the Central Cabinet in 1996, where he said, "...for the first time, power had gone to the impoverished and the oppressed, and we will use it to guarantee that their lot is bettered..." This brings the issue of democratization - percolation of political power to every citizen of India

India's democracy and the Indian Constitution

- The Indian Constitution begins its Preamble by addressing itself as "We, the people of India," indicating that the source of the Indian Constitution's power is "the people of India."
- The Indian Constitution declares India to be a "sovereign," "democratic," and "republic," emphasising that India will be governed by its people and that citizens will play a significant role in decision-making.

On Social Justice

- During colonial rule, social revolutionaries such as **Jyotiba Phule, Savitribai Phule, Sahuji Maharaj, and Periyar** initiated the social justice discourse in modern India.
- But it wasn't until B.R. Ambedkar arrived on the national scene that there was a sustained intervention with a concrete outcome in terms of policy prescriptions.

- By 1935, the colonisers had already classified the "depressed classes" (Dalits) and "tribals" (Adivasis) as Scheduled Castes and Scheduled Tribes, respectively.
- **The benefits of reservation in education and employment** for these social groups in proportion to their population were implemented as soon as the Indian Constitution went into effect.
- However, a significant portion of the "backward classes" and occupational caste groups remained socially and educationally backward; as a result, their presence in the bureaucracy, judiciary, academia, or the media remained abysmal.

Nehruvian Socialism

- Nehruvian socialism lost its lustre in the years following independence. The polity and governance remained in the hands of hand-picked brahmanical minds.
- At this point, the **Samyukta Socialist Party (SSP)** was committed to a 60% share for the backward classes.
- The Constituent Assembly had debated the caste-class divide. Backward classes were supposed to live in backward communities.
- B.R. Ambedkar agreed, saying that a backward community is a community that is backward in the opinion of the government.
- However, the Mandal report reaffirmed this with the phrase "a caste can be and quite often is a social class in India."

Formation of Backward Class Commission

- **Article 340** of the Constitution stipulated the possibility of egalitarianism, which resulted in the formation of two Backward Classes commissions, the **Kalelkar Commission (1953-1955)** and the **Mandal Commission (1978-80)**.
- The first did not yield anything. The mobilization campaign for implementing the second report's recommendations resulted in a "Mandal movement."
- **The "Mandal moment"** was the announcement on August 7, 1990, of implementing one of its recommendations, of 27% reservation for Other Backward Classes (OBC) in central services.
- The Mandal effect has persisted even as Mandal parties lost power at the Centre.
- The 73rd and 74th Amendments advanced the concept of social justice by extending reservation benefits to Scheduled Castes, Scheduled Tribes, and Other Backward Classes.
- All women were also granted horizontal reservation. Mandal II, or reservations for OBC candidates in institutions of higher learning, was implemented in 2006.

On Fraternity

- The popular understanding of secularism in India has shifted dramatically. Much has been written about its flaws. The true test of secularism and social democracy is community coexistence.
- As a result, secularism must be viewed through the lens of "Fraternity," as enshrined in the Constitution's "Preamble." This entails instilling confidence and camaraderie in minority communities.
- Mandal parties stifled communal mobilisation and right-wing hatred mongering.
- The arrest of L.K. Advani by the Lalu Prasad-led government in Bihar at the height of the **Ram Janmabhoomi movement** was one of two spectacular political decisions in 1990.

- Second, the Mulayam Singh-led government in Uttar Pradesh directed police to open fire on kar sevaks gathered in Ayodhya near the Babri Masjid.

Benefits of Mandal

- Benefit of "Mandal" has been the identification of socially and educationally backward castes and communities by not allowing religion to be a barrier.
- Mandal's consciousness shattered the stereotype of Indian Muslims as a homogeneous monolith.
- The upheaval surrounding Mandal also gave rise to a pasmanda (backward in Persian) movement among backward Muslims demanding democratisation and representation.
- The Mandal report fairly acknowledged a large number of Muslims and Christians who converted from Hinduism, but the vast majority of them continued to work in caste-based occupations.
- Mandal thus situates backwardness at the intersection of caste and religion.

Limitations and Measures

- Mandal(ite) political parties have also made serious mistakes by limiting key organisational positions to family members and extending favours to caste brethren.
- However, there could be a course correction, such as:
 - being more accommodating to the aspirations of the lower castes,
 - the economically backward classes or the most backward classes;
 - forging alliances with parties championing Dalit and Adivasi agendas;
 - pushing for quota within quota in the women's reservation Bill which is still pending, with fresh insights, as well as fielding more women candidates from marginalized communities;
 - solidarity works in politics.
- Kanshi Ram and Ram Vilas Paswan, two Dalit icons, played a pivotal role in mobilising and implementing Mandal.
- It is worth recalling Kanshi Ram's defeats in the Lok Sabha elections from Allahabad and East Delhi in 1988 and 1989, respectively.
- In 1991, Mulayam Singh endorsed his candidacy and assisted him in winning the seat of Etawah, Uttar Pradesh.
- In turn, the Bahujan Samaj Party-Samajwadi Party alliance defeated the mighty Bharatiya Janata Party in the hotly contested Uttar Pradesh Assembly elections of 1993.

WILL ELECTORAL BONDS REVEAL THE SOURCE OF FUNDS, SC ASKS CENTRE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Electoral bonds

Prepp Mains Booster: Salient features of the Representation of People's Act; Constitution, Polity.

Context:

- The Supreme Court resumed hearing the case on October 14 after the previous hearing on March 26, 2021.
- A group of petitions submitted by non-governmental organizations Association for Democratic Reforms, Common

Cause, and Communist Party of India (Marxist) against the electoral bonds program was considered by a bench of Justices BR Gavai and BV Nagarathna.

- The Supreme Court asked the government whether the electoral bonds' system reveals the source of money pumped in to fund political parties.
- The Supreme Court announced that it would decide on December 6 whether to submit the arguments against the laws allowing this kind of funding to a larger court.

What are electoral bonds?

- Election bonds are **interest-free bearer instruments** that were introduced in the **2017 Union Budget** and are used to make donations to political parties in an anonymous manner.
- A bearer instrument does not carry any information about the buyer or payee and the holder of the instrument (which is the political party) is presumed to be its owner.
- The bonds are **only permitted to be offered by the State Bank of India (SBI)**, and they are sold in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore.
- The bonds are available for donors to buy and then give to the party of their choice.
- The party can then cash the bonds through its verified account within 15 days.
- SBI deposits these into the **Prime Minister's Relief Fund if a party hasn't encashed its bonds within 15 days.**

Who is eligible to buy electoral bonds?

- A citizen of India or a body incorporated in India will be eligible to purchase the bond.
- A political party must be registered under **Section 29A of the Representation of the People Act, 1951 (43 of 1951)** and have received at least **1% of the votes cast in the most recent general election** for the House of People or the State's Legislative Assembly in order to be eligible to receive Electoral Bonds.
- A qualifying political party may **only redeem the electoral bonds** through a bank account with the authorized bank.

The lowdown on a vexed issue



What are electoral bonds?

Sold four times a year (in January, April, July and October), electoral bonds allow political parties to accept money from donors whose identities are kept anonymous. They are sold in multiples of ₹1,000, ₹10,000, ₹1 lakh, ₹10 lakh, and ₹1 crore. The scheme was first floated in 2017 and implemented in 2018.

Who can sell them?

SBI is the sole authorised bank to sell and redeem the bonds. Customers of other banks can also purchase the bonds via different payment channels provided to them. However, a political party can only redeem the bond from one of the 29 authorized branches of the bank.

Which parties can receive donations via electoral bonds?

A political party must also have at least 1% vote share in most recent general elections or assembly elections to receive donations via electoral bonds.

What is the controversy around them?

The scheme has been challenged on the grounds that it lacks transparency. Those opposed to it have also asserted that a large chunk of the donations have gone to the BJP, the ruling party. In 2019-20, the BJP received over 75% of the electoral bonds, according to the Election Commission data. Critics have also argued that since the bonds are sold through a government-owned bank there is a possibility that the party in power can find out who is funding their political rivals.

What are the criticisms against these bonds?

- **Lack of transparency:** The electoral bonds scheme is criticized for doing the exact opposite of what it was intended to do, which was to increase transparency in funding elections.
- **Anonymity:** According to some, electoral bonds' anonymity only **applies to the general people and the opposing parties.**
- Such bonds are sold through a government-owned bank State Bank of India (SBI), which gives the government access to information about the financiers of its adversaries.
- The scheme has an impact on the fundamental notion of free and fair elections guaranteed by Article 324 of the Constitution.
- **Denominations:** Election-related bonds were introduced with the goal of facilitating easy funding of political parties by the general public, however, more than 90% of the bonds issued have been of the highest denomination (Rs 1 crore).
- **Corporate Funding:** Additionally, there was a limit on the sum of money that a firm may donate to a political party until the electoral bonds program was established. However, critics claim that after changing the Companies Act, the government abolished this prohibition, enabling corporate India to receive limitless funding.

STRENGTHENING THE CSR FRAMEWORK IS A PROFITABLE IDEA

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: CSR

Prepp Mains Booster: Development processes and the development industry —the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

Context:

In the article "Strengthening the CSR framework is a profitable idea" the author Amar Patniak, a Rajya Sabha MP and a former CAG bureaucrat has talked about the why there is need to review the Corporate Social Responsibility (CSR) regime in India to strengthen it and given some recommendations to improve it.



Why is there a need to review CSR?

- **No data to verify CSR purpose:** Ever since the establishment of the CSR regime in India under the Companies Act 2013, CSR spending in India has risen from ₹10,065 crore (in 2014-15) to ₹24,865 crore (in 2020-21). But there is no data to verify

whether this increase is commensurate with the increase in profits of companies in India.

- **Increased number of Companies spending less than 2% on CSR:** Companies spending less than the mandated limit of 2% rose from 3,078 in 2015-16 to 3,290 in 2020-21. In addition, 2,926 companies in 2020-21 did not CSR spending.
- **Fall in CSR compliance:** From 25,103 in FY2019 to 17,007 in FY2021, there was a decline in the number of businesses engaging in CSR.
- **Issues with the law:** If a company spends more than the required minimum of 2%, the extra money may be deducted from spending over the course of the next three fiscal years. Because the 2% criterion is simply a minimum requirement, the Act's second provision is weakening the first one.
 - Additionally, a lot of private companies have established their own foundations or trusts, to which they pass the required CSR funding for use. It's uncertain whether this is permitted by Companies Act/CSR regulations.
- **Geographical bias:** Section 135(5) of Companies Act gives preference to local areas/areas around the operation of a company to spend CSR. However, a report says that 54% of CSR companies are concentrated in Maharashtra, Tamil Nadu, Karnataka, and Gujarat and receiving the largest CSR spending while populous Uttar Pradesh and Madhya Pradesh receive very less.
- **Less spending on Environment:** As per the analysis of CSR spending (2014-18) while most CSR spending is in education (37%) and health and sanitation (29%), only 9% was spent on the environment.
- **Flaws in Monitoring Regulations:** The current regulation places monitoring within a board-led, disclosure-based structure, and requires corporations to submit an annual report detailing their CSR expenditures to the Corporate Affairs Ministry (MCA).
 - It is unknown if these reports have been reviewed and if any firms have been held accountable.
 - This approach has a significant flaw in that it prioritizes output over the effectiveness of the investment and its impacts.
- **Flows in Audit and Accounting Standards:** A company is simply needed to list its CSR spends, non-spend, underspend, and overpay in the "Notes to Accounts," according to the ICAI's "Technical Guide on Accounting."
 - Additionally, an auditor is only permitted to look into the specifics of expenditures and, at most, to challenge the board's authenticity.
 - However, the auditor is not required to flag the accounts in the audit report for non-compliance or poor CSR performance, a requirement that can help to ensure compliance.

What are the recommendations to strengthen the CSR regime?

MCA monitored National level Platform:

- In order for businesses to determine where their CSR funds would have the greatest impact across India—with, of course, preference given to regions where they operate—it is necessary to create a national platform, centralized by the MCA, where all States could list their potential CSR-admissible projects.

CSR Project Repository on India Investment Grid:

- The "Corporate Social Responsibility Projects Repository" on the India Investment Grid (IIG) maintained by Invest India can be used as a resource for such initiatives. Supporting worthy initiatives in the 112 aspirational districts and initiatives chosen by MPs as part of the government's Sansad Adarsh Gram Yojana would be made much easier with the help of this methodology.

Prioritizing Increased spending on environment:

- Businesses should give environment regeneration in the region where they operate as top priority and allocate at least 25% of their budgets to it.

Greater Public participation:

- Communities, district administration, and public representatives should all be actively involved in the selection and implementation of CSR projects.

Enhancing Transparency:

- To enhance the current monitoring and assessment system, the high-level committee's 2018 recommendations should be included into the CSR framework.
- These include:
 - enhancing reporting mechanisms with improved disclosures about project selection, locations, implementing agencies, etc.;
 - bringing CSR under the purview of statutory financial audit with details of CSR expenditure included in a company's financial statement;
 - and mandating independent third party impact assessment audits.

Increased Government oversight:

- Instead of merely hosting all information on the Ministry's website, the MCA and the line departments need to exercise greater direct monitoring and supervision over CSR spend by businesses through the line ministries (for public sector undertakings) and other industry associations (for non-public units).

Background:

What is Corporate Social Responsibility?

- It is a concept where a company spends a certain share of its earnings towards the environment, social and human development field in the areas or locality where it is operating.
- By incorporating environmental, social, and human development concerns into its planning and operations, a company can employ corporate social responsibility (CSR) to ensure that its activities are moral and beneficial for society.
- In India, CSR has always been seen as a charitable endeavor.

Legislation for CSR in India:

- Section 135 of the Companies Act, 2013, Schedule VII of the Act, and the Companies (CSR Policy) Rules, 2014 all govern the CSR concept in India.
- Under Companies Act, 2013 any company with a
 - net worth of the company to be Rs 500 crore or more or
 - turnover of the company to be Rs 1000 crore or more or
 - net profit of the company to be Rs 5 crore or more.
 Needed to spend at least 2% of last 3 years average net profits on CSR activities as specified in Schedule VII of the Companies Act.
- This came into force from 1 April 2014.

- It is a concept in management whereby businesses incorporate social and environmental issues into their everyday operations and relationships with stakeholders.

Key areas of activities permitted under CSR:

- Environmental management and Eco-efficiency,
- Responsible sourcing,
- Employee and community relations,
- Labour standards and working conditions,
- Social equity,
- Gender balance,
- Human rights,
- Good governance practices and Anti-corruption measures.

Relevance of CSR:

- Assists businesses in striking a balance between social, environmental, and economic imperatives (also known as the "Triple-Bottom-Line Approach");
- Companies can contribute significantly to the fight against poverty;
- improved access to markets and money, rising sales and earnings;
- Directly improves a company's reputation and solidifies its brand image, increasing client loyalty.

PUCL REPORT CLAIMS ABUSE OF UAPA, SEEKS ITS WITHDRAWAL

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: UAPA

Prepp Mains Booster: Role of Civil Services in a Democracy. Government Policies & Interventions.

Context:

Recently the People's Union for Civil Liberties (PUCL) has released a report titled 'UAPA: Criminalising Dissent and State Terror' on the alleged abuse of the legislation during 2009-22, and demanding the law be repealed. The Report states that 'suo motu power' of the Central Government to transfer investigation from the State police was a 'serious threat to federalism'.

What are the findings of the report?

Slow and low rate of conviction and acquittal leading to abuse of UAPA:

- According to the report, the problem of bail and conviction rates was at the core of "abuse" of UAPA. This is because of the slow working of the NIA court resulting in the low conviction rate.

Low level of Bail rate:

- In 2018, there were 1,421 arrests, and 232 (16.32%) of those were released on bail.
- In 2019, there were 1,948 arrests, and 625 (32.08%) of those were released on bail.
- In 2020, there were 1,321 arrests overall, and 223 (16.88%) of those were released on bail.

Increased resorting to UAPA charges by NIA:

- As of August 12 of this year, the National Investigation Agency (NIA) has 456 cases listed on its website, 78% of which featured UAPA allegations.

Increasing use of the UAPA act:

- The research looked at NIA prosecutions during the UPA and NDA administrations.
- 69 UAPA cases were filed while the UPA administration was in office (from 2009 to May 2014), but 288 UAPA cases were filed during the NDA administration (May 2014 - Till today).

Increased Average number cases per year:

- During the UPA administration, there were 13 incidents on average per year, compared to 34 during the NDA administration.

State wise filling of UAPA cases:

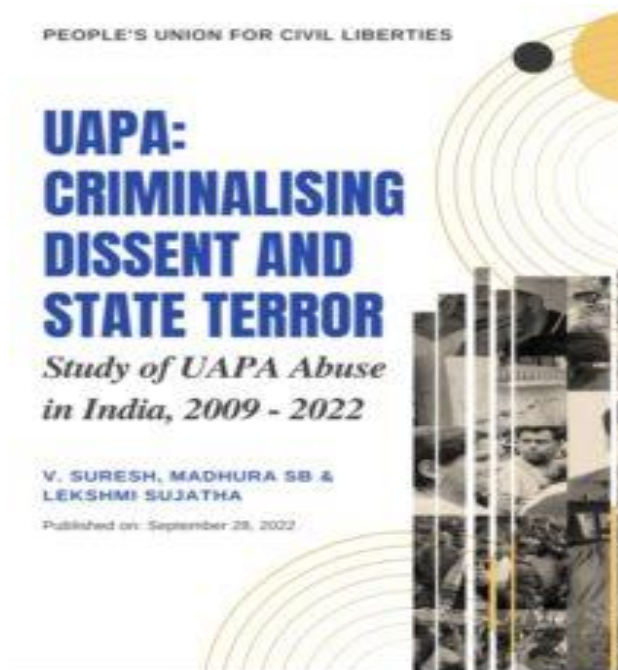
- Overall, Delhi (45 cases) has registered the most cases thus far, followed by Jammu and Kashmir (42 cases), Punjab (29 cases), Kerala (27 cases), Assam (26 cases), Jharkhand (22 cases), Bihar (18 cases), Manipur (18 cases), Maharashtra (16 cases), West Bengal (15 cases), Uttar Pradesh (14 cases), Karnataka (13 cases), Tamil Nadu (13 cases), and Andhra Pradesh (12 cases), and Nagaland (7).

Lack of reporting of crime incidence:

- According to the report, 152 cases - 64% of the 238 cases involving Section 18 charges (penalty for conspiracy, etc.) had no incidents that have been documented.

Suo Motu transfer from State Police to NIA:

- The report stated that the "severe threat to federalism" posed by the NIA's "suo motu power" to transfer investigations from the State police to the Central government/Ministry of Home Affairs.
- According to the report, 316 cases, or 88% of all UAPA cases handled by the agency, were transferred from State investigating authorities to the NIA
- and 41 cases, or 12% of all UAPA cases handled by the agency, were registered suo motu.
- Whether or not the State governments were consulted about these transfers, it is feared that they approved of them.



What is the Unlawful Activities (Prevention) Act (UAPA) 1967?

- The law, which was passed in 1967, aims to effectively prevent organizations and individuals in India from engaging in unlawful activities including terrorism and terror funding.
- The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- The UAPA was amended in 2004 and 2008 to be modeled after an anti-terror statute.
- The Unlawful Activities (Prevention) Amendment Act, 2019 was approved by Parliament in August 2019 and permits for the designation of an individual as terrorists on specific criteria specified in the Act.
- It departs from standard legal procedures to deal with terrorism-related offences and establishes an extraordinary regime with limited constitutional protections for the accused.

Important Provision:

- Both Indian and foreign nationals can be charged and held accountable.
- It is applicable even if the crime is committed outside of India.
- A charge sheet may be filed 180 days after the arrests at the latest.
- If the inquiry isn't finished in 90 days, the accused is qualified for default bail.
- Trials are conducted by a Special Court under the UAPA.

What is the 2019 Amendment to UAPA Act, 1967?

- According to a 2019 amendment to the UAPA Act from 1967, the Union government has the authority to designate an individual or group as a terrorist organization if it engages in, plans, sponsors, or otherwise supports terrorism.
- If an officer of the National Inquiry Agency (NIA) conducts the investigation, the Director-General must approve the seizure of property. NIA officers with the level of Inspector or higher can conduct investigations.
- A new item has been added to the list of circumstances in which terrorism is committed: the International Convention for the Suppression of Acts of Nuclear Terrorism (2005).

What are the Issues Surrounding UAPA?

- **Misuse:** Acts like POTA and TADA, which were especially passed to combat terrorism, have been seen to be misused in the past.
- **Federalism:** According to Schedule VII, police is a state subject. Giving NIA investigative and asset-attachment powers is seen as encroaching on governmental authority.
- **Denied Bail:** In accordance with Section 43D(5), a suspect cannot be released on bail if the court determines that there are good grounds to assume that the allegations are accurate at face value.
- **Burden of Proof:** The burden of proof is on the accused, as opposed to other criminal offenses where the burden of proof rests with the State.
- **Low Conviction Rate:** As per the PUCL report 2022, the problem of bail and conviction rates was at the core of "abuse" of UAPA. This is because of the slow working of the NIA court resulting in the low conviction rate

- **No reporting of Crime incidence in some cases:** As per the PUCL report, 152 cases- 64% of the 238 cases involving Section 18 charges (penalty for conspiracy, etc.) had no incidents that have been documented.

Way Forward:

- The report by PUCL is an important step in the direction highlighting the abuses and issues of UAPA. Though UAPA is an important legislation in tackling terrorism. However there is a need to address the issues regarding it. This can be done in the following ways.
- **Check Misuse:** Political revenge should not be the reason for making arrests. Before making a reservation under the terms of UAPA, appropriate research and information should be gathered.
- **Interpretation:** Observing the sacred concept that punitive provisions must be read severely and narrowly is essential to understanding interpretation
- **Ensuring Bail:** The court may consider the evidence at hand to determine if the case is, at least in part, true.
- **Burden of Proof:** The State should bear the greater burden of proof.
- **Compensation:** Government monies should be used to pay compensation in order to prevent arbitrary arrests.

Government policies and interventions for development in various sectors and issues arising out of their design and implementation;

NATIONAL EDUCATION POLICY PRESCRIBES NO LANGUAGE; STATES CAN CHOOSE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: NEP

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation; Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

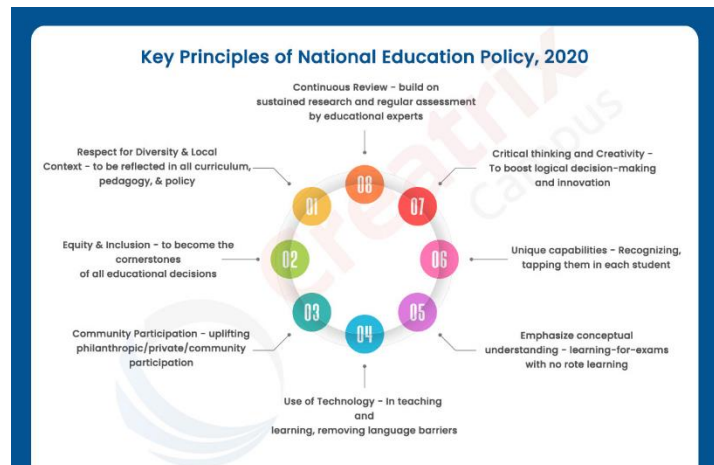
Context:

- For the purpose of promoting Indian languages, the Ministry of Education established the Bharatiya Bhasha Samiti in November 2021.
- It is headed by Chamu Krishna Shastri, a supporter of Sanskrit and recipient of the Padma Shri award.
- The National Education Policy (NEP) 2020 mandates that the mother tongue be used as the medium of instruction in schools and higher education institutions, giving the committee the responsibility of creating an action plan to expand Indian languages.
- The committee will research the state of languages in schools, colleges, and other settings where they are used, such as the workplace.

What is Bharatiya Bhasha Samitti?

- The Ministry of Education, Government of India, has established a High Powered Committee for the **Promotion of Indian Languages on 15th November 2021.**

- **Mandate:** This committee's mandate would be to investigate and suggest methods for the comprehensive and multidisciplinary development of Indian languages, as envisioned in the National Education Policy-2020.
- The group has also been charged with advising the Ministry on all issues relating to the revival of **current language instruction and research** and its expansion at different institutions around the nation.



What are the Findings of the committee?

- 35 mother tongues are used as teaching aids, and as part of the three-language formula, 160 other languages are taught in addition to the mother tongues (for example, Hindi is a mother tongue and a language, while Garhwali is a mother tongue but not a language).
- The **first hurdle in implementing NEP is supplying study materials**, therefore during the first year, our priority is to provide books in all academic disciplines, including science, humanities, and commerce, from first grade to post-graduate level in the languages listed in the Eighth Schedule of the Constitution.

What will the main areas of emphasis for the promotion of Indian languages be?

- **Train teachers:** In addition to textbooks, we also need to train teachers in both languages.
- It is important to guarantee employment opportunities, not simply teaching positions for language learners.
- It's important to ensure that Indian languages are more widely understood so that the Commerce Ministry can consider other languages other than English for use on packaging for retail items.
- **Employing it as a tool for science, technology, communication, entertainment, or instruction;**
- Producing **contemporary literature or content** in Indian languages, such as current events, ideas, or daily growth of knowledge internationally;
- Additionally, there is a need for a **continual process of developing new words**;
- languages must **adapt to technology** as we have seen with the disappearance of between 2,000 and 3,000 languages that did not do so;
- **Need resources for instruction and learning;** and

- Finally, we require **patronage**, which can come from businesses, the general public, and governments.

What types of employment opportunities are being considered?

- Multinational corporations, businesses, and governments must communicate in local languages to reach a wider audience.
- Only 10.4% of people know English; the remainder do not.
- **Translation professionals** will have a tonne of opportunities as a result of MNCs' requirement to provide instructions and spread the word in local languages. It will be a huge industry.
- **Interpreters.**
- **Translators** will be required in the **tourism industry**, for example, when someone is travelling from Ayodhya in Uttar Pradesh to Hampi in Karnataka, or vice versa.
- The **development of tech tools** like applications in regional languages is expanding opportunities.

Benefits of the Trilingual Formula

- **Demographics:** According to current statistics, in a decade and a half from now, more than 150 million children will become young adults.
- If the proper components of education are not imprinted throughout the foundational years, individuals' transition into adolescence and adulthood may not result in the transition for the nation.
- Therefore, it is crucial to teach children in a language that they are familiar with in their early years of life rather than forcing them to learn a foreign language that may be uncomfortable for them.
- **Greater acceptance among students attending public schools:** Government schools, which are the most common and serve rural areas, are attended by 70% of school-age children.
- **Fewer Dropouts:** Young children may lose interest in studying foreign languages because it is outside of their comfort zone, which will result in more dropouts and fewer enrollments.
- By switching to a local language and dialect for instruction, the teacher and student, as well as the teacher and parent, will instantly bond, increasing student enthusiasm in attending school.
- **Enhanced instruction in basic reading and numeracy:** It is common knowledge that early education aids in ensuring adequate numeracy and literacy abilities in addition to supporting cognitive, fine motor, and socioemotional development.

Issues

- **Chinese Whisper Syndrome:** This is in reference to the age-old problem of a statement being completely misunderstood as it is communicated from one person to another. It occurs as a result of a flawed interpretation of that assertion, in this example, the policy clause itself. The FAQ management on this issue has to be improved.
- **Building capacity and educating:** Only teachers who are fluent in these languages may accept and use multilingual teaching methods.
- English as a teaching language must not be seen as being eliminated by this three-language approach.

- Furthermore, it **shouldn't be seen as a forced promotion or favouritism of any one Indian language in particular.**
- The fact that our native tongue keeps us connected to our culture while **English, the language of commerce,** keeps us connected to the rest of the world, should always be honoured.
- **Opposition from non-Hindi Speaking states:** Certain non-Hindi-speaking States are opposed, claiming that the NEP 2020 forces Hindi on them. However, the NEP does not impose any language. NEP says either the mother tongue or regional language can be the medium of instruction.
- Implementation in areas like Delhi, where there is a plurality of languages

Steps taken

- The All India Council for Technical Education (AICTE) has prepared 270 books for first-year engineering courses in 12 different languages. Second-year books are now being written.
- A group headed by former CJI Sharad Bobde has been established by the Bar Council of India, **Bharatiya Bhasha Samiti, and UGC to create legal textbooks in Indian languages.**
- First-year books [in Hindi] have also been prepared by the Health Ministry and State Medical Council of the Madhya Pradesh government.
- Shastra University in Thanjavur recently stated that they would publish 75 books in 75 subjects for higher education in Tamil.

Way forward

- The three-language formula of the new education policy offers a glimmer of hope for improving our educational system by eliminating social disparity, ensuring emotional connection to education at a young age, and ultimately providing equal opportunity to children in all 50 states to be united through the power of knowledge and literacy.

DRAFT INDIAN TELECOMMUNICATION BILL, 2022

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Indian Telecommunication Bill

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:

- Recently, the Department of Telecommunications (DoT) issued the draft Indian Telecommunication Bill, 2022 in a bid to do away with British-era laws governing the telecom sector.
- The proposed Bill aims to bring in sweeping changes to how the telecom sector is governed, primarily by giving the Centre more powers in several areas to do so.
- Through this Bill, the Centre aims to consolidate and amend the existing laws governing the provision, development, expansion and operation of telecommunication services, telecom networks and infrastructure, in addition to assignment of spectrum.



Key Provisions of this Bill

Consolidation of existing laws

- The draft Bill consolidates three separate acts that govern the telecommunications sector — Indian Telegraph Act 1885, Indian Wireless Telegraphy Act, 1933 and The Telegraph Wires, (Unlawful Protection) Act 1950.

Inclusion of OTT services

- It proposes inclusion of new-age over-the-top communication (OTT) services like WhatsApp, Signal and Telegram in the definition of telecommunication services.

Parity between telecom operators and service providers

- The providers of telecommunication services will be covered under the licensing regime and will be subjected to similar rules as other telecom operators.
- This issue was under contention for several years with telecom service providers seeking a level-playing field with OTT apps over communication services such as voice calls, messages, etc. where operators had to incur high costs of licences and spectrum, while OTT players rode on their infrastructure to offer free services.

Amendment to TRAI Act

- It also seeks to amend the Telecom Regulatory Authority of India Act (TRAI Act) to dilute the sectoral watchdog's function of being a recommendatory body.
- The current TRAI Act mandates the telecom department to seek the regulator's views before issuing a new licence to a service provider. The proposed Bill does away with this provision.
- It also removes the provision that empowered TRAI to request the government to furnish information or documents necessary to make this recommendation.
- It also proposes to remove the provision where if the Department of Telecom (DoT) cannot accept TRAI's recommendations or needs modification, it had to refer back to the recommendation for reconsideration by TRAI.

Telecommunication Development Fund (TDF)

- It also proposes to replace the Universal Service Obligation Fund (USOF) with the TDF.
- USOF is the pool of funds generated by the 5% Universal Service Levy that is charged upon all telecom fund operators on their Adjusted Gross Revenue (AGR). This fund is mostly used to aid rural connectivity.
- The objective of TDF has been widened compared to USOF to boost connectivity in underserved urban areas, R&D, skill development, etc.

Distress Relief

- The draft Bill also accords the Central Government powers to defer, convert into equity, write off or grant relief to any licensee under extraordinary circumstances, including financial stress, consumer interest, and maintaining competition, among other things.
- This is proposed so that telecom entities in possession of spectrum goes through bankruptcy or insolvency, the assigned spectrum will revert to the control of the Centre.
- So far, in insolvency proceedings, there has been a lack of clarity on whether the spectrum owned by a defaulting operator belongs to the Centre, or whether banks can take control of it.

A PUSH FOR THE SEMICONDUCTOR INDUSTRY

Priority: Medium



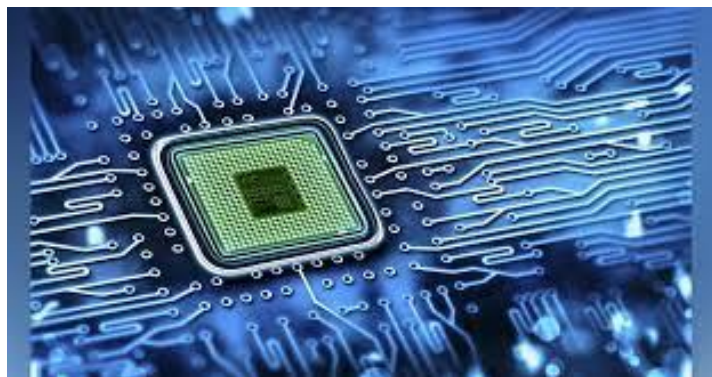
Primary Source: The Hindu

Prepp Prelims Booster: Semiconductor

Prepp Mains Booster: Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

Context:

- Recently, the Central Government has approved changes to the scheme for the development of a semiconductor and display manufacturing ecosystem in a bid to make India's \$10 billion chip-making initiative more attractive to investors.
- India lacks substantial semiconductor fabrication capacity and the country's requirements for chips and logic memory all have to be imported. India's semiconductor imports increased 65% in 2021-22 from 2019-20.
- According to the Ministry of Electronics and IT (Meity), semiconductor demand in India will increase to \$70-\$80 billion by 2026 with the growing demand for digital devices and electronic products.



How big is the semiconductor industry?

- Semiconductors are the thumbnail-sized foundational building blocks of almost every modern electronic device from smartphones to connected devices in the Internet of Things (IoT). They give computational power to these devices.
- The basic component of a semiconductor chip is a sliver of silicon, etched with billions of microscopic transistors and projected to specific minerals and gases, forming patterns to

control the flow of current following different computational instructions. The most-advanced semiconductor, developed in 2020 is known as the 5nm and has 16 billion transistors.

- Semiconductors having higher nanometer (nm) value are applied in consumer electronics, automobiles and so on. Those with lower values are used in devices such as smartphones and laptops.
- The global semiconductor industry is currently valued at \$500-\$600 billion. It caters to the global electronics industry currently valued at about \$3 trillion.

Chip-making process

- It is a complex and highly exact process, having multiple other steps in the supply chain such as chip-designing done by companies to develop new circuitry for use in appliances, designing software for chips and patenting them through core Intellectual Property (IP) rights.
- It also involves making chip-fabrication machines, setting up ATMP (assembly, testing, marking and packaging) and fabs or factories.

Concentration of Chip-making industry

- It is a highly-concentrated one, with the big players being Taiwan, South Korea and the United States among others.
- Around 90% of 5nm (nanometre) chips are mass-produced by the Taiwan Semiconductor Manufacturing Company (TSMC) in Taiwan.
- In recent times, major economies have entered the chip-making sector with a renewed push due to global chip shortage, US-China tensions over Taiwan, and the supply chain blockages owing to the Russia-Ukraine conflict.
- For example, the US's \$52.7 billion in government funding for the CHIPS and Science Act and the EU's Chips Act that will mobilise €43 billion for public and private investments.

What are the challenges?

- The chip production is a resource-intensive and expensive process. The PLI scheme is an encouraging move as it provides equal funding for all steps of the process.
- **Low Outlay:** The financial outlay of the Government PLI scheme is merely \$10 billion. It is far less as setting up of one semiconductor fab requires an investment of anywhere between \$3 to 7 billion.
- There is not much from the current scheme outlay left to support other elements including display fabs, packaging and testing facilities, and chip design centres.
- **Lack of Technology:** India push for semiconductor industry focuses on lagging-edge technology nodes to supply to the automotive and appliance sector.
- But creating global demand will be difficult initially as giants like Taiwan offer viable cutting-edge chip-tech worldwide. Thus, attracting global players to set up in India will be beneficial as they come with their customer base.

- **Supply of Pure Water:** Chip-making process also requires gallons of ultrapure water in a single day. This is a major task for the government to provide pure water to factories.
- But this continuous supply gets compounded by the drought conditions which often prevail in large parts of the country.
- **Supply of power:** Besides, an uninterrupted supply of power is central to the chip making process as just seconds of fluctuations or spikes causes millions in losses.
- **Consumer Demand:** Government also needs to drive up consumer demand in the semiconductor industry to avoid a situation where these ventures remain successful only till taxpayers are forced to fund required subsidies.

India's chip-making schemes

- **PLI scheme:** In December 2021, the Central Government announced a \$10 billion dollar production-linked incentive (PLI) scheme to encourage semiconductor and display manufacturing in the country.
- **DLI scheme:** The Central Government also announced fiscal support for a design-linked initiative (DLI) scheme to drive global and domestic investment related to design software, IP rights etc.
- **Recent Changes in these Schemes:** Recently, the Central Government announced new changes in these schemes to harmonise government incentives for all technology nodes of semiconductors.
- In the previous version of the scheme, the Central Government was offering to fund 30% of the project cost for 45nm to 65nm chip production, 40% for 28nm to 45nm, and 50% or half of the funding for chips 28nm or below. The modified scheme provides uniform 50% fiscal support from the Central Government for all nodes. Besides, it will also provide 50% of capital expenditure for other steps of the process as well (ATMP and chip design).
- The modified scheme also emphasises the production of the 45nm chip, which is less time-consuming and economical in terms of production. These chips had high demand, driven primarily by power, automotive and telecom applications.
- The modifications in the scheme were brought in after discussions with industry stakeholders and potential investors, to encourage all areas of chip-making to create an integrated ecosystem in India.

Investments in India

- According to the government the PLI and DLI schemes had attracted many global semiconductor players for setting up fabs in India and the modified programme would expedite these investments and bring in more applicants.
- Vedanta and Taiwanese chipmaker Foxconn have signed an MoU to set up a Rs. 1,54,000 crore semiconductor plant in Gujarat.
- International consortium ISMC (a joint venture between Abu Dhabi-based Next Orbit Ventures and Israel's Tower Semiconductor) has proposed to set up a \$3 billion plant in Karnataka.

- Singapore's IGSS Ventures has proposed to set up a \$3.5 billion plant in Tamil Nadu.

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

FOREST CONSERVATION RULES INFRINGE UPON LAND RIGHTS OF TRIBESPEOPLE: NCST CHIEF

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: NCST

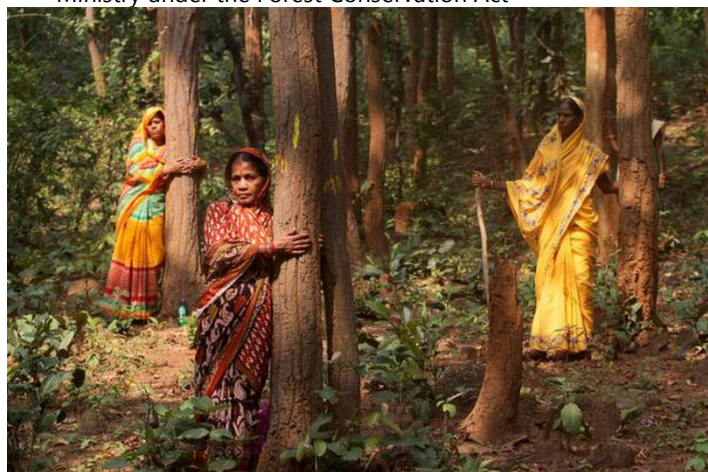
Prepp Mains Booster: Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes; Environmental Conservation, Environmental Impact Assessment.

Context:

According to Harsh Chouhan, chairperson of the National Commission for Scheduled Tribes (NCST), the new Forest Conservation Rules, 2022 infringes upon land rights of tribespeople. and there for NCST had recommended the Union Environment and Forest Ministry to put on hold the new Forest Conservation Rules, 2022.

What has the NCST Chief Recommended?

- According to NCST Chairperson Harsh, the commission has a constitutional responsibility to "warn the government" on its policies that could have an impact on the rights and well-being of tribal people.
- As per the responsibility the Commission had recommended to the government about the Forest Conservation Rules, 2022 (FCR 2022), which essentially eliminates the requirement of consent of local tribespeople and forest dwellers for diversion of forest land for other purposes.
- This would amount to infringing upon the land rights of tribespeople under the Forest Rights Act.
 - FCR 2022 was released in June 2022 by the Environment Ministry under the Forest Conservation Act



What are the Forest Conservation Rules?

- The Forest Conservation Act (FCA) of 1980 is put into effect via the Forest Conservation Rules (FCR).

- FCR outlines the process to be followed when diverting forest land for non-forestry purposes such as mining, railroad construction, road construction, and highway development.
- The Central government must approve land diverting for forest land that is larger than five hectares. This is done through a specifically formed committee known as the Forest Advisory Committee (FAC).
- Once the FAC is convinced and approves a proposal, it is sent to the State government of the area where the land is located, which is then responsible for ensuring that the requirements of the Forest Right Act, 2006 that safeguards the rights of tribal members and forest dwellers to their land, are met.
- The FAC's clearance also requires that the future landowners pay the net present value (which might range from Rs. 10 to 15 lakh per hectare) and provide compensatory land for afforestation.

What do the FCR 2022 say?

- On June 28, 2022, the most recent version of the rules—which combines revisions and court decisions over the years that have resulted in changes to the Act—was made available to the public.
- The Center claims that the new rules "streamline" the approvals procedure.
- The regulations allow for the cultivation of plantations by private parties, who can then sell them to businesses that must satisfy compensating forestation requirements as land.
- The government claims that this will both assist India in increasing its forest cover and address the issue of the States' inability to locate land within their borders for compensatory reasons.
- The most recent area of dispute is the absence of language in the amended Forest Conservation Rules 2022 describing what would happen to tribal people and communities that live in the forest whose land would be diverted for construction projects.
- Before the FCR 2022 went into effect, state agencies would send the FAC approval document that included details about the resolution of local residents' forest rights.
- After 2009, the Environment Ministry issued a directive stating that proposals would not be considered by the FAC unless they were accompanied by a letter from the State stating that the area's forest rights had been "resolved" and that the gram sabha had given written consent for diverting of forest land.

What are the issues with FCR 2022?

- Diluting to FRA, 2006: Without resolving issues about the rights of tribe members who lived there and forest inhabitants, it permitted the conversion of forest land to industrial use.
- Will weaken forest tribal people: The most recent bone of contention is the revised Forest Conservation Rules' lack of language describing what would happen to indigenous people and communities that live in forests whose land would be divided up for construction projects.
- Once clearance of the forest is authorized, residents' requests for relocation will be disregarded.
- The Center will put more pressure on the States to quicken the land diversion process.

What is the National Commission for Scheduled Tribes (NCST)?

- The Constitution (89th Amendment) Act of 2003 amended Article 338 and added a new Article 338A, establishing the National Commission for Scheduled Tribes (NCST).
- The former National Commission for Scheduled Castes and Scheduled Tribes was replaced by two independent commissions, namely:
 - National Commission for Scheduled Tribes (NCST)
 - National Commission for Scheduled Castes (NCSC)

Composition:

- From the date of charge assumption, the Chairperson, Vice-Chairperson, and each Member's terms of office are three years.
- The Vice-Chairperson and other members have the rank of Minister of State in the Union Cabinet, while the Chairperson and other members have the rank of Secretary to the Government of India.
- They are chosen by the President by a warrant bearing his signature and seal.
- There should be at least one female member.
- The terms of office for the Chairperson, Vice-Chairperson, and other Members are three years.

More than two terms of appointment are not permitted for the members.

Role and Responsibilities of the NCST:

The NCST's Role and Responsibilities includes:

- **Investigating and keeping track of issues involving** the safeguards that are established for STs by the Constitution, other laws, or governmental orders, as well as monitoring how well those safeguards are functioning.
- **To look into particular complaints** regarding STs' rights and protections;
- **To assess the socioeconomic development** of STs under the Union and any State, and to participate in and provide advice on planning related to that development;
- **To report to the President** on the progress of safeguards, measures necessary for the successful implementation of programs and schemes relating to the welfare and socioeconomic development of STs every year and at other times as the Commission may deem appropriate;
- **To discharge such other functions** in relation to STs as the President may by rule specify, subject to the provisions of any law made by Parliament;

What are the Issues with the National Commission for Scheduled Tribes?

- **Vacant position and shortage of manpower:** According to the Ministry, the Commission's recruitment was hampered by a lack of candidates because the eligibility threshold was set too high and the rules needed to be changed to allow for the submission of many more applications.
- **Pending Reports:** It only met four times during the fiscal year 2021–2022. The amount of time it takes to resolve the complaints and cases it gets is also very close to 50%.

Dispute Redressal Mechanisms and Institutions,

THE MEDIATION BILL

Priority: Medium

Primary Source: Hindu



Prepp Prelims Booster: Mediation bill

Prepp Mains Booster: Dispute Redressal Mechanisms and Institutions

Context:

On December 20, 2021, the Mediation Bill, 2021 was introduced in the Rajya Sabha, and the Parliamentary Standing Committee was tasked with reviewing the Bill. The Rajya Sabha received the committee's report on July 13, 2022. In its report, the Committee made significant recommendations for amending the Mediation Bill in order to institutionalize mediation and create the Mediation Council of India.



What are the concerns raised by the Parliamentary Standing Committee(PSC) on the Bill?

- **On making the pre-litigation mediation compulsory:** The committee has advised against committing to pre-litigation mediation.
 - Additionally, it cautioned the Union Government against a clause that would have given higher courts the authority to set mediation procedures.
 - The committee believes that making pre-litigation mediation necessary could actually cause cases to be delayed.
 - The PSC has recommended that pre-litigation be made optional and implemented gradually rather than all civil and commercial disputes rather than immediately.
- **Regarding definition of Mediation:** The members agreed that the term "mediation" has to be redefined in relation to its current definition.
 - PSC claimed that there was no need to define "mediation" individually in Clause 4 because the definitions are provided in Clause 3 of the Bill.
- **Regarding the Mediation Council of India:** According to the Bill's current provisions, the chairman and members of the Mediation Council of India can be people who deal with "Alternative Dispute Resolution" issues.
 - The PSC demands that the Chairperson and full-time members have "demonstrated capacity" and "knowledge and experience" in "mediation."
 - The PSC has also suggested that similar Mediation Councils be established in all states also.

What are key provisions of the proposed Mediation Bill?

- The Mediation Bill, 2021 seeks to facilitate mediation, especially institutional mediation, and offer a way to enforce settlement agreements reached through mediation.

Objectives:

- The aim of the legislation is to advance, encourage, and facilitate the use of institutional mediation for the settlement of conflicts, both commercial and otherwise.
- To uphold settlements reached through domestic and international mediation.
- To establish a body for mediator registration and to promote community mediation.
- To make internet mediation a respectable and affordable method, as well as for matters related to or incidental thereto, a plan has been made.

Compulsory Pre-litigation Mediation:

- Before going to any court or specific tribunals, parties must attempt to resolve their civil or business disputes through mediation.
- The court or tribunal may refer the parties to mediation at any time if it desires, even if pre-litigation mediation fails to result in a settlement of disputes.

Disputes unsuited to mediations:

- A list of disputes that are unsuited for mediation is provided in the Bill.
- These include conflicts involving the claims made against juveniles or people who are not of sound mind, criminal prosecution, and third-party rights. This list may be changed by the Union Government.

Applicability: The following mediations will be subject to the Bill:

- mediations with only Indian parties;
- mediations with at least one foreign party and involving a commercial dispute (i.e., international mediation);
- mediations where it is expressly stated in the mediation agreement that the mediation will be conducted in accordance with the Bill.

The Bill will apply to:

- Business/Corporate/Commercial disputes and
- Other disputes as notified, if the Union or state governments are parties to disputes.

Process of mediation: The mediation will be in private and must be completed in 180 days (may be extended by 180 days by the parties).

- After two sessions, a party may leave the mediation process.
- The rules established by the Supreme Court or High Courts must be followed when conducting court-annexed mediation.

Mediators: Mediators may be chosen by

- the parties in a written agreement, or

- a provider of mediation services (an institution administering mediation).

Mediation Council of India: The Indian Mediation Council to be established by the Union Government.

- **Composition:** The Council will have
 - A chairperson,
 - Two full-time members (with mediation or ADR experience),
 - Three ex-officio members, including the Law Secretary and the Expenditure Secretary,
 - A part-time member representing an industry association.

Mediated settlement agreement:

- Agreements resulting from mediation (other than community mediation) will be final, binding, and enforceable in the same manner as court judgments.
- They may be challenged on grounds of fraud, corruption, impersonation, or relating to disputes not fit for mediation.

What is Mediation?

- Mediation is the voluntary process in which parties try to settle disputes with the assistance of an independent third person known as the mediator.
- Although a mediator does not decide the dispute but helps the parties communicate so they can try to resolve the dispute themselves.
- There are no rigid or legally-binding norms of procedure in the mediation process; instead, it depends on the parties' choices.
- In India, Mediation is one of the modes of Alternative dispute resolution (ADR). Lok Adalats, Conciliation, Mediation, and Arbitration **are other forms of ADR used in India.**
- Alternative dispute resolution (ADR) is the process used to resolve conflicts outside of the conventional judicial system.
- As a kind of ADR, mediation aids in reducing the caseload in courts.

What are the mediation measures available in India at present?

- According to the Code of Civil Procedure, 1908, the court may send cases to mediation.
- For example, if a private party is bound by a contract with a mediation clause.
- In accordance with the terms of certain laws, such as the Commercial Courts Act of 2015, the Consumer Protection Act of 2019, or the Companies Act of 2013.

Why does India need to promote mediation?

- **No specific law regulating mediation:** Although mediation is not specifically governed by law in India, it is covered by a number of other acts, including the Code of Civil Procedure (1908), the Arbitration and Conciliation Act (1996), the Companies Act (2013), the Commercial Courts Act (2015), and the Consumer Protection Act (2019).
- **Trusted by SC Committee:** The Supreme Court of India's Project Committee on Mediation and Conciliation describes mediation as a tried-and-true alternative to traditional conflict resolution methods.

- **India party to Singapore Convention:** It is appropriate to adopt law that governs both domestic and international mediation because India is a member to the **Singapore Convention on Mediation** (officially known as the United Nations Convention on International Settlement Agreements Resulting from Mediation).

What are the advantages of promoting Mediation?

- Conflict resolution via Mediation frequently takes place in private, promoting secrecy. It is a more practical, cost-efficient, and successful method of keeping disagreements out of the courtroom.
- The stress of a traditional trial is removed in mediation because of procedural flexibility, which also helps you save money and time.
- This frequently produces novel answers, enduring results, greater levels of pleasure, and better relationships.
- the ability to ensure that a knowledgeable, impartial counsel, arbiter, mediator, or conciliator is present on the tribunal.
- It also allows the user to have greater direct control over the outcome. Other people's relationships might also fare better.

Way Forward:

- The Bill ought to be enacted following consultation with stakeholders in order to facilitate a quicker resolution of disputes.
- Our ambitions to establish ourselves as an international mediation hub for easy business transactions may be dashed before they even get off the ground if the problems with the Bill aren't resolved.

Powers, Functions and Responsibilities of various Constitutional Bodies.

GUJARAT FIRMS SIGN MOU WITH ELECTION COMMISSION, TO NAME, SHAME WORKERS WHO DON'T VOTE

Priority: Medium



Primary Source: The Indian Express

Prepp Prelims Booster: ECI

Prepp Mains Booster: Powers, Functions and Responsibilities of various Constitutional Bodies.

Context:

Recently, for the first time, over a thousand business entities in Gujarat have signed agreements with the Election Commission (EC), committing to track "electoral participation of their workers" and post the names of individuals who don't vote on their websites or office notice boards.



What is the issue?

- Gujarat Chief Electoral Officer (CEO) revealed that EC have signed 233 MoUs (Memorandum of Understanding) that will assist to enforce the Election Commission's guidelines.
- EC will track the voting behavior of the workers employed by 1,017 industrial entities in Gujarat for the first time.
- Individual units and industrial organisations have signed memorandums of understanding, and efforts to enlist more will continue up until election day.

Background:

- The EC had requested public sector organizations, businesses with 500 or more employees, and departments of the federal and state governments to designate nodal officers to track down workers who take leave on election day but don't cast their vote.
- As per the chief election commissioner, four of the seven districts with the lowest voting percentage in the general elections of 2019 were urban areas.
- The voting rate is typically lower in metropolitan regions, which lowers the overall voting rate.
- So the EC had taken efforts to increase the participation of voters in election procedure.

Why is it required to increase the voting participation?

- **Voting as a civic duty:** Voting is frequently compared to other similar civic duties, like taxation.
- **Political legitimacy of Democracy:** Higher voter turnout legitimizes the formation of Government or state which is the foundation of democracy. .
- **Promotion of Politics:** Other benefits attributed to voting participation include the promotion of politics with broader interests, which serves as a type of political stimulation and civil education and improves public knowledge.
- **Participation in decision making process:** Voting is a necessary means of expressing enthusiasm for debate about current topics that shouldn't be limited to social media.

What are the potential issues with this?

- In India, the right to vote supersedes the obligation to vote.
- Legal experts in the US contend that mandated voting is fundamentally an act of compelled speech that breaches the right to free speech because the freedom to speak entails the freedom to remain silent.
- For weaker groups like migratory laborers, voting expenses may typically outweigh the anticipated advantages.

Election Commission India

- On January 25, 1950, the Election Commission was constituted in accordance with the Constitution.
- The Election Commission of India is an autonomous constitutional body responsible for administering Union and State election processes in India.
- It administers elections of the offices of the President and Vice President of India, to the Lok Sabha, Rajya Sabha, State Legislative Assemblies and State Legislative Councils.

Constitutional Provisions:

- Part XV of the Constitution (Articles 324 to 329) and the Representation of People Act both specify the body's powers, appointments, and responsibilities.

Composition:

- The commission initially consisted exclusively of the Chief Election Commissioner.
- The Chief Election Commissioner and two Election Commissioners make up its present membership.
- Two new Commissioners were appointed for the first time on October 16th, 1989, however they only served until January 1st, 1990.
- Later, two additional Election Commissioners were appointed on October 1st, 1993.
- Since then, the idea of a multi-member commission with majority voting authority has been in use.

Appointment, Tenure, and Privileges:

- Election commissioners and the chief election commissioner are appointed by the president.
- They can serve for six years or until they become 65, whichever comes first.
- They have the same status as Supreme Court of India judges, and they receive the same pay and benefits.
- Only parliamentary impeachment can allow the Chief Election Commissioner to be removed from his or her position.

Removal:

- They can resign at any time or be removed before their term.
- Similar to a Supreme Court judge, only a President's order may remove the CEC from office.

Power and Functions of ECI:

- Identifying the national territorial boundaries of the electoral constituencies.
- Creating electoral rolls, which are then periodically revised, and enrolling all eligible voters.
- Distributing election schedules and dates and reviewing nomination forms.
- The process of recognizing political parties and assigning them electoral insignia.
- The Commission has advising authority over the post-election disqualification of members of the State Legislature and the Parliament.
- In order to prevent unfair practices or arbitrary power abuse by those in authority, it issues the Model Code of Conduct for political parties and candidates during elections.
- According to the Constitution, the Commission also has advising authority over the post-election disqualification of members of the State Legislatures and the Parliament.
- A candidate who fails to file an account of his election expenses within the deadline and in the manner specified by law may be disqualified by the Commission.
- Additionally, the Commission has the authority to shorten or eliminate the duration of such disqualifications as well as other disqualifications under

Way Forward

- It is clear that greater participation does not always imply higher-quality participation or a more vibrant democracy with mandatory voting.
- There is also a legitimate concern that increasing voting participation may encourage candidates to buy more votes, particularly in countries like India where there have already been reports of cash-for-vote frauds.

- Making voting mandatory also eliminates the choice to abstain as a form of protest.
- No one contests the advantages of increased and educated voter turnout for democracy, but instead of going the mandatory route for greater voter involvement, technology can be used to accomplish this goal.

Issues relating to poverty and hunger; Important International institutions, agencies and fora- their structure, mandate.

UNDERSTANDING THE GLOBAL HUNGER INDEX

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: GHI

Prepp Mains Booster: Issues relating to poverty and hunger; Important International institutions, agencies and fora- their structure, mandate.

Context:

- Recently, the Global Hunger Index for the year 2022 has been released. In the 2022 Global Hunger Index, India ranks 107th out of 121 countries with a score of 29.1.
- The **Ministry of Women and Child Development rejected the Global Hunger Index (GHI)**, which ranked India 107th out of 121 countries, for the second time in two years on Saturday.
- India received a score of 29.1 out of 100 (with 0 indicating no hunger), trailing Sri Lanka (66), Myanmar (71), Nepal (81) and Bangladesh (84).
- It called the index "an erroneous measure of hunger." It also incorrectly stated that the Index was based on an opinion poll.

What is the Global Hunger Index?

- The Global Hunger Index (GHI) is a tool for measuring and tracking hunger at the global, regional, and national levels.
- The GHI score is calculated on a 100-point scale, with zero indicating no hunger and 100 indicating severe hunger.
- The GHI is being prepared by the European NGOs **Concern Worldwide and Welthungerhilfe**. It is co-produced by the non-profit organisation Welthungerhilfe from Germany and Concern Worldwide from Ireland.
- The Global Hunger Index (GHI) is an annual peer-reviewed report that aims to "completely measure and track hunger at the global, regional, and country levels."
- The report's authors mostly refer to the United Nations' Sustainable Development Goal 2 (SDG 2), which aims to achieve "Zero Hunger" by 2030.
- The GHI is an annual report, and each set of GHI scores is based on data from a 5-year period. The GHI scores for 2022 are based on data from 2017 to 2021.

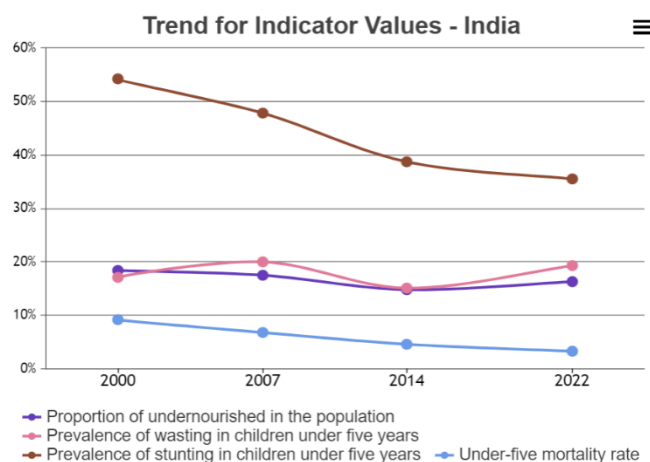
Four Component Indicators

- Undernourishment
- Child stunting
- Child wasting
- Child mortality

India's Performance in the Four Indicators

- **Undernourishment:** This has also increased in the country, rising from 14.6% in 2018-2020 to 16.3% in 2019-2021.
- **Child Wasting:** At 19.3%, India's child wasting rate (low weight for height) is higher than in 2014 (15.1%) and even in 2000 (17.15%).

- **Child stunting and Child mortality** have improved in India.
 - Between 2014 and 2022, child stunting (low height for age) fell from 38.7% to 35.5%.
 - In the same time period, child mortality (mortality rate under the age of five) fell from 4.6% to 3.3%.



What is the significance of GHI?

- The GHI is a metric for measuring the **effects of development in the area of hunger**.
- In order to **assess how well government initiatives** and other interventions perform in enhancing outcomes, it is critical to distinguish between policy actions and their results.

Issues

- The prevalence of undernourishment, which is an indicator of the population's proportion that experiences chronic dietary energy intake insufficiency, increased in the nation from 14.6% in 2018-2020 to 16.3% in 2019-2021.
- Out of the 828 million undernourished individuals worldwide, 224.3 million people live in India.
- India's GHI score dropped from 38.8 points in 2000, regarded as alarming, to 29.1 points in 2022, considered serious.

What are the allegations?

- According to the **Ministry of Women and Child Development**, the report lowers India's ranking based on estimates of the Proportion of Undernourished (PoU) population.
- It elaborates that the Food and Agriculture Organization (FAO) estimate is based on the **'Food Insecurity Experience Scale (FIES)'** survey module conducted using the Gallup World Poll, with a sample size of 3,000 respondents being asked eight questions.
- It stated that the data represented a negligible proportion for a country the size of India.
- It refuted the report's assertions that India's per capita dietary energy supply has increased year on year due to increased production of major agricultural commodities in the country over the years.
- The GHI website provides important clarifications on the government's concerns. It explains that, while FAO uses a suite of food security indicators, including two important indicators:
 - prevalence of undernourishment and

- prevalence of moderate or severe food insecurity based on FIES.
- The GHI only uses the PoU obtained through food balance sheets based on data reported by member countries, including India.
- A food balance sheet provides a comprehensive picture of a country's food supply pattern over a specified time period. It specifies the source of the supply and how it is used in each food category.

Why use three child-specific indicators?

- The website explains why the GHI uses three child-specific indicators out of four to calculate hunger for a country's population:
- "By combining the proportion of undernourished in the population (1/3 of the GHI score) with the indicators relating to children under age five (2/3 of the GHI score), the GHI ensures that both the food supply situation of the population as a whole and the effects of inadequate nutrition within a particularly vulnerable subset of the population are considered."
- All four indicators used in the calculation of global hunger are recognised by the international community, including India, and used for measuring progress toward the UN SDGs.

Why the controversy?

- According to the Ministry, the report is not only out of touch with reality, but also chooses to ignore the Central Government's food security efforts, particularly during the pandemic.
- The Union Cabinet, through the **Pradhan Mantri Garib Kalyan Ann Yojna (PM-GKAY)**, provided an additional five kg ration per person each month in addition to their normal foodgrain quota under the **National Food Security Act**. It was recently extended until December 2022.
- The schemes were beneficial but not sufficient because of unemployment, rising food prices, and stagnant wage levels, people are not eating as much as they should.
- It is important to note that the ranking cannot be used for year-to-year comparisons because countries with varying economic conditions are assessed each year.
- It is more important to consider the position and the indicator analysis than the comparative year-on-year rank.
- The issue isn't whether the rank has risen or fallen; the issue is that the rank is low.

DUBIOUS DRUGS

Priority: High



Primary Source: Indian Express

Prepp Prelims Booster: Health

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Context:

- Recent findings by the Central Drugs Standard Control Organization (CDSCO) has given its report and opened the investigation after WHO alerted four Cough syrup manufactured by an Indian company alleged to be responsible for the deaths of 66 children in the Gambia.

- In this context, the article "Dubious Drugs" in The Indian Express argues for the need to ensure the quality standard for Indian pharma companies.

Central Drugs Standard Control Organization (CDSCO)



What is the issue?

- The World Health Organization (WHO) issued a warning that four cough syrups may be responsible for the deaths of 66 children in The Gambia, leading to the issuance of a global alert against them.
- According to the WHO, an Indian pharma manufacturer called Maiden Pharmaceuticals produced these 4 drugs but was unable to ensure their safety.

What are the findings of CDSCO?

- According to the Union Health Ministry and Central Drugs Standard Control Organisation (CDSCO), the State Drug Controller has granted the Haryana-based firm a license to make the following products for export exclusively:
 - Promethazine Oral Solution BP,
 - Kofexnaline Baby Cough Syrup,
 - MaKoff Baby Cough Syrup,
 - MaGrip n Cold Syrup
- The CDSCO has asked the WHO to provide the report on the swift determination of the causal link between death and the in issue medicinal items.
- According to the All-India Organisation of Chemists and Distributors (AIOCD), none of the four syrups were offered for sale in India. The AIOCD further promised the DCGI that if these medications were offered on the Indian market, supply would be immediately stopped.

What are the findings of the WHO?

- The WHO's initial findings showed that ethylene glycol and diethylene glycol were present in four of the 23 samples that were examined.
- These components are dangerous and cannot be used in food or medications as they can result in severe CNS toxicity, severe kidney injury, headaches, vomiting, diarrhoea, and stomach pain.
- Symptoms develop to multi-organ failure in two to seven days if they don't receive therapy.
- The leading cause of death in cases of poisoning is acute renal failure.
- The WHO claims that the syrups might have been distributed through unofficial markets and in other places.

How are drugs regulated in India?

Drugs and Cosmetics Act, 1940 and Rules 1945:

- For the regulation of pharmaceuticals and cosmetics, these have given both federal and state authorities a variety of duties.

Central Drugs Standard Control Organization (CDSCO):

- CDSCO is the National Regulatory Authority (NRA) of drugs in India
- CDSCO is a part of the Directorate General of Health Services in the Ministry of Health & Family Welfare.
- The Drugs and Cosmetics Act gives CDSCO authority over the approval of drugs.
 - carrying out clinical trials
 - establishing the criteria for drugs.
 - control over the country's imported drugs' quality
 - Coordination of state drug control organizations' efforts.
- Additionally, CDSCO and state regulators are jointly in charge of issuing licenses for specific specialized categories of important drugs like vaccines and sera, etc.
- The Government of India has stated that it intends to have CDSCO examine all medical devices, including implants and contraceptives.

Drugs Controller General of India (DCGI):

- The Government of India's Drugs Controller General (DCGI) is in charge of approving licenses for specific kinds of drugs, including blood and blood products, IV fluids, vaccinations, and sera in India.
- He or she also serves as the department's head within the CDSCO.
- Additionally, DCGI establishes requirements for medication production, distribution, sales, and import in India.

Why is there a need to ensure the quality standard of Indian pharmaceuticals?

- Affects reputation of India being the pharmacy of the Third World:** the incidents and accident like this dents India's reputation of Third world's Pharmacy and trusted supplier quality drugs and medicine at cheap price.
- Affects Export of Pharma:** The non compliance to the quality standards affects the export to drugs and medicine to the other countries and specially Developed World Market.
- Affects emergence of Indian pharma Industry as the Global leader:** Poor quality standard also affects the India's emergence of Global leader in the World market.
- Noncompliance with Quality standards:** A CDSCO assessment conducted between 2014 and 2016 found that 5% of Indian medications, many of which were produced by major pharmaceutical corporations, failed the quality test. Independent research indicates that this number might be substantially higher.

Way Forward

- Indian Pharma Industry needs to adhere the quality control standard and ensure the safety criteria before exporting the drugs to the other countries to avoid the incidents like this and dent to the reputation to India.
- Government of India, states governments and CDSCO needs to ensure that quality standards are adhered strictly and needs to be enforced strongly for the future development of the sector.

INTERNATIONAL RELATIONS

India and its Neighborhood- Relations. Bilateral, Regional Groupings and Agreements involving India and/or affecting India's interests.

U.S. SAYS RELATIONSHIPS WITH INDIA, PAKISTAN DISTINCT

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Indo-Pak

Prepp Mains Booster: Effect of Policies and Politics of Developed and Developing Countries on India's interests; Bilateral Agreements involving India and/or affecting India's interests;

Context:

Recently, when questioned about remarks made by S. Jaishankar, the minister of external affairs, criticising a recently announced \$450 million U.S. assistance package to Pakistan for "sustainment and related equipment" for its F-16 fighter jets, the U.S. responded that its relations with India and Pakistan are not related to one another. This has highlighted the areas of divergence in the India- US relationship.

What is the response of the USA?

- The US responded that it does not see its relationships with Pakistan, on the other hand, and with India as being related to one another. And both are distinct in nature.
- The US mentioned that the relationships with each nation stood on their own.
- Both India and Pakistan are partners of the US with different areas of emphasis in each, and we look to both as partners because we do have in many cases shared values and common interests.
- The U.S. also exerts every effort to ensure that the relationship between India and Pakistan is as "constructive" as possible.



Why in the issue about?

- Recently, India has lodged a strong protest with the US over its authorization of the Assistance Package of \$450 million to Pakistan that includes the sale of equipment and other items for the repair, maintenance and upgradation of its fleet of F-16 fighter jets.
- The present package includes elements for fleet maintenance such as repairs, replacement parts, software, and software support.
- India submitted the objection with the US Assistant Secretary of State for South and Central Asian Affairs.

What is the US' F-16 package to Pakistan?

- According to a press release from the Defense Security Cooperation Agency dated September 7, the \$450 million package — for which Lockheed Martin is the preferred contractor — includes technical and logistical support for Pakistan's F-16 aircraft.
- Participation in numerous technical coordination groups, modifications and support of the hardware and software of aircraft and engines, equipment support, manuals, precise measurement, and a variety of associated aircraft maintenance-related activities are all included.
- This effectively represents a lifetime upgrade for Pakistan's current F-16 force.

What are the Reasons behind India's concerns?

- **Increase Conventional fire power of Pakistan:** the \$450 million package would lead to a lifetime upgrade of Pakistan's F-16 fleet that would enhance conventional deterrence versus India.
- **Fear of Diversion of funds to terrorist activity:** Pakistan has a poor counter-terrorism record. Numerous jihadist organizations continue to operate out of Pakistan. It is feared that the money in the package would be diverted to the terrorist activity.

What are India-USA's points of divergence?

- **Sale and Maintenance package for F-16 to Pakistan:** The technology and Assistance support offered for the F-16s were notably a source of concern for the Indian side. India made it clear that it would be used against it.
- The Biden administration's mending of ties with Pakistan and the Shehbaz Sharif administration also alarmed India.
- **Indo-Pacific Economic Framework:** In the trade pillar of the Indo-Pacific Economic Framework, India made the decision to leave, expressing concerns that any trade agreement may "discriminate" against developing countries due to issues like labour rules, environmental commitments, and digital laws.
- **Russian Invasion of Ukraine:** India US ties saw the tension on the question of putting sanctions on Russia in UN and trade with Russia. Later India has also ignored the West initiative of boycotting Russian oil purchase.
- **Russian oil:** India has not backed the American proposal to form a coalition under the leadership of the G-7 to impose price limits on Russian oil. Prime Minister Narendra Modi told Vladimir Putin at the Eastern Economic Forum that India wants to improve its energy ties with Russia.
- **Tariff barriers:** The tariff and barriers erected by India have drawn criticism from US officials.
- President Trump has previously referred to India as the "king" of tariffs and termed its tariffs "unacceptable."
- As opposed to 2018, when the US imposed flat import duties of 25% on steel and 10% on aluminium, respectively. In reaction, India raised its tariffs on US agricultural products.
- **Generalized System of Preferences (GSP):** The Trump administration suspended India from the GSP programme after a formal public review process, claiming that India is preventing "equitable and reasonable" access to its markets.
- **Intellectual Property Rights (IPR):** The main U.S. concern with India has been its intellectual property rights. According to the

"Special 301 report" of the US, India is still on the "Priority Watch List" of the United States Trade Representative (USTR) for its ineffective copyright policies and lack of adequate intellectual property (IP) rights protection and enforcement.

AT STATE FUNERAL IN TOKYO, PM MODI RECALLS SHINZO ABE'S VISION FOR A FREE, OPEN INDO-PACIFIC

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: India Japan

Prepp Mains Booster: India and its Neighborhood- Relations. Bilateral, Regional Groupings and Agreements involving India and/or affecting India's interests.

Context:

The key theme of Prime Minister Narendra Modi's meeting with Japan's current Prime Minister Fumio Kishida in Tokyo, where PM Modi attended former Japanese PM Mr. Abe's state funeral was a Free and Open Indo-Pacific and strengthening of the Indo-Pacific region, a vision initially put by former Japanese Prime Minister Shinzo Abe.

What is Vision of Free and Open Indo-Pacific?

- Mr. Abe's vision of the Indo-Pacific was first outlined in a speech which he gave in the Indian Parliament in 2007.
- The Vision of Free and Open Indo-Pacific (FOIP) is based on the **convergence of the two Ocean Indian Ocean and Pacific Ocean**.
- According to the Japanese Government website, Vision of FOIP aims "to develop a free and open Indo-Pacific region as 'international public goods', through ensuring the rule-based international order, in a comprehensive, inclusive and transparent manner, attaching importance to ASEAN's centrality and unity, in order to bring stability and prosperity for every country as well as secure peace and prosperity in the region as a whole".
- In this process of development of FOIP Japan is willing to cooperate with any country that supports this idea.



Three pillars to realize free and open Indo-Pacific:

- **Promotion and establishment of the rule of law**, freedom of navigation, free trade, etc.

- **Pursuit of economic prosperity:** improving connectivity and strengthening economic partnership including EPA/FTAs and investment treaties
- **Commitment for peace and stability:** capacity building on maritime law enforcement, HA/DR cooperation, etc.

India's Convergence of with Free and Open Indo-Pacific Ocean

- **Mutual adherence to Free Ocean:** India along with Japan has been pushing the idea of free and open sea lanes of communication, rule of law at sea and respect and adherence to the rules of UNCLOS and other multilateral organizations.
- **Rising and Assertive China in Neighbourhood:** Rise of China and its increased assertiveness in the neighbourhood specially in South China Sea without accepting the ruling of UNCLOS regarding Exclusive Zone in South China has promoted India to work with Japan and other like minded nations to ensure the openness of sea.
- **Increased realization of growth prospect of Asia and Africa:** Both countries have very early realised the growth potential of convergence of Africa and Asia to achieve prosperity.
- **Growing significance of Indian Ocean:** Since 2000 Geo-economic relevance of Indo-Pacific region is on constant rise. Global trade of Asia's and World's most countries is carried out through this region, making it the nerve center of global trade. Hence security and openness of the region has become a prime concern for all stakeholders.



India Japan Relation:

Historical connections:

- Since the arrival of the Indian monk Bodhisena in Japan in 752 AD, there have been close cultural and civilizational relations between India and Japan.
- Swami Vivekananda, Nobel laureate Rabindranath Tagore, businessman JRD Tata, and liberation warrior Netaji Subhash Chandra Bose were notable Indians affiliated with Japan in modern times.

Modern connections:

- In 1952, following World War II, India and Japan established diplomatic ties, marking a turning point in their bilateral relations and setting the stage for what was to come.
- In 1991, when Japan was one of the few nations to help India out of a balance of payment (BOP) crisis, its friendship was put to the test.
- The decision to hold annual summits between the prime ministers of the two nations was made in 2006.

- During his official visit to India in January 2014, Prime Minister Shinzo Abe attended the Republic Day celebrations as the Chief Guest (first ever Japanese PM to be honoured).

Trade and Commerce:

- In August 2011, the **Comprehensive Economic Partnership Agreement (CEPA)** between India and Japan went into effect.
- In 2020, **Japan's greatest trading partner was India**, and the reverse was true for India and Japan.
- In FY 2019–20, Japan and India had bilateral trade of US\$16.95 billion. During this time, Japan exported \$12.43 billion to India while importing \$4.52 billion.
- Additionally, Japan's direct investment into India has increased, and in FY2020, Japan was India's fourth-largest investor.
- The cumulative value of Japanese investments in India from 2000 through September 2020 is about US\$ 34.152 billion.
- There are currently 1,455 Japanese enterprises with branches in India, reflecting the growing interest of the Japanese private sector in the country.
- A **Bilateral Swap Agreement (BSA)** of USD 75 billion also exists between India and Japan.

Defence ties:

- India and Japan regularly engage in a military drill known as "EX DHARMA GUARDIAN."
- Acquisition and Cross-Servicing Agreement (ACSA): A crucial agreement for the reciprocal transfer of goods and services between their armed forces was signed by India and Japan in September 2020.
- The Acquisition and Cross-Servicing Agreement (ACSA), which would promote increased military coordination and support regional security, was reached.

Science and technology:

- In 1985, an intergovernmental agreement that formalised bilateral S&T cooperation was signed.
- In order to expand both existing areas of cooperation and new initiatives within the context of cooperation in S&T/ICT, with a stronger emphasis on "Digital ICT Technologies," the India-Japan Digital Partnership (IJDP) was founded when PM Modi visited Japan in October 2018.
- Recent initiatives include the establishment of three India-Japan Joint Laboratories in the field of ICT (AI, IoT, and Big Data) and the inauguration of the DST-JSPS Fellowship Program for young academics.

Healthcare:

- The ASHWIN programme in Japan and the AYUSHMAN Bharat programme in India have been collaborating to find ways to adapt ASHWIN's tale for AYUSHMAN Bharat.

Indian Diaspora in Japan:

- Approximately 38,000 Indians live in Japan.
- Due to the recent influx of numerous professionals, including IT specialists and engineers working for both Indian and Japanese businesses as well as authorities in management, finance, education, and S&T research, the makeup of the Indian community has altered.

What are the challenges with strengthening the ties?

- **Rising China's Dominance:** China does not hold back in trying to stop the rise of Japan and India, including by increasing military pressure on them and opposing their permanent membership in the UN Security Council.

- **Influence of China-America Rivalry:** The escalating animosity between the two countries has a negative impact on Indo-Pacific regional security.
- Military exercises are routinely conducted in disputed waters, contributing to the militarization of the region and the ongoing arms race. This has a negative impact on the region's peace and prosperity, particularly for nations like India and Japan.
- **Domestic Political Concerns:** The reform of Japan's national security and defence strategy is the subject of a heated domestic discussion that has led to the downfall of the country's former prime minister Shinzo Abe.

ENERGISING INDIA-NEPAL TIES, THE HYDROPOWER WAY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: India-Nepal

Prepp Mains Booster: - India and its Neighbourhood- Relations

Context:

- In August 2022, the Investment Board Nepal signed a Memorandum of Understanding (MoU) with India's National Hydroelectric Power Corporation (NHPC) Limited to develop the West Seti and Seti River (SR6) projects with a total generation capacity of 1,200 MW. This comes nearly four years after China's withdrawal from the project before Nepal decided to grant the project to India.
- Nepal's move to involve India in completing the West Seti and Seti River (SR6) joint storage project has the potential to enhance much-needed cross-border power exchanges. Thus, highlighting the importance of hydro-power corporation as an important pillar in India-Nepal relations.



Benefits for India

- **Hydropower cooperation:** On completion, this project is expected to provide India the much-needed leverage in future hydropower cooperation with Nepal.
- India is already involved in the Upper Karnali Project (900 MW), the Mahakali Treaty (6,480 MW) and the Arun Three projects (900 MW) in western and eastern Nepal, respectively.
- **Minimise China's geopolitical influence:** It will also help India to minimise China's geopolitical influence and firm its presence in Nepal, considering that the West Seti Hydroelectric Project

was a major Chinese venture under the Belt and Road Initiative (BRI).

- **Cross-border power exchanges:** The project has the potential to enhance cross-border power exchanges between the two countries.
- Given the growing energy demand, the West Seti Hydroelectric Project can provide an added alternative and viable way for India to address power deficits.

Benefits for Nepal

- Despite its huge hydropower potential, Nepal experiences power shortages during peak time and its dependence on India to bridge this shortfall.
- With an estimated hydropower potential of 83,000 MW, Nepal's electricity exports to India are expected to increase its foreign exchange and address the power shortage.
- It is estimated that if the hydropower potential is fully harnessed, Nepal can generate revenue to the tune of Rs.310 billion in 2030 and Rs. 1,069 billion per year in 2045 by exporting electricity to India.

Steps to be taken for successful completion of project

- **Revised Cost:** It has increased to \$2.04 billion as investment-related constraints have delayed the project.
- There is a need to carefully study investment scenarios, particularly a conducive investment environment, distribution and transmission network and cost of resettlement and rehabilitation.
- **Meeting Power Demand:** Nepal concerns about electricity rates and supply from India are inadequate to meet its rising power demands.
- To address these concerns, the new MoU has revised the percentage share of energy that Nepal will receive free of cost from the generation projects to 21.9% from earlier 10%. It also provides for discussion in good faith for further modalities to make it commercially viable.
- The MoU also allows Nepal to request the NHPC to sell the power generated from the projects to the domestic market before selling whole or part to the export market.

Way forward

- Successful implementation of West Seti Hydroelectric Project can also be extended to other regional partners under the Bangladesh-Bhutan-India-Nepal (BBIN) framework for cross-border energy cooperation.
- The combined estimated hydropower potential in Nepal and Bhutan, along with India's northeast if effectively harnessed, a cross-border energy market can be created and optimally operationalized. It will be a win-win at the bilateral and regional levels.

US ANNOUNCES \$810 MN IN FUNDING FOR PACIFIC ISLAND

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Pacific Islands

Prepp Mains Booster: Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Context:

Recently at a US Pacific Island Community Summit 2022 with U.S. President Joe Biden, the United States pledged \$810 million in new funding for the Pacific Islands in response to China's advances in the strategically important but sparsely populated area.

US President Biden is later expected to address the first-ever Washington Summit of Pacific Island Nations.

What is the Announcement by the US?

- The US will invest \$600 million in the form of a 10-year package to clean up and develop dirty waters to support the tuna industry,
- The United States will also expand climate and development aid and its diplomatic presence in the Pacific Island Nations.
- The United States will recognize Cook Islands and Niue as a self-governing territory whose foreign and defense policies and currency are linked to New Zealand.

What are the Pacific Islands Nations?

- Pacific Island Nations are the group of countries and territories in the Pacific Ocean region.
- They are the Solomon Islands, Palau, Tonga, Tuvalu, Vanuatu, Wallis and Futuna, the Federated States of Micronesia, Fiji, French Polynesia, Kiribati, the Marshall Islands, Nauru, New Caledonia, New Zealand, and the Commonwealth of the Northern Mariana Islands.



- As least-developed nations, Kiribati, Samoa, the Solomon Islands, Tuvalu, and Vanuatu fall into this category. The nation of New Zealand is advanced. The remaining nations and regions are categorized as developing nations.
- Small populations, distant locations, high telecommunications and transportation expenses, and subpar infrastructure are characteristics of these nations and regions.
- Only 6.6 million people live in the region as a whole, and between 35% and 45% of them are under the age of 14.

- Traditional social systems and democratic forms of government coexist in the majority of nations.
- Many economies are dependent on one or a small number of commodities.
- The public sector continues to be the primary employment in many nations, and significant segments of the population are still involved in subsistence farming.
- In quest of work, an increasing number of people have moved to urban regions over the past ten years, and many more have done so internationally.
- In most nations and regions, remittances currently make up a sizeable portion of gross domestic product.

PUTIN ANNEXES FOUR RUSSIA-HELD REGIONS OF UKRAINE, CALL FOR TALKS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Ukraine

Prepp Mains Booster: Bilateral, Regional, and Global Groupings and Agreements involving India and/or affecting India's interests.

Context:

Recently at a ceremony in the Kremlin, Russian President Vladimir Putin annexed four Ukrainian regions held by his army and asked Ukraine to surrender and negotiate an end to seven months of fighting.

Background:

- From 23-27 Sept 2022, Russia conducted a Referendum in the Four Russian occupied Ukrainian regions - Luhansk, Donetsk, Kherson and Zaporizhzhya - for its annexation into the Russian Federation.
- Russia declared the result of the Referendum as massive majorities of the four breakaway regions of Ukraine voted in the favour of joining Russia.
- As per the results of the referendum 93% of the ballots cast in the Zaporizhzhya region supported annexation to Russia, as did 87% in the Kherson region, 98% in the Luhansk region and 99% in Donetsk.
- However, the U.S. has denounced the referendum and is aiming to bring a UN resolution to denounce the referendums as "shams."

What is the referendum?

- Referendum is one of the tools in direct democracy where citizens get an opportunity to participate in the decision making process and vote directly on a particular issue.
- Referendum is perceived to be a better democratic instrument, especially in modern states where people have a better say in decision making.

What is the referendum in the Ukrainian region about?

- Referendums on the annexation of Ukraine's occupied regions were organised in late September 2022 by Russia appointed officials in Ukraine.
- These referendums were held in four regions of Ukraine: the Donetsk and Luhansk People's Republics, the military

governments of Kherson Oblast and Zaporizhzhia Oblast that were appointed by Russia.

- Since the start of the Russian invasion of Ukraine in 2022, a



large portion of the population has fled from these four regions that Russia does not entirely control and where military operations are still going.

How has the West reacted to the referendum?

- Earlier the West led by the U.S.A. and Ukraine has denounced the referendum as an illegitimate, coercive exercise to create a legal pretext for Russia to annex the four regions.
- The US is also planning to bring a UN resolution to denounce the referendums as "shams."
- The U.S. is also aiming a new round of sanctions against Russia in response to annexation of Ukrainian regions by Russia
- Apart from that, the US is also expected to announce a \$1.1 billion arms package for Ukraine.

What is the rationale behind conducting a referendum for annexation by Russia?

- **Gives the Legitimacy of the Annexation:** Referendums are the ultimate political tool for expressing direct democracy. Hence by referendum Russia gains legitimacy from the people for its action of annexation.
- **Proves the Invasion of Ukraine is for the cause of People:** Referendum and subsequent Annexation of four regions of Ukraine substantiates and legitimises the Russian Invasion of Ukraine.

What are the issues with the referendum?

- **Populist Aspect:** It has been claimed that referendum voters are prone to being swayed by passing whims rather than thoughtful consideration or that they lack the knowledge necessary to decide on difficult or specialised issues.
- Voters may also be swayed by propaganda, strong personalities, intimidation, and costly advertising campaigns.
- Examples of this include the rise of Benito Mussolini in Italy and Adolf Hitler in Germany.
- **The issue of separability and closed questions:** Some referendum sceptics have criticised the use of closed questions. The separability problem is a condition that can ruin a referendum with two or more subjects.
- **Unreasonable limitations on the authority of the general government:** Some detractors claim that using people's initiatives to amend constitutions has bound the government

too closely to a tangle of popular demands, making it unworkable.

- A similar predicament arises when elected governments rack up enormous debt.

OPEC+ AGREES TO DEEP CUTS TO OIL OUTPUT DESPITE US PRESSURE

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: OPEC

Prepp Mains Booster: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Context:

- Recently, in spite of pressure from the US and others to extract more oil, OPEC+ agreed to its largest cutbacks on oil output since the 2020 COVID pandemic at a summit in Vienna.
- The oil output cut could lead to a recovery in Global Crude Oil prices that have dropped to about \$90 from \$120 in last three months on fears of a global economic recession, rising U.S. interest rates and a stronger dollar.

What is the agreed decision of OPEC+?

- The decision to reduce oil output by 2 million barrels per day was made by OPEC and its allies, collectively known as OPEC+, a coalition of the world's top oil-producing nations.
- This is the biggest reduction since the Covid-19 outbreak started.

What are the reasons for cutting oil production?

- Following Russia's invasion of Ukraine in February, oil prices surged, but have since started to decline over the next few months.
- Due to worries about a European recession and decreased demand from China as a result of its lockdown measures, it fell to \$90 in September 2022.
- Members of OPEC+ are worried that a deteriorating global economy would result in a decline in oil demand, and the cuts are seen as a method to safeguard earnings.
- Additionally, experts have suggested that Russia may be pushing OPEC to hike prices for the West.
- It will be more difficult for Europe to move forward with its sanctions against Russian oil in December as prices climb.

What is OPEC +?

- When OPEC members decided to join forces with other oil-producing nations outside the organization to reduce the world's oil supply in 2016, OPEC Plus was formed.
- **Declaration of Cooperation (DoC):** In accordance with the agreement, known as the Declaration of Cooperation (DoC), the nations agreed to cooperate to influence world energy prices.
- **Cooperation Charter:** OPEC nations and its partners agreed to a "Charter of Cooperation" at a ministerial meeting in 2019 to further institutionalize the cooperation.
- The Charter offers a forum for discussion and viewpoint exchange regarding the state of and changes to the international oil and energy markets.

- For the benefit of producers, consumers, investors, and the global economy, the objective is to contribute to a stable energy supply.
- **OPEC+** refers to a **group of 23 oil-producing nations**, including 13 OPEC members (Saudi Arabia, the United Arab Emirates, Iran, Iraq, Kuwait, Algeria, Equatorial Guinea, Angola, Libya, Nigeria, Gabon, the Republic of the Congo, and Venezuela) and 10 more oil-producing nations (Russia, Azerbaijan, Malaysia, Mexico, Oman, Bahrain, Brunei, Kazakhstan, South Sudan and Sudan).
- The largest oil production among OPEC members is Saudi Arabia.
- Along with OPEC, Russia, which produces more oil than even Saudi Arabia, is a key factor in determining the price of crude oil globally.

What is the relevance of OPEC+ grouping?

- The emergence of the U.S. shale industry prompted the oil-producing nations to form the new organization in an effort to safeguard their interests.
- By significantly boosting U.S. energy supplies, U.S. shale oil producers sharply reduced the price of oil and severely taxed OPEC governments' financial resources.

India's share of crude oil production:

- India continues to rely on oil imports to meet its energy needs.
- Even though domestic oil consumption has grown dramatically over time, India's domestic crude oil production in FY22 was at its lowest level in almost three decades.
- Energy sector structural reforms could aid nations like India in increasing domestic production and reducing their reliance on OPEC.
- India now has the chance to buy Russian oil at steep discounts thanks to the sanctions the West has placed on that country.
- Since the West placed harsh sanctions on Russia for invading Ukraine, it has been looking for new markets for its oil.

What will be the impact of OPEC+ oil cut decision?

Impact on India

- If OPEC+ and the UAE are able to reach an agreement for decreasing the production, expected relief in the form of lower crude oil prices will end and global crude prices will start increasing.
- India is the world's third-biggest oil importer and an increase in oil prices would again lead to high inflation which is at high level and expected to go up on the account of food inflation.

Impact on world:

- The decision to cut oil production would result in demand supply mismatch and resulting in higher Global crude oil prices.
- This would increase the inflationary prospects and measures in all the West and Developed world which are facing recessionary and inflationary scenarios in the domestic market.
- This will also be feared to slow down the Global recovery in Post Pandemic period

Impact on the EU's proposal to cap the price of Russian oil

- The European Union recently stated its intention to impose a price ceiling on Russian oil exports.
- Countries will be allowed to buy Russian oil and petroleum products delivered by sea as long as the price is at or below the cap, according to the plan.
- The new agreement to cut back on supplies, however, is likely to keep oil prices high globally, allowing Russia to continue aiming for substantial profits from its crude export.

What is the Organisation of the Petroleum Exporting Countries (OPEC)?

- It is a permanent intergovernmental organisation.
- Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela founded it at the Baghdad Conference in September 1960.
- Later, it was joined by Libya, the UAE, Algeria, Nigeria, Angola, Gabon, Equatorial Guinea, and Congo.
- Its executive body, the OPEC Secretariat, is situated in Vienna.
- Objectives:
 - To ensure that member nations' petroleum policies are coordinated and uniform.
 - To guarantee petroleum producers fair and consistent prices.
 - To guarantee a fair return on investment for those who invest in the industry as well as an efficient, affordable, and consistent supply of petroleum to nations that use it.

Significance

- According to estimates from 2018, the OPEC group is responsible for about 40% of the world's crude oil and 80% of the world's oil reserves.
- In order to decide how much oil the member states will produce, they typically convene once a month.
- The supply of oil is allegedly controlled by OPEC, which is also said to affect the price of oil on the global market.

IS INDIA IN A BIND OVER ITS RELATIONS WITH RUSSIA?

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Indo-Russia

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

Context:

- Recently, India abstained from voting at the United Nations Security Council on a draft resolution against Russia for conducting referendums and annexing four regions of Ukraine.
- India has cautiously established independent ties with Russia and USA.
- India is treading a fine diplomatic line as tensions between the Kremlin and the White House rise.

Background

- Recently, Russia conducted a Referendum in the Four Russian occupied Ukrainian regions - Luhansk, Donetsk, Kherson and Zaporizhzhya - for its annexation into the Russian Federation.

Indo-Russia relations in the present scenario

Russia's increased proximity to china

- There has been an **increase in proximity since the cold war** however now it has reached its pinnacle as a result of the Russia-Ukraine war.
- Factors responsible for this are:
 - the export of energy and defence products by Russia,
 - the two countries' understanding of a multipolar world, etc.
 - the escalating American paranoia and phobia toward China.
 - Following Russia's annexation of Crimea in 2014, which came under intense pressure from the West, links between China and Russia have improved.
- Russia's attitude toward cooperating with China in some sensitive areas changed, such as the provision of advanced defence systems like the S-400 or Sukhoi Su-35 aircraft, or the accommodation of the Belt and Road Initiative, or the acceptance of China playing a bigger role in Central Asia.

Quad

- Despite India's investment, the **Quad is not a military alliance**. Technology, trade, and maritime security are the main topics. However, India has taken care to ensure that it is not a member of any military alliances with China, Russia, or the United States.
- Russia and China are both interested in the Global South, which includes India.
- Given the level of polarisation in international politics, China cannot afford to continue to be at odds with India.

India and China

- India has adopted a fair and nuanced stance on Ukraine.
- India has distinguished between its interactions with China on bilateral and multilateral platforms like SCO and BRICS.
- The **ability to distinguish between bilateral and multilateral activities is a feature of a sophisticated foreign policy**.
- Regional organisations the SCO and BRICS, particularly the SCO, are focused on energy commerce, linkages, etc. These are platforms for leaders to talk about many unconventional security challenges.
- The emergence of BRICS is a result of the fact that major international organisations like the WTO and the IMF have not given emerging markets or the Global South the attention they need.

Impact of Russia-Ukraine War on India

- And India has continuously made an effort to avoid taking a position in favour of or against the West.
- It is able to function and can even connect these forms.
- Both Russia's invasion of Ukraine and the consequences of Russian activities, which **have adversely affected our interests in several ways, have caused unease**.
- For instance, the negative effects on the economy, the high cost of fuel, the difficulty in obtaining fertiliser, and the disruption of global supply lines.
- There are tangible components of our cooperation with Russia, such as purchasing weapons and spare parts from Russia for

the Indian armed forces. Therefore, we are not going to get rid of this right now.

- But the reality remains that due to Russia's invasion of Ukraine, there have been developments in the geopolitical environment that are not very favourable for us, **such as China and Russia's tighter alignment**.

Areas of divergence

- Indo-pacific:** India and Russia both have different approaches towards Indo-Pacific strategy, where India is a part of the Quad with the USA, Japan and Australia.
- Pakistan:** In 2015, Russia announced it would be supplying Pakistan with four Mi-35 attack helicopters, thereby ending its unspoken embargo on exporting military technology to that country. And since 2016, Russia and Pakistan have regularly held joint anti-terror drills dubbed "Friendship."
- Defence:** India is diversifying its defence basket, which can be a concern for Russia in the long term.

Way forward

- India has the opportunity to concentrate on advancing shared interests by considering the larger context of Russian foreign policy and pragmatically evaluating bilateral relations.
- While there are undeniable differences in the relationship, both parties still have important opportunities for cooperation in the bilateral, regional, and international spheres that must be taken advantage of.
- In order to combat the growth of China, India must therefore strengthen its unique, privileged strategic engagement with Russia while it forges alliances with other like-minded nations.

INDIA ABSTAINS ON SRI LANKA VOTE AT HUMAN RIGHTS COUNCIL

Priority: Low



Primary Source: The Hindu & The Indian Express

Prepp Prelims Booster: Human Rights Council

Prepp Mains Booster: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Context:

- Recently, at the U.N. Human Rights Council at Geneva, India abstained from voting on a resolution on promoting reconciliation, accountability and human rights in Sri Lanka which was later adopted.
- However, In a statement India noted that Sri Lanka's implementation of its commitments regarding the 13th Amendment, effective devolution, and early provincial elections has so far been "inadequate."

What is the Resolution for?

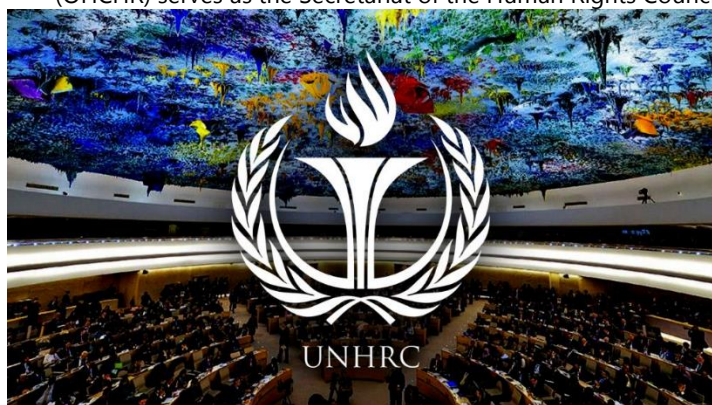
- The draft resolution on '**Promoting reconciliation, accountability and human rights in Sri Lanka**' was adopted at the 51st Session of Human Rights Council in Geneva.
- The 20 nations voted in the favour of the resolution in the Council, seven voted against the resolution - including China and Pakistan, and 20 others abstained - including India, Japan, Nepal and Qatar.
- The resolutions on promoting reconciliation, accountability and human rights in Sri Lanka were previously also moved in UHRC in 2012, 2013, 2014, 2015, 2017, 2019, and in 2021.

What was India's Stand on Resolution?

- India abstained from the resolution against Sri Lanka.
- However, in a statement during the adoption of the resolution, Permanent Representative of India to UN said that while India has taken note of the commitments by Sri Lanka on issues of implementation of the commitments in the spirit of the 13th Constitutional Amendment, meaningful devolution and the early provincial elections in the Tamil Regions.
- But the progress towards the above issues remains inadequate. And India has requested Sri Lanka to work meaningfully towards early implementation of these commitments.

What is UN Human Rights Council (UNHRC)?

- UNHRC is a specialized institution and an intergovernmental body within the United Nations system with the mission is to promote and protect human rights around the world.
- UNHRC was established by the UNGA on March 15, 2006, and it convened the first session of its in June 2006.
- It succeeded the former UN Commission on Human Rights (UNCHR).
- Its headquarter is located in Geneva, Switzerland.
- The Office of the High Commissioner for Human Rights (OHCHR) serves as the Secretariat of the Human Rights Council.



Functions:

- It is in charge of enhancing the promotion and defense of human rights all over the world.
- It also discusses instances of violations of human rights and offers suggestions.
- It can talk about any circumstance or theme related to human rights.
- The Council also collaborates with the UN Special Procedures developed by the previous Commission on Human Rights, which include working groups, independent experts, special rapporteurs, and special representatives.
- They are responsible for keeping an eye on certain countries' human rights problems and monitoring, analyzing, advising, and reporting on them.

Membership of the Council:

- The Membership of the Council is 47 UN Member States .
- All UN Member States who make up the Council are elected by a majority vote in a direct vote conducted in secret during the UNGA.
- Membership of the Council is composed of an equitable geographic distribution.
 - Western European and other states have 7 seats,
 - Eastern European states have 6 seats.

- Asia-Pacific Regions have 13 seats.
- The Latin American and Caribbean Regions have 8 seats.
- African states have 13 seats.
- The UNGA takes into account the candidate States' voluntary pledges and obligations in human rights, as well as their contribution to the advancement and defense of human rights.
- **Tenure:** Members have a three-year term and are not immediately eligible for re-election after serving two terms in a row.

Working of the Council:

- The Council adopted an "**institution-building package**" in 2007 to lay out its processes and mechanisms.
- The **Universal Periodic Review** evaluates the state of human rights in every UN Member State.
- The **Advisory Committee** acts as a think tank for the Council, offering insight and recommendations on a variety of thematic human rights concerns.
- The **Complaint Procedure** enables people and organizations to alert the Council about human rights breaches.

Funding:

- Member States and other donors provide about two-thirds of the voluntary funding for UN Human Rights.
- The UN's normal budget covers the rest.
- The **General Assembly-approved UN Budget** is paid for through "assessed contributions" from each Member State.
- These are established using a system that considers the size and power of their respective national economies.

India at UNHRC

- In 2021, India was re-elected with an overwhelming majority in the General Assembly to the U.N. Human Rights Council for a sixth term.
- This is India's second consecutive term. India's last term ended on December 31, 2021.
- 18 new U.N. Human Rights Council members were elected at the 76th UN General Assembly, and they will take office in January 2022 for a three-year term.

What are the challenges faced by UNHRC?

- Global Inequities and Poverty: Poverty erodes economic and social rights such the right to education, decent shelter, food, and clean water.
- Weak institutions: Because of poor governance, various human rights are seriously threatened by weak institutions.
- Discrimination: People's human rights are impacted when individuals or groups are treated unfairly because of traits like color, gender, age, or sexual orientation.
- Extrajudicial killings, "disappearances," torture, including rape, hostage-taking, detention based only on ethnic origin, etc. are barriers to the preservation of human rights.
- Impunity: Failure to hold those who violate human rights accountable undermines such rights in general.

Way Forward

- The emphasis should be on preventing violence, conflict, and insecurity;
- It is necessary to build a worldwide movement for human rights;
- The following five priority areas require reinforcement:
 - Increased presence in more countries;

- Increased influence of the High Commissioner;
- Stronger collaborations with civil society organizations and United Nations agencies;
- Strengthening the internal capabilities of OHCHR;
- Strengthening the relationship between OHCHR and UN human rights authorities.

IMF CUTS INDIA'S FY 2022-23 GROWTH FORECAST TO 6.8%

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: IMF

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development.

Context:

According to recently published data in the **International Monetary Fund's (IMF) October 2022 World Economic Outlook**, India is expected to grow at a 6.8% annual rate in the current fiscal year, FY 2022-23, following an 8.7% annual growth rate in the fiscal year FY 2021-22.

Growth cut

The chart shows India's economic growth forecast for the current financial year. The IMF's cut in growth forecast comes after the RBI and the World Bank revised their forecast for FY23



What are the findings of the IMF's World Economic Outlook?

Regrading India:

- According to data published in the IMF's October 2022 World Economic Outlook, India is expected to grow by 6.8% in the current fiscal year FY 22-23, following an 8.7% growth in fiscal year FY 21-22.
- The IMF reduced India's projected growth rate for this year from 7.4% to 6.8%, a decrease of 0.6% points from its June 2022 forecast.
- The reduction in forecast is a result of decreased output in the second quarter and moderate foreign demand.
- The 6.1% projection for the following fiscal year has not changed.
- The IMF predicted that consumer price inflation will be 6.9% this year and 5.1% the following year.

Regarding World:

- Globally, growth is projected to decrease from 6.0% in 2021 to 3.2% in 2022 and 2.7% in 2023.
- The United States, China, and the euro area's three biggest economies will all remain stagnant.
- The United States is anticipated to grow by 1.6% this year, then 1.0% the next year.

- The Euro Area is expected to develop by 3.1% this year and 0.5% next, but China is anticipated to increase by 4.4% next year and 3.2% this year.

What are the reasons cited by the IMF?

- **Russia-Ukraine war:** The IMF has cited the Russia-Ukraine war has slowed down the Global Economic Recovery in current year and its effect will also be felt in next fiscal year in economic recovery.
- **The highest inflation in decades:** Geopolitical tensions and increased commodity prices of Crude oil and Natural Gas has led to the inflation at highest level in the decade which has affected the
- **Tightening monetary conditions globally:** High inflation and slow growth rate has led to fear of prolonged recession in the world including the USA. This has led to the tightening of monetary policies by major economies leading to costly investment scenarios.
- **Lingering effects of the pandemic:** Effects of Pandemic are still faced by the world in the form of disrupted supply chain of semiconductor chips, sluggish investment scenario.

World Economic Outlook:

- This is the report released by the International Monetary Fund (IMF) that examines significant aspects of the IMF's monitoring of economic trends and government actions in its member nations.
- Additionally, it foresees changes in the world's financial and economic systems.
- Every year, the WEO is made available in two editions: April release and September/October release.

Report offers:

- Analysis and projections of economic trends and regulations in its member nations.
- Encapsulates the current status of the world economy and draws attention to the dangers and ambiguity that growth may be threatened with.
- The primary tool used to inform the world about the results and analyses of their extensive surveillance operations is this report.

International Monetary Fund (IMF):

- The International Monetary Fund (IMF) is one of the international financial institutions along with the World Bank to ensure financial stability in the Post World War Era.
- It was formed in 1944, starting on 27 December 1945.
- It is Headquartered in Washington, D.C.
- **Membership:** It consists of 190 countries.

Objective:

- To foster global monetary cooperation,
- secure financial stability,
- facilitate international trade,
- promote high employment and sustainable economic growth, and
- reduce poverty around the world while periodically depending on the World Bank for its resources.

Following are the Reports Published by IMF:

- Global Financial Stability Report
- World Economic Outlook
- Regional Economic Outlook
- Fiscal Monitor

- Managing Director's Global Policy Agenda

OECD GLOBAL FRAMEWORK IN PLACE, INDIA TO FOCUS ON CRYPTO ASSET REGULATIONS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: OECD

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development

Context:

- Recently, India will now contemplate going ahead with finalizing the draft of its regulations on the Cryptocurrency with the Organization for Economic Co-operation and Development (OECD) has given final shape to its cross-border reporting framework for cryptocurrency.
- The government intends to resume its discussions for drafting a comprehensive regulatory and taxation framework for crypto assets.
- This effort had been put on hold in anticipation of a global consensus and framework on the crypto assets.

What is the OECD's framework on Crypto assets?

- The **Crypto-Asset Reporting Framework (CARF)**, a new global tax transparency framework for reporting and information sharing about crypto-assets, was launched by the OECD.
- This is in response to a G20 recommendation from earlier this year that the OECD create a framework for the automated exchange of data on crypto assets between nations.
- Any digital representation of value that depends on a cryptographically secure distributed ledger or a comparable technology to verify and secure transactions will be the focus of the CARF.
- Assets that cannot be used for investment or payment purposes as well as those that are already fully covered by the common reporting standard are both excluded from it.
- The CARF would require reporting from entities or persons that affect exchange transactions in crypto assets for, or on behalf of, clients. This is likely to boost the transparency of such transactions.
- In the next meeting on October 12–13, the G20 Finance Ministers and Central Bank Governors will be presented with the CARF for debate.

Cryptocurrency and India

- 2009:** Satoshi Nakamoto introduced the first cryptocurrency, Bitcoin, in that year.
- 2018:** RBI prohibited enabling cryptocurrency transactions in 2018 for banks and other regulated organizations.
- 2019:** The recommendation to outlaw all private cryptocurrencies was made in 2019.
- 2020:** The SC declared the ban on cryptocurrency trading to be unconstitutional.
- 2021:** Introduced the Cryptocurrency and Regulation of Official Digital Currency Bill 2021.
- This favors the currency backed by the RBI and proposes to outlaw private digital currencies.
- a 3- to 6-month grace period before outlawing crypto trading, mining, and issuance.

- Finally, despite being unregulated, cryptocurrencies are legal in India.
- 2022:** The Union Budget announced to bring regulations and a few guidelines pertaining to crypto and announced that there will be a tax of 30% on income from cryptocurrencies.

What is Cryptocurrency?

- A cryptocurrency is a digital asset that is based on Blockchain Technology which has a network that is distributed across many computers.
- They are able to exist independently of governments and other central authority because of their decentralized structure.
- According to analysts, blockchain and associated technology will disrupt a variety of industries, including finance and law.

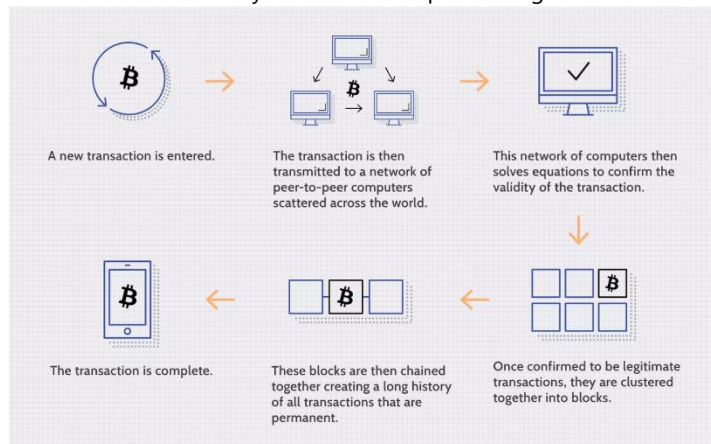
Characteristics of Cryptocurrency

- Decentralized:** As opposed to a digital currency issued by a central bank, cryptocurrencies often use decentralized control. A cryptocurrency is deemed centralized if it is manufactured or coined before being issued, or if it is issued by a single issuer. Each cryptocurrency operates using distributed ledger technology, which is often a blockchain and acts as a public record of financial transactions, when it is built with decentralized governance.
- Anonymous:** You can lend, sell, purchase, or borrow using cryptocurrencies without providing your name, credit report, or even a bank.
- Highly secure:** All records of when it was created, sent, or received are kept in a type of public, open-access huge digital book, keeping it honest. It can be used anywhere in the world and is not (easily) susceptible to theft or seizure.
- Less expensive to transfer:** Some coins can be used to transfer value more quickly and affordably than credit or other traditional methods (measured in a currency like dollars). This means that sending someone cryptocurrency, which can be turned into fiat currency, is less expensive than using a check or wire transfer.
- Illegal and very volatile:** However, the use of cryptocurrencies is not limited to illicit activities. In fact, it has lost favor on the black market mostly as a result of its price fluctuations and other factors.
- No physical form:** Unlike paper money, cryptocurrency is not issued by a central authority and does not have a physical existence. However, it is possible, and several countries are working to develop a cryptocurrency equivalent to their own fiat money.

How Cryptocurrency works?

- Crypto currency or crypto assets uses the Blockchain technology to function.
- A database known as a blockchain is used to store encrypted data blocks that are later chained together to create a chronological single source of truth for the data.
- Digital assets are transmitted rather than copied or copied, resulting in an immutable record of the object.
- Due to its decentralized nature, the asset allows for complete public transparency and real-time access.
- Maintaining the integrity of the document through a transparent ledger of changes fosters confidence in the asset.

- A leading technology for practically every industry, blockchain has built-in security features and a public ledger.



What are the issues with the Crypto assets?

- **Security risks:** Cyberattacks on wallets and exchange mechanisms may face security risks.
- **Asset Income diversion to crimes:** It can be used for organized crime, illegal trade, and other criminal activities.
- **Threat to the Indian Rupee:** The demand for rupee-based savings like provident funds will decline if a lot of investors choose to invest in digital coins rather than them.
- **Lower Acceptability and Lack of Liquidity:** Outside of conventional banking systems.
- **Vulnerable to Price Volatility:** Susceptible to price changes and a waste of computing resources.
- **No Consumer Protection:** Lack of Dispute Resolution Mechanisms and Control by the Securities and Exchange Board of India

Way Forward

- Taking a cue from developed countries and OECD's Crypto-Asset Reporting Framework (CARF), there is urgent need to formulate the draft regulation of crypto assets in India to safeguards and regulate the sector.
- There is also a need to expedite passing of the Cryptocurrency Regulation Bill 2021.

INTERNATIONAL SOLAR ALLIANCE APPROVES FUNDING FACILITY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: ISA

Prepp Mains Booster: Important International institutions, agencies and fora- their structure, mandate.

Context:

- On October 18, the International Solar Alliance (ISA) convened its fifth general assembly meeting, during which it approved the creation of the "Solar Facility," a financial tool designed to encourage solar power investments by providing payment guarantee and insurance money.
- In addition, RK Singh, the Union's minister of power, was re-elected as the President of the ISA and Chrysoula Zacharopoulou, France's Minister of State for Development, Francophonie and International Partnerships as co-president of the International Solar Alliance.



Solar Facility

- The "Solar Facility" consists of two financial components: a **Solar Payment Guarantee Fund and Solar Insurance Fund.**
- **Solar Payment Guarantee Fund:** With minimal default, the guarantee fund would enable investments in geographies that do not receive investments.
- Only a portion of the payment will be guaranteed by the payment guarantee fund.
- **Solar Insurance Fund:** The Solar Insurance Fund will also **ease the cost of insurance premiums** for solar developers throughout the project's pre-revenue phase.
- It will serve as a **temporary insurance cost offset.**
- **SolarX Grand Challenge:** The SolarX Grand Challenge was also accepted by the ISA Assembly.
- It will emphasise innovation and start-ups, particularly decentralised solar energy solutions that support livelihoods like agricultural, medical, and small-scale industrial applications.
- This will have three positive effects:
 - it will boost the solar energy industry,
 - close the energy crisis's gap, and
 - support the ecosystem for solar start-ups.

Significance

- The "Solar Facility" is anticipated to **stimulate investments** in the solar industry, **particularly in Africa.**
- It will help in **attracting private money** into underdeveloped African markets and providing a payment and insurance mechanism as a first loss guarantee, the Solar Facility is designed to promote high potential solar technology.
- The ISA will shortly put the Solar Facility into operation to crowdsource investments from different contributors throughout the world, and proposed projects in Africa will be able to use these money to buy payment guarantees or a portion of an insurance premium.

General Assembly

- The assembly is the **apex governing body** of the 110-member ISA, which collaborates with governments to advance energy access and security globally and promotes solar energy as a viable means of achieving a carbon-neutral future.
- It decides how the ISA's Framework Agreement will be put into practise and what coordinated efforts will be needed to accomplish the goal.
- Annually, the assembly convenes at the ISA's headquarters at the ministerial level.

- The goal of ISA is to lower the cost of solar technology and associated financing by 2030 while unlocking US\$ 1 trillion (80 lakh crore) in investments.

What is International Solar Alliance (ISA) ?

- The International Solar Alliance (ISA) is a treaty based **inter-governmental organization** working to create a global market system to tap the **benefits of solar power and promote clean energy applications**.
- It was created **on November 30, 2015, following the UN Climate Change Conference, and the Paris Declaration**.
- Prime Minister Narendra Modi and former French President Francois Hollande unveiled the International Solar Alliance.
- The plan was to bring together a group of nations with abundant solar resources to work together on finding solutions to the gaps in their energy needs.
- The International Solar Alliance (ISA) is led by its "Towards 1000" strategy, which aims to mobilise USD 1,000 billion of investments in solar energy solutions by 2030, while delivering energy access to 1,000 million people using clean energy solutions and leading to the installation of 1,000 GW of solar energy capacity. The annual reduction of 1,000 million tonnes of CO2 from solar emissions would result from this.
- The three main strategic priority areas of ISA's activities are
 - advocacy and analytics,
 - capacity building, and
 - programme implementation.
- The main goal of ISA's programmes is to establish solar projects in nations that are most negatively impacted by climate change, particularly in Least Developed Countries (LDCs) and Small Island Developing States (SIDS).
- ISA is the **India's first international and inter-governmental organization** headquartered in India.
- **Headquarter-** Gurugram

INDIA DOESN'T BELIEVE IN HIERARCHICAL WORLD: MOD AT INDIA AFRICA DEFENCE DIALOGUE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: IAAD

Prepp Mains Booster: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Context:

- Recently, Rajnath Singh, the Defence Minister, stated during his speech at the 2nd India-Africa Defence Dialogue (IADD) at DefExpo 2022 that India does not believe in a hierarchical world order where a select few nations are seen as superior to others.
- In conjunction with DefExpo 2022, the India-Africa Defence Dialogue (IADD) was conducted in Gandhinagar, Gujarat and the "Gandhinagar Declaration" was adopted by the IADD as an outcome document.
- The IADD is a platform for examining new areas of convergence for mutual engagement, including counterterrorism, cyber security, training, and capacity building.

What MoD said in IADD?

- MoD observed that India don't believe in creating or becoming a client state or satellite state. India always partner with other nations on the principles of sovereign equality and respect.
- He claimed that peace, security, and development are all interconnected and that the region's security is crucial for fostering development.
- India has developed a defense industrial environment that benefits from having a large technical workforce.
- Mr. Singh also assured his African counterparts, that Indian defense sector can cooperate with any African nations to meet their defense requirements.

What are the Highlights of 2nd IADD?

- **Theme:** "Adopting Strategy for Synergizing and Strengthening Defence and Security Cooperation".
- It was attended by representatives from fifty African nations, including twenty defence ministers, seven chiefs of staff and service chiefs, and eight permanent secretaries.

Outcome Document:

- As a conclusion of IADD 2022, the Gandhinagar Declaration was adopted.
- It seek to enhance cooperation in the field of training in all areas of mutual interest by:
 - empowerment and capability building of the defence forces of Africa,
 - increasing training slots and deputation of training teams,
 - participation in exercises,
 - providing humanitarian assistance during natural disasters.
- A book on defense cooperation between India and Africa was also released.



Highlighting India's military capability:

- The IADD, which was hosted in conjunction with DefExpo 2022, gave the African partners a chance to learn more about India's defense industrial capabilities.
- This is significant because the present Ukraine situation has made it clear how crucial it is to diversify the sources from which weapons are imported.
- According to the Gandhinagar Declaration, Bharat Earth Movers Limited (BEML), a defense-related public sector corporation in India, will establish a presence in Kenya, and Bharat Electronics Limited (BEL), in Nigeria.
- This will make it easier to collaborate on the transfer and upkeep of defense assets.

India-Africa Security Fellowship Program

- By providing fellowships to professionals from African nations, this IADD also promoted deeper study of security-related topics.
- The India-Africa Security Fellowship Program would be used for this.

What are the highlights of the Gandhinagar Declaration? On Indian Technical and Economic Cooperation (ITEC) programme

- The Gandhinagar Declaration emphasizes the significance of ITEC and promises to broaden the program's reach.
- The cornerstone of India's defense cooperation in the region has been giving defense personnel from Africa the chance to study at some of India's top defense institutions or sending training teams to an African nation.
- **ITEC** is a crucial effort of India's long-standing alliance with African nations.
 - This program highlights India's emphasis on educating and enhancing the abilities of African youth.

On the support for UNPKOs in Africa:

- India pledged to continue supporting UNPKOs in Africa through the Gandhinagar Declaration.
- The Centre for UN Peacekeeping (CUNPK) in India will continue to train personnel from African nations.
 - The bulk of UN peacekeeping missions in Africa, including those in the Congo, Namibia, Mozambique, and Angola, have had India as a participant.

On Maritime Security:

- The Gandhinagar Declaration highlights India's efforts in this critical sector and encourages the sharing of best practices and lessons learned to address various problems.
- India and African nations' defense cooperation includes this crucial pillar as well.
 - Piracy, maritime terrorism, illegal, unreported, and unregulated (IUU) fishing, drug trafficking, and human trafficking are some of the threats to maritime security.

On Counter Terrorism:

- In Gandhinagar declaration, India has offered to provide counter-terrorism training to African countries.
- There are several African nations that are struggling with terrorism. In dealing with violent terrorism, India has extensive expertise.

What is India Africa Defence Dialogue?

- In February 2020, in partnership with DefExpo, Lucknow, Uttar Pradesh hosted the inaugural India-Africa Defence Ministers Conclave.
- At the conclusion of the conclave, a Joint Declaration known as the "Lucknow Declaration" was adopted.
- In keeping with the "Lucknow Declaration," IAAD has been formalized to take place on the fringes of DefExpo once every two years.

What is DefExpo 2022?

- DefExpo 2022, India's largest defense show to date, is being held in Gandhinagar, Gujarat.
- The event's 12th iteration was planned around the theme "Path to Pride."
- This biennial event is organized to promote, highlight, and create alliances for the Indian aerospace and defense

manufacturing industries with domestic and international clients.

- The main goal is to satisfy domestic defense equipment needs while also meeting the demands of friendly foreign nations.

US SANCTIONS TARGETING CHINA'S SEMICONDUCTOR INDUSTRY ARE A GAMBLE AIMED AT MAINTAINING AMERICAN

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Semi conductor

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

Why in the news?

- The US recently passed the CHIPS Act of 2022. According to it, US companies will be prohibited from exporting critical chip-manufacturing tools to China. They will also prohibit US citizens and companies from providing direct or indirect assistance to Chinese companies involved in advanced chip manufacturing.
- It will have a significant impact on China, and the global consequences must be considered.
- The Biden administration's slew of tough export regulations aimed at China's semiconductor industry is as good a barometer as any.

What is the US CHIPS Act?

- The United States has passed the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022.
- The bill provides subsidies and additional tax breaks to companies that manufacture chips in the United States.
- However, semiconductor companies that receive financial assistance under this bill are prohibited from constructing high-tech facilities in China for the next ten years.

US new export controls on chips shake China's semiconductor industry

- Following the announcement of new restrictions by US President Joe Biden's administration, a mass exodus of American workers has shaken China's semiconductor industry.
- The export restrictions limit China's ability to "purchase and manufacture certain high-end chips used in military applications," which the US claims is required to "protect US national security and foreign policy interests."
- The restrictions prohibit the export of US semiconductor equipment that cannot be supplied by any foreign competitor.
- A licence is also required for the export of American tools or components to Chinese fabrication plants.
- Furthermore, before providing assistance to Chinese plants, any US citizen or entity must obtain permission from the US Department of Commerce.
- The Department of Justice may arrest anyone who violates the sanctions.
- The controls caused China's semiconductor industry to "completely collapse" overnight.

Global Interdependence

- It is widely assumed that the neoliberal global order based on open economies, reciprocal gains from trade, free flows of

finance, elite mobility, and faith in interdependence is now coming to an end.

- The United States' tough export regulations aimed at China's semiconductor industry are a significant step toward strengthening domestic semiconductor manufacturers. However, it will have a negative impact on the neoliberal worldview, which is based on social-democratic politics moving toward global public goods or justice.
- Even in a militarised world, now less capable of trade and diplomacy, all the major actors believe they can calibrate and control the conflict.

Possible Outcomes

- The National Security Agency of the United States stated that given the foundational nature of certain technologies, such as advanced logic and memory chips, we must maintain as large a lead as possible.
- However, it may have some negative consequences, such as demonstrating a mediocre desire to compete. However, this move may result in the imposition of sanctions, which will have an impact on global trading and financial order.
- The justification is simple to maintain American hegemony. There have been gestures toward working with allies, and some countries may be hoping to profit from the sanctions.
- However, the scope of these sanctions will have ramifications for the stability of the global trading and financial order.
- It depicts the most crude mercantile reordering of the world system possible. In an odd way, the United States is now fusing corporate and state power in ways reminiscent of China.

Move to counter China will result in retaliation in a war for supremacy

- It may result in retaliation from China, possibly on products with a greater role in American domestic politics.
- It's tempting to send a strong message to China's regime. However, from the perspective of the rest of the world, the framing is nothing but neo-colonial, similar to the war of supremacy.
- This framing has implications for collaborations as well. The West overestimates its popularity outside of Europe. As a result, China may pose a threat to Taiwan and seek to dominate Asia.
- The legitimacy of the order that the Americans seek to maintain will not be enhanced by mercantilist rather than global public good justifications.
- It is also unclear how different countries will be able to use the China-US rivalry to their strategic advantage as decoupling increases.
- However, the world is sceptical that the US will meaningfully transfer technology and finance to address the world's development needs. As China decouples, it is very likely that it will double down on BRI and other initiatives.

Global Supply Chain Disruption

- These sanctions are a surefire way to wreak havoc on global supply chains.
- Some countries, such as India, may be salivating at the prospect of profiting from this situation. However, the cumulative uncertainties in the global trading system are likely to significantly reduce these gains.

- It could have a negative impact on the fight against climate change and pandemics or disease.
- It is clear that the primary arena requiring global cooperation, climate change, is on the back burner.
- While the superpowers are engaged in a mercantilist war, it is difficult to envision coordinated global action on climate change.
- The United States has taken significant domestic steps to invest in technological solutions to climate change.
- However, as with US pharma and vaccines, the jury is still out on whether these investments are solely for technological supremacy or will also be converted into global public goods.

What are the Challenges?

- The rise of China was always going to be a challenge; an authoritarian, opaque militarised China that relied on strident nationalism for legitimacy even more so. There are no easy options here.
- There is no way to know with certainty what strategy would work. However, the ideological framing of the American sanctions is striking.
- Given the foundational nature of certain technologies, such as advanced logic and memory chips, we must maintain as large a lead as possible.

Implications for the world

- These sanctions have broad implications, and their wording does not bode well for the world. For one thing, these sanctions are as close to a declaration of war as you can get without actually fighting, which will strain relations between the two countries.
- They also back up every Chinese assertion about the West: The West may have aided China's rise (at first for opportunistic reasons during the Cold War), but it will now try to limit its growth.
- The point is that they now appear to be trapped in an over-determined ideological construct, with realist hegemony on one side and strident nationalist revisionism on the other. This model excludes politics, diplomacy, and trade.
- The rest of the world's interest will be in banding together to change the self-defeating terms on which this rivalry is being conducted, rather than in opportunistically exploiting it. The world is in a perilous state.

Is there an ecosystem for semiconductor manufacturing in India?

- Currently, India lacks an ecosystem for advanced semiconductor manufacturing.
- However, a semiconductor laboratory (SCL) in Mohali, Punjab, manufactures semiconductor chips in collaboration with local and Israeli suppliers.
- Furthermore, conglomerates such as the Tata group and Vedanta have expressed interest in establishing chip operations here, and the government has received interest from some global firms.
- India has also implemented a production-linked incentive (PLI) scheme for chipmakers.

THE ENERGY CRISIS IN EUROPE

Priority: Medium



Primary Source: The Hindu

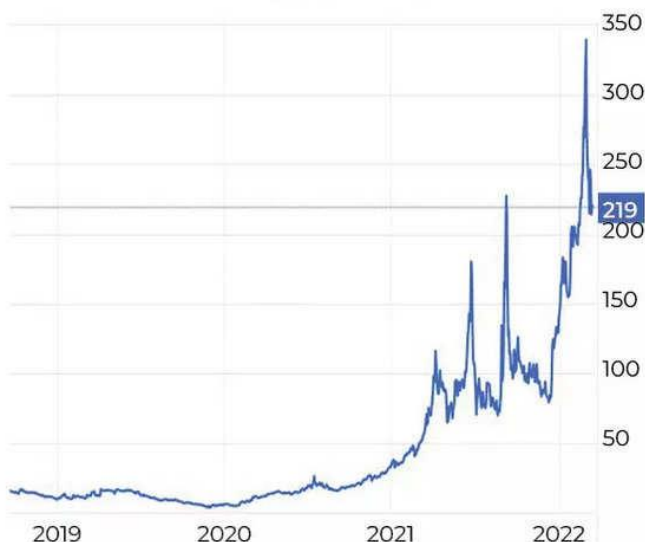
Prepp Prelims Booster: Energy crisis

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

Context:

- Recently, the gas field in Groningen, the Netherlands, has again come under the spotlight amid concerns over energy supplies.
- Despite resistance from energy experts and distrust from locals, the Dutch government has redoubled its efforts to shut down the Groningen gas field, Europe's largest natural gas field.
- The Dutch government announced that the field would be shut down by the end of 2024 due to the stress and suffering caused by earthquakes and tremors connected to gas extraction in the area.

European Benchmark Dutch TTF Natural Gas Prices (Eur/MWH)



Source: Trading Economics, SBI Research

Groningen field

- The Groningen field has been an essential source of natural gas and revenue for the **Netherlands** since the 1960s.
- The region of Groningen in the Netherlands has a gas field that began operations in 1963.
- The region saw **multiple earthquakes** throughout the 1980s.
- The Dutch government said it would close the field in response to protests by locals. The closing date was moved up from 2030 to 2022.
- However, the unsure geopolitical developments have prompted the mining minister to refrain from permanently closing any wells this year.
- Significance of the field:** Bloomberg reported earlier this month that if allowed, the additional supply from the field could go up to a level that would make up for what Germany imported from Russia.

- According to the report, there is still room in the field to extract roughly 450 billion cubic metres (bcm) of gas.

Can oil or gas exploration cause earthquakes?

- The **damming of rivers to build reservoirs**, the **extraction of oil and gas**, and **mining are some examples of human activities** that may cause "induced seismicity."
- When fluid is removed from hydrocarbon reservoirs (rocks that store oil and gas), net effective stresses rise.
- When these stresses are sustained by the geomechanics of the rock, new faults and fractures may form.
- In the instance of Groningen, the earth's subsidence has been brought on over a period of time by extraction alone.
- Rocks contract due to this extraction because over time, the pores can retain fewer and fewer hydrocarbons.

How energy crisis in Europe will affect India?

- The **average of four international indices—the U.S. Henry Hub, the U.K. National Balancing Point, Canada's Alberta, and Russian gas**—is used to calculate the **domestic gas price** in India.
- Raise in domestic gas price:** The average domestic gas price has increased by more than twofold from the pre-pandemic period, from \$5.08/MMBTU to \$11.62, and according to some predictions, it will likely increase once again when the six-monthly reset occurs for April-September 2023.
- Decline in exports to Europe:** The decline in purchasing power in the EU27 will have an effect on India's exports, which are primarily intended for final consumption. The dip in exports may widen India's current account deficit.
- Rise in cost of Intermediate goods:** Exports of intermediate items will be impacted by further manufacturing disruption.
- Rise in cost of transportation and city gas:** The current high gas prices will impact the cost of transportation using CNG as a fuel. The high cost of sourcing will affect city gas distribution businesses and urban demand.
- Inflation:** The present gas crisis in Europe will bring about new inflationary pressures on food and transportation costs.
- Rise in fertiliser subsidy:** The Center's annual fertiliser subsidy expenditure is anticipated to rise because to the sharp increase in gas prices.

Way Forward

- India consumed roughly 63.9 billion cubic metres in FY22, which is about 3.1 billion more than in FY21. At roughly 30 bcm, **imports made up over 50% of consumption.**
- According to estimates, **global production will fall from 4,109 bcm in calendar 2021 to 4,089 bcm in 2022.**
- If the method used to determine domestic gas prices is not changed, the situation would become difficult for the government to handle.
- Until then, the government must shoulder a greater subsidy burden for the LPG industry as well as for fertiliser, which is manufactured using natural gas.

PAKISTAN IS OUT OF FATF 'GREY LIST' ON TERROR FUNDING

Priority: Medium



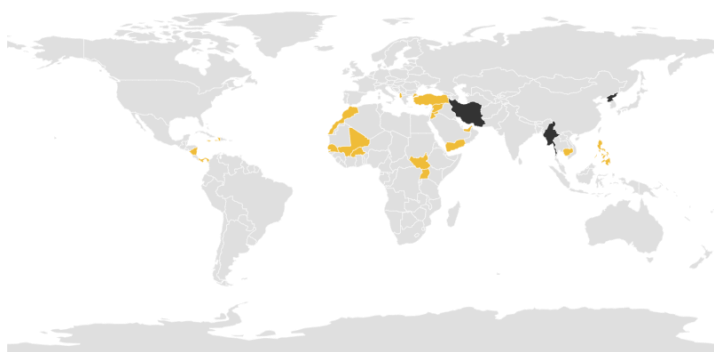
Primary Source: The Hindu

Prepp Prelims Booster: FATF

Prepp Mains Booster: Important International institutions, agencies and fora- their structure, mandate; Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- On October 21, the first Plenary meeting of the FATF under the Presidency of T. Raja Kumar of Singapore agreed to take Pakistan's name off the list of nations subject to "enhanced monitoring," giving Pakistan a significant reprieve four years after it was placed on the "grey list" and subject to harsh financial sanctions.
- The FATF included **Myanmar for the first time to its "high-risk jurisdictions subject to a call for action,"** also known as the watchdog's "black list." Iran and North Korea are still on the black list.
- Other rulings prohibited Russia from taking part in upcoming FATF programmes.

**What is FATF?**

- Financial Action Task Force (FATF) is an **inter-governmental body** that works to "set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system".
- It is commonly referred to as the world's "**terrorism financing watchdog**".
- It ensures that the flows of money in the **global financial system** are not **misused to fund terrorist activities**.
- The **G-7 Summit in Paris formed the FATF in July 1989** with the initial goal of examining and developing measures to combat money laundering.
- The **FATF enlarged its mandate to include** efforts to prevent **terrorist funding in October 2001 after the 9/11 attacks**, and it added efforts to counter the financing of the spread of weapons of mass destruction in April 2012.
- It currently comprises 37 members and two regional organizations (European Commission and Gulf Cooperation Council)
- The watchdog has developed the FATF Recommendations, or FATF Standards, which ensure a coordinated global response to prevent organized crime, corruption, and terrorism.
- Over 200 jurisdictions worldwide have committed to the FATF Recommendations through the global network of nine FATF-Style Regional Bodies (FSRBs) and FATF memberships.

- India has been a member of the FATF since 2010. India is also a member of its regional partners, the Asia Pacific Group (APG) and the Eurasian Group (EAG).
- Greylisting:** Grey listing denotes that FATF has escalated monitoring of a nation to assess its effectiveness in combating money laundering and terrorism funding. The "increased monitoring list" is another name for the "grey list."
- Black List:** The list includes nations categorized as Non-Cooperative Countries or Territories (NCCTs). These nations aid in the financing of terrorism and the laundering of money. The FATF frequently updates the blacklist, adding or removing entries.

Reasons behind Pakistan's removal from the list

- Hafiz Saeed and Sajid Mir, two of the senior terrorists from Lashkar-e-Taiba, one of the major terrorist organizations under the FATF's scrutiny, have recently received additional sentences from Pakistan.
- The two are thought to have participated in the over 160 fatal Mumbai assaults in 2008 in neighboring India.
- One of the main reasons Pakistan might be removed from the list is its recent efforts to imprison, fine, and seize the assets of people connected to terrorist anti-Indian groups.

What benefits can Pakistan get as a result of the FATF de-listing?

- Boost to international reputation:** The international community would effectively give Pakistan a clean chit regarding terrorism financing and bolster its reputation.
- Boost investments:** According to studies, grey-listing harms the relationships of the concerned nations with international funders, such as banks and financial institutions that pay attention to the FATF rankings, as well as with current and potential foreign investors in those nations.
- Boost in sovereign ratings:** Pakistan would benefit from being taken off the FATF list after Moody's lowered the nation's sovereign credit rating. Additionally, it would raise spirits, which is significant in terms of foreign direct investment.

INTERPOL LAUNCHES FIRST-EVER METAVERSE FOR LAW ENFORCEMENT WORLDWIDE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Interpol

Prepp Mains Booster: Important International institutions, agencies, and fora- their structure, mandate.

Context:

Recently at its ongoing 90th General Assembly in Delhi, the Interpol unveiled the first-ever 'metaverse' designed specifically for law enforcement worldwide.

What is Interpol's Metaverse?

- The Interpol metaverse enables registered users to engage with other police via their avatars, attend training courses in forensic investigation and other policing techniques, and even take a virtual tour of the organization's general secretariat offices in Lyon, France.
- The service is being offered via the safe cloud of the international police organization.

What is Metaverse?

- The phrase "metaverse" was first used by American author Neal Stephenson in his 1992 book Snow Crash, which described a 3D virtual environment where real individuals lived as avatars.
 - He identified the idea as the internet's replacement.
- It is an umbrella term. Generally speaking, it alludes to open virtual worlds that users can access online.
- In order to enable user interaction virtually, the metaverse integrates elements of social networking, online gaming, augmented reality (AR), virtual reality (VR), and cryptocurrency.
- Additionally, there is a particular kind of metaverse that makes use of blockchain technology.
- Today, the term "metaverse" refers to real-time 3D virtual places where users can interact with others who are not physically there while interacting, creating, socializing, working, shopping, and attending events.



What is Interpol?

- Interpol is an international police organization. It is made up of 195 member nations.
- It is not a part of the UN.
- It was established in 1923.
- Since 1996, it has enjoyed a special role – that of Permanent Observer at the United Nations
- Headquarters: Lyon, France
- Languages used by Interpol: Arabic, English, French, and Spanish.



Role And Responsibility:

- Interpol, a secure information-sharing network, assists law enforcement agencies around the world in conducting criminal

investigations by collecting and disseminating information from various member nations.

- It keeps track of the whereabouts of offenders and those who are on the radar of the police in various locations and notifies police forces who have either asked Interpol for assistance.
- It makes an effort to promote as much cooperation amongst criminal police units as is practical.
- It is in charge of 19 police databases that contain data on crimes and criminals (including names, fingerprints, and passports that have been stolen) and are available in real-time to nations.
- It provides forensic analysis, investigative support, and help finding fugitives around the world.
- It aids in national attempts to battle the three most important forms of crime in the world today: terrorism, cybercrime, and organized crime.

Different Types of Interpol Notices

- Various notices of different kinds with various goals are issued by Interpol.
- Notices can be of various colors, including red, blue, yellow, black, orange, purple, and green.
- States are not required to abide by these notices and frequently treat them as warrants for the arrest and extradition of the subject.

TYPES OF INTERPOL NOTICES



RED NOTICE: To seek the location and arrest of wanted persons with a view to extradition or similar lawful action.



YELLOW NOTICE: To help locate missing persons, often minors, or to help identify persons who are unable to identify themselves.



BLUE NOTICE: To collect additional information about a person's identity, location or activities in relation to a crime.



BLACK NOTICE: To seek information on unidentified bodies.



GREEN NOTICE: To provide warnings and intelligence about persons who have committed criminal offences and are likely to repeat these crimes in other countries.



ORANGE NOTICE: To warn of an event, a person, an object or a process representing a serious and imminent threat to public safety.



INTERPOL-UN SECURITY COUNCIL SPECIAL NOTICE: Issued for groups and individuals who are the targets of UN Security Council sanctions committees.



PURPLE NOTICE: To seek or provide information on modus operandi, objects, devices and concealment methods used by criminals.

Source: www.interpol.int

NATION GRAPHICS

General Assembly of Interpol:

- Representatives from each of Interpol's member nations make up the General Assembly, the organization's highest governing body.
- It meets once a year for a session that lasts roughly four days to vote on initiatives and guidelines. Resolutions are used to make decisions.

India and Interpol:

- Since 1956, India has been a member.
- India maintains a National Central Bureau, much like every other member country (NCB). The Interpol's designated point of contact is the NCB.

- The CBI has been appointed as the Interpol's nodal agency in India.
- The NCB acts as a national hub for policing organizations throughout the world and domestic law enforcement agencies to collaborate.
- India and Interpol have worked together to combat a variety of organized crimes, including wildlife trafficking, drug trafficking, the sale of fake drugs and other counterfeit goods, and poaching.
- In 2022, India will host the Interpol General Assembly in conjunction with the 75th anniversary of its independence.
- Praveen Sinha, special director of the CBI, was additionally chosen in November 2021 to represent Asia on the executive committee of the Interpol.

REDISCOVERING THE BAY OF BENGAL

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Bay of Bengal

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

Context:

In the article "Rediscovering the Bay of Bengal" the author has talked about increased geo-economic, geopolitical, and geo-cultural significance of the Bay of Bengal (the Bay), the problems raised in it and the significance of **Centre for Bay of Bengal Studies (CBS)** at Nalanda University which was opened recently.

What is the significance of the Bay of Bengal?

Geo-economics:

- The Bay has historically been a significant center for Indian Ocean trade. In terms of trade, it established a bridge between the East and the West.
- The Bay area has been significantly impacted by an Indo-Pacific orientation and the realignment of global economic and military power towards Asia.
- The vital communication sea lanes in this region are important to the energy security that fuels the economies of many of the countries in the region and serve as lifelines for global economic security.

Geo-political:

- The region has also initiated a regional cooperation forum in the form of BIMSTEC and other initiatives.
- In addition to that non-traditional threats like terrorism and climate change are now more common and pushing the littoral states to engage to find solutions.
- In order to explore marine and energy resources in an environmentally acceptable manner, the Bay also presents a chance for increased regional cooperation.

Geo-cultural:

- The Bay's marine ecosystem is diversified. Some of the biggest rivers in the world supply it with water.
- It is a sea that is only partially confined, and as such, it has developed a number of geological features.
- Many unique and endangered marine species can be found there, as well as mangroves, which are vital to the continued existence of both the environment and the fishing industry.

How is the Bay of Bengal in Disorder?

- The region's maritime environment has changed as a result of major powers expanding their economic and geopolitical influence.
- Political and cultural engagement, together with economic competition, have taken on new dimensions.
- More crucially, the Bay's ecosystem is going through an unprecedented crisis brought on by widespread environmental exploitation and geopolitical unrest.
- Species extinction is a result of careless exploitation of the maritime environment, which has severe consequences on biodiversity.
- Problems such as population growth, altered land use, excessive resource exploitation, salinisation, sea level rise, and climate change are exerting significant strain on the Bay's environment.
- Operational discharge from small and medium feeder ships, shipping collisions, unintentional oil spills, industrial waste, pollution, and the accumulation of non-biodegradable plastic litter are all contributing to the deterioration of the Bay.
- A dead zone has formed as a result, and the mangrove trees that protect the shore from the fury of nature are under more threat than ever.



What is the Centre for Bay of Bengal Studies (CBS) and what can it help to address ?

- The Centre for Bay of Bengal Studies (CBS) at Nalanda University was announced by Prime Minister Narendra Modi during the fourth BIMSTEC conference.
- CBS will offer collaborations on various dimensions such as geo-economics and geopolitics, ecology, trade and connectivity, maritime security, maritime law, cultural heritage, and blue economy to generate opportunities for the Bay of Bengal region.
- This cooperation will strengthen India's overall framework for maritime engagement, which also aims to advance sustainable economic growth for all by fostering closer nautical ties.

What are the recommendations for addressing the issues?

- It is essential for littoral neighbours in the region to develop a partnership and cooperate because the maritime domain is interrelated and interdependent in nature, transnational in character.
- Regional members need to expand cooperation in maritime safety and security, enhancing cooperation on maritime connectivity and the ease of maritime transit, and boosting investment possibilities in the maritime connectivity sector.
- The efforts need to be taken to address non-traditional threats and foster group efforts to reduce illicit, unreported, and unregulated fishing.
- Standardising and harmonization of data reporting needs to be taken for the Bay.
- Regional marine entities should strive to balance opportunities and goals on a national, regional, and international scale.
- Littoral governments need to support and promote skill-building, research, and training.
- Countries in the region need to mobilize incentives and investments, manage maritime affairs more effectively, and support people as they switch to alternative lifestyles.
- Working together is important due to shared nautical concerns and the complexity of the marine environment.

GENERAL STUDIES 3

Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

SERVICES SECTOR GROWTH SLOWS TO 6-MONTH LOW IN SEPTEMBER

Priority: Medium



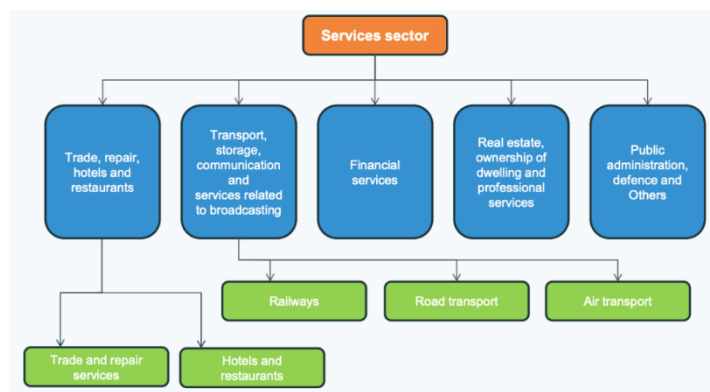
Primary Source: The Hindu

Prepp Prelims Booster: Service sector

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

Context:

- India's services sector activity fell to a six-month low in September, owing primarily to a significant slowing in demand amid high inflation.
- In September, the S&P Global India Services Purchasing Managers' Index fell to 54.3 from 57.2 in August.



What is the Service Sector?

- In terms of GDP, the services sector dominates the Indian economy. It has also attracted significant foreign investment and is a major contributor to India's exports. It also employs 30% of India's workforce.
- In India, the services sector includes a wide range of activities such as trade, hotel and restaurant operations, transportation, storage and communication, financing, insurance, real estate, business services, community, social, and personal services, and construction-related services.
- The services sector is poised to play a critical role in achieving the goals of a \$5 trillion economy in the medium term and developed economy status in the long term.

Slowed Growth of the Service Sector

- According to the S&P Global India Services Purchase Managers' Index (PMI), India's services sector slowed in September as new business and output growth slowed to the slowest rate since March 2022. A PMI reading of 50 indicates that business activity has not changed.
- The 14th consecutive month of growth in services sector activity occurred in September, but price pressures, an increasingly competitive environment, and 'unfavorable public policies' limited the upturn.
- Growth has also slowed since August, when service companies reported the most new jobs in 14 years. Nonetheless, business confidence has continued to rise, reaching its highest level in over seven and a half years in September.
- Input cost inflation remained close to August levels, which were the lowest in eleven months, while selling price increases slowed to the slowest rate since March.
- Transport, Information & Communication players reported the sharpest increase in user charges levied by firms, while Consumer Services players reported the greatest increase in cost burdens due to higher energy, food, labour, and material costs.

Depreciation of the Rupee

- The Indian service sector has overcome many challenges in recent months, as evidenced by the latest PMI data, which continues to show a strong performance despite a loss of growth momentum in September.
- "New business and output increased further, while companies continued to hire additional workers to meet rising demand." Input cost inflation also remained broadly stable in September, with the slowest increase in service prices since March.
- However, the sharp depreciation of the rupee seen near the end of the month as a result of interest rate hikes in the United States posed new challenges to the Indian economy.
- On September 22, the US Federal Reserve raised interest rates by 75 basis points and hinted at further increases in the future. As a result, the US dollar strengthened while other currencies, including the rupee, weakened.
- As imported goods become more expensive due to currency volatility, the RBI will undoubtedly continue to raise interest rates in order to protect the rupee and contain price pressures.
- The RBI raised the repo rate by 50 basis points to 5.90% in last week's monetary policy announcement to tame inflation, which

remains above its comfort zone of 2-6%. With this, the RBI effectively raised the repo rate by 190 basis points (bps).

- For the current fiscal year, the RBI maintained its inflation forecast of 6.7%.
- An increase in inflation could harm consumer spending, dampen business confidence, and put the Indian service sector to the test in the coming months, but service providers were optimistic about growth prospects in September, at least.

Renewed slowdown

- S&P Global reported that overall private sector output growth slowed in September, with its Composite PMI Output Index falling to 55.1 from 58.2 in August. The Services sector experienced the most significant slowdown.'
- In September, the aggregate rate of input cost inflation fell to a 22-month low due to broad-based slowdowns in manufacturing and services, while selling price increases were the 'weakest in six months,' according to S&P Global.

RUPEE SLIDES TO NEW LOW OF 80.79 ON FED RATE INCREASE

Priority: Medium



Primary Source: The Indian Express and The Hindu

Prepp Prelims Booster: Rupee

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Context:

- Recently the US Federal Reserve increased its interest rate by 75 basis points and said that there would likely be more increases in the future, due to which the rupee dropped 90 paise to a historic low of 80.79 versus the dollar on 22 September.
- The rupee depreciated to an all-time intraday low of 80.95 before completing the day at 80.79 after opening weakly at 80.27 over its previous close of 79.96 versus the US dollar.

Why did the Rupee fall to Historic low?

Federal Reserves increase in the short term rate:

- With the USA's Federal Reserve's most recent increase, the benchmark short-term rate by 75 basis point, which serves as the benchmark for the majority of consumer and business loans in the US, increased to a range of 3% to 3.25%, which is higher than it had been since before the 2008 financial crisis.
- Federal Reserve representatives also hinted that they anticipate further raising of rates even in future by the beginning of 2023.
- This has led to increased outflow foreign fund in the form Foreign Portfolio Investment in dollars to the USA and leading to appreciation of the value of Dollar with respect to Rupee.

What are the impacts of the Indian rupee's Depreciation?

For the Indian Economy, rupee depreciation is a double-edged sword. Impacting economy in positive as well as negative way in the following way

- **High Import Bill:** Imports will cost more because importers will have to pay more for the same amount of dollars when the dollar appreciates versus the rupee. Additionally, as most

foreign trade is conducted in US dollars, importers must pay more.

- **Expensive Import:** a falling rupee will make imports more expensive, putting further strain on household budgets in a nation where the economy is dependent on imports.
- **High Crude Oil Import Bill:** Since India imports more than 85% of the oil and 50% of the gas it uses, the oil and gas industry will be the one that suffers the most.
- **Exports get cheaper:** When rupee depreciates, its exports will become cheaper as exporters will get more rupee against the foreign currency. In summary, depreciation benefits export-related companies like pharma and IT.
- **Fear of High Inflation:** Increased import costs are also contributing to domestic inflation.
- **High Current Account Deficit:** The nation's current account deficit will increase as India's merchandise export is less than its import.
- **Rise in the projects cost of Renewable Energy sector:** Imported solar cells and modules are significantly reliant on by Indian solar installations. Future bids would have higher tariffs and project expenses.
- **Negative impact on Trade Balance:** Through rising import costs, a falling rupee immediately affects India's trade balance and inflation. Costlier imports will increase both the trade and current account deficits, putting pressure on the currency rate.
- **Dear External commercial Borrowing:** Depreciation of Rupee and strengthening of dollar would increase the Cost of Credit from foreign market for borrowers in India.
- **Increased Interest payment:** Fall in the rupee would add the increased burden of interest payment on the loans taken by the government of India and commercial borrowing.

Role of Reserve Bank of India(RBI)

- The RBI keeps a close eye on the foreign currency market and steps in when there is too much volatility.
- At its upcoming policy review later this month, the Reserve Bank of India (RBI) may increase interest rates by 50 basis points (one basis point equals one tenth of a percentage point).

What Options are available for RBI and policymakers?

- The RBI should not try to stop the rupee from dropping indefinitely since it is neither prudent nor feasible to do so.
- India's forex reserves will eventually run out if the rupee is protected since foreign investors have much more financial sway than domestic investors do.
- The majority of analysts think that allowing the rupee to weaken and serve as a natural shock absorber to the unfavourable terms of trade is the wiser course of action.
- The government should limit its borrowing, and the RBI should concentrate on reducing inflation as required by law.

Conclusion

- The currency's decline is probably going to make exports more competitive, which benefits the economy.
- The rupee has remained more resilient than in other earlier crises, such as the Global Financial Crisis of 2008 and the Taper Tantrum of 2013.
- The rupee has lost value when compared to the US dollar, but it has gained value when compared to other major currencies like the euro and the Japanese yen.

- Depreciation of the rupee typically reduces the current account deficit since it increases exports.
- However, India is now dealing with high inflation, and more depreciation could make problems worse.
- As the value of the rupee continues to fall, there is a potential that the central bank would interfere once more.

MOODY'S SEES QUAD BOLSTERING INDIA'S TRADE, INVESTMENT FLOWS

Priority: Medium



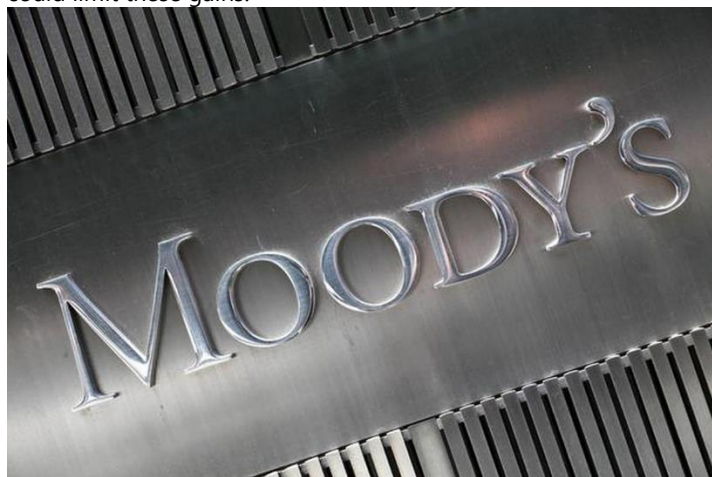
Primary Source: The Hindu

Prepp Prelims Booster: Rating

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Context:

Recently, Moodys' Investors Service, a Sovereign Credit Rating Agency, predicted that the Quadrilateral Security Dialogue would allow India the chance to gain from increased trade and investment flows as its members aim to lessen their reliance on China. However, the country's protectionist posture and "poor" business climate could limit these gains.



What are the observations?

- India is positioned to develop into a significant destination market for goods, especially commodities, machinery, and chemicals, from the other Quad countries.
- While Australia's footprint will expand as a result of a free-trade deal with India, the U.S. and Japan will continue to be key suppliers of foreign direct investment (FDI) to India in the services, telecommunications, and software sectors.
- India would benefit from trade and investment, but infrastructure and regulatory restrictions still be a hurdle for greater benefits.
- The size of the trade flow adjustments would also depend on improvements to India's business climate and degree of investment attractiveness, which "remains weak" in comparison to other Asia Pacific economies and other Quad members—Japan, U.S., and Australia.

What is Moody's ?

- Moody's is a Sovereign Credit Rating Agencies.

- Moody's Investors Service is a part of Moody's and is a **Corporation's bond credit** rating company.
- Moody's Investors Service is a global **financial research firm** that specialises in commercial and government bonds.
- Moody's is one of the Big Three credit rating firms, along with **Standard & Poor's(S&P)** and **Fitch Group**.
- It's also on the list of Fortune 500 companies for 2021.

What are Sovereign Credit Rating Agencies?

- Sovereign Credit Rating Agencies are the financial firm involved in measuring Sovereign Credit Rating (SCR).
- SCR is an objective evaluation of a nation or other sovereign entity's creditworthiness.
- It can provide information to investors about the level of risk involved with holding a certain country's debt, including any political risk.
- Another typical reason for nations to achieve a sovereign credit rating is to draw Foreign Direct Investment(FDI), in addition to issuing bonds in external debt markets.
- A credit rating agency will assess a nation's political and economic climate upon request in order to award it a rating.
- The top three international credit rating companies, Fitch Ratings, Moody's Investors Service, and Standard & Poor's (S&P), collectively dominate around 95% of the ratings market worldwide.
- The Securities and Exchange Board of India (SEBI) has registered six credit rating companies in India: CRISIL, ICRA, CARE, SMERA, Fitch India, and Brickwork Ratings.

What is the expected impact of Moody's prediction?

- **Prospect's of attracting Investment:** Improved prediction by Credit rating Agencies will help India to attract the Foreign Direct Invest leading to greater investment.
- **Chances of Improved Credit Rating of India:** This may also result in improving India's rating by Moodys and other agencies.

Lower Borrowing Costs:

- Since overseas borrowing costs are tied to a country's rating and the agencies' outlook on the nation.
- An upgrade usually helps in lowering borrowing costs for the government as well as the corporate sector.

Increase foreign investors:

- Foreign investors take comfort in subscribing to government and corporate bonds at lower rates because chances of default recedes. Overall debt service ability increases with better ranking.

What is QUAD?

- A strategic security dialogue between Australia, India, Japan, and the United States is known as QUAD or Quad. It was first known as the Quadrilateral Security Dialogue (QSD).
- Shinzo Abe, a former Japanese prime minister, developed the idea of the dialogue in 2007. However, it has recently become more significant as the Indo-Pacific has taken centre stage in world affairs.
- It is frequently referred to as a "Asian" or "mini" NATO and is seen as a counterbalance to aggressive China's moves in the Indo-Pacific and South China Sea regions as well as its economic clout in the Indo-Pacific.

- QUAD has been referred to as a response to China's One Belt, One Road initiative.
- In the Indian Ocean region, QUAD aids India in balancing China and in securing open and free sea lanes for communications in the Indo-Pacific and Indian Ocean regions.
- The first virtual summit of QUAD member nations took place in March 2021.

What is the Indo-Pacific Economic Framework (IPEF)?

- The US administration announced the creation of an Indo-Pacific Economic Framework (IPEF) in October 2021.
- **Pillars:** The IPEF is developed on four modules:
 - Fair and resilient trade (including digital, labour, environmental and other standards),
 - Supply chain resilience
 - Infrastructure, decarbonisation and clean energy
 - Tax and anti-corruption.
- Countries would be required to sign up for all of the components inside a module, but not all of the modules.
- However, because the deal is more of an administrative framework, IPEF will not include market access promises such as eliminating tariff barriers.

Members of IPEF:

- IPEF will have a total of 13 nations as its members.
- The grouping contains **Seven of the Association of Southeast Asian Nations' (ASEAN) members**, all **four QUAD** countries, **South Korea** and **New Zealand**, which accounts for around 40% of global GDP.
- Myanmar, Cambodia, and Laos, three ASEAN countries considered closer to China, are not members of the IPEF.

SEBI ISSUES GUIDELINES FOR CREDIT RATING AGENCY ON SUSPENSION, CANCELLATION OF REGISTRATION CERTIFICATE

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Credit rating

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment

Context:

Recently, Capital markets regulator, Securities and Exchange Board of India (SEBI) has come out with fresh guidelines pertaining to cancellation, suspension and surrender of registration certificates of a Credit Rating Agency (CRA).

What are the highlights of the new Guidelines?

- Any listed entity or issuer that had received a credit rating from a CRA whose registration was revoked, suspended, or relinquished would need to get a credit rating from another registered CRA that had a current registration certificate.
- Within 15 days of submitting a request to SEBI, the concerned CRA is required to notify its clients and prominently publish the request for surrender of registration certificate on its website.
- The credit ratings assigned by the CRA in the event of certificate surrender will remain in effect up until the customer withdraws the assignment or transfers to another CRA.



Why did SEBI come up with the Guidelines for CRA?

- Brickwork Ratings India's license was recently revoked by the Securities and Exchange Board of India (SEBI), who also gave the company six months to wind down operations.
- In 2008, SEBI approved registration for Brickwork Ratings India. It is one of the seven credit rating companies functioning in the nation that are registered with the SEBI.
- Brickwork had been accused by SEBI of failing to perform its duties as a credit rating agency with the necessary skill, care, and devotion.
- Additionally, SEBI forbade the rating agency from accepting any new clients or projects.
- This is the first instance in which SEBI has revoked a credit rating agency's license (CRA).

What is the Credit Rating Agency?

- A firm called a credit rating agency evaluates the financial health of sovereign businesses and governmental organizations, particularly their capacity to make principal and interest payments on their loans.
- The rating given to a particular loan demonstrates how confident an agency is in the borrower's ability to fulfill its contractual commitments.
- To determine whether a debt has a low or high default risk as well as the financial soundness of its issuer, each agency utilizes distinct letter-based rankings.
- A credit rating organization assesses a nation's political and economic climate at the request of the government to determine the nation's rating.

Credit Rating Agencies in India:

- The Securities and Exchange Board of India (SEBI) has registered six credit rating companies in India: CRISIL, ICRA, CARE, SMERA, Fitch India, and Brickwork Ratings India.
- There are currently 5 CRAs in India as a result of Brickwork's license being suspended.

What are Sovereign Credit Rating Agencies?

- Sovereign Credit Rating Agencies are the financial firms involved in measuring a country's Sovereign Credit Rating (SCR).
- Sovereign Credit Rating (SCR) is an objective evaluation of a nation, country or other sovereign entity's creditworthiness.
- It provides information to investors about the level of risk involved with holding a particular country's debt securities.

SCRA information also includes any political risk that may arise in future.

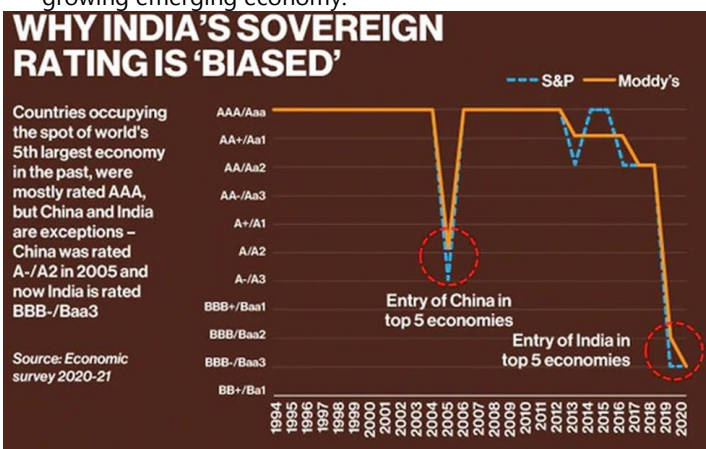
- Another typical reason for a nation to receive a sovereign credit rating is to attract Foreign Direct Investment(FDI), in addition to issuing bonds in external debt markets .
- A Sovereign Credit Rating Agency will assess a nation's political and economic climate upon request in order to award it a rating.
- The top three International Credit Rating Agencies are: Fitch Ratings, Moody's Investors Service, and Standard & Poor's (S&P), collectively dominate around 95% of the ratings market worldwide.

India and Sovereign Credit Rating

- In 2021, The outlook for India's sovereign rating has changed from "negative" to "stable" according to credit rating agency "Moody's."
- It also confirmed India's Baa3 long-term issuer ratings in both local and foreign currencies.
- In 2020, India's sovereign rating was reduced by Moody's in 2020 from "Baa2" to "Baa3," the lowest investment grade.

What is India's Concern about Sovereign Credit Rating Agencies?

- India has expressed its disappointment for being rated so low despite being the 5th largest economy by the Sovereign Rating Agencies.
- The Economic Survey 2020–21 has recommended for the process used to determine sovereign credit ratings to be made more transparent, less subjective, and more suited to represent an economy's fundamentals. Sovereign Credit Ratings and India.
- In the same Survey India has highlighted the bias against India with respect to China, which is rated high despite being fastest growing emerging economy.



CENTRE PLANS CUTTING COAL SUPPLY TO PLANTS THAT DON'T COMPLY ON BIOMASS CO-FIRING

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Coal Plants

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Context:

- Recently the Power Ministry is considering cutting coal supply to non-compliant power plants as a result of power generators' lack of compliance with biomass cofiring, according to the proceedings of a inter-ministerial meeting of the Environment, Agriculture, and Power Ministries.
- In spite of regulations, India has fallen far short in ensuring that at least 5% of the coal used in thermal plants was blended with biomass.

What is the issue?

- All thermal power plants were required to reach 5% compliance by October 2022 per a directive from the Power Ministry issued in October 2021.
- Because biomass pellets have the same calorific value as coal, burning them in combination with coal is said to reduce emissions while also reducing consumption.
- In order to get ready for the impending post-monsoon season, which would see an increase in air pollution and agricultural fires in north India, a meeting was held in New Delhi to examine the success of biomass co-firing in thermal power plants.
- Farmers frequently burn stubble in wide-open spaces; this biomass can be utilized in coal plants to cut emissions.

What is Biomass co-firing?

- In coal thermal plants, the practice of using biomass to replace a portion of the fuel is known as biomass co-firing.
- In boilers made to burn coal, both biomass and coal are burned simultaneously.
- The current coal power plant has to be partially rebuilt and upgraded for this purpose.

Relevance:

- **Emission Reduction:** Biomass co-firing reduces emissions from crop residue burning in the open and decarbonizer coal electricity generation. It is an efficient approach to reduce emissions from open burning of crop residue.
 - 38 million tonnes of carbon dioxide emissions can be avoided by replacing 5-7% of the coal in coal-fired power plants with biomass.
- **Reduced Stubble burning:** It can address India's growing issue with farm stubble burning, and reduce emissions from fossil fuel combustion. It can also generate jobs in rural areas.
 - Both the availability of biomass and the capacity for coal-fired energy are expanding quickly in India.

Which actions have been done to enhance biomass co-firing?

- The "National Mission on Use of Biomass for Coal Thermal Power Plants" launched by the Union Power Ministry estimates that daily biomass pellet requirements for co-firing range from 95,000 to 96,000 tonnes.
- A list of 70–80 pellet producers has been sent to the power plants by SAMARTH (Sustainable Agrarian Mission on Use of Agro-residue in Thermal Power Plants), the national mission on the use of biomass in coal-based thermal power plants.
- The manufacturers were also requested to register with SAMARTH in order to tighten and manage the supply chain.
- The National Power Training Institute has provided training for pellet producers around the nation.

What are the advantages of co-firing biomass?

- CO2 emissions reduction: 38 million tonnes of carbon dioxide emissions can be avoided by replacing 5-7% of the coal in coal-fired power plants with biomass.
- The use of biomass co-firing reduces emissions from agricultural residue burning in the open and decarbonizes the production of energy from coal.

What are the limitations in Biomass co-firing in India?

In India, biomass co-firing has not significantly improved because:

- India now has a low daily production capability of 7,000 tonnes of pellets while having an excess of 228 million tonnes of agricultural waste at its disposal.
- Higher pricing on the open market: Pellet suppliers choose to offer their product at higher prices on the open market or to sectors like the textile, food processing, and metal industries.
- Increasing demand from NCR industries: By the end of September 2022, industries in Delhi-National Capital Region are required to transition to cleaner fuels by the Commission for Air Quality Management in National Capital Region and Adjoining Areas. As a result, the demand for biomass from industries increased.
- Problems with biomass pellet storage include the fact that only pellets with up to 14% moisture can be burned alongside coal. It is challenging to store biomass pellets at plant locations for extended periods of time because they quickly collect moisture from the air, making them unusable for co-firing.
- Seasonality and erratic supply: Biomass pellet availability is erratic and dependent on the season.

How can biomass be made better for co-firing?

- The price of biomass pellets must be capped and protected from changes in market demand.
- Platforms must be established to ensure that farmers have an intrinsic role in this business model of pellet manufacturing and co-firing in power plants.
- SAMARTH must map the existing pellet manufacturers and encourage entrepreneurs to set up more pellet manufacturing plants.

CHINA'S TOTAL TRADE SURPLUS WITH INDIA 'SURPASSES \$1 TRILLION'

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: China Trade Surplus

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

Context:

According to estimates, the favourable trade balance that China has enjoyed with India has cumulatively crossed the \$1 trillion mark, since bilateral commerce began to boom in the early 2000s.

What are the highlights of the estimates?

- In the last ten years, the trade deficit has grown especially vast. Annual two-way commerce reached \$125.6 billion in 2021, the first time it has done so, with India's imports accounting for \$97.5 billion of that total, putting the imbalance at almost \$70 billion.
- India's imports of Chinese machinery and other equipment, which increased from \$3 billion in 2000 to \$42 billion in 2008,

the year China overtook the United States as India's largest trading partner, were a major factor in the early 2000s trade boom.

Data: India China Trade

India's Import from China:

- In 2021, India's imports from China reached USD 97.5 billion.
- The import grew by 46.1% in 2021 from USD 66.7 billion in 2020.

India's exports to China:

- Exports to China from India increased to \$24 billion in 2021 from \$19 billion in 2020 and \$17.1 billion in 2019

Trade Deficit:

- China has a favourable trade balance with India.
- India's trade deficit with China increased from \$39 billion in 2020 to \$61 billion in 2021.

Total Trade:

- Trade between the two countries reached \$125.66 billion in total.
- In 2021, India was China's fifteenth-largest trading partner.



Top 100 items:

- By value, the top 100 items were \$41 billion, an increase from \$25 billion in 2020.

Category:

- laptops and personal computers increased by 77%, integrated circuits by 147%, and oxygen therapy equipment by more than four times.



INDIA CHINA TRADE

Year	Total	JAN-SEPT (in US \$ billion)		
		Export	Import	Deficit
2019	69.66	13.349	56.311	-42.962
2020	60.4898	15.312	45.1782	-29.8662
2021	90.375	21.913	68.462	-46.549

Source: China General Administration of Customs

What are the reasons for the trade deficit of India with China?

- **China being a manufacturing hub:** Bigger manufacturing capacity and economy of scale led China to have high cost competitiveness in manufacturing leading to export of cheap products compared to India.
- **China Being A part of Global Supply Chain:** Due to bigger manufacturing capacity, China has become an integral part of the global value supply chain by manufacturing intermediate goods. This has led to import of Chinese goods India as intermediate goods.
- **Post COVID revival of demand:** The main factors driving an increase in imports are a revival in local demand for finished goods from China and an industry recovery.
- **Increased Export push from India:** The increase in India's international exports has also increased the demand for numerous essential intermediate inputs, while short-term interruptions elsewhere have increased short-term sourcing from China, such as in the case of coking coal previously imported from Australia and Indonesia.
- **Reliance on China:** India is reliant on China for a variety of intermediate industrial products, many of which cannot be supplied from other countries and are not produced in significant quantities in India. India is sourcing finished goods for the Indian market, such as electronics, in record numbers.
- **India's China-dependence syndrome:** When our industrial sectors fully recover to their pre-pandemic levels, India's China-dependence syndrome may worsen.
- **Medical APIs drugs:** It would take a while for India to become dependent on importing APIs from China.

What does the most recent trade data indicate?

- Experts are concerned that India's reliance on China for finished goods shows no signs of decreasing.
- The rise in imports of intermediate goods, however, is less alarming because it denotes a recovery in the sector and an increase in the demand for inputs.
- Despite the fact that India's exports to China have surged by more than 50% over the past two years, the majority of these still consist of raw resources like ores, cotton, and seafood rather than finished goods. According to the five-year trend, the trade deficit is still expanding. The deficit climbed from \$51.8 billion in 2017 to \$69.4 billion in 2021.

How have relations between China and India changed recently?

- Even though **commerce is still booming**, other facets of relations between both nations have not improved significantly during the past years.
- The message from New Delhi was that while there are border tensions over the LAC issue starting in April 2020, things cannot go on as usual.
- Chinese investments have fallen over the past year as a result of stricter regulations.
- More than 200 apps are still being prohibited, Chinese businesses have not yet been allowed to participate in 5G testing, and the previously swiftly increasing Chinese

investments in start-ups, including those from massive corporations like Alibaba and Tencent, have abruptly come to an end.

- As part of its intensified scrutiny of Chinese enterprises operating in India, India has initiated tax investigations on companies, including Xiaomi, a producer of smartphones.
- While New Delhi thinks about a long-term plan to cut back on some of these import reliances by either speeding up long-discussed yet
- While New Delhi thinks about a long-term plan to lessen some of these reliance on imports, either by advancing long-discussed but sluggish plans to produce some of these necessary commodities in India or sourcing elsewhere.
- As long as negotiations to ease tensions along the border continue, it is unlikely that the pattern of trade will alter much very soon, and the remainder of India and China's economic relations are still largely in a state of ice.

Way Forward

- If the increase in imported goods that we could manufacture in India, such as toys, electronics, or furniture, is not a healthy dependency.
- Emerging as a manufacturing hub: The fact that we are purchasing new intermediate goods, for example, is probably a positive development in the overall scheme of things because it indicates that we are becoming a manufacturing hub and require new inputs to satisfy the demand for a finished Indian product on a global scale.
- Determine which of these are short-term changes as a result of the pandemic's disruption and which are longer-term patterns that we should take into account and address.
- We gained some access to the agricultural market in China, and as a result, we are now exporting more non-basmati rice, unusual vegetables, soybeans, and fruits.
- Even more than the expansion in trade with China, India's trade increased with other significant trading partners like the US, UAE, and Australia.
- With the UAE, EU, UK, and Australia, India is currently negotiating free trade agreements (FTAs).
- The government also changed the regulations governing foreign direct investment (FDI), requiring the Center's approval for any FDI in Indian firms from neighboring nations. This change was made, it appears, to stop Chinese companies from opportunistically acquiring domestic firms during the pandemic.

Storage, Transport and Marketing of Agricultural Produce and Issues and Related Constraints; E-technology in the aid of farmers.

FODDER INFLATION AT 9-YR HIGH, LATE RAINS, CROP DAMAGE DEEPEN CRISIS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Fodder Inflation

Prepp Mains Booster: Transport and Marketing of Agricultural Produce and Issues and Related Constraints; E-technology in the aid of farmers.

Context:

- Recently, the author has analyzed that rising prices of fodder for cattle have placed a significant burden on agricultural

households, especially in light of massive crop damage caused by late and heavy monsoon rains, as well as the lumpy skin disease, which has spread across 15 states, killed nearly a lakh cattle, and affected another 20 lakhs.

What is the present status of fodder inflation?

- Due to extreme weather conditions that caused crop damage, the country's fodder prices have risen to a nine-year high.
- Fodder prices have almost doubled in the last few years which has directly impacted the milk prices and meat prices.
- Rising fodder prices highlight the predicament of agricultural households and cattle farmers, who are already struggling due to inclement weather and lumpy skin disease.
- According to some reports, stubble burning is also contributing to a lack of fodder. For the novice, fodder prices are nearly identical to food grain prices.

Wholesale Price Index (WPI) based fodder inflation rate

- The Wholesale Price Index (WPI)-based fodder inflation rate was 25.54 percent in August 2022, the highest in the previous nine years. It has been rising since December 2021.
- While overall WPI inflation has slowed in recent months — August 2022 WPI inflation of 12.41 percent (provisional) is the lowest since September 2021 — fodder inflation has skyrocketed, hovering around 20% in the last four months, May-August 2022.

What are the causes of rising fodder inflation?

- Lack of dry and green feed: rice and wheat straw are burned rather than fully transformed into high-quality feed.
- Combine harvesters need a second round of cutting for fodder since they leave a significant portion of the stalk on the field.
- **Fodder Scarcity due to stubble burning:** Stubble Burning has also caused the destruction of paddy and wheat straws which can be used as fodder.
- **Crop Damage due to untimely rain:** Due to the late, severe monsoon rain and unseasonal rain, crops were damaged.
- **Changing cropping pattern:** Farmers are now turning away from cereal crops that produce fodder, changing their cropping patterns.
- **Decline in grazing pasture:** decrease in grazing areas brought on by the creation of protected areas and the spread of alien species.
- **Breed and crossbreed:** Jersey and Friesian Holstein crossbred cows were introduced in India in the 1970s. These cows produce more milk but also require more food to sustain them.

What are the impacts of fodder inflation?

Animal fodder is almost as expensive as grain:

- It is observed that fodder costs nearly as much as grains. Wheat costs Rs 2,200 per quintal this year, while dry fodder costs Rs 800 per 40 kg or Rs 2,000 per quintal.
- Not only has the price of dry fodder risen dramatically, but so has the price of fodder (canal and sardine).

Livelihood Dependency on Agriculture and Animal Husbandry

- The price of cattle fodder has doubled in a year to Rs 700 per 40 kg. Green fodder (sorghum) rates were also over Rs 20,000 per acre.
- It is acknowledged the sharp increase in fodder prices this year and its negative impact on the local population.

Impact on milk prices

- A rise in the price of fodder has a direct impact on the price of milk. While the Amul manufacturer, the Gujarat Cooperative Milk Marketing Federation (GCMMF), decided to raise the retail price of milk in August this year, citing high animal feed prices.

Food Price Inflation in India in 2022

- In order to manage the COVID-19 pandemic in 2020-21, Prime Minister Modi's National Democratic Alliance-led government is shifting its focus to returning the Indian economy to pre-pandemic growth levels while keeping inflation within a reasonable range.
- Food inflation in India reached 7.3 percent in June 2022, down from 10.9 percent in May but still higher (6.3 percent) than a year ago. According to FAS New Delhi, rising wholesale food prices will likely fuel consumer food prices in the coming months.
- Vegetables, condiments and spices, vegetable oils, animal feed, dairy products, and meat/egg/fish products have seen the greatest year-on-year price increases.
- Domestic food price movements will remain vulnerable to expected continued high global commodity and fuel prices.
- Food prices will also be affected by the progress and performance of the 2022 monsoon, which is critical for the planting and production prospects of the 2022 kharif (fall harvested) season crops.

WHY INDIA'S AGRI PRODUCTION STATS NEED A GROUND REALITY CHECK

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Agri Production

Prepp Mains Booster: Marketing of agricultural produce and issues and related constraints.

Context:

- Recently, It has been concluded from the India's agricultural production statistics that it frequently contradicts consumption data.
- The data on household consumer spending are more than a decade old, and an update is urgently needed.
- For instance, the monthly per capita consumption of milk in rural India was 4.33 litres and 5.42 litres, respectively, according to the National Statistical Office's (NSO) household consumer expenditure (HCE) survey for 2011–12. With a population of 1,210.85 million according to the 2011 Census, assuming an average consumption of 5 litres (5.15 kg; 1 litre of milk equals 1.03 kg), this equates to an annual consumption of roughly 75 million tonnes (mt).
- However, the per capita average for these high milk-drinking states is unlikely to exceed 0.5–0.6 litres, even after accounting for indirect/non-household consumption and population growth since 2011–12.

Agriculture in India

- Agriculture plays a critical role in changing economies and achieving other important development goals, such as providing food security and improving nutrition.
- Agriculture is known as the backbone of the Indian economy, accounting for 17% of GDP.

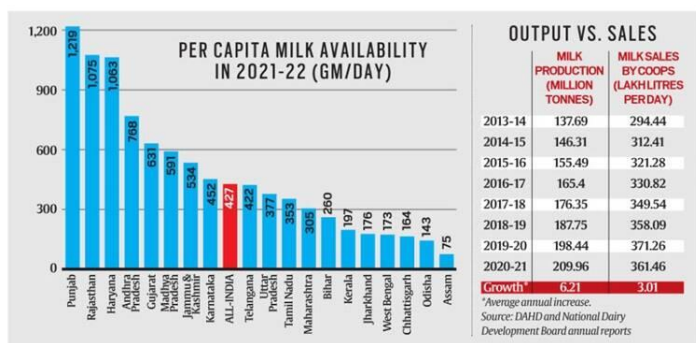
- As a result, agricultural transformation must become a reality in order to eliminate hunger and undernutrition while boosting economic growth.

Consumption of Milk

- According to the National Statistical Office's (NSO) **household consumer expenditure (HCE)** survey for 2011-12, the monthly per capita consumption of milk in rural India was 4.33 litres and 5.42 litres in urban India.
- Taking an average of 5 litres (5.15 kg; 1 litre of milk = 1.03 kg), this translates into an annual consumption of nearly 75 million tonnes (mt) for a population of 1,210.85 million according to the 2011 Census.
- This figure only includes milk consumed by households, both directly and as curd, butter, ghee, paneer, etc.
- It excludes milk consumed by businesses such as tea shops, hotels, and ice cream, sweetmeat, chocolate, and biscuit manufacturers.
- If this milk is assumed to be 25% more than what households consume, it amounts to about 94 mt — or a daily per capita availability of 212 gm.

What does the production data show?

- According to DAHD statistics, India's milk production in 2011-12 was 127.9 million tonnes, with a daily per capita availability of 289 gms. In 2020-21, these were 210 mt and 427 gm, respectively.
- Unfortunately, no HCE survey data after 2011-12 has been published. The gap between the NSO's consumption-based estimates and the DAHD's production figures would almost certainly have widened.
- Milk production in India increased at a 6.2% annual rate between 2013-14 and 2020-21. However, this is not reflected in dairy cooperatives' marketing of liquid milk, which grew by just over 3% annually in volume terms during this period.
- Between 2014-15 and 2020-21, growth in average sales of 12 major dairy companies averaged 4.93% in nominal terms.
- After adjusting for 3% average wholesale price inflation for "dairy products" during this time period, their real sales growth was slightly higher than 1.9%.



Discrepancies in production

- The 6.2% increase in milk production based on official DAHD statistics does not seem to square with the sales growth of organised dairies, which averages only 2-3% per year.
- Equally intriguing is the per capita daily milk availability of 427 gm for 2020-21, which is, by definition, the average for India's

population — across regions, rich and poor, babies, the young, and the elderly.

- The average person in Punjab is said to consume 1,219 gm, or close to 1.2 litres per day; Rajasthan and Haryana also consume more than one litre.
- However, according to the 2011-12 HCE survey, daily per capita milk consumption in rural Haryana was 0.49 litres and 0.37 litres in urban Haryana.
- The corresponding figures for Punjab were 0.40 litres and 0.36 litres, and 0.31 litres and 0.29 litres for Rajasthan.
- Even after accounting for indirect/non-household consumption and population growth since 2011-12, the per capita average for these high milk-drinking states is unlikely to exceed 0.5-0.6 litres.

Way Forward

- Knowing what and how much Indians consume — which can only be revealed by a comprehensive nationwide HCE survey which is useful for analysing demand and supply in other farm produce as well.
- It aids in the formulation of policies, whether for the establishment of minimum support prices and tariffs or crop diversification.
- For example:
 - In the 2011-12 survey, the monthly per capita household consumption of all cereals was estimated to be 11.22 kg for rural India and 9.28 kg for urban India.
 - At 10 kg per person, the annual cereal consumption requirement for 1,400 million people today would be around 168 mt.
 - Assuming 25% additional consumption in processed form (bread, biscuits, cakes, noodles, vermicelli, flakes, etc.) and another 25 mt of grain (primarily maize) for feed or starch, the total yearly demand would be around 235 mt.
- In comparison, cereal production averaged 267 mt between 2016-17 and 2020-21.
- If the Agriculture Ministry's output estimates are correct, the country produces 30 million tonnes or more of surplus grain each year, which is supported by overflowing rice and wheat stocks in government warehouses, at least until recently.

Economic Survey 2021-22 - Agriculture and Food Management

- Agriculture has grown rapidly over the last two years, accounting for a sizable 18.8% (2021-22) of the country's Gross Value Added (GVA), with growth of 3.6% in 2020-21 and 3.9% in 2021-22.
- The Minimum Support Price (MSP) policy is being used to encourage crop diversification.
- Net crop production receipts increased by 22.6% in the latest Situation Assessment Survey (SAS) compared to the 2014 SAS Report.
- Allied sectors such as animal husbandry, dairying, and fisheries are steadily emerging as high growth sectors and major drivers of overall growth in the agriculture sector.
 - Over the last five years, ending in 2019-20, the livestock sector has grown at an 8.15% CAGR.
- The government facilitates food processing through various

measures such as infrastructure development, subsidized transportation, and support for the formalization of micro food enterprises.

- India has one of the largest food management programmes in the world.
- The government has expanded the coverage of the food security network through programmes such as the PM Gareeb Kalyan Yojana (PMGKY).

Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth, Inclusive Growth and issues arising from it.

INDIA INC. NEEDS A NEURODIVERSE WORKPLACE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: India's Best Workplaces in Diversity, Equity & Inclusion 2021

Prepp Mains Booster: Inclusive Growth and issues arising from it.

Context:

- In recent times, words such as "diversity" and "inclusion" have assumed importance in the vocabulary of most organisations.
- A 2019 McKinsey study also revealed that companies with ethnic diversity were 36% more likely to have above-average profitability compared to their competitors and 25% more with gender diversity.
- As per another report 'India's Best Workplaces in Diversity, Equity & Inclusion 2021' states that diverse teams perform better, heighten trust in the organisation's management, boost leadership integrity and multiply revenue growth.
- Despite organisations building a more inclusive workforce by hiring employees from different ethnic groups, across gender and social backgrounds, they are still lacking in this exercise and due its absence of workers suffering from neurodiversity.

What is neurodiversity in the workplace?

- It refers to including people with neurodivergent conditions such as attention-deficit/hyperactivity disorder, dyslexia, dyspraxia, autism spectrum disorders, dyscalculia and Asperger's Syndrome in the workplace.
- Harvard Health Publishing defines it as a notion that every person interacts and experiences their surroundings differently and there is no right way of learning, thinking, or/and behaving. These differences must not be construed as disorders or defects.

What is the need for neurodiversity in the workplace?

- A Deloitte study estimates that nearly 20% of the world is neurodiverse. According to a recent report, in India nearly 2 million people suffer from this neurological and developmental disorder and are therefore identified as autistic.
- In the United States (US), around 85% of people on the autism spectrum are unemployed compared with 4.2% of the overall

general population. Hence, there is an urgency to create a work environment that welcomes neurodiverse individuals.

Benefits of neurodiversity

- Organisations embracing neurodiversity enjoy a competitive edge in several areas such as creativity, efficiency, and culture.
- A JPMorgan Chase Study shows that professionals in its 'Autism at Work' initiative made fewer errors and were 90% to 140% more productive than neurotypical employees.
- Moreover, studies have shown that teams with both neurodivergent and neurotypical members are far more efficient than teams that comprise neurotypical employees alone.
- Neurodivergent individuals possess an uncanny ability to focus on complex and repetitive tasks and excellent attention to detail over a more extended period than their neurotypical peers.
- University of Montreal study also has found that in a test involving completing a visual pattern, people on the autism spectrum could finish their task 40% faster than those who were not on the spectrum.

What measures should be taken for Neurodiversity?

- Human resources and leadership teams must work together to ensure that the workplace is mindful of and cooperative towards neurodiverse individuals.
- The process of building an inclusive culture includes customising interviews, providing proper infrastructure to neurodiverse individuals so that they can perform at their optimal levels and ensuring day-to-day assistance for them.
- Thus, organisations must remove barriers that obstruct the progress of such individuals and also create conducive conditions for them to achieve their true potential.
- Companies such as Microsoft, SAP, Deloitte, JPMorgan Chase, and E&Y have introduced neurodiversity hiring programmes. Indian-origin companies Lemon Tree Hotels and Hatti Kaapi have also included a neurodiverse workforce.



Way forward

- Creating the right environment for neurodivergence is an ever-evolving exercise that requires openness and also a will to change on the employer's part. This will result in exceptional benefits with minimal or no additional costs.
- Mentorship programmes, professional training on shared social and communication skills should be inculcated.
- There is also a need for neurodivergent friendly offices catering to the employees' diverse sensory responses to ensure that these employees are comfortable in office spaces.
- To ensure higher profitability and be globally respected as a responsible employer, companies need to widen their definition of inclusivity by providing higher participation of a neurodiverse workforce.

WHAT ARE THE ALLEGATIONS AGAINST GOOGLE BY THE NBDA?

Priority: Medium



Primary Source: The HindU

Prepp Prelims Booster: NBDA

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

Context

- The News Broadcasters and Digital Association (NBDA) filed a complaint with the Competition Commission of India (CCI) on October 6 against search engine operator Google, claiming that the latter had denied them of their justifiable revenue from sharing news on the platforms of the tech giant.
- The lawsuit will be grouped with related cases filed by the Digital News Publishers Association (DNPA) in 2017 and the Indian Newspaper Society (INS) in February of that year.



What is NBDA?

- The private television news, current affairs, and digital broadcasters are represented by the News Broadcasters & Digital Association (NBDA), formerly known as the News Broadcasters Association (NBA).
- It is the collective voice of India's digital broadcasters and news organizations. The organization's members provide all of the funding for it.
- It presently has 26 leading news and current affairs broadcasters (comprising 119 news and current affairs channels) as its members.
- The NBDA presents a unified and credible voice before the Government, on matters that affect the growing industry.

What is the issue?

- NBDA filed a complaint with the Competition Commission of India (CCI) under Section 19(1)(a) of the Competition Act, 2002, alleging abuse of dominant position in violation of the Competition Act by the "tech behemoth Alphabet, Inc. and its subsidiaries (Google)".
- It claims that the income split between Google and its users does not properly and adequately pay users for the material they produce on the network.
- In India, conventional newspapers have survived on an economic model where advertising generates two-thirds of their overall income.
- Similarly, as the number of websites grows, news publishers are relying more and more on digital ad revenues, which in turn affects tech-based businesses.

Reasons

- **Dominant Market Share:** The NBDA estimates that Google's search engine has a 94% market share in the nation. Google receives more than half of all visits to news websites. The search engine's algorithms and internal quality vetting determine which news websites will be prioritized in search queries.
- **Shift towards online news:** Given the growing shift toward online news consumption, the figure is even more significant for news providers (inclusive of app-based consumption).

What are the allegations?

- **Dominance in web search services and digital advertising services:** Online web search services and digital advertising services, two areas that are relevant to digital publishers, has been determined to be dominated by Google.
- Through ad exchanges, a news website offers advertising space for sale on its website.
- In addition, Google runs a **platform that controls the selling of internet ads** by publishers as well as tools for buying display ad space.
- **Monopoly:** The main point of contention between the parties is that the tech giant has engaged in methods to **strengthen its monopoly in the market** while failing to pay news publishers for their contributions to (Google's numerous) platforms.
- **Compensation:** The DNPA had **proposed that only 51% of the money** from advertisements go to website publishers.
- **Forced integration content:** It has been claimed that publishers have been "forced" to integrate content on their platforms as a result of the internet giant's dominance in the market.
- There isn't anything else for them to do but trade on the company's exchanges and use its buying tool, Google Ads/DV 360, to get bids from marketers.

Allegations against tech giants outside India

- The search-to-software giant is under investigation for possible antitrust violations not only in India but also in US and EU.
- Google has been under regulatory investigation in the European Union for anti-competitive behavior and has also faced the ire of US regulators.
- The **European Publishers Council** challenged Google's current "ad tech monopoly" over press publishers by filing an antitrust

complaint with the European Commission in February of this year.

- To correct the disparity, **Australia unveiled the "Media Bargaining Code" in February.**
- According to Reuters, the rule mandates that news organizations establish business agreements with Facebook and Google either individually or collectively.
- Violators are subject to civil fines of up to \$10 million.
- Additionally, media outlets would need to be notified when tech companies changed search algorithms that could have an impact on publishers' content.
- Google claims **that the income is used to manage "a complicated and developing business,"** which includes, among other things, maintaining data centers, making additional technology expenditures, enabling innovations that boost publisher revenue, and maximizing advertiser return on investment.

Way Forward

- The issue is not only of Big Tech not doing enough but of actively going against the broader interests of society.
- The dominance of a few players is adding to market concentration and distortions, mainly due to the non-adherence to platform neutrality. Big Tech companies are more powerful than many sovereign states due to the threats they pose to economic and political democracy.
- In collaboration with intergovernmental organizations like UNCTAD, the state must create the best regulatory framework for controlling the escalating influence of Big Tech.
- UNCTAD has made significant progress and developed governance rules in both the consumer protection and the competition fields.

Competition Commission of India (CCI)

- The Commission has a responsibility to stop activities that harm competition, foster and maintain competition, safeguard consumer interests, and guarantee trade freedom in Indian markets.
- The Competition Act of 2002, as amended by the Competition (Amendment) Act of 2007, serves as the foundation for contemporary competition laws. The Act prohibits anti-competitive agreements, corporate abuse of dominant positions, and combinations (including acquisitions, takeovers of control, and M&As) that have or are expected to materially harm competition in India.
- The Competition Commission of India (CCI), which is composed of a Chairperson and 6 Members chosen by the Central Government, aims to fulfill the goals of the Competition Act.

Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

THE WAR AGAINST ILLEGAL GOODS AS INDIA'S FIGHT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Parallel Economy

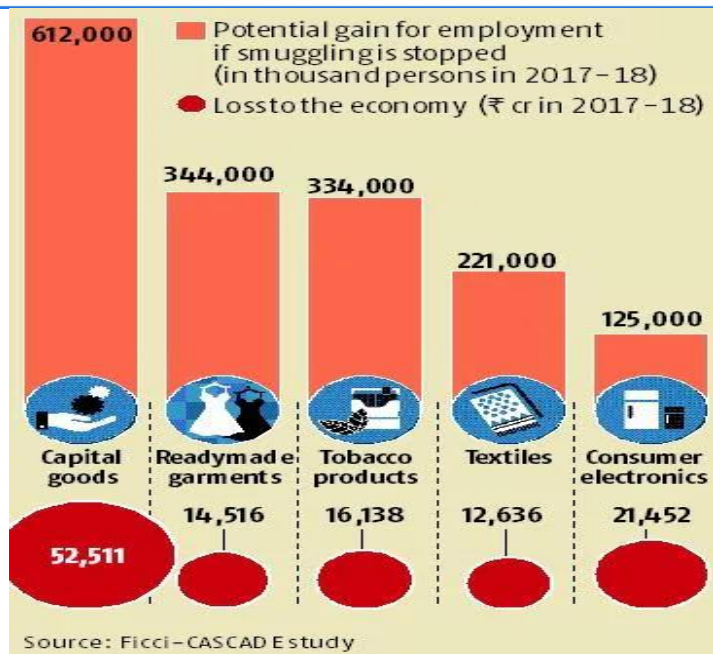
Prepp Mains Booster: Effects of liberalization on the economy; Indian Economy, growth, development.

Context:

- Recently, the inflation rate dropped from 13.93% in July to 12.41% september month.
- However, the wholesale inflation rate in India has been falling since July of this year, but it has stayed above 10 percent since April 2021.
- When inflation is consistently high, people tend to put off making purchases, make fewer purchases, or simply move to less expensive options.
- The market for less expensive alternatives is filled with cheap, subpar products or spurious and phony brands, allowing actors in the parallel economy a field day.
- Dealers in the parallel economy require access to products that are functionally identical but less expensive, and China's factories are well positioned to provide this requirement.
- As the holiday season approaches, we will once more see bazaars brimming with Chinese goods, including Deepavali lights, pooja idols, electronics, bicycles, and whatever else a consumer would require.
- The government's solution to this issue is obviously driven by its agenda of self-reliance, or "Atmanirbharta," which should give more attention to producing products in large quantities at the lowest feasible cost.
- The consumer's desire for less expensive options gives rise to a new threat that hurts even more: a thriving, illicit, and smuggled goods market.

Status in India

- The illicit market is thriving in **five important Indian industries are mobile phones, fast-moving consumer goods (FMCG), which include household and personal items, packaged foods, cigarette products, and alcoholic beverages**, according to the Federation of Indian Chambers of Commerce and Industry's Committee Against Smuggling and Counterfeiting Activities Destroying the Economy (CASCADE).
- **Size of the market:** In 2019–20, the illicit market size in these sectors was estimated at 2,60,094 crore.
- In 2018, India had a low ranking in the Global Illicit Trade Environment Index and required concrete efforts to reduce the risks of illicit trade on the economy, according to a report by the Economist Intelligence Unit.
- India places in the third quartile of the 82 nations included in the ranking in terms of three of the four categories, namely government policy, supply and demand, and customs environment. In terms of trade and transparency, it is ranked 35.



What are the concerns?

- **Tax evasion:** The fact that this is done at the expense of taxes to the government, depriving the nation of the fuel needed to spur social reform, makes it much more painful.
- **Loss of taxes:** The anticipated amount of tax revenue lost by the government as a result of illicit items in these businesses is 58,521 crore.
- The analysis also finds that alcohol and tobacco products, two heavily taxed and regulated businesses, account for 49% of the government's entire tax loss.
- **Employment losses:** According to the CASCADE research, illegal trade in the aforementioned industries results in a 15.96 lakh total estimated loss of legitimate jobs.
- Due to the scale of its illicit market, the FMCG sector as a whole—which includes packaged foods, household goods, and personal items—is responsible for 68% of job losses.

Steps to be taken

- **Rationalization of levies:** The government must maintain rational levies in the industries with the highest rates of smuggling in order to reduce the cost arbitrage incentive for smugglers and to actively support local industry in its quest to create globally competitive brands and goods. As a result, there would be less reliance on foreign producers.
- **Promotion of local businesses:** The need to promote local business by rationalising taxes and offering incentives to local manufacturers so they can produce high-quality goods that can compete with international brands in India and on the global market is a common theme in both situations.
- **India-specific pricing :** Providing that they can offer India-specific pricing and are not permitted to send royalties and earnings on products that Indians buy outside of the country, allowing international companies to produce in India is still important.
- Multinational corporations (MNCs) have a very effective policy in China that allows them to reinvest revenues made by Chinese subsidiaries.

- India can give in by enabling MNCs to bring profits from goods sold outside of India back home.
- This would help India become a major manufacturing hub, and MNCs will be able to achieve their financial objectives. It's time to negotiate a better deal now that India's economy is gaining strength and appeal as one that is expanding quickly.
- **Use of technology:** The use of cutting-edge technologies, including artificial intelligence, blockchain, and location technology, can enhance enforcement, claims CASCADE. This will aid in boosting the amount of illegal goods seized.
- **Consumer Awareness:** The government must also raise consumer awareness to encourage consumers to avoid purchasing counterfeit, smuggled, and subpar goods.

Way forward:

- To limit the importation of smuggled, illegal, and cheap, subpar items into the nation, swift collective action employing a variety of tactics based on smart taxes, restrictions on profit repatriation, and stronger law enforcement is necessary.
- The availability of low-quality, fake, and illegal items simply feeds criminal organisations and a parallel economy, with the government and the customer as the losers.
- There is no better time than the present to give "Atmanirbharta" a new dimension and hasten its development.

ECO-SENSITIVE ZONE: TOP COURT MAY TAKE UP KERALA'S REVIEW

Priority: Low



Primary Source: The The Hindu

Prepp Prelims Booster: ESZ

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

Context:

- The Supreme Court recently indicated that it may consider hearing Kerala's appeal of the Supreme Court's decision to create a one-kilometer eco-sensitive zone around protected forests, national parks, and wildlife sanctuaries.



Green concerns: A glimpse of the eco-sensitive zone of the Parambikulam Tiger Reserve. File photo

What are Eco-Sensitive Zones?

- **Eco-Sensitive Zones (ESZs)** are also known as **Ecologically Fragile Areas (EFAs)**.
- The MoEFCC designates eco-sensitive zones around Protected Areas, National Parks, and Wildlife Sanctuaries.

- Land within 10 kilometres of the boundaries of national parks and wildlife refuges will be designated as Eco-Sensitive Zones (ESZ).
- While the 10-km rule is applied as a general principle, the extent to which it is applied can vary.
- Areas larger than 10 kilometres in length may also be designated as ESZs by the Union government if they contain larger ecologically significant "sensitive corridors."

Why are Eco-Sensitive Zones established?

- They are designed as "shock absorbers" for protected areas, reducing the negative impact of nearby human activities on "fragile ecosystems."
- Furthermore, these zones are intended to serve as a transition zone from areas requiring greater protection to those requiring less protection.
- Apart from regulated activities such as tree felling, activities prohibited in an ESZ include commercial mining, saw mills, commercial use of wood, and so on.
- Activities such as ongoing agricultural or horticultural practises, rainwater harvesting, and organic farming are all permitted.

Objective of Eco-Sensitive Zones

- According to the National Board for Wildlife, the delineation of eco-sensitive zones must be site-specific, and activities should be regulatory in nature rather than prohibitive unless absolutely necessary.
- The basic goal is to regulate certain activities near National Parks and Wildlife Sanctuaries in order to reduce the negative impacts of such activities on the fragile ecosystems that surround the protected areas.
- They also serve as a transition zone from areas of high protection to areas of lower protection.

News Summary

- The Supreme Court indicated that it may consider hearing Kerala's review of the Supreme Court's decision to create a one-kilometer eco-sensitive zone ringing protected forests, national parks, and wildlife sanctuaries across the country, as well as the Centre's request for clarification.
- A Bench led by Justice B.R. Gavai stated that the court would wait for the Centre's application to be heard. It was in response to an oral mention made by advocate Nishe Rajen Shonker for Kerala about the State's review petition.
- The Centre has sought clarification on certain paragraphs of the court's verdict, including the fate of pre-judgment construction activities.

Kerala's Review

- Kerala's review argued that the decision would result in mass displacement of people living near forest areas. Worse, the ruling would deprive thousands of Scheduled Tribe families and forest dwellers of their legal rights.
- "Human habitations exist within one kilometre of the protected areas," according to the review petition.
- In its June decision, the Supreme Court referred to Environment Ministry guidelines, emphasising that ESZs around national parks, forests, and sanctuaries would act as a "shock absorber" for the protected areas.
- These zones would serve as a transition zone between areas of high protection and those of lower protection. The court had

noted how mining and other activities had depleted national resources.

CENTRE TO HELP SET UP PADDY STRAW PELLET UNITS TO ARREST STUBBLE BURNING

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Stubble Burning

Prepp Mains Booster: Environmental Conservation, Environmental pollution and degradation; Science and Technology- developments and their applications and effects in everyday life

Context:

- Recently, the Union Minister of Environment, Forest & Climate Change released CPCB Guidelines for grant of one-time financial support for promoting establishment of paddy straw based pelletisation and torrefaction plants.
- Once established, these plants would make use of a sizable amount of the uncontrolled paddy straw and contribute to resolving the burning of crop residue and the ensuing air pollution problem.

What is the Initiative of the Ministry?

- Under the initiative, as per the released CPCB Guidelines, the Ministry aims to provide one time financial assistance to the palletization and torrefaction unit set up.
- A corpus of Rs. 50 crores has been set up for utilisation through the guidelines.
- The initiative aims to use Paddy straw made pellets or torrefied can be mixed along with coal in thermal power plants.
- This will save coal as well as reduce carbon emissions emitted by the burning of paddy straw in the fields, as is the regular practice of most farmers in Punjab and Haryana.
- New units set up under it would be eligible for government funding in the form of capital to set up such plants.
- The estimated cost of setting up a regular pelletisation plant, which can process a tonne per hour, is ₹35 lakh.
- **Financial Assistance:**
 - A maximum grant of Rs. 14 lakh per Ton/hr for non-torrefied pellet plant and Rs. 28 lakh per Ton/hr for a torrefied pellet plant is being provided,
 - an overall cap of Rs. 70 lakhs for the former and Rs. 1.4 crore for the latter.
- **Aim:** Assuming complete utilization of the corpus, over 1 million metric tonnes of paddy straw based pellets are expected to be generated every year.

What is Stubble Burning?

- The act of purposefully putting agricultural residue (stubble or parali) on fire to remove it from the field and prepare it for the subsequent crop
- After harvesting paddy crops grown during the Kharif season, it is primarily practiced in India by farmers in the states of Punjab and Haryana. In order to sow the following rabi crop, this is completed rapidly.

- One of the biggest causes of air pollution, particularly in the northern part of the country in the fall each year, is the enduring threat of stubble burning.

What Are The Consequences of Stubble Burning?

- Pollution:** burning of stubble or crop residue results in the release of large volumes of dangerous pollutants, like carbon monoxide (CO), methane (CH₄), volatile organic compounds (VOC), and carcinogenic Polycyclic Aromatic Hydrocarbons (PAH) into the atmosphere.
- Smog Formation:** The pollutants released by stubble burning spread in the environment, where they may undergo physical and chemical transformations, producing a thick blanket of smog, which is harmful to human health.
- Hampering the visibility:** The Smog formation resulting due to the burning of stubble coupled with the Western Disturbance in North West India during the Winter hampers the visibility in day affecting the operation of Railways, and Flight operations.
- Loss of Soil Fertility:** burning of crop residue results in a loss of effective nutrients in the soil, resulting in a loss of natural fertility.
- Penetration of Heat:** The heat generated by stubble burning penetrates the soil, causing a loss of essential moisture and beneficial bacteria.

What are the alternative solutions to stubble burning?

- In-situ (on-site) stubble treatment:** It includes crop residue management using a zero-tiller machine or the use of bio-decomposers.
- Ex-Situ (off-site) Treatment:** Use of rice straw as cattle fodder, generating biofuel, processing if for manufacturing packing materials.
- Technology-based solutions:** Using Turbo Happy Seeder (THS) machine which can remove stubble from ground while harvesting paddy and sowing seeds of the next crop in the cleared area. The stubble can subsequently be utilised for mulching.
- Changing the Cropping Pattern:** Offers a long-term solution to the problem of stubble burning as it enables farmers to move away from the water-guzzling paddy and promotes crop diversification.
- PUSA Decomposer:** Developed by the Indian Agriculture Research Institute (IARI), it helps in decomposing stubble in the field in quick time. Its usefulness is increasing organic carbon and soil health, lowering fertilizer costs for the following cropping cycle.

Way Forward

- Concrete measures are being taken to reduce stubble burning, including:
 - giving farmers agricultural equipment on a subsidy,
 - conducting awareness programs, and
 - implementing new scientific techniques like decomposer spray.

- The imposition of a fine won't stop stubble burning in our socioeconomic environment. It is essential to focus on alternative choices.
- The Government should also promote the increased adoption of biomass co-firing with coal to incentivise the farmer to divert the paddy straw to remunerative way rather than burning it.

FLEX FUEL: PART OF PLAN TO CUT CRUDE IMPORTS (UPSC CURRENT AFFAIRS)

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Flex Fuel

Prepp Mains Booster: Science and Technology- Developments and their Applications and Effects in Everyday Life.

Context:

- India's first 'flex fuel' car, a Toyota sedan (most likely a Camry) that can run on one or multiple fuel types will be unveiled later this month.
- It has been developed as part of a new Government's pilot initiative aimed at deleveraging the country's dependence on imported fossil fuels for transportation.
- The pilot initiative has been initiated as part of a Government-led push to car manufactures for adopting alternative fuels. It aims to replicate the commercial deployment of this particular technology in other markets such as the United States, Brazil and Canada.

What is Flex fuel technology?

- A flex fuel or flexible fuel vehicle (FFV) has an internal combustion engine (ICE) that can run on more than one type of fuel, or even a mixture of fuels unlike a regular petrol or diesel vehicle that runs on single fuel.
- The most common versions of flex fuel vehicles use a blend of petrol and ethanol or methanol, but these engines are also equipped to run on 100% ethanol or petrol as well.
- This FFV engine is equipped with a fuel mix sensor and an engine control module (ECM) programming that senses and automatically adjusts for any ratio of designated fuels.
- According to IHS Markit, as of 2018, Brazil is the biggest market and a leader in this segment followed by the US.

How does FFV work?

- FFV has one fuel system and most components are the same as those found in a conventional ICE petrol-only car.
- It has some special ethanol-compatible components to adjust to the different chemical properties and energy content in ethanol or methanol.
- Such modifications are made to the fuel pump and fuel injection system. The ECM programming of FFV is also calibrated to accommodate the higher oxygen content of ethanol.

Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV)

- It is FFV integrated with strong hybrid electric technology.
- It houses an electric motor which powers the vehicle alongside the traditional petrol engine.

What are the advantages of FFV?

- **Environmental Benefits:** The use of ethanol blending sharply lowers emissions of harmful pollutants such as carbon monoxide, sulphur, and carbon and nitrogen oxides.
- **Reduce oil imports:** India presently imports more than 80% of its oil requirement. This has a huge impact on the import bill of the country. It offers a viable alternative to purchasing foreign oil.
- **Benefit Farmers:** Since India has surplus produce of corn, sugar and wheat, the wider adaptation of ethanol or methanol as a vehicle fuel will help farmers in realising higher incomes by creating an additional revenue stream for farmers.



What are the disadvantages of FFVs?

- **Expensive:** Ethanol is also not as economical as petrol or diesel. Running cost is higher by more than 30% for FFVs running with 100 % ethanol. There are currently only a few stations nationwide that supply ethanol to make it economically viable for greater adaptation.
- **Low Efficiency:** FFV typically has low fuel efficiency when using ethanol for motive power, ranging from between 4% and 8%.
- **Dependence of water intensive crops:** The major problem with ethanol blending is that crops such as sugarcane are used to produce it and they are very water-intensive. As per NITI Aayog report in 2019-20, of the total ethanol produced in the country, over 90% came from sugarcane alone.
- **Engine damage:** Basically ethanol also acts as a solvent. Its long term usage wipes out the protective oil film inside the engine thereby causing its wear and tear.

Way Forward

- Although the advantages and disadvantages of FFVs will be debated for some time to come, ethanol is finding favour as

one of the most popular fuels for these vehicles. Its wide adaptation as the first alternative fuel nationally will help in wider acceptance of FFVs.

THE ACTION PLAN AGAINST DELHI'S AIR POLLUTION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: GRAP

Prepp Mains Booster: Environmental Conservation, Environmental Pollution & Degradation, EIA. Government Policies & Interventions.

Context:

- After a significant drop in air quality in the nation's capital and its surrounding territories, **Stage 1 of Graded Response Action Plan (GRAP)**, a revised action plan to combat the serious problem of air pollution in Delhi and the National Capital Region (NCR) has come into effect.
- According to experts, the revised GRAP version could stop Delhi-post-Diwali NCR's air quality problem.



What is the Graded Response Action Plan (GRAP)?

- The GRAP is a collection of steps that should be followed to reduce air pollution.
- The Union Environment Ministry declared it in 2017 to address air pollution in the NCR in accordance with the SC's instructions.
- Only as a last resort is GRAP useful.
- Therefore, the state government's year-long effort to manage industrial, vehicular, and combustion emissions is not included in the plan.
- The plan is incremental, so as the air quality goes from "Poor" to "Very Poor," the steps listed in both sections must be taken.
- Enforcing these limitations is the responsibility of the pollution control boards, local governments, and other organizations and ministries, such as the Transport Department.
- The revised GRAP also includes recommendations for general public behavior, such as maintaining properly inflated tires on vehicles, turning off engines at stop signs, keeping PUC licenses up to date, and refraining from disposing of trash in open spaces.

How did the GRAP come into existence?

- The Central Pollution Control Board proposed a list of actions to address various levels of air pollution to the Supreme Court

in January 2016 to address the multifaceted concerns associated with air pollution.

- These actions culminated in GRAP, a collection of anti-air pollution measures that must be implemented in Delhi and the surrounding area depending on the severity of the issue.
- The Ministry of Environment, Forests, and Climate Change informed the SC that the GRAP had been modified and that the SC had accepted it on January 12, 2017.
- It was considered that resources needed to be combined in order to effectively address the issue of hazardous air because numerous State and Central institutes were working on it.
- The Central Government subsequently established the Commission for Air Quality Management (CAQM) in the National Capital Region and Adjoining Areas.
- Since 2021, GRAP has been enforced by the CAQM, which collaborates with other States to create and carry out plans to reduce and avoid air pollution in the NCR.

Have policies addressing pollution changed?

- The revised action plan will base limitations on polluting operations on the Air Quality Index (AQI) rather than the concentration of PM2.5 and PM10.
- According to experts, the "Revised" GRAP version could control NCR's Post-Diwali air quality problem which is affected by Diwali's fire cracker bursting and stubble burning.
- Therefore, as long as all other precautions are rigorously adhered to, it might not result in a serious issue during Diwali.

Do people play a part in GRAP?

- The GRAP also includes a graded advice for the general public in addition to guidelines for authorities.
- The steps include upgrading PUC (pollution under control) certificates, correctly tuning the engines in their cars, and maintaining accurate tire pressure.

Way forward

- Instead of waiting for the air to be "severe", the government should assess air quality estimates before implementing GRAP measures.
- The Graded Response Action Plan need to be viewed as a dynamic document that will change as more execution experience is gained.
- The Central Government's instructions from almost five years ago to "learn from experience" and "calibrate" the Graded Response Action Plan (GRAP) to reduce air pollution must be taken into consideration.

GRAZING ANIMALS KEY TO LONG-TERM SOIL CARBON STABILITY: IISC STUDY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Soil Organic carbon

Prepp Mains Booster: Environment

Context:

- Recently, a study conducted by researchers at the **Centre for Ecological Sciences (CES)** and the **Divecha Centre for Climate Change (DCCC)**, IISc, has revealed that grazing animals hold the key to long-term soil carbon stability.

News Summary

- The 16-year-long study conducted by **CES and DCCC** researchers, large mammalian herbivores such as the Yak and Ibex play an important role in stabilising the pool of soil carbon in grazing ecosystems such as the Spiti region of the Himalayas.
- The study discovered that removing herbivore grazing from such ecosystems increased fluctuations in soil carbon levels, which can have unintended negative consequences for the global carbon cycle.
- According to a study published in the Proceedings of the National Academy of Sciences, because soil contains more carbon than all plants and the atmosphere combined, it is critical to ensure its survival.
- When plants and animals die, dead organic matter remains in the soil for a long time before microbes break it down and release carbon dioxide into the atmosphere.

What is Soil Organic Carbon?

- Soil Organic Carbon is a measurable component of soil organic matter.
- The physical, chemical, and biological activity of agricultural soils is significantly influenced by organic matter, which takes up just 2–10% of the mass of most soils.
- The retention and turnover of nutrients, soil structure, availability of moisture, contaminant degradation, and carbon sequestration are all influenced by organic matter.

Importance of Soil Organic Carbon

- While the agricultural sector has the ability to influence the carbon cycle on a large scale, often through carbon release, farmers have a vested interest in retaining and increasing SOC for individual fields because SOC levels improve soil and yield.
- Higher SOC encourages soil structure or tilth, implying greater physical stability. This improves soil aeration (the amount of oxygen in the soil) as well as water drainage and retention, lowering the risk of erosion and nutrient leaching.
- SOC is also important for a field's chemical composition and biological productivity, which includes fertility and nutrient holding capacity.
- As soil carbon stores increase, carbon is "sequestered," lowering the risk of other nutrients being lost due to erosion and leaching.
- Sequestration of carbon in agricultural soils has also been acknowledged as a method for reducing climate change.
- An increase in SOC typically results in a more stable carbon cycle and increased overall agricultural productivity, whereas physical disturbances of the soil can result in a net loss of carbon into the surrounding environment due to the formation of carbon dioxide (CO₂).
- With an average weight of 58%, carbon makes up the majority of the elements in soil organic matter.
- Organic carbon is the carbon found in organic matter in soil. A productive agricultural system must include soil organic carbon.
- Numerous soil properties are influenced by organic carbon, including the soil's ability to hold nutrients and water as well as promote water infiltration and aeration.
- By producing mineral-organic complexes and soil aggregates, soils can protect organic carbon, which makes up the majority of organic matter.

Soil - Reliable sink

- The soil pool is a reliable carbon sink. Maintaining stable levels of carbon in the soil is thus critical to mitigating the effects of climate change.
- Nitrogen was a major contributor to the fluctuations in carbon levels.
- Nitrogen can either stabilise or destabilise the carbon pool depending on the soil conditions.
- Grazing by herbivores, on the other hand, alters their interactions in ways that favour the former.

Soil Carbon Fluctuations

- Soil carbon fluctuated 30-40% more from one year to the next in fenced plots where animals were absent, compared to grazed plots where it remained more stable each year.
- Nitrogen was a major contributor to these fluctuations. Nitrogen can either stabilise or destabilise the carbon pool depending on the soil conditions.
- Grazing by herbivores, on the other hand, alters their interactions in ways that tip the balance in favour of the former.
- Many previous studies focused on measuring carbon and nitrogen levels at long time intervals, assuming that carbon accumulation or loss is a slow process, but the interannual fluctuations they observed in their data paint a very different picture.
- These fluctuations can have an impact on climate because they are linked to how large mammalian herbivores influence soil.
- Because grazing ecosystems cover roughly 40% of the Earth's land surface, the researchers believe that protecting the herbivores that keep soil carbon stable should remain a top priority in climate change mitigation.

IT'S OFFICIAL: ILLEGAL MINING IS RAMPANT IN ARAVALLIS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Illegal Mining

Prepp Mains Booster: Environment Conservation

Context:

- Recent, according to the report by a joint committee formed on orders of the National Green Tribunal to assess the extent of illegal mining at 16 locations in Haryana's Gurgaon, Faridabad, and Nuh districts found instances of mining activity despite prohibitory orders at several locations in the region.
- It has also discovered trenches at some sites as a result of excavation.
- The report also stated that the magnitude of environmental loss caused by such degradation could not be calculated due to the lack of a standard formula or practise.

What is Illegal Mining?

- Illegal mining is any mining operation that is carried out without state authorization, particularly when there are no land rights, mining licences, or exploration or transportation permits in place.
- Artisanal mining is an example of illegal mining. Illegal mining can also be a form of subsistence, and illegal mining syndicates may be the driving force behind large-scale organised crime.
- On a global basis, 80 percent or so of small-scale mining operations can be considered unlawful.



Instances of Harmful Mining Activities

- There have been instances of mining activity despite the Supreme Court's prohibition on any mining-related activity.
- The committee also observed trenches formed by excavating materials at some sites, as well as shaving of bushes and plantation at some sites.
- The report also stated that the magnitude of environmental loss caused by such degradation could not be calculated due to the lack of a standard formula or practise.

Related Measures

- After hearing a petition from the citizen's collective **Aravalli Bachao Citizens Movement**, the NGT formed a joint committee on May 23, 2022, and directed the committee to conduct site visits to determine:
 - "whether any illegal mining has been done in the area;
 - whether such mining has been done before or after prohibition orders;
 - what is the quantum of such mining in terms of the loss cost to the environment as well as the state exchequer."
- The committee was directed by the NGT to submit a report within three months.

What is Aravalli Bachao Citizens Movement?

- The Aravalli Bachao Citizens Movement is a non-partisan group of citizens from across India, including the National Capital Region.
- This group has no political, religious, or corporate affiliations. It is a purely citizen-led movement to protect the Aravallis from destruction caused by mining, real estate, illegal encroachment, weakening of protective laws, toxic landfills, waste-to-energy plants, and other such activities.
- The overwhelming demand of the group is for the entire 700 km Aravalli range to be recognised as a living ecosystem and designated as a permanent biosphere reserve, so that North West India's climate regulator, desertification shield, critical water recharge zone, biodiversity hotspot, and wildlife corridor can be preserved for future generations.

Where has Illegal Mining been found?

- Illegal mining was discovered in two locations in Pandala Hills near Gairatpur Bas village, in Aravalli area near Tikli village, near Tauru police station in Tauru Block, near Palla village in Nuh Block, and near Baghola village in Ferozepur Jhirka block, according to the committee's report.

- There were signs of excavation with machinery and tractor marks in the Aravallis near Jalalpur Sohna village.
- 1,980 metric tonnes (MT) of ordinary clay were extracted near Kotla Khandewla village near Manesar police lines complex without the required permission (short-term permit) from the Mining Department.
- The Mining Department extracted 15,750 MT of ordinary clay without STP in the Tauru block, near Bissar Akhbarpur.
- 3,240 MT of stone had been illegally mined in Ferozpur Jhirka block, near Hirwari Bamatheri village.

Formation of Committee

- On July 7, an eight-member committee was formed, chaired by the chief conservator Forests, Forest Department, Haryana, and comprised of an official from the Ministry of Environment, Forest and Climate Change, mining officers, and a senior police officer, among others.
- The committee conducted field visits in all 16 locations to assess the extent of illegal mining and the resulting environmental degradation.
- The report included drone images of the excavation sites as well as satellite images of the sites at various points in time.

Disaster and Disaster Management.

PETTIMUDI LANDSLIDES: SOCIAL INEQUALITIES IN DISASTERS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Landslides

Prepp Mains Booster: Disaster and Disaster Management.

Context:

- Recently released study 'Identity, Space and Disaster: A Case Study of Pettimudi Landslide in Kerala' has drawn attention to the role of space during natural calamities such as landslides, in terms of the disaster vulnerability of a community and State interventions
- Through the study of a landslide that hit Pettimudi, a tea plantation estate in the Idukki district of Kerala in 2020, this study discusses the 'geographical and sociological space' in which the incident occurred and how approach of state towards the incident is influenced by the social position and historical vulnerability of the community living in the landslide-prone region.

What is Spatial vulnerability?

- It results from the intersection of social relations of production, class relations, institutional relations and entitlement relations.
- Social theorists like Andrzej Zieleniec and Edward Soja have theorised about individuals' interactions with space and it becomes a social product and a place for practising discrimination

Pettimudi Landslides, Layams and Spatial vulnerability

- The 2020 Pettimudi Landslide was caused by relentless rainfall in Pettimudi, a tea plantation estate in the Idukki district. It had

killed over 65 workers who lived in a 'layam', a line of 10 residential spaces in a building provided by the company- Devan Hills Plantations (KDHP) as accommodation which owns the tea estate.

- Layams are about 80-90 years old, were built when the plantation was set up and currently they are not maintained well. In the landslide, 22 such layams were washed out, killing 66 people.
- Without decent accommodation or land of their own, the plantation workers have continued to live in the layam provided by the estate owners in an ecologically vulnerable landscape. This spatial inequality has impacted the disaster vulnerability of the plantation workers community as their social position was also ignored.

Reasons of Spatial vulnerability

- **Socio-economic complexity:** The placement of the layam in a landslide-prone region with poor maintenance, coupled with the lack of socio-political and economic power of the workers factor into the situation.
- **Social exclusion of the community:** It pervades public discourses and government policies as they are considered mere beneficiaries of State schemes. These victims rarely have any say in their rehabilitation process and are forced to accept government funds.
- **Lack of States' accountability:** Towards the victims of Pettimudi was minimal, as the government shared its responsibility of rehabilitation with the private company which has been using the land to control the lives of its workers.



Way forward

- Vulnerability to a disaster is isolated from the people's socio-economic status at the administrative level for their convenience in the intervention process. In doing so, the root causes of the issue are ignored.
- Such dissociations have led to more disaster vulnerabilities among poor communities as disaster-prone areas in India are a result of unequal development or overexploitation of resources.

Challenges to Internal Security through Communication Networks, Role of Media and Social Networking Sites in Internal Security Challenges

SC ASKS GOVT. TO DEVELOP MODULE ON DRUGS ABUSE THAT CAN RENDER AS AN ORDER

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Judiciary

Prepp Mains Booster: Challenges to Internal Security through Communication Networks, Role of Media and Social Networking Sites in Internal Security Challenges

Context:

- On October 18, the Supreme Court emphasized how drug abuse has engulfed society, and the government claimed that top Departments like the National Investigation Agency (NIA) and Directorate of Revenue Intelligence are looking into ways to close gaps and strengthen preventive measures to deal with the problem while also looking into a potential "narco-terror angle."
- While taking the cognisance of the drugs menace the SC directed the Central government to devise a module which can act as order.

What SC has observed on drug menace?

- The Chief Justice of India, presiding over a Bench, observed that the drug menace is engulfing the society. Government must come up with some Module that could be turned into an order that we could issue to control the entire situation.

What is the issue?

- SC was hearing of the suo motu case, on the rising drugs menace in the society in recent times and the inroads made by drug mafia in society, especially among youngsters, which is posing a "grave situation".
- The SC has filed a suo motu case on the basis of a letter from a citizen to the Supreme Court highlighting the alarming increase in drug abuse, especially among school children and youths.



Why is there a need felt for device new modules in recent times?

According to the court's amicus curiae in the case, the drug problem has gotten worse since the pandemic:

- Users and pushers of the drug use the dark web to conduct their business.
- Drugs are transported using postal and courier services.
- The distribution networks have expanded and become more organized, methodical, and broad.
- He claimed that in recent months, drugs worth 30,000 crore have been seized. He made reference to the recent drug find at the Mundra port.
- He cited studies by the Narcotics Control Bureau, the UN Office on Drugs and Crime, the Comptroller and Auditor General, and even the AIIMS that demonstrated that a "sizeable population" suffered from addiction.

India and Drugs Menace:

- India is one of the main centers for the illicit drug trade, which includes everything from traditional drugs like cannabis to more modern prescription medications like tramadol and designer drugs like methamphetamine, **according to a UNODC report.**
- As per **the report by AIIMS in 2019**, around 5 crore Indians reported to have used cannabis and opioids at the time of the survey.
 - It has been estimated that there are about 8.5 lakh people who inject drugs.

What are the efforts taken by the Govt of India to address drug menace?

- Narcotic Drugs and Psychotropic Substances Act, (NDPS) 1985:** A person is not allowed to make, have in their possession, sell, buy, transport, store, use, or consume any type of narcotic or psychoactive substance.
 - The Act covers the entirety of India, as well as all Indian nationals living abroad and everyone on ships and airplanes with Indian registrations.
- Narcotic Control Bureau (NCB):** It has the authority to file charges against people in situations involving the illicit use and distribution of narcotics.
 - India has ratified a number of international UN conventions relating to drugs, and the NCB is responsible for putting these international conventions' provisions into effect.
- Narco Coordination Centre (NCORD) mechanism:** For efficient drug law enforcement, the Ministry of Home Affairs (MHA) established it in 2016.
 - In July 2019, the NCORD system was reorganized into a four-tier system that extends to the district level for greater cooperation.
- Joint Coordination Committee:** A Joint Coordination Committee was established in July 2019 to oversee the investigation into incidents involving significant seizures, with the NCB Director General serving as its chairman.
- Seizure Information Management System Portal (SIMS Portal):** For all drug law enforcement agencies mandated by the NDPS Act, the MHA created an e-portal called "SIMS" in 2019 for the digitisation of pan-India drug seizure data.
- National Fund for Control of Drug Abuse:** It was established to cover costs associated with preventing the illicit traffic in narcotic drugs, treating addicts, and warning the public about drug misuse, among other things.

- **National Drug Abuse Survey:** The National Drug Dependence Treatment Center of AIIMS is assisting the government in conducting the Survey to Measure Trends of Drug Abuse in India through the Ministry of Social Justice & Empowerment.
- **Project Sunrise:** It was started in 2016 by the Ministry of Health and Family Welfare to combat the rising HIV prevalence in India's northeastern states, particularly among drug injectors.
- **'Nasha Mukht Bharat', or Drug-Free India Campaign:** It focuses on community outreach programs.

International Treaties and Conventions to fight Drug Menace:

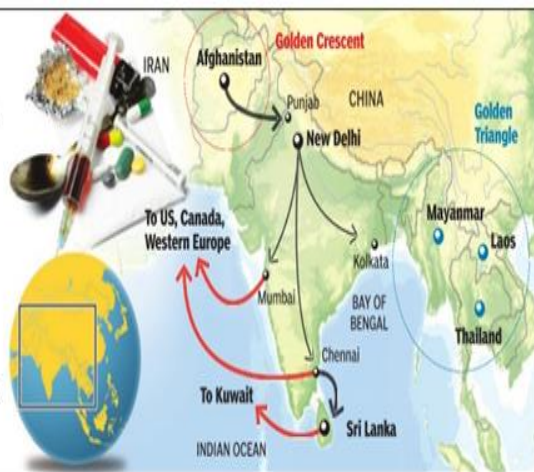
- India is a signatory to the following international agreements and conventions aimed at reducing the threat of drug abuse:
 - UN Convention against Transnational Organized Crime (UNTOC) 2000
 - UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)
 - UN Convention on Psychotropic Substances (1971).
 - United Nations (UN) Convention on Narcotic Drugs (1961)
- UN Commission on Narcotic Drugs (CND)

What are the major challenges in curbing the drug menace?

- **Proximity to Golden Crescent and Golden Triangle:** India lies enroute and close proximity to the major drugs producing and drugs market regions of Golden Crescent and Golden Triangle, which is a major factor making India vulnerable to drug trafficking.
- **Easy availability of Local drugs:** Drugs that are gateways to other substances are legally available in India, including cigarettes and bhang. For many first-time or young drug users, smoking tobacco is an experiment. Later, they proceed progressively to other substances like alcohol and then other narcotics like heroin, cocaine, and opium.

A DEVIOUS ROUTE

- Heroin is smuggled into India from Pakistan; from Delhi, it's shipped to Europe and the US
- Methaqualone is mostly carried by concealing it in cavities in registered baggage
- Golden Triangle is an opium producing zone that includes Myanmar, Thailand and Laos
- Golden Crescent is used to describe an area of opium trade that covers Afghanistan, Iran and Pakistan



- **Big market of youth population:** There are currently many young people in India who have money to spend. Drug addiction is a result of people's willingness to accept risks and the availability of drugs.
- **Loopholes of the NDPS Act:** Officials concentrate more on little quantities of narcotics than on those in commercial quantities.

- **No strong enforcement of NDPS Act:** For instance, 93.3% of arrests made in Mumbai under the NDPS Act in 2020 and 95.6% in 2019 were for personal consumption.
- **Administrative issue of Law Enforcement Agencies:** The shortage of manpower, massive quantities of manpower and state funds wasted on the investigation, questioning, arrest, and prosecution of minor narcotics offenses.

Way Forward

- India must deal with the issue on the demand side in addition to taking action to reduce supply by cracking down on cross-border trafficking, enacting stiffer punishments under the NDPS Act, or strengthening drug enforcement.
- Instead than considering addiction a character fault, consider it a disease that anyone might be dealing with. Therefore, it's important to lessen the stigma attached to drug use. The general public must comprehend that drug addicts are victims, not criminals.
- There needs to be control over certain agricultural medications that contain more than 50% alcohol and narcotics. To stop the drug epidemic in the nation, strict action is needed from the police, excise, and narcotics departments.
- Chapters on drug addiction, its effects, and de-addiction should be included in the curriculum. Another option is competent counseling.

MAOIST MOVEMENT ON THE EBB ALONG ANDHRA-ODISHA BOUNDARY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Maoist

Prepp Mains Booster: Challenges to Internal Security, Non-state Actors in creating challenges to Internal Security.

Context:

- Recently the Andhra-Odisha Border Special Zonal Committee (AOBSZC) of the banned CPI (Maoist), naxal organization, released a letter urging the tribal people of the Andhra - border region to join and revive the movement in the region. This highlights the decline state of Maoist movement in the region.
- The letter, released on the eve of the 18th Foundation Day of the CPI (Maoist), clearly indicated the desperation to keep the movement afloat.

Why is there a decline in the maoist activity in the region?

- **Huge leadership crisis:** The majority of the top leaders, including Gajarla Ravi, alias Uday, alias Ganesh, and Aruna, have left to safer areas of Chhattisgarh, causing a severe leadership crisis.
- **High Successes in Security Encounter operation:** Major success in encounter operations of security forces have weakened the movement.
 - The Ramaguda encounter in October 2016 that resulted in the deaths of roughly 30 Maoists and
 - the encounter in Teegalametia in June 2020 that resulted in the deaths of six top leaders in a shootout with Andhra Pradesh's elite anti-naxal force.

- Several prominent figures have either been assassinated (Azad and Jambri)
- **Surrender of the Prominent Leader in Maoist ranks:** Many maoist leaders have surrendered their weapons and joined the rehabilitation program .

What is the Status of Declining Maoist activity?

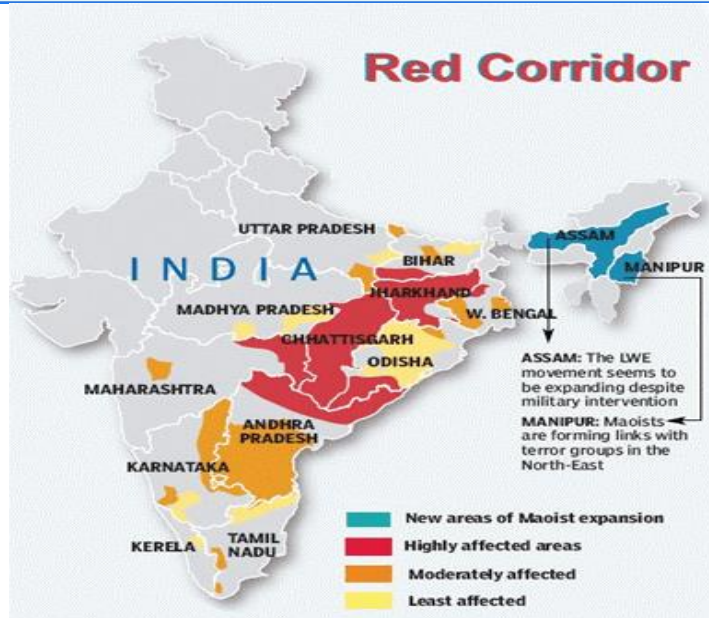
- Between 2009 and 2021, the number of **Maoist attacks decreased** by 77%, and in the past three years, Maoist insurgency in Chhattisgarh has killed more security officers than ever before.
- In the same vein, the **number of deaths** as a result (citizens plus security forces) has **decreased** by 85% from an all-time high of 1,005 in 2010 to 147 in 2021.
- State-wise, Chhattisgarh leads the nation in the number of security personnel deaths, accounting for 90% of all such fatalities, followed by Jharkhand, which reported 5 personnel deaths.
- Only 46 districts reported Maoist-related violence in 2021, down from 96 districts in 2010, indicating a decline in the geographic distribution of violence.

Who are the Maoists?

- Maoist are followers of Maoism. It is the political ideology, a variant of Communism, developed by Mao Zedong.
- Maoism aims to capture the State, political power by the working class, primarily the peasants, by using the violence.
- Maoism aims to capture the State, political power by the working class, primarily peasants by using the violence.
- As further elements of their insurgency strategy, the Maoists also deploy propaganda and disinformation against State institutions.

Which are the regions affected by Maoist activity?

- The "Red Corridor," which spans the eastern states of Andhra Pradesh, Chhattisgarh, Jharkhand, Odisha, Telangana and West Bengal is the name given to the most badly affected districts of India.
- Its geographic reach and number of violent incidents have been slowly declining.
- In 2021, it was limited to 25 "most affected" (representing 85% of LWE violence) and 70 "total affected" (down from 180 in 2009) districts spread across the states, in two coal-rich, isolated, forested hilly clusters in and around the Dandakaranya-Chhattisgarh-Odisha region and tri-junction area of Jharkhand-Bihar and-West Bengal.



What are the reasons for Maoism in India?

Displacement of people:

- The displacement of tribals due to the land acquisition for development projects like road rail, industrial project, mining, irrigation, and power projects and other infrastructure development projects without adequate rehabilitation plans led to the livelihoods being lost as a result.

Inequitable regional development:

- The failure of land reforms, particularly after independence with regard to land redistribution. Rising unemployment, socioeconomic disparities, and added to the lack of political opportunity resulted in a sense of helplessness. This led to the growth of maoist tendency in the regions.

Administrative reasons:

- **Corruption** in the Social Welfare Programs, Public Distribution System, and other infrastructure projects led to ineffectiveness of welfare programs directed at the tribal and peasant class. This caused the feeling of alienation and ignorance of the government towards the tribal. This further strengthened the Maoist movement in the tribal belt.

Tribal resentment:

- **The Forest (Conservation) Act, 1980** does not permit tribal members from gathering the non timber forest produce, despite the fact that their livelihoods depended on these forest products. This has led to the loss of livelihood and further resentment against the government.

Incomplete understanding of Maoism:

- Government viewed LWE as a security issue rather than a development issue. This led to over focus on security threats rather than addressing the developmental needs of tribal communities and regional imbalances.

Flaws in Security strategies:

- Security strategies for addressing the LWE **lacked coordination, intelligence, planning and deterrence** among the states. This led to continuation of maoist activity in some parts of India.

What are the steps taken by the Government of India?

Security related steps:

- The LWE issue has a single, **comprehensive solution in the SAMADHAN strategy**. It includes all aspects of government strategy, from short-term to long-term decisions made at various levels.
- As a **multifaceted effort** to tackle LWE, the **National Strategy to Counter LWE** was created in 2015. Its primary goals included, among other things, ensuring inclusive governance and the defence of the rights of the surrounding tribes.
- **National Policy and Action Plan for 2015**: It features a multi-pronged strategy that includes security measures, development initiatives, and ensuring local populations' rights and entitlements.

Rights related Steps:

- **Political Empowerment**: Enacted the **73rd and 74th Amendment Act** to provide the participation of local tribes in the **local self governance** and participate in the decision making process.
- **Rehabilitation and Resettlement**: Government enacted the Land Acquisition (Rehabilitation and Resettlement) Act 2013 to address the rehabilitation of the land displaced people and provide the opportunity to address livelihood loss of the tribal people.
- **Extensions of Forest Rights**: Government enacted the **Forest Rights Acts** to undo the historical injustice that occurred to the forest dwelling communities. FRA ensure land tenure, livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dweller

Extension of infrastructure and socio economic development projects in the region:

- **The Aspirational District Program** has included the Maoist/LWE affected districts which is aimed at improving the social and economic parameters of the district by integrating the various schemes at these districts.
- This has been envisaged to address the socio-economic and infrastructural needs in Maoist/LWE districts.
- The Central Government supports the efforts of the State Governments through the **Security Related Expenditure (SRE) Scheme** for Maoist/LWE impacted States, while State Governments have a surrender and rehabilitation strategy.
- **LWE/Maoist Surrender programme**: Financial assistance to surrendered individual for livelihood along with that the surrendered individuals receive **vocational training** with a monthly stipend for a maximum of 36 months.
- **Establishing ITIs and Skill Development Centers** in Maoist-affected districts is the goal of the 2011–12 project "Skill Development: Skill Development in 34 Districts Affected by Maoism (Left Wing Extremism).

Infrastructural Development:

- **Road connectivity and communication need** to be quickly expanded in the LWE-affected districts. Similarly the **installation of mobile towers** in isolated locations has been taken.

Way ahead

- **Strengthening the capacity of state police**: States are essential to the upkeep of law and order situations. Therefore, a focus should be placed on enhancing the capabilities and modernising the local police forces to prevent the rise of LWE in future.

- Preventing IED (improvised explosive device)-related occurrences, which have resulted in numerous fatalities in recent years, by using innovative measures.
- **Rationalizing the surrender policy**: In order to mainstream innocent people caught up in LWE, states should rationalise their surrender policy.
- Continual concentration and effort are required to eradicate such groupings.
- **Role of State**: The Center and the States should coordinate actions that are essential to stopping such radicalization among groupings providing the measures such as confidence-building measures, education, welfare schemes etc

A RENEWABLE ENERGY REVOLUTION, ROOTED IN AGRICULTURE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Energy Sources, Environmental Conservation, Environmental Pollution & Degradation

Context:

With the first bio-energy plant of a private enterprise, which Uses Paddy straw to create Compressed BioGas (CBG), starting its commercial operations on October 18 in the Sangrur region of Punjab, the author in the article "a renewable energy revolution, rooted in agriculture" has claimed that the beginning of a renewable energy revolution has roots in agriculture in India turning agricultural waste into wealth.

What is the issue with Paddy Straw?

- Farmers in Punjab, Haryana, and western Uttar Pradesh have made it a habit to burn paddy stubble and biomass to clear fields for the upcoming crop, which must be sowed within a window of three to four weeks.
- Between October and December, the resulting smoke clouds cover the whole National Capital Territory of Delhi and surrounding States for many weeks.
- This has a negative impact on the environment and the health of people and animals.



What are some Measures taken by Government to address it?

- The Government of India has put in place several measures.
- Measures are in place to ban stubble burning, to monitor and enforce this, and initiating awareness generation.

- Additionally, the Commission for Air Quality Management in NCR (CAQM) had developed a framework and action plan for the effective prevention and control of stubble burning.

The framework/action plan includes:

- **In-Situ Crop Residue Management (CRM):**
 - This is incorporation of paddy straw and stubble in the soil using heavily subsidized machinery. This is supported by the CRM Scheme of the Ministry of Agriculture and Farmers Welfare.
- **Ex-situ CRM:** This efforts include the use of paddy straw for
 - Biomass in power projects and co-firing in thermal power plants,
 - As feedstock for 2G ethanol plants,
 - As feedstock in CBG plants,
 - As fuel in industrial boilers,
 - As Feed to waste-to-energy (WTE) plants,
 - As a packaging material in industry.

How did the Revolution in Renewable energy start with agriculture?

- According to a techno-economic analysis of energy technologies, generating CBG and pellets from rice straw could be financially advantageous.
- Pellets can replace coal and CBG as a transportation fuel in thermal power plants.
- A 5% CBG production objective established by the Government of India program, "Sustainable Alternative Toward Affordable Transportation (SATAT)," can be achieved with 30% of the rice straw produced in Punjab.
- Additionally, it might boost local business ventures, raise farmer incomes, and lessen open burning of rice straw.
- Sangrur, Ludhiana, and Barnala in Punjab were suggested as the districts where these initiatives would be most effective.
- The Punjab government granted license to Verbio India Private Limited, a 100% subsidiary of the German Verbio AG, to establish a bio-CNG facility in April 2018 that will use around 2.1 lakh tonnes of the 18.32 million tonnes of paddy straw produced annually.
- The facility will use 1 lakh tonnes of paddy straw produced from approx 16,000 hectares of paddy fields.
- This year's paddy waste will be used to make 33 tons of CBG and 600-650 tonnes of fermented organic manure/slurry every day, which will cut annual CO₂ emissions by up to 1.5 lakh tonnes.

Challenges:

- According to the findings, a 20-day period would require an investment of over Rs 2,201 crore (\$309 million) in order to collect, transport, and store 30% of the rice straw produced in Punjab.
- This would result in a 9.7 million tonne CO₂ equivalent reduction in greenhouse gas emissions as well as a 66,000 tonne reduction in PM 2.5 emissions.
- In addition, depending on market conditions, farmers can anticipate earning between 550 and 1,500 every ton of rice straw sold.

What are the potential benefits?

- Thus, CBG priced at 46 per kg under the SATAT plan will be produced from paddy stubble.
- One acre of paddy straw can produce energy output (CBG) worth more than Rs17,000, which is an increase of more than 30% over the primary grain output.
- This program is a prime illustration of a "wealth from waste" strategy and circular economy.
- Additionally, the plant's slurry or fermented organic manure (CBG) can be used as compost to replenish severely depleted soils of organic matter and lessen reliance on chemical fertilizers.
- Youth from rural areas will also have employment prospects thanks to the plant's broad value chain, which includes the CBG facility as well as the paddy harvest, collection, baling, and transportation of biomass.

Conclusion:

- This will help Punjab's economy. The fact that straw from many other crops contains more energy than paddy straw is important to note.
- This seems to be the first project that will benefit the environment, renewable energy, the economy as a whole, farmers' income, and sustainability.
- This program is scalable and replicable across the nation, and it has the potential to revolutionize the rural economy.

Science and Technology- developments and their applications and effects in everyday life; Indigenization of technology and developing new technology.

INDIAN DEEP TECH AND CASE FOR STRATEGIC FUND

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian Deep Tech

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life; Indigenization of technology and developing new technology.

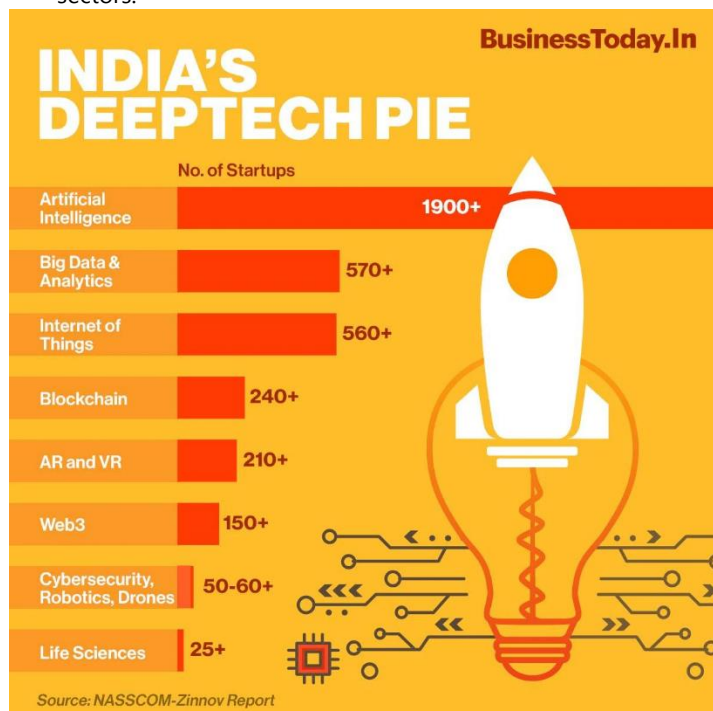
Context:

- Recently, according to the Economic Survey of India 2021–22, India has 61,400 registered startups, ranking third in the world after China and the United States in terms of startup ecosystem size.
- However, less than 1% of startups are deep-tech, which is substantially below the expected percentage for a huge, rapidly expanding country like India.

Need:

- Certain general-purpose technologies (GPTs) are the **foundation for our way of life, economy, and national security**.
- There are currently four technical battlegrounds: **semiconductors, 5G, biological revolutions, and autonomy**.
- These are all susceptible to armed warfare, medical crises, and natural calamities.
- They have high entry barriers and a dual purpose. Example: GPS can be used by Uber as well as fighter jets.
- Self-reliance is more than simply a sentimental catchphrase. It is necessary for survival.

- In order to become a developed country in 25 years, India will need to build world-class deep tech capabilities in specific sectors.



Challenges:

- Market Risk:** Neither the venture capitalist nor the government is willing to invest in this venture because of the risk involved in the business.
- Lack of funds:** Moreover, government money is not enough or is not fast enough.
- Lack of Skilled personnel:** According to NASSCOM, "talent and market access" are the major obstacles for up to 60% of deep-tech entrepreneurs in India,
 - lack of research guidance,
 - expensive client acquisition costs
- Deep tech has a long gestation period.

Status of deep tech funding globally

- Government funding** continues to be the main source of Deep Tech funding in the United States, Israel, and nations that are members of the North Atlantic Treaty Organization.
- Deep Tech is a cutting-edge, quantum leap in capabilities that creates an intellectual property moat.
- Agencies like the **Defense Advanced Research Projects Agency, the Directorate of Defense Research and Development, and the Defence and Security Accelerator** receive billions in the financing, most of which helps small businesses breathe.
- This has made it possible for start-ups to become a link between academic research published in IEEE journals or benchtop prototypes and massive, production-hungry industries. This bridge is yet to be constructed in India.

Steps to be taken:

- The introduction of the Indian Semiconductor Mission and the Ministry of Defence's flagship iDEX and TDF programs are stepping in the right direction but relying only on an already

overstretched pool of financing is not the best way to stimulate the ecosystem.

- Here is a rationale for the creation of a "India Strategic Fund" to address this market inefficiency.
- There are two ways to create a movement of patriotic capital.
- Budgets for CSR:** According to some estimates, the yearly CSR budget is ₹ 15,000 crore, with a large amount going unused.
- Large firms can be encouraged to use a portion of their funding to support the strategic goals of the country.
- The government should permit this money to go to a few key vital tech businesses.
- Tax incentives:** Tax incentives may be made available to HNIs to encourage equity investments in the same crucial technology businesses, otherwise viewed as high-risk ventures.
- As a result, the pain brought on by reduced short-term returns would be lessened.
- The pool of investable businesses must be restricted to start-ups recognised by the Government of India, and startups must have finance or "approval of requirement" from the Indian military or Ministry of Defence.

Way forward

- Critical technology will continue to be net imported into India for the foreseeable future. Although the Prime Minister's plan for an Atmanirbhar Bharat has gained the necessary momentum, it will take at least ten years to fully materialize.
- CSR money and the appropriate tax incentives for HNIs can provide an almost self-fulfilling prophecy in the developing Indian Deep Tech ecosystem if they are properly matched with the government-launched programs.
- The first step for the nation to realize this goal is investing in vital, deep technology.

GENERAL STUDIES 4

Ethical Concerns and Dilemmas in Government and Private Institutions; Laws, Rules, Regulations and Conscience as Sources of Ethical Guidance;

ISSUE OF MOONLIGHTING

Context:

The issue around moonlighting that has recently erupted in India's IT industry was started by the chairman of Wipro's remark. He referred to "moonlighting" as cheating and thought it was improper for employees to do.

What does Moonlighting means?

- The practise of working for one company while taking on additional obligations and jobs, usually without the employer's knowledge, is known as side employment. This type of labour is frequently done at night or on the weekends.

Legality of Moonlighting in India

- Yes, it is lawful, subject to limitations set by the employment institution, and dependent on employer requirements.
- In India, it's legal to hold multiple jobs without breaching the law. However, a person with a comparable set of

employment could raise worries about a breach of confidence because many employers often forbid employees from holding down more than one job in their employment agreements.

- Contractual provisions: If an employee's contract stipulates a non-compete and single employment, as is the case with the majority of traditional employment contracts, moonlighting may be regarded as cheating.

Criteria to Judge the ethics related to moonlighting::

Moonlighting as Ethical

Working with another institution or firm is regarded ethical if it doesn't interfere with the employee's productivity and, at all costs, doesn't detract from the workplace's decorum.

Moonlighting as Unethical

When an employee moonlights with another institution or engages in other activity that compromises the employer's profitability, efficiency, or legality, it is deemed unethical.

Ethical dilemmas for different Stakeholders

While some ethical problems may be specific to a given industry or firm, other ethical problems can impact any sort of organisation:

- Since the IT sector pays its employees more and has long-term contractual relationships with them, ethical quandaries should be concentrated on this industry.
- To lessen the impact of moonlighting, ethical issues for other private organisations must be handled wisely.
- Moonlighting is immoral for public institutions because it is forbidden by government agencies for its employees to work for another institution or outside the company.

Factors responsible for Moonlighting:

- Lack of employee friendly conditions
- Insufficient pay to employees
- Exploitation at workplace
- less responsibilities

How Moonlighting can be controlled?

- Providing adequate pay
- Incentivising Employment benefits
- Awareness regarding Ethical concerns
- To Provide more responsibility

Institutions should use the following methods to address ethical dilemmas:

- Ethical relativism: It's when multinational firms operate in a nation while scrupulously abiding by the nation's ethics or culture.
- Multinational firms must follow local culture or ethics in order to exist, for instance, if bribery is a culture or business ethics in a particular host country.
- Although ethical relativism has disadvantages, it may help multinational corporations compete successfully in the host country's market.

- An ethical code that is universally applicable to all nations is referred to as ethical universalism.
- As a result of companies being perceived as having a stronger moral obligation and adhering more strictly to human rights, ethical universalism has a benefit.
- Concerning drawbacks, in some circumstances, it might result in a sort of cultural imperialism where global firms think a particular nation's culture is unethical and inferior.

PRELIMS

INDIA CLIMBS TO THE 40TH RANK IN THE GLOBAL INNOVATION INDEX OF WIPO

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: GII

Prepp Mains Booster: Important International institutions, agencies, and for- their structure, mandate.

Context:

- Recently, the **World Intellectual Property Organization (WIPO) released the Global Innovation Index (GII) 2022**. Switzerland has emerged as the world's most innovative economy for the 12th consecutive year.
- India surpassed Vietnam to become the world's most innovative lower middle-income economy, according to the World Intellectual Property Organization (WIPO), after moving up six spots to the 40th position in 2022 from the 46th position in 2021.
- The GII reveals the most innovative economies in the world, ranking the innovation performance of 132 economies.

About Global Innovation Index 2022

- The Global Innovation Index 2022 (GII), in its 15th edition this year, is published by WIPO, in partnership with the Portulans Institute and with the support of various Corporate Network partners like the Confederation of Indian Industry (CII), the Brazilian National Confederation of Industry (CNI), Ecopetrol (Colombia), and the Turkish Exporters Assembly (TİM).
- UN Economic and Social Council in its 2019 resolution on Science, Technology and Innovation for Development has recognized GII as an authoritative benchmark for measuring innovation in relation to the Sustainable Development Goals (SDGs).
- This index is published annually.
- The core of the GII provides performance measures and ranks 132 economies on their innovation ecosystems.
- The Index is built on a rich dataset the collection of 81 indicators from international public and private sources.
- The GII 2022 is calculated as the average of **two sub-indices**. The Innovation Input Sub-Index gauges elements of the economy that enable and facilitate innovative activities and is grouped in five pillars:
 1. Institutions,
 2. Human capital and research,
 3. Infrastructure,

4. Market sophistication, and
5. Business sophistication.

The Innovation Output Sub-Index captures the actual result of innovative activities within the economy and is divided in two pillars:

1. Knowledge and technology outputs and
2. Creative outputs.



Source: Global Innovation Index Database, WIPO, 2022.

Highlights of report

- The report demonstrates that despite the COVID-19 epidemic, research and development (R&D) and other investments that fuel **global inventive activity continued to expand in 2021**.
- However, **obstacles are emerging** in translating innovation investments into impact.
- The GII discovers that **productivity growth**, the specific subject for GII in 2022, which is often sparked by greater innovation, has actually **slowed down**.
- Despite the recent boom in R&D spending and venture capital investments, it also indicates that **current technology advancement and acceptance show signals of slowing growth**.
- However, a new era of innovation-driven growth powered by Deep Science and Digital Age innovation waves may begin if innovation ecosystems are nurtured with greater care and attention.

GII's key findings

- **R&D Expenditure:** Prior to the pandemic in 2019, the **top global corporate R&D spenders boosted their R&D spending by approximately 10%** to over USD 900 billion in 2021.
- Four industries, including **ICT hardware and electrical equipment, software and ICT services, pharmaceuticals and biotechnology, and construction and industrial metals**, were principally responsible for this increase.
- Despite slowing from the historically high 6.1 percent R&D growth rate seen in 2019, global R&D investments expanded at a rate of 3.3 percent in 2020.
- **Government expenditure on R&D:** For the top R&D expenditure economies, government budget allocations showed a significant rise in 2020.

- Budgets for government R&D in 2021 showed a more mixed picture, with rising spending in Germany and the Republic of Korea and declining investment in the US and Japan.
- **Venture capital:** In 2021, venture capital (VC) agreements increased by 46 percent, reaching heights comparable of the late 1990s internet boom.
- The fastest-growing VC markets are in Latin America, the Caribbean, and Africa. However, the VC outlook for 2022 is less optimistic; tighter monetary policies and their impact on risk capital would cause VC to slow down.
- **Annual ranking of the world's economies on innovation capacity and output:** In its annual ranking of the world's economies on innovation capacity and output, the GII shows some key changes in the top 15 of the ranking, with the United States climbing to the 2nd position, the Netherlands reaching the 5th position, Singapore reaching 7th, Germany reaching 8th and China up one place to 11th and on the doorstep of the top 10.
- Canada is back among the top 15 global innovators (15th). India (40th) and Turkey (37th) make their maiden appearances in the top 40.
- Beyond these, the middle-income economies with the fastest current growth in innovation performance are Viet Nam (48), the Islamic Republic of Iran (53), and the Philippines (59).

India

- India is the **innovation leader in the lower middle-income group**.
- It continues **to lead the world in ICT services exports** and holds top rankings in other indicators, including venture capital receipt value, finance for startups and scaleups, graduates in science and engineering, labor productivity growth and domestic industry diversification.
- With the **exception of Infrastructure**, where it performs below average for the upper-middle-income group, India's innovation performance is above average overall.
- In Central and Southern Asia, India ranked highest among three the "most innovation economies" followed by Iran and Uzbekistan.

AT ₹7.45 LAKH CRORE, DIRECT TAX RECEIPTS CROSS HALF THE TARGET

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Direct Tax

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

Context:

- The Finance Ministry reports that revenues have been steadily increasing.
- Gross collections reach 8.98 lakh crore.
- Tax refunds increased 81% over the previous year to reach 1.53 lakh crore.

What is Direct Tax?

- A direct tax is a tax that is paid directly to the entity that imposed it by an individual or organization.

- Individual taxpayers, for example, pay direct taxes to the government for a variety of reasons, such as income tax, real estate tax, personal property tax, or asset taxes.

Rise in tax collection

- As per the Union Finance Ministry, India's net direct tax collections for the fiscal year 2022-23 have risen to 7.45 lakh crore, more than half of the Budget targets.
- It is a 16.3% increase over the same period last year.
- According to preliminary data, net personal income tax collections increased by 17.35%, outpacing corporate income tax collections, which increased by 16.29% net of refunds.
- Securities Transaction Tax (STT)** collections grew at a slower 16.25% when combined with personal income tax receipts.
- The Ministry said tax refunds increased 81% year on year to reach 1.53 lakh crore, highlighting that direct tax collections continue to grow steadily.

Revenue rises

The graph shows the increase in tax collections this fiscal year up to October 8, 2022 compared with the figures for the corresponding period last year. Net personal income tax collections grew at 17.35%, faster than corporate income tax collections that were up 16.29%, net of refunds



Gross Collections

- Gross direct tax collections had reached 8.98 lakh crore, a 23.8% increase over the same period in 2021-22. After adjusting for refunds, net direct tax revenues now account for 52.46% of total Budget Estimates.
- Net direct tax collections had surpassed 7 lakh crore by September 17 and were 23.3% higher at the time, indicating that tax inflows have moderated in the three weeks since.
- On September 17, gross revenues from direct taxes stood at 8,36,225 crore, a 30.2% increase.

Direct Tax Collections for Fiscal Year 2022-23 up to October 8, 2022

- The preliminary figures for Direct Tax collections up to October 8, 2022 continue to show steady growth.
- Direct Tax collections up to the 8th of October, 2022 show that gross collections are at Rs. 8.98 lakh crore, which is 23.8% higher than gross collections for the same period last year. Direct tax collection, net of refunds, stands at Rs.7.45 lakh crore, which is 16.3% higher than net collections for the same period last year.
- This collection represents 52.46% of the total Budget Estimates of Direct Taxes for Fiscal Year 2022-23.
- In terms of gross revenue collections, the growth rates for **Corporate Income Tax (CIT)** and **Personal Income Tax (PIT)** are 16.73% and 32.30%, respectively.
- After refunds are deducted, the net growth in CIT collections is 16.29%, while the net growth in PIT collections is 17.35% (PIT only)/16.25% (PIT including STT).

- During the period 1st April, 2022 to 8th October 2022, refunds totaling Rs.1.53 lakh crore were issued, which is 81.0% more than refunds issued during the same period the previous year.

EASTERN COMMANDS EX-CHIEF ANIL CHAUHAN IS CHIEF OF DEFENCE STAFF

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: CDS

Context:

- Recently, Lieutenant General Anil Chauhan (retd), the military adviser to the National Security Council Secretariat (NSCS) and a former Eastern Army Commander was appointed as India's next Chief of Defence Staff (CDS).
- The post of CDS was lying vacant for over 9 months after the country's first CDS General Bipin Rawat was killed in a helicopter crash in Tamil Nadu in December 2021.
- His appointment comes almost four months after the Central Government amended the Army, Air Force and Navy rules in June 2022 to broaden the pool for the selection of the CDS. The amended rules had made retired three-star officers among those eligible for the top post.

About Chief of Defence Staff (CDS)

- He is a four-star General who acts as the Principal Military Advisor to the Union Defence Minister on all tri-services (Army, Navy and Indian Air Force) matters.
- He oversees and coordinates the working of the three defence Services in India.

Role of CDS

- Principal Military Adviser:** He acts as the Principal Military Adviser to the Union Defence Minister on tri-services matters. He is also military adviser to the Nuclear Command Authority, which handles India's nuclear arsenal.
- Head of Department of Military Affairs:** He heads the Department of Military Affairs (DMA). Its mandate includes promoting jointness in procurement, training and staffing for the Services, facilitating restructuring of Military Commands for optimal utilisation of resources and promoting use of indigenous equipment by the Services.
- DMA also has been assigned critical responsibilities of overseeing matters related to India's neighbouring countries including border disputes and incidents, development of infrastructure in forward areas and deployment of forces.
- Permanent Chairman of the Chiefs of Staff Committee (COSC):** CDI is the permanent Chairman of the COSC. As a permanent chair, he administers all tri-service organisations and commands and also functions as the Military Adviser to the Nuclear Command Authority.
- He is a member of the Defence Acquisition Council and Defence Planning Committee.
- He also implements the five year Defence Capital Acquisition Plan (DCAP) and rolls out two year Defence Annual Acquisition Plans.

- He also coordinate with operation, logistics, transport, training, support services communications, etc. of the three Services
- **Authority:** He is vested with the authority to provide directives to the three chiefs of armed forces. But does not enjoy any command authority over any of the three forces.
- CDS is first among equals. He enjoys the rank of Secretary within the Department of Defence (DoD), Ministry of Defence and his powers are confined to only the revenue budget.



Importance of CDS

- **Coordination among services:** CDS is a high military office to oversee and coordinate the working of the three defense Services in India. Thus bring synergy to enhance security in the region.
- **Effective leadership:** It will be provided by CDS at the top level to the three wings of the armed forces.
- **Optimisation of Resources:** CDS will help in optimal use of available resources in the tackling of threats in an integrated manner. This will improve policy-making on operations, procurement and joint logistics.
- **Coherence:** CDS provides a single and coherent perspective from the collective perspective of three defense Services, instead of a disaggregated individual single service perspective.
- **Holistic management:** CDS brings holistic management of national security for optimised results.

JUSTICE CHANDRACHUD APPOINTED THE 50TH CHIEF JUSTICE OF INDIA

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: CJI, Indian Judiciary

Context:

- **President Droupadi Murmu appointed Justice D.Y. Chandrachud as India's 50th Chief Justice (CJI).**
- Justice Chandrachud will take the oath of office on November 9, one day after incumbent Chief Justice Uday Umesh Lalit retires at the age of 65.
- In exercise of the authority conferred by the Indian Constitution, the Hon'ble President appoints Dr. Justice DY Chandrachud, Judge, Supreme Court, as Chief Justice of India, effective November 9, 22.

- Justice Chandrachud will be the CJI for two years. He will leave office on November 10, 2024.



About Chief Justice of India

- The Chief Justice of India, or Chief Justice of the Republic of India, is the Supreme Court of India's chief judge and the highest-ranking officer in the Indian federal judiciary.
- He is one of the highest-ranked persons in the order of precedence in our Country. He is also often called the **Master of the Roster**.

Chief Justice of India - Appointment

- The President appoints the Chief Justice of India (CJI) under **Article 124(2)** of the Constitution.
- In terms of the CJI, the retiring CJI proposes his successor. The suggestion is forwarded by the Union Law Minister to the Prime Minister, who then advises the President.
- In the **Second Judges Case (1993)**, the Supreme Court declared that the CJI should be selected only by the Supreme Court's senior-most judge.
- In the **Third Judges case (1998)**, the Supreme Court declared that the Chief Justice of India's consultation procedure necessitates "consultation with a plurality of judges."
- The CJI's single opinion does not define the consultation process. He or she should consult a collegium of four senior Supreme Court justices, and even if two of them disagree, he or she should not pass the idea on to the government.
- As a result of the "third judges case," the Collegium system was formed, and it has been in use since 1998 in the High Courts and Supreme Courts to nominate and transfer judges.

About Justice Chandrachud

- **Dhananjaya Yeshwant Chandrachud** (born 11 November 1959) is an Indian Supreme Court judge who will be the 50th Chief Justice of India.
- Justice Chandrachud, the second-most senior Supreme Court justice after Justice Lalit, was appointed on May 13, 2016.
- Before being appointed to the Supreme Court, Justice Chandrachud was Chief Justice of the **Allahabad High Court**, a position he held since October 31, 2013. From March 2000 to October 2013, he was also a Judge of the **Bombay High Court**.
- He is currently the executive chairman of the National Legal Services Authority.

- He was appointed Chief Justice of India on October 17, 2022, following the retirement of the current Chief Justice of India, Uday Umesh Lalit.
- He will take over as Chief Justice of India on November 9, 2022.
- He is the son of the longest-serving Chief Justice, Y. V. Chandrachud.

Justice Chandrachud - Notable Judgements

- Justice Chandrachud, who sees dissent as the "safety valve" of democracy, is known for his profound judgments, and his dissenting opinions have not only pricked the conscience of the powerful, but have at times even overshadowed the main judgement.
- Among his notable Supreme Court decisions are the recognition of the right to privacy as a fundamental right, the decriminalization of Section 377 of the Indian Penal Code, and the acceptance of women into Kerala's Sabarimala temple.

Justice Chandrachud - Notable Speeches

- Justice Dhananjaya has spoken at conferences organized by United Nations bodies such as the United Nations High Commission for Human Rights, International Labour Organization, and United Nations Environmental Program, as well as the World Bank and Asian Development Bank.
- On June 6, 2018, he delivered a lecture titled "Global Constitutionalism in the Age of Transnational Judicial Conversations in Human Rights," which was co-hosted by the Supreme Court of Hawai'i and the University of Hawai'i.
- He has given numerous speeches in India at prestigious legal institutions as well as civil society events.

MUKUL ROHATGI DECLINES ATTORNEY GENERAL'S POST

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Attorney General

Context:

- Recently, senior advocate Mukul Rohatgi has withdrawn his consent to take over as the Attorney General of India.
- He was to take over the AGI's role from October 1, 2022 as current incumbent K K Venugopal's tenure is expiring on September 30, 22. Rohatgi was the country's attorney general from June 2014 to June 2017.
- Incumbent AGI K K Venugopal is 91 years old, and on his third extension. He has conveyed to the government that in view of his advanced age, he would not be able to continue after the end of his current term.

Who is the Attorney General for India (AGI)?

- AGI is a part of the Union Executive. He is the highest law officer in the country. Article 76 of the Constitution provides for the office of AGI.
- He is Government of India's first law officer and has the right of audience in all courts of the country.

Appointment

- He is appointed by the President under Article 76(1).

Eligibility

- As per Article 76(1) persons who are "qualified to be appointed a Judge of the Supreme Court" can only be appointed as AGI.
- SC Judge qualification: (i) Citizen of India (ii) Judge of High Court (HC) for 5 years or advocate HC for 10 years or eminent jurist in the opinion of President.

Tenure and Removal

- As per Article 76(4), AGI holds office during the pleasure of the President.
- Thus, it is not fixed. AGI can be removed by the President at any time.
- Moreover, procedures and grounds for the removal of AGI are not mentioned in the Constitution.

Duties and Functions: Under Article 76(2), AGI has to

- Give advice to the Government of India upon such legal matters referred to him by the President.
- Perform such other duties of a legal character that are assigned by the President.
- Appear on behalf of the GoI in all cases in the Supreme Court and in any case in any High Court in which the GoI is concerned.
- Represent the GoI in any reference made by the President to the Supreme Court under Article 143 of the Constitution.
- Discharge the functions conferred by the Constitution or any other law.



Rights of AGI

- Under Article 88, AGI has right to speak in and otherwise to take part in the proceedings of, either House, any joint sitting of the Houses, and any committee of Parliament of which he may be named a member. However by virtue of this article he is not entitled to vote in the House.
- He also enjoys privileges & immunities of a member of Parliament.
- As he is not a government servant, he is not debarred from private legal practice while holding office of AGI.

Limitations on AGI

- He has no right to vote in House proceedings and its committees.
- He cannot advise against or hold a brief against the Government.
- He cannot defend accused persons in criminal prosecutions without the permission of the GoI

- He cannot accept appointment as a director in any company or corporation without GOI's permission.
- He is not a full-time counsel for the Government and does not fall in the category of government servants.
- He is not a member of the Central cabinet. In the Central cabinet, there is a Union Law Minister who is in charge of legal concerns at the federal level.
- According to the Delhi High Court, AGI does not fall under the ambit of the Right to Information (RTI) Act since it is not a public authority.

PARLIAMENT COMMITTEES, THEIR LEADERS, AND THEIR ROLE IN-LAW MAKING

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Parliamentary Committees

Context:

- Recently, revamp of the Standing Committees of Parliament took place.
- It has been feared that this revamp could potentially worsen the relations between the government and opposition parties.
- Of the 22 parliamentary committees announced recently, the Congress has the post of chairperson in only one, and the second largest opposition party, Trinamool Congress, none.
- While the ruling BJP has the chairmanship of the important committees on Home, Finance, IT, Defence and External Affairs.

What are Parliamentary Committees, and what do they do?

- A Parliamentary Committee is a group of MPs who are appointed or elected by the House or nominated by the Speaker and work under the Speaker's direction. It reports to the House or the Speaker.
- Parliamentary committees originated in the British Parliament. They derive their authority from Article 105, which deals with MP privileges, and Article 118, which gives Parliament the authority to make rules to govern its procedure and conduct of business.
- When a Bill is introduced in either House of Parliament, the legislative process begins. However, the legislative process is frequently complex, and Parliament has limited time for in-depth debates.
- Furthermore, political polarisation and a shrinking middle ground have resulted in increasingly rancorous and inconclusive debates in Parliament, resulting in a significant amount of legislative business being handled in Parliamentary Committees instead.

What are the different Parliamentary Committees?

- **Financial Committees:** Estimates Committee, Public Accounts Committee, and Committee on Public Undertakings are among the Financial Committees. These committees were formed in 1950.
- **Departmentally Related Standing Committees:** Seventeen Departmentally Related Standing Committees were established in 1993, when Shivraj Patil was Speaker of the Lok Sabha, to examine budgetary proposals and critical government policies. The goal was to increase Parliamentary scrutiny and give

members more time and a larger role in examining important legislation. The number of Committees was later increased to 24. Each of these Committees has 31 members: 21 from the Lok Sabha and 10 from the Rajya Sabha.

- **Ad hoc Committees:** Ad hoc Committees are formed for a specific purpose. They cease to exist once they have completed the task assigned to them and submitted a report to the House. The Select and Joint Committees on Bills are the most important Ad hoc Committees. Ad hoc Committees include committees such as the Railway Convention Committee, the Committee on Food Management and Security in Parliament House Complex, etc.
- Parliament can also form a Joint Parliamentary Committee (JPC) with members from both Houses for detailed scrutiny of a subject or Bill. In addition, either of the two Houses can form a Select Committee composed of members from that House. JPCs and Select Committees are typically chaired by ruling party MPs and are disbanded once their report has been submitted.

How do discussions/debates in Parliamentary Committees differ from those in Parliament?

Size of the party:

- The amount of time allotted to debate a Bill is determined by the size of the party in the House. Even if they are subject matter experts, MPs are frequently denied adequate time to present their views in Parliament.
- Committees are small groups with fewer demands on their time; at these meetings, every MP has the opportunity and time to contribute to the discussion.
- Parliament holds only about 100 sittings per year; committee meetings are held independently of Parliament's calendar.

Nature of Discussion:

- Furthermore, because the discussions are confidential and off-camera, party affiliations usually do not prevent MPs from speaking their minds in ways they are unable to do in Parliament, where proceedings are televised live and members are frequently constrained to speak to their constituencies.
- As a result, many MPs admit that "real discussions" take place within the Committees, agreeing in principle with former US President Woodrow Wilson, who observed that "Congress in session is Congress on public display, while Congress in its committee rooms is Congress at work."

Coordination and Investigation:

- The Committees collaborate closely with multiple Ministries and facilitate inter-ministerial coordination. Bills referred to committees frequently return to the House with significant value-addition.
- The Committees investigate the demands for grants of Ministries/Departments, examine Bills pertaining to them, consider their annual reports, investigate their long-term plans, and report to Parliament.

How are the Committees formed, and how are their chairpersons selected?

- The Lok Sabha has 16 Departmentally Related Standing Committees and the Rajya Sabha has eight; however, every Committee has members from both Houses. Panels in the Lok Sabha and Rajya Sabha are led by members of these Houses.

- Agriculture, coal, defence, external affairs, finance, communications and information technology, labour, petroleum and natural gas, and railways are among the important Lok Sabha panels. Commerce, Education, Health and Family Welfare, Home Affairs, and Environment are among the important Rajya Sabha panels.
- Other Standing Committees for each House include the Business Advisory Committee and the Privileges Committee.

Selection of the Chairpersons:

- The Presiding Officer of each House appoints members to these panels. A Minister is ineligible for election or nomination to Financial Committees and certain Departmentally Related Committees.
- Presiding Officers have the discretion to refer a matter to a Parliamentary Committee, but this is usually done in consultation with party leaders in the House.
- The heads of the Committees are appointed in a similar manner. The post of PAC chairman is traditionally held by the main opposition party; it is currently held by the Congress. In the past, opposition parties have held the chairmanship of some key committees. However, this pattern has changed in the most recent rejig.
- The meetings are scheduled by the panel heads. They have a clear role in preparing the agenda and the annual report, and they have the authority to make decisions in the Committee's best interests.
- The chairperson presides over the meetings and has the authority to decide who should be called before the panel.
- An invitation to appear before a Parliamentary Committee is analogous to a summons from a court: if one is unable to attend, he or she must provide reasons, which the panel may or may not accept.
- However, in order to summon a witness, the chairman must have the support of the majority of the members.
- Members of Parliament typically serve on Parliamentary Committees for one year. Typically, the composition of a Committee remains relatively constant in terms of representation of the various parties.

How significant are the Committees' recommendations?

- The reports of Departmentally Related Standing Committees are advisory in nature. They are not legally binding on the government, but they carry significant weight.
- In the past, governments have accepted Committee recommendations and incorporated them into the Bill after it was returned to the House for consideration and passage.
- These panels also investigate policy issues in their respective Ministries and make recommendations to the government. The government must report back on whether these recommendations were accepted.
- Based on this, the Committees present Action Taken Reports, which detail the status of the government's action on each recommendation.

CENTRE APPOINTS CHIEF JUSTICES OF THREE HIGH COURTS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Appointment of Judges, Judiciary

Context:

- The Centre on Tuesday appointed Chief Justices of three High Courts — Karnataka, Jammu and Kashmir, and Rajasthan as recommended by the Supreme Court Collegium led by Chief Justice of India U U Lalit.



Constitutional Provision for High Courts

- According to Article 214 of the Indian Constitution, each state shall have a High Court.
- Article 231 gives Parliament the authority to establish a common High Court for two or more states.

Chief Justices Appointed

- **Justice P B Varale** of the Bombay High Court has been appointed Chief Justice of the **Karnataka High Court**. Since July, the Supreme Court has been led by an Acting Chief Justice.
- **Justice Pankaj Mithal**, the former Chief Justice of the Jammu and Kashmir and Ladakh High Courts, has been appointed **Chief Justice of the Rajasthan High Court**.
- **Justice Ali Mohammad Magrey of the J&K High Court** has been appointed Chief Justice of the same high court.

Procedure for Appointment

- The Memorandum of Procedure, the document that governs the process of appointing judges to the higher judiciary, states that if a judge of an HC has less than a year to retire and is the senior-most judge of that HC, the judge can be appointed Chief Justice of the parent HC itself.

Other Recommendations

- On September 28, the five-member Collegium, which also included Justices D Y Chandrachud, Sanjay Kishan Kaul, Abdul Nazeer, and K M Joseph, recommended the appointment of Justice S Muralidhar, Chief Justice of the Orissa High Court, as Chief Justice of the Madras High Court.
- The Collegium recommended the appointment of Justice Jaswant Singh, a judge of the Orissa High Court, as Chief Justice of the Orissa High Court.
- Although all recommendations for new appointments and transfers were made at the same time, the Centre has yet to transfer Justice Muralidhar, whose parent HC is the Delhi High Court and whose term expires on August 7, 2023.
- Justice Muralidhar, a senior Supreme Court judge, is well-known for his landmark rulings on civil liberties.
 - He was a member of the bench that delivered the landmark verdict decriminalising homosexuality in 2009, along with Justice A P Shah.

- In 2010, Justice Muralidhar ruled that the office of the Chief Justice was subject to the RTI.

Chief Justice of India

- The chief justice of India is the highest-ranking officer of the Indian federal judiciary and the chief judge of the Supreme Court of India.
- The Indian Constitution empowers the president of India to appoint the next chief justice, in consultation with the outgoing chief justice, who will serve until they reach the age of sixty-five or are removed through impeachment.
- As Chief Justice, he is responsible for allocating cases and appointing constitutional benches that deal with important legal issues.
- U. U. Lalit is the current chief justice. He was sworn in as India's 49th Chief Justice on August 27, 2022.

DIBANG HYDEL PROJECT: ARUNACHAL SAYS NO LAND FOR NATIONAL PARK, NGT DROPS ITS OWN CASE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Dibang Hydel Project

Context:

- Recently, the National Green Tribunal (NGT) dismissed the case it took up suo motu on the grant of forest clearance for the 3000-MW Dibang hydel project without meeting the precondition of declaring a national park.
- NGT's dismissal comes after Arunachal Pradesh Government informed it that the local people are not willing to part away their land for declaration of National Park.

What is the issue?

- NGT had taken suo motu notice on six mega projects that did not comply with stringent clearance conditions imposed by to compensate for their high environmental impact.
- After rejecting it twice in July 2013 and April 2014, the Union Environment Ministry's Forest Advisory Committee (FAC) recommended the Dibang hydel project for preliminary approval in September 2014 with the precondition that a national park would be declared immediately to protect the river basin. Despite non-compliance, final forest clearance was issued by FAC in 2020.
- Responding to the NGT's notice, the Arunachal Pradesh Government had notified that the local people in the Unclassed Forest and Community Forests enjoying customary rights since time immemorial are not willing to part away their land for declaration of National Park.



Dibang Hydro Power Project

- It is a flood control cum hydroelectric power project planned to be developed on Brahmaputra's tributary Dibang River in Arunachal Pradesh.
- It is located about 1.5 km upstream of the confluence of Dibang and Ashu Pani rivers. It is about 43 km from district headquarter Roing.
- It will be developed with an estimated investment of US \$4 billion. It is expected to generate up to 11,222 million units (MU) of electricity per year.
- It will moderate flooding in the areas downstream of the Dibang Dam during the entire monsoon period to the extent of 3000 cumecs.

Way Forward

- The rules governing big hydel project clearance need to be rewritten. The process of conditional clearance needs to be terminated. The current rules have been much abused and very few project proponents comply with conditions.
- Projects approval must be assessed on merit, and once rejected, should not be reconsidered. Until these changes are made, these projects will not be able to reach any standard of excellence in safeguarding our environment.

MGNREGS TO FUND WORK TO REVERSE DESERTIFICATION OF LAND ACROSS THE STATES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Desertification

Context:

- The government is currently attempting to bring convergence between the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) and the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in order to address the country's massive job of recovering damaged land and reversing desertification.



What is desertification?

- United Nations Convention to Combat Desertification (UNCCD) states that desertification is "land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities".
- At least 30% of India's total geographic area is under the category of "degraded land," according to the **Desertification and Land Degradation Atlas published by the Environment Ministry in 2021**.

Why convergence between MGNREGs & PMKSY?

- According to the Ministry's own calculations, convergence with the MGNREGS would enable the treatment of around 30% more land than is currently possible given the size of the system.
- **More than 50% of the land area** in Jharkhand, Rajasthan, Delhi, Gujarat, and Goa is being degraded or **becoming desertified, compared to less than 10%** in Kerala, Assam, Mizoram, Haryana, Bihar, Uttar Pradesh, Punjab, and Arunachal Pradesh.
- The secretary of the departments of rural development and land resources recently issued joint advice urging the chief secretaries of the states to make sure the two programs complement one another.
- The latter includes treatments for ridge areas, drainage lines, soil and moisture conservation, rainfall gathering, nursery raising, afforestation, horticulture, and pasture development.
- The MGNREGS monies, which are allocated for both material and wage components, are currently being requested by the Union government from the States to be used for these operations.
- Following a pledge made during the **UN Convention to Combat Desertification (COP14)**, the government increased its objective for restoring degraded land from 21 million hectares to 26 million hectares by 2030 in 2019.
- The government is far from achieving this goal nearly three years later.

Effects of Desertification

- **Decline in floral and fauna:** Desertification may entail a short-term or long-term reduction in the soil quality, vegetation, water resources, or of the soil, vegetation, water resources, or

wildlife. Due to India's desertification, three animal species have vanished the Indian Cheetah, the Pink-Headed Duck, and the Great Indian Bustard.

- **Water scarcity:** It also covers the decline of the land's economic productivity, such as the capability of farming the land for profit or survival. A new generation of "water scarcity" emerging with women and girls spending up to 40% of their caloric intake transporting water in arid regions.
- **Loss of fertility:** Another type of degradation is a decline in soil fertility. This may happen due to the soil losing organic matter or nutrients like nitrogen, phosphorus, and potassium.
- Food insecurity due to crop failure or reduced yields.
- **Reduced precipitation:** The soil moisture due to prolonged droughts is reduced. More heat is available to heat the ground which in turn heats the lower layers of the atmosphere which in turn reduces temperature differences between the layers of the atmosphere. This can result in fewer rainstorms and drier land since it warms the lower atmosphere.
- Land degradation will worsen as a result of weather **extremes brought on by climate change, such as droughts and excessive floods**.
- This in turn makes the issues of poverty, forced migration, and, in some places, conflicts worse.
- The desert is expanding, especially in the gap area, due to forest degradation in the northern and central Aravalli tracts and intensifying dust storms leading to desertification.

What Steps Need To Be Taken To Prevent Desertification?

- Encourage **coordinated land-use planning**, including the control of livestock, water resources, and agricultural operations.
- By **erecting barriers and stabilizing dunes, maintain vegetation cover**, which is essential in preventing soil erosion from wind and water.
- **Promote education about climate change to increase awareness**, particularly by highlighting the effects of desertification and how to stop it.
- Put an emphasis on **sustainable farming methods like cover crops** or crop rotation, which **reduce soil erosion and drought**.
- **Reforestation should** be committed to in order to restore vegetation cover, moisture circulation, and biodiversity.
- **Encourage rotational grazing** by coexisting with crops that enable more effective nitrogen cycling. Rotational grazing reduces pressure on a specific area while others regrow.

MGNREGA

The objectives of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) as mentioned below:

- It provides 100 days of guaranteed wage employment to rural unskilled labor
- The main aim of the NREGA scheme is to provide a source of livelihood for the economically weaker section of the society.
- It helps to grow economic security
- It takes initiative to decrease the number of migration of labor from rural to urban areas
- MGNREGA scheme helps proactively the weaker section of society.
- The scheme will strengthen the Panchayati Raj across India.

Important features of the scheme

- Under this scheme almost all the control is given to the Gram Panchayats for managing public works, strengthening Panchayati Raj Institutions.
- Gram Sabhas can accept or reject recommendations from Intermediate and District Panchayats.
- The scheme provides operational guidelines and ensures compliance and transparency at all levels.
- The programs under this scheme are demand-driven and provide legal provisions are taken for appeal in the case, if work is not provided or payments are delayed.
- The fund for this scheme is given by the central government which bears the full cost of unskilled labor and 75% of the cost of the working material is undertaken by this law.
- The central and state governments are responsible for the audit of the works undertaken under this act through annual reports prepared by CEGC (Central Employment Guarantee Council) and the SEGC (State Employment Guarantee Councils).
- These reports need to be presented by the incumbent government for the legislature.

FOOD DAY AS A REMINDER TO 'LEAVE NO ONE BEHIND'**Priority:** Medium**Primary Source:** The Hindu**Prepp Prelims Booster:** FAO, WFP**Context:**

- According to the **Food and Agriculture Organization (FAO)** of the United Nations and **World Food Programme (WFP)** report Hunger Hotspots Outlook (2022-23), over 205 million people in 45 countries will require emergency food assistance to survive.
- Global food and nutrition security is still being jeopardised by the COVID-19 pandemic, climate change, spiralling food inflation, conflict, and inequality.
- Today, approximately 828 million people worldwide do not have enough to eat, with over 50 million facing severe hunger.

About FAO

- The Food and Agriculture Organization (FAO) is a United Nations specialised agency that leads international efforts to end hunger.
- The Food and Agriculture Organization (FAO) was founded in 1945 and is headquartered in Rome, Italy.
- It was founded with the intention of providing food security for all and ensuring that people have access to high-quality food in sufficient quantities to live a healthy lifestyle.
- The FAO publishes a number of major 'State of the World' reports on food, agriculture, forestry, fisheries, and natural resources each year.

World Food Day

- **World Food Day** is an international day celebrated every year on **October 16th** to commemorate the date of the United Nations Food and Agriculture Organization's founding in 1945.

- This year's World Food Day has served as a reminder to ensure that our communities' most vulnerable members have easy access to safe and nutritious food.
- There can be no peace or prosperity unless everyone has access to adequate food and nutrition.
- Only collective and transformative action to strengthen agri-food systems, better production, better nutrition, a better environment, and a better life will allow us to meet our promise to end hunger by 2030.

Improved Production

- Adequate food production is critical to achieving the goal of zero hunger. India has had an inspiring journey toward increased production and self-sufficiency, and it is now one of the world's largest agricultural product exporters.
- Total agricultural exports in 2021-22 were \$49.6 billion, a 20% increase from 2020-21.
- However, recent climate shocks have raised concerns about India's wheat and rice production in the coming year. Given climate shocks and extreme weather events, it is critical to place a greater emphasis on climate adaptation and resilience building.
- Agriculture and allied products, marine products, plantations, and textile and allied products are the primary exports of India's agriculture sector. Rice, sugar, and spices were among the most important exports.
- India also provides humanitarian food aid, most notably to Afghanistan, as well as to many other countries when the world faces food supply shortages and disruptions, such as the current Ukrainian crisis.
- India's population is expected to reach 1.5 billion by 2030. Agri-food systems will need to provide for and sustain an expanding population. There is a growing awareness of the need to shift away from conventional input-intensive agriculture and toward more inclusive, effective, and sustainable agri-food systems that will enable better production.

Government Initiatives to improve production

- The Government of India has launched several initiatives to improve production, including the **Paramparagat Krishi Vikas Yojana**, which promotes organic farming; the **Pradhan Mantri Krishi Sinchayee Yojana**, which focuses on more crops per drop for better water use; and Soil Health Management, which promotes Integrated Nutrient Management as part of the National Mission for Sustainable Agriculture.
- The Government of India promotes programmes such as the **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)**, the **Pradhan Mantri Poshan Shakti Nirman Yojana (PM POSHAN Scheme)**, and take-home rations to improve food access, particularly for vulnerable populations.
- Since 1948, the FAO has played a catalytic role in India's progress in crops, livestock, fisheries, food security, and natural resource management by promoting sustainable practises.

Improved Nutrition

- This year's World Food Day serves as a reminder to 'Leave No One Behind,' and it is an opportunity, perhaps the most urgent in recent history, for nations to strengthen food security nets, provide essential nutrition to millions, and promote livelihood for vulnerable communities.

- One of India's most significant contributions to food equity is the National Food Security Act (NFSA) 2013, which anchors the **Targeted Public Distribution System (TPDS)**, the **PM POSHAN scheme (formerly known as the Mid-Day Meals scheme)**, and the **Integrated Child Development Services (ICDS)**. Today, India's food safety nets reach over a billion people.
- The World Food Programme collaborates with state and national governments to strengthen these systems so that they are more efficient and reach the people who need them the most. The government continues to improve these programmes through digitisation and initiatives such as rice fortification, improved health, and sanitation.
- Public procurement and buffer stock policies are linked to food safety nets and inclusion. This was evident during the global food crisis of 2008-12, as well as more recently during the COVID-19 pandemic fallout, when vulnerable and marginalised families in India were buffered by the TPDS, which became a lifeline with a robust stock of food grains.
 - For example, the PMGKAY scheme, which was implemented in 2020, provided relief from COVID-19-induced economic hardships to 800 million NFSA beneficiaries.
 - According to an IMF paper titled 'Pandemic, Poverty, and Inequality: Evidence from India,' 'extreme poverty was maintained below 1% in 2020 due to PMGKAY.'

Improved Environment

- Climate change has an impact on nutrition and agricultural production, but they are also linked to environmental sustainability. The degradation of soil caused by excessive chemical use, inefficient water use, and declining nutritional value of food products require immediate attention.
- Millets, which fell out of favour a few decades ago, have resurfaced as crops that are beneficial to nutrition, health, and the environment.
- Millets are drought-resistant crops that thrive in areas with little rain and infertile soil.
 - They are more resistant to climate change than other cereals, require less water to cultivate (up to 70% less than rice), and require less energy to process (around 40% less than wheat).
 - They are less extractive for the soil and can restore soil health because they require fewer inputs.
 - Furthermore, their genetic diversity ensures the preservation of agrobiodiversity.

Millet Conservation in India

- India has led the global discussion on reviving millet production for better lives, nutrition, and the environment, including at the United Nations General Assembly, where it requested that 2023 be designated as the International Year of Millets. It is the world's leading millet producer, accounting for approximately 41% of total production in 2020.
- The national government is implementing a Sub-Mission on Nutri-Cereals (Millets) as part of the National Food Security Mission to increase the area, production, and productivity of millets.
- State-level missions in Odisha, Madhya Pradesh, and Andhra Pradesh demonstrate India's determination to resurrect these

indigenous crops because they represent an opportunity to provide food and nutrition security to millions while also protecting the environment.

- Millet conservation and promotion help to address food security, improved nutrition, and sustainable agriculture, all of which align with the agenda of the Sustainable Development Goals. Millet cultivation has been shown to increase biodiversity and yields for smallholder farmers, including rural women.
- **Growing millets, for example**, resulted in a nearly tenfold increase in income from \$1,800 per month in 2013-14 to \$16,277 in 2020-21, with better food security because millet crops were not impacted by excessive rainfall, according to the **International Fund for Agricultural Development's (IFAD)** Tejaswini programme with the Government of Madhya Pradesh. Women were critical in villages adopting millets because they demonstrated that millets were easier to grow and resulted in better outcomes.

Improved Life

It is clear that the way to a better life lies in:

- transform food systems,
- making them more resilient and sustainable with a focus on equity,
- also by promoting the protection of common goods;
- improve food and nutrition security and social safety nets,
- also by providing uninterrupted income support;
- promote the production and consumption of nutritious indigenous foods such as millet,
- investing in consumer awareness;
- invest in making the global and regional supply chain solid and reactive by improving transparency in the agricultural system through systems that promote labeling, traceability, etc;
- increase collaboration to leverage solutions and innovations.

Way Forward

- India must continue to set a good example by not leaving anyone behind.
- India's upcoming G20 presidency provides an opportunity to place food and nutrition security at the heart of a resilient and equitable future, while also sharing its journey with the rest of the world.
- The IFAD's work on millets with various State governments exemplifies how getting markets right to incentivize investment and fairly compensate producers can contribute to more inclusive and equitable food systems.
- India could promote millet and agricultural biodiversity through various multilateral fora, including the G20.
- According to an FAO study on millets in India, strengthening value chains is important for improving nutritional benefits and increasing farmer income.
- India can lead the global discourse on food and nutrition security by showcasing homegrown solutions and best practises, as well as championing the principle of leaving no one behind — working constantly to make its food system more equitable, empowering, and inclusive.

WTO WARNS 'DARKENED' TRADE OUTLOOK COULD DETERIORATE FURTHER

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: WTO

Context:

- The World Trade Organization forecast a slowdown of global trade growth in 2023 as sharply higher energy and food prices and rising interest rates curb import demand, and also warned of a possible contraction if the war in Ukraine worsens.



World Trade Organization

- It is the **only international organization that deals with the rules of trade between countries**.
- It was founded in 1995, WTO has 164 members, and according to its rules, all decisions are taken through consensus and any member can exercise a veto.
- Its objective is to **advance free trade, which is accomplished through trade pacts that the member states negotiate and ratify**.
- The WTO offers a venue for nations to discuss trade regulations and resolve business disagreements.
- The **Ministerial Conference is the WTO's top decision-making body and usually meets every two years**.
- All members of the WTO are involved in the MC and they can take decisions on all matters covered under any multilateral trade agreements.

Highlights

- The Geneva-based trade organisation predicted that this year's increase in the volume of products shipped between nations will be 3.5%, up from the 3% that the WTO had predicted in its initial prediction for the year in April.
- In contrast to the prior forecast of 3.4% growth, it is predicted that such trade volumes will only increase by 1% in 2023.
- According to WTO, the risks for next year are unquestionably negative.
- This year, better data that arrived in the middle of the year helped forecasts become clearer.
- Additionally, trade volumes from Middle Eastern oil and gas producing nations increased as consuming nations turned away from Russian supplies and looked other alternatives, according to WTO economists.

Factors affecting trade

The WTO listed a variety of factors affecting trade, such as:

- Russia-Ukraine crisis:** Rising energy costs as a result of Russia's conflict in Ukraine, which led a number of nations, notably members of the European Union who are major users of Russian oil and gas, to impose economic sanctions on Moscow.
- Monetary tightening:** Growth is being hampered by monetary tightening in many parts of the world, including the US.
- Efforts by the US Federal Reserve and other central banks to curb inflation by raising interest rates are likely to have an adverse impact on crucial spending in sectors like housing, auto sales, and bond prices.
- Energy costs:** Energy costs are out of reach for individuals and businesses across Europe.
- Covid out-breaks in china:** Additionally, COVID-19 outbreaks in China continue to disrupt business as usual. Exports from China, the global manufacturing leader, are likely to be hampered by declining demand and the ongoing effects of the coronavirus pandemic.
- Food insecurity and debt hardship** pose substantial hazards, particularly for low-income developing countries.

Way Forward

- However, the trade group noted that recent data from purchasing managers, on the prices of finished goods, and an index of raw costs suggested that inflationary pressures may have peaked, a factor that could affect central bankers' decision-making in the months to come.
- Global production of products and services needed to be more diversified and less concentrated, which should enhance growth, increase resilience, and long-term price stability by reducing exposure to local and extreme weather occurrences.

ISRO TO BOOST NAVIC, WIDEN USER BASE OF LOCATION SYSTEM

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Navic

Context:

- Recently, The **Indian Space Research Organisation (ISRO)** is working on a series of developments in order to increase the number of individuals who install and utilize NavIC, India's version of the **Global Positioning System (GPS)**.
- The new satellites being built for NavIC would have better features for the safety of signals for different uses, particularly the strategic sector.

What is NaVIC?

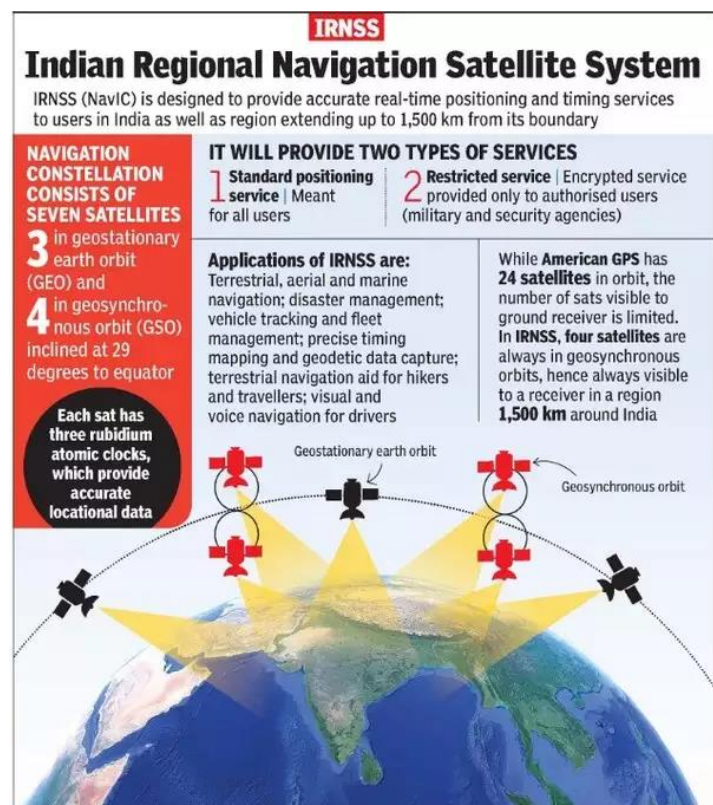
- Similar to the American GPS, the European Galileo, and the Russian GLONASS, the Indian Regional Navigation Satellite System (IRNSS), also known as NavIC (Navigation with Indian Constellation), **is a constellation of seven satellites that can be used to track the location**.
- These satellites were first launched (IRNSS-1A) in 2013 and the latest in 2018.

Uses

- Navigation, disaster management, fleet management and vehicle tracking, integration with mobile devices, precise timing, mapping, and geodetic data collection, among other things.

Need

- Self-reliance:** Defense departments of the individual countries run the GPS and GLONASS systems. The prospect for **civilian service may be restricted or rejected**. For example, GPS was switched off for civilian subscribers during US military operations in Iraq.
- In terms of delivering position service inside the service territory, NavIC is an independent regional system that covers the Indian region.
- The Indian government has full authority over it.
- Tracking disasters:** tracking and delivering information about natural disasters,
- Providing emergency warning alerts to fishermen traveling into the deep sea where there is no terrestrial network connectivity, **tracking public vehicles in India**.



Challenges

- Although it can be used throughout **mainland India and a 1,500 km radius** around it, it isn't widely used regularly in India, mainly because **mobile phones haven't been made compatible to handle its signals**.
- The Indian government has been pressuring manufacturers to add compatibility, giving them until January 2023 to do so. However, media reports indicate that this is unlikely to happen until 2025.
- It's currently compatible with L5 and S bands. However, to improve its acceptance among the general public it should use L1.

- The addition of the **L1 band to NavIC is a significant upcoming change**. The majority of civilian navigation uses this bandwidth, which is a component of the GPS.
- At the moment, NAVIC only offers shortcodes. In order to prevent signal breaches, spoofing, or non-availability, the shortcode must now be converted to a long code for use in strategic sectors.
- NavIC system was **not in a 'full-fledged operational regime'** as some of its seven satellites have **failed**.

Way forward

- More satellites would need to be launched into orbits closer to earth than those currently used by the constellation for NavIC in order to make it truly "global" like GPS.
- MEO satellites need to be deployed to eventually make this a global issue.
- NavIC satellites currently orbit the planet in a geostationary or geosynchronous (GEO) orbit, which is around 36,000 kilometers away.
- MEO orbits lie between GEO and Low Earth Orbit (LEO), or between 250 and 2,000 kilometers from the planet.

66 CHILDREN DEATHS IN GAMBIA, WHO FLAGS 4 SYRUPS MADE BY HARYANA-BASED FIRM AS UNSAFE

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: WHO

Context:

- After the deaths of 66 children in Gambia, the World Health Organization has issued a warning about four Indian cough syrups.
- According to WHO, using these medicines may result in death, and the organization is conducting investigations with their manufacturer, Maiden Pharmaceuticals in Haryana, as well as Indian regulatory authorities.

About WHO

- The World Health Organization (WHO) is a United Nations specialised agency in charge of international public health.
- The WHO Constitution states that its main goal is "the attainment of the highest possible level of health by all peoples."
- It is headquartered in Geneva, Switzerland, and has six regional offices as well as 150 field offices around the world.
- The WHO was founded on April 7, 1948. On July 24, that year, the World Health Assembly (WHA), the agency's governing body, held its first meeting.

Alert about the Syrup

- The World Health Organization (WHO) has issued a warning about four fever, cold, and cough syrups manufactured by an Indian company, advising people not to use them.
- Maiden Pharmaceuticals, based in Haryana, manufactures all four syrups: **Promethazine Oral Solution, Kofexmalin Baby Cough Syrup, Makoff Baby Cough Syrup, and Magrip N Cold Syrup**.

- "Laboratory analysis of samples from each of the four products confirms that contaminants such as diethylene glycol and ethylene glycol are present in unacceptable amounts."
- These four products have so far been identified in Gambia, but they may have been distributed to other countries or regions via informal markets."



Investigation Made

- **The Central Drugs Standard Control Organisation (CDSCO)**, India's apex drug regulatory authority, has already launched an investigation into the matter after being informed about it on September 29.
- Haryana's state regulatory authority confirmed that the company manufactured and exported the syrups to Gambia. So far, the company has only sold the product to Gambia.
- According to sources, four of the WHO's 23 samples were contaminated with **diethylene glycol or ethylene glycol**.
- However, the intra-government agency has not provided India with details on the causal relationship with the death - or documents proving that the syrups were the cause of the deaths.

Effects of the Syrup

- Toxic effects of diethylene glycol and ethylene glycol include abdominal pain, vomiting, diarrhoea, inability to pass urine, headache, altered mental state, and acute kidney injury, which can lead to death.
- "The substandard products mentioned in this alert are dangerous and their use, particularly in children, may result in serious injury or death," according to the WHO alert.
- It also stated that countries should increase supply chain surveillance in order to detect and remove substandard products. It was also important to call for the monitoring of informal or unregulated markets.

Similar case in India

- In India, 17 children died in Jammu and Kashmir after consuming another brand of cough syrup contaminated with the same diethylene glycol in 2020.
- In another case, at least three children died in New Delhi last year after ingesting a cough syrup containing dextromethorphan, one of the ingredients in one of the four syrups identified by WHO.

NON-TRADITIONAL LIVELIHOODS SKILLING OF GIRLS INCLUDED IN BETI PADHAO SCHEME

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: BBBP

Context:

- Recently, on October 11, the International Day of the Girl Child, the Ministry of Women and Child Development (MWCD), the Ministry of Skill Development and Entrepreneurship (MSDE), and the Ministry of Minority Affairs organized "**Betiyan Banein Kushal**," an inter-ministerial conference on non-traditional livelihoods (NTLs) for adolescent girls.
- Through this programme, girls will receive skill training in non-traditional occupations, making them torchbearers of **aatmanirbhar Bharat** (self-reliant India).

Highlights

- The Central Government announced the inclusion of skilling girls in **non-traditional livelihood (NTL) alternatives in its flagship programme**, expanding the scope of the "**Beti Bachao Beti Padhao**" initiative.
- The programme will now emphasise getting **more girls enrolled in secondary school**, especially in **STEM (Science, Technology, Engineering, and Mathematics) fields**.
- Historically, women have been underrepresented in fields like technology.
- The program's new objectives include assuring a **1% increase in secondary enrollment each year**, skilling girls and women,
- promoting the abolition of child marriages,
- Raising awareness of safe menstrual hygiene, and more.
- **These are the new components that have been added to BBBP.**
- At the event, a document detailing how to carry out the project in districts was also released.
- It features a **streamlined BBBP activity calendar** to help the districts carry out the programme consistently and broadly throughout the year.



What is Beti Bachao, Beti Padhao Scheme?

- The Beti Bachao Beti Padhao (BBBP) Scheme, introduced by the Prime Minister on January 22, 2015 in Panipat, Haryana, with the objective of bringing behavioural change in the society towards birth and rights of a girl child.
- The Beti Bachao, Beti Padhao Scheme is being implemented by the states with 100% central support to address the declining child sex ratio and associated challenges of girl empowerment.
- The **Women and Child Development Ministry serve as the nodal ministry** in this tri-ministerial program.
- Ministry of Health and Family Welfare and the Ministry of education (Department of School Education and Literacy) are the other two ministries.

Impact of BBBP Scheme

- **Sex ratio progress at birth:** At the national level, promising gains in the Sex Ratio at Birth (SRB) have been noted. According to HMIS statistics from MoH&FW, SRB increased by 16 points from 918 (2014–15) to 934 (2019–20).
- **Health:** From 87% in 2014–15 to 94% in 2019–20, the percentage of institutional deliveries has showed an improving trend (As per HMIS, MoH&FW).
- **Gross Enrollment in Education:** According to UDISE data, the proportion of girls enrolled in secondary schools increased from 77.45 (2014–15) to 81.32 (provisional estimates for 2018–19).
- As of 2018–19, 95.1% of schools have functioning separate restrooms for girls, an increase from 92.1% in 2014–15. (2018–19 provisional figure, as per UDISE-data)
- **Attitudinal change:** The BBBP programme has successfully drawn attention to significant issues such as female infanticide, **the lack of education among girls, and the denial of their rights throughout the life cycle.**
- The programme has successfully interacted with the community to challenge **long-standing biases against girls and create creative ways to honour them.**

Objectives of Beti Bachao Beti Padhao (BBBP)

- The purpose of the Beti Bachao Beti Padhao (BBBP) Scheme is to promote gender equality, where girls would receive a proper education and will have the same possibilities as boys.

The significant objectives of the scheme are:

- To prevent biased nature of society towards girl child
- To protect the lives of the girl children and give them a bright and safe future
- To assure proper education and facilities to be provided to the girl child for their development
- To bring forward the girls in every sector
- To empower women

Way forward

- Over the past six years, through focussed advocacy BBBP has been able to capture the attention of political leadership and national consciousness towards valuing the girl child.
- Now, it is time to focus on other verticals like health and education by making ample financial provisions to help achieve measurable outcomes.

International Day of the Girl Child

- On December 19, 2011, the UN General Assembly passed resolution 66/170, designating October 11 as International Day of the Girl Child.
- The day is devoted to promoting girls' rights and highlighting the unique challenges that girls confront around the world.
- The International Day of the Girl Child's subject or theme for 2022 is "Our time is now—our rights, our future."

GEOGRAPHICAL INDICATION TAG SOUGHT FOR NIHONSHU, AN ALCOHOLIC BEVERAGE FROM JAPAN

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: GI

Context:

- The Embassy of Japan, New Delhi, has filed an application seeking a Geographical Indication (GI) tag for nihonshu/Japanese sake, an alcoholic beverage.
- It will be the first time, a product from Japan has filed for a tag at the Geographical Indication Registry.

What is Nihonshu?

- Nihonshu is regarded as a special and valuable beverage made from fermenting rice. Nihonshu is typically consumed on special occasions like holidays, weddings, and funerals, although it is consumed daily.
- As a result, it is integral to Japanese culture and lifestyle.
- The sake market (almost all are nihonshu) is the second largest brewed liquor (such as beer) market in Japan.
- The production of nihonshu follows an **alcoholic fermentation** technique known as **multiple parallel fermentation**.
- It involves raw material treatment, koji making, starter culture-making, mash making, pressing, heat sterilization, and bottling.
- **The rice and koji used should originate in Japan.**



Historical background

- Before a monetary economy was established in the Meiji period, the economy of Japan was built on rice, which was utilised as a kind of quasi-money (1869-1912). As a result, the government had complete control over nihonshu production.
- In the Edo period (1603–1868), as nihonshu production became increasingly industrialized, companies with special licenses started hiring a lot of farmers during the agricultural off-season.

- They developed a reputation as skilled workers throughout time, which led to the creation of the guild- or apprenticeship-like hierarchical Toii system (Toii is the person in charge of sake brewing).
- The Toii is in charge of all employees and has complete control over how nihonshu is made at breweries.
- The Toii also contribute significantly to the education of young apprentices by sharing their knowledge and skills with them.
- The methods for producing nihonshu are still being passed down through this system today.

What is GI Tag?

- It is an indication originating from a definite geographical territory. It is used to identify agricultural, natural, or manufactured goods
- The manufactured goods should be processed or produced or prepared in that territory.
- It should have a special quality or reputation or other characteristics.
- A geographical indication may be registered for a maximum of ten years. It can be renewed from time to time for further period of 10 years each.

Examples

- Kanchipuram silk saree, Nagpur orange, Kolhapuri chappal, Bikaneri bhujia, Agra petha, Darjeeling tea etc..

Benefits

- Geographical indications are given **legal protection in India**.
- prevents anyone from using a Registered Geographic Indication without **prevents anyone from using a Registered Geographic Indication** without permission.
- It **increases exports**.
- It encourages the **economic success** of those who manufacture items inside a specific geographic area.

MBBS COURSE IN HINDI KICKS OFF IN M.P WITH RELEASE OF TEXTBOOKS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Education

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Context:

- Recently, Union Home Minister Amit Shah released textbooks in Hindi for three subjects for MBBS students, as part of the Madhya Pradesh government's ambitious project to provide medical education in Hindi.
- Madhya Pradesh has become the country's first state to offer the MBBS programme in Hindi.
- The initiative was characterized as a "renaissance and reconstruction" of India's education sector.

News Summary

- The textbooks for medical biochemistry, anatomy, and physiology were published in Hindi.
- It was begun to prioritise languages through the **National Education Policy (NEP)**.

- It was stated that after medical school, other engineering and technical education would be taught in Hindi as well.
- Arrangements had been made for students to write the JEE and NEET, engineering and medical entrance examinations, respectively, as well as UGC exams in 12 languages and the Common University Admission Test in 13.
- The event was earlier called a historic moment. It was claimed that those who had been educated in Hindi-medium before entering medical school but struggled with English had dropped out or committed suicide.
- It was stated that in due course, Hindi would be taught in IITs and IIMs, and that the institutions would have a separate merit list for those studying in Hindi.
- Madhya Pradesh Medical Education Minister Vishvas Sarang told a gathering of doctors and medical students that while translating books on biochemistry, physiology, and anatomy, all technical aspects and future challenges of the students were considered.

Addition of new chapters

- The new edition of Medical Biochemistry includes new chapters on Sodium, Potassium, Water Homeostasis, Biochemistry Techniques, Radiation, Radioisotopes, and Environmental Pollutants and Toxins.
- In addition, several new line diagrams, tables, and text boxes have been added to enhance information retention.
- Similarly, new surface anatomy chapters have been added in both the abdomen and lower limb sections of the Anatomy edition.
- To improve knowledge retention, new line diagrams, CT and MRI diagram tables, and flow charts are added.

Course in Hindi

- The MBBS course in Hindi was launched as part of the National Education Policy, and it will soon be expanded to other languages.
- Students in the country will no longer feel inferior because they do not speak English, and they will be able to study in their native language with pride.
- There were previously 387 medical colleges in the country, with a total of 51,000 seats. The country now has 596 medical colleges and an additional 89,000 seats.
- Previously, the country had 16 Indian Institutes of Technology, which has now increased to 23, the number of Indian Institutes of Management (IIMs) has increased from 13 to 20, the number of universities has increased from 723 to 1,043 and the number of Indian Institutes of Information Technology (IIIT) has increased from nine to 25.
- Students from rural areas who have been unable to pursue medical education due to a lack of English knowledge will not be left behind and will be able to pursue the MBBS course in Hindi.

Education in India

Constitutional Provisions:

- Part IV of the Indian Constitution, Article 45, and Article 39 (f) of the Directive Principles of State Policy (DPSP) provide for state-funded, equitable, and accessible education.

- The 42nd Amendment to the Constitution, ratified in 1976, moved education from the State to the Concurrent List.
- Article 21-A of the Constitution was amended in 2002 (86th amendment), making education an enforceable right.

WORLD'S FIRST CNG TERMINAL AT BHAVNAGAR

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: CNG terminal

Prepp Mains Booster: Infrastructure: Energy, Ports, Roads, Airports, Railways etc; Investment Models

Context:

- On September 29, Prime Minister Narendra Modi laid the foundation stone for the **"world's first CNG (Compressed Natural Gas) terminal" at Bhavnagar in Gujarat**. This project is expected to infuse Rs 4,000 crore in developing the port infrastructure at Bhavnagar.
- The terminal expected to be operational by 2026.
- The Bhavnagar project will be developed through a public-private partnership.

Background

- A group from London's Foresight Group, Mumbai's Padmanabh Mafatlal Group, and Rotterdam's Boskalis signed a Memorandum of Understanding (MoU) with Gujarat Maritime Board (GMB) for the development of the CNG terminal in January 2019 as the project's initial proposal for the Vibrant Gujarat conference.
- Then, in 2019, a project proposal for the construction of auxiliary infrastructure and a CNG terminal on the north side of the Bhavnagar port was presented.
- In September 2020, the GMB issued a Letter of Intent (LoI) on behalf of the consortium's special purpose vehicle, Bhavnagar Port Infrastructure Pvt Ltd.

About the terminal

- The CNG Terminal project has a cargo handling capacity of 1.5 million metric tonnes per annum (MTPA).
- Public-private partnership: The Gujarat Maritime Board (GMB) will support the project as it would be developed using a public-private partnership (PPP) approach by a consortium of the Mumbai-based Padmanabhan Mafatlal Group and the UK's Foresight Group.
- Lock gate system: The CNG Terminal will have the fourth largest lock gate system in the world in addition to an ultra-modern container terminal, a multipurpose terminal, a Ro-Ro terminal, and a liquid terminal.
- Because of the higher tidal range of about 10 metres, Bhavnagar Creek has historically attracted a lot of silt-like sediment. This lock gate system has been designed to ensure that very little sediment enters the port basin during high tide, significantly reducing the cost of dredging within the port.
- The future brown field project will also have direct door-step connectivity to the existing roadway and railway network connecting to the largest industrial zones, the Dedicated Freight Corridor, and the northern hinterland of India.

Why is the Bhavnagar port important?

- The Dholera Special Investment Region (SIR) is close by, and the Bhavnagar port is anticipated to serve the businesses that have established bases there.
- A railway line that runs to the port's current berths already connects it to the northern hinterland.

Impact of CNG terminal

- The project will provide several career opportunities in warehousing, transportation, and logistics for youth in Bhavnagar and the surrounding area.

Other projects

- The CNG terminal will be accompanied by additional facilities.
- Although the CNG terminal will be a part of the current Bhavnagar port, the private consortium will also build additional facilities like an ultra-modern container terminal, multipurpose terminal (LPG and Chemical),
- a Ro-Ro (roll-on/roll-off) terminal for cargo ships that can load and unload wheeled objects like trolleys and cars, and a liquid cargo terminal.

What is CNG?

- CNG is compressed to a pressure of 200 to 250 kg/cm². In this compressed form, it occupies less than 1 percent of its volume at atmospheric pressure.
- CNG differs from Liquefied Petroleum Gas (LPG) in its constituents.
- CNG is gaseous, consisting of about 80 to 90 percent methane, whereas LPG is a liquid, consisting of a compressed mixture of propane and butane in liquid form.



Benefits of CNG Fuel

- **Green Fuel:** CNG lowers hazardous pollutants and is sometimes referred to as the "green fuel" because it is lead and sulphur free. Because it is non-corrosive, spark plug lifespan is increased. The combustion of CNG produces less carbon monoxide, hydrocarbons and oxides of nitrogen.
- **Safe Fuel:** Due to its characteristics, CNG is a secure fuel. Since it is lighter than air, in the event of a leak, it simply rises to the surface, disperses into the environment, and equally mixes with the surrounding air.
- **High temperature for auto ignition:** Since CNG has a high auto-ignition temperature (540 degrees centigrade) and a restricted range of flammability (5%–15%), it is less prone to spontaneously ignite on heated surfaces. In other words, it won't burn if the air's CNG concentration is either below 5% or above 15%.

GSLV MK III TO MAKE COMMERCIAL FORAY BY LAUNCHING 36 ONEWEB SATELLITES ON OCT 23

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: GSLV MK III

Context:

On October 23, at 7 am, India's biggest satellite launch vehicle, the GSLV MkIII of the Indian Space Research Organization (ISRO) is scheduled to launch 36 satellites of the OneWeb communication constellation from Sriharikota, Andhra Pradesh, India's sole space launch station. With this, the GSLV MkIII will then enter the global market for commercial satellite launch services.

What is in the news?

- According to information from the ISRO, the "LVM3 - M2/OneWeb India-1 Mission" launch is slated on October 23, 2022, at 00:07 IST.
- OneWeb, Network Access Associated Limited of the United Kingdom purchased the launch payload of GSLV mk III through New Space India Limited.

Significance:

- This is the first time a commercial launch has been conducted using India's largest rocket - GSLV Mk III.
- Additionally, this will be the first time a rocket other than Polar Satellite Launch Vehicle (PSLV), India's workhorse, is being used to conduct a commercial launch.
- This will be the GSLV Mk III's second launch since carrying India's second lunar mission, Chandrayaan-2, after it entered the ISRO fleet after completing two development flights.
 - With fourteen launches so far, including the development flights, the other heavier launch vehicle, the GSLV, has a mixed success record.
 - Only eight of the missions, however, were a total success. None of these missions were carried out for profit.



ISRO and Commercial Satellite Launch Service:

- In the recent past ISRO has emerged as a favourite candidate for the commercial satellite launch services in domestic as well as in international market.
- The expertise of ISRO to launch a satellite at low cost and reliability of ISRO workhorse PSLV in launching satellites in the orbit has made the ISRO a market favourite in the commercial satellite launch industry.

- The PSLV has carried out at least eight commercial-only launches since its initial operational flight.
- With the launch of at least 345 foreign satellites from 36 different nations, the vehicle has made a name for itself on the international stage.
- Its most significant flight was the 2017 PSLV-C37 mission, which placed 104 satellites in orbit (of which 101 were foreign commercial satellites).

GSLV Mk III:

- Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk III) is the largest launch vehicle developed by India, which is currently in operation.
- This three-stage launch vehicle of the fourth generation has four liquid strap-ons.
- The third stage of the GSLV Mk III is the Indigenously developed, built and flight-tested cryogenic Upper Stage (CUS).

Features:

- Ability to lift and park satellite of 4.3 tons to GTO
- 10 tons of payload capacity for LEO missions
- Effective from a financial standpoint
- enhanced operability, dependability, and redundancy control
- Future payload expansion possibility with modest design adjustments
- To assist the Indian Space Program's manned missions, such as the Gaganyaan mission

Operational History:

- In 2017, the GSLV-Mk III-D1, the first developmental flight of the GSLV Mk III, successfully launched the GSAT-19 satellite into a geosynchronous transfer orbit (GTO).
- In 2018, GSAT-29, a high throughput communication satellite, was launched in GSLV MkIII-D2, the second developmental flight.
- 2019, India's second lunar mission, Chandrayaan-2, was successfully launched into Earth parking orbit in 2019 by GSLV MkIII-M1.

Geosynchronous Satellite Launch Vehicle (GSLV):

- The ISRO designed, developed, and operates this space launch vehicle to put satellites and other spacecraft into geosynchronous transfer orbits (GTO).
- GSLV has the ability to launch a bigger payload into orbit than the Polar Satellite Launch Vehicle (up to 5,000 kg up to 37,000 km)
 - PSLV can carry up to 2000 kg into space up to 600-900 km.
- While GSLV is intended to launch communication satellites, PSLV is primarily intended to transport earth observation or remote sensing satellites.
- GSLV delivers satellites into a higher elliptical orbit - GTO.
- GSLV is a 3-stage launcher with strap-on motors.
 - The first stage - uses the solid rocket motor with four liquid engine strap-on motors. This stage generates maximum thrust.
 - The second stage uses a liquid rocket engine which is known as Vikas engine.
 - The third stage uses a Cryogenic engine, which uses liquefied oxygen and hydrogen as fuel.
- GSLV-D5 - launched in 2014 - was the first successful flight of the GSLV using the indigenous cryogenic engine (CE-7.5).

New Space India Limited (NSIL):

- It is the new commercial arm of ISRO.
- It is a completely Public Sector Undertaking of Government of India .
- The Department of Space(DOS) has administrative control over it.
- Aim: The primary goal of NSIL is to increase industry involvement in Indian space programs.
- Capital: NSIL is given a 100 crore rupee authorized share capital as well as a 10 crore rupee initial paid-up capital.

Roles and Responsibility:

- Owning satellites for use in communications and earth observation, as well as offering space-based services
- Building and deploying satellites in response to demand
- Performing launch services for a customer's satellite
- Building launch vehicles using Indian industry, and launching them in accordance with satellite customer demand
- Commercial space-based services for communication and Earth observation satellites
- Constructing satellites using Indian industry technology

ISRO'S NEXT-GEN LAUNCH VEHICLE MAY ASSUME PSLV'S ROLE

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: PSLV

Context:

- Recently, at 'Engineers Conclave 2022' at the Liquid Propulsion Systems Centre (LPSC) at Valiyamala, the Indian Space Research Organisation (ISRO) chairman said that ISRO is developing a rocket named Next Generation Launch Vehicle (NGLV) to replace its replace operational system like the Polar Satellite Launch Vehicle (PSLV) that was developed in the 1980s.



Features

- The National Geostationary Launch Vehicle (NGLV) is an economical, three-stage orbit, a reusable heavy-lift vehicle with a ten-ton payload capacity for geostationary transfer orbit (GTO).

- NGLV will use more efficient semi-cryogenic propulsion for the booster stages, using liquid oxygen (LOX) as the oxidizer and refined kerosene as the fuel.

About PSLV

- The Polar Satellite Launch Vehicle (PSLV) is India's third-generation launch vehicle.
- **It is the country's first launch vehicle with liquid stages.**
- The PSLV has **four stages using solid and liquid propulsion systems** alternately.
- The PSLV gained a reputation as India's go-to launch vehicle after its debut successful launch in October 1994.
- The vehicle has been used to launch numerous customer satellites from India and other countries.
- It has successfully launched two spacecraft "**Chandrayaan-1 in 2008 and Mars Orbiter Spacecraft in 2013**" that later traveled to Moon and Mars respectively.
- PSLV repeatedly placed various satellites into low-Earth orbit, especially the IRS Series of satellites, earning it the nickname "the workhorse of ISRO."
- PSLV has also been utilized to launch a variety of satellites into geosynchronous and geostationary orbits because of its unparalleled dependability, including satellites from the **IRNSS Constellation**.
- Multi-payload **adaptors are utilized in the payload fairing** because the PSLV is **able to launch numerous payloads into orbit**.
- The vehicle's payload performance and mission flexibility are evident from the challenging missions where multi-orbit and multi-satellite missions are accomplished.
- The PSLV's reputation as a dependable, adaptable, and reasonably priced launcher in the international market has been strengthened by its lengthy history of consecutive successes and ability to launch several satellites.

ISRO LAUNCHES 36 ONEWEB SATELLITES PRECISELY, COMPLETES MISSION OF MANY FIRSTS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: ISRO, Awareness in the field of Space

Context:

- On 23-10-22, ISRO's heaviest launch vehicle 'Launch Vehicle Mark III (LVM3)' successfully injected 36 satellites of the OneWeb broadband constellation into precise orbits.
- It is the first multi-satellite mission with 36 OneWeb Satellites to the LEO as the heaviest Payload mass of 5,796 kg. of LVM3 till date.
- With this LVM3 has **entered the market for international commercial launch services**.

What are Salient features of the Mission?

Mission of many firsts

- First LVM3 launch to **low-Earth orbit (LEO)**
- First **LVM3 commercial mission**
- First **multi-satellite flight with 36 OneWeb satellites on board**

- First Indian rocket with **six tonnes of payload**
- First OneWeb Mission with NSIL/DoS
- First NSIL Mission with LVM3
- India also entered the market for heavier launch vehicles with it.

LVM3-M2

- The LVM3-M2 dedicated commercial satellite mission is being carried out by **NewSpace India Limited (NSIL), a Central Public Sector Enterprise (CPSE) that is part of the Department of Space.**
- The LVM3 rocket has a capacity to carry up to 8 ton to low earth orbit. The PSLV is substantially lighter and has a payload capacity of 1.4 to 1.75 tonnes.
- The newest rocket is capable of launching 4,000 kilogram class of satellites into GTO and 8,000 kgs of payloads into LEO.
- It is a three-stage launch vehicle consisting of two solid propellant S200 strap-ons on its sides and core stage comprising L110 liquid stage and C25 cryogenic stage

NewSpace India Limited (NSIL)

- The "NewSpace India Limited (NSIL) was created in March 2019 as a wholly-owned Government entity under the administrative authority of **Department of Space (DOS)** in order to commercially exploit the products and services arising from the Indian Space Program.

One Web

- OneWeb is a global communications network powered by a constellation of 648 low Earth orbit (LEO) satellites.
- Headquartered in London, OneWeb enables high-speed, low latency connectivity for governments, businesses, and communities everywhere around the world.
- OneWeb is a joint venture between the British government and Bharti Enterprises of India.

LIGHT COMBAT HELICOPTER INDUCTED INTO AIR FORCE

Priority: Medium



Primary Source: Hindu, Indian Express

Prepp Prelims Booster: LCH

Context:

- Recently, the first batch of indigenously developed multi-role Light Combat Helicopters (LCH), Prachand, was inducted into the Indian Air Force's 143 Helicopter Unit at the Jodhpur Air Force Station.
- The helicopters can conduct counter-insurgency operations and can destroy enemy air defense, making them appropriate for use in high-altitude battle zones.
- India is becoming the seventh nation to produce its own assault helicopters as a result.

About the Light Combat Helicopter

- The light combat helicopter is a dedicated combat helicopter designed and developed indigenously in India, manufactured by Hindustan Aeronautics Limited (HAL).
- The light combat helicopter is the only combat helicopter in the world that can land and take off at an altitude of 5,000 meters (16400 ft) with a considerable load of weapons and fuel, meeting the unique requirements of the Indian Armed Forces.

- The helicopter's radar signal is reduced through the use of radar-absorbing material, and its construction and landing gear are substantially more crash-proof.
- The helicopter has a mechanism for deploying countermeasures that shields it from hostile radars and infrared missile seekers.
- Among the weaponry systems included are air-to-air missile systems, 70 mm rockets, and a 20 mm turret cannon.
- LCH is powered by two French-origin Shakti engines manufactured by the HAL.
- The LCH can carry out combat operations such as crippling an opponent's air defence, engaging in counterinsurgency warfare, combat search and rescue, and carrying out anti-tank and anti-surface force operations thanks to these features.
- The helicopter can be used to support ground forces, conduct high-altitude bunker-busting operations, and conduct counterinsurgency operations in jungles and urban areas.
- The helicopter can also be used to take out enemy remotely piloted aircraft (RPAs) and stationary aircraft.



Significance

- High altitude combat: The induction of the chopper comes at a time India and China are locked in a military stand-off in certain friction points in eastern Ladakh. It is the only combat helicopter in the world that can land and take off at an altitude of 5,000 meters (16400 ft).
- Exporter of arms: For export to nations like Malaysia, Thailand, Vietnam, Angola, Egypt, Indonesia, Ecuador, and Nigeria, the HAL already has a certificate from the Ministry of Defense stating that there are no objections.
- Atmanirbhar Bharat Abhiyaan: Atmanirbhar Bharat Abhiyaan is anticipated to receive more traction as a result of LCH's introduction to the Indian Air Force.
- The government is promoting domestic defence equipment design, development, and production through the Atmanirbhar Bharat Abhiyaan in order to decrease imports.

Background

- During the 1999 Kargil war, the need was first felt for a homegrown lightweight assault helicopter that could hold precision strikes in all Indian battlefield scenarios.
- This called for a craft that could function in combat situations ranging from full-scale battles to counterinsurgency operations in extremely hot deserts and extremely cold high altitudes.
- The Chetak and Cheetah helicopters, produced in India by HAL, are in use in the sub-3 tonne category and are French-made legacy aircraft.

- The majority of these single-engine vehicles were utility helicopters.
- The Lancer, an armoured Cheetah, is also used by Indian troops.
- Additionally, the Mi-17, which has a maximum takeoff weight of 13 tonnes, and its derivatives Mi-17 IV and Mi-17 V5 are currently operated by the Indian Air Force but will be phased out starting in 2028.
- But a more manoeuvrable, multi-purpose attack helicopter was needed. The LCH project was approved by the government in October 2006 after early discussion, and HAL was given the duty of developing it.
- The project was started by the Rotary Wing Research and Development Center of HAL, which had previously developed on the Advanced Light Helicopter (ALH) Dhruva and its weaponized variant, the ALH Rudra.
- For the IAF model and the Army variant, the initial operational clearance occurred in 2017 and 2019, respectively. In August 2020, the MoD added LCH to the items under import embargo. The LCH was symbolically transferred to the Indian Air Force by Prime Minister Narendra Modi in November 2021, opening the route for its final induction.
- The Cabinet Committee on Security (CCS) approved the purchase of 15 LCH Limited Series Production (LSP) aircraft in March of this year for a total cost of Rs 3,887 crore. This purchase also included infrastructure sanctions of Rs 377 crore.

Way Ahead

- According to HAL, there is a projected requirement of 160 LCHs — 65 for IAF and 95 for the Indian Army.
- In order to build the remaining 145 LCHs in eight years from the signing of the Series Production order, HAL has stated that it has created a precise masterplan for achieving the peak rate production capacity of 30 helicopters per year.
- On September 29 in Bangalore, the LCH was formally inducted into the Army, and on September 30 in Jodhpur, into the Indian Air Force.

NASA SPACECRAFT CRASHES INTO ASTEROID

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: DART

Context:

- Recently, NASA's DART spacecraft successfully smashed into an asteroid- Dimorphos, destroying itself in the process.
- The success of the impact will be determined by studying the changes to the orbit of Dimorphos around another asteroid known as Didymos.
- Before the collision, Dimorphos took roughly 11 hours and 55 minutes to circle its 780m-wide partner- Didymos. This ought to reduce by a few minutes following the crash
- Telescopes on Earth will make precise measurements of the two-rock, or binary, system. It will take a couple of months to determine how much the asteroid's path was changed.

About DART Mission

- It is a NASA space mission aimed at testing a method of planetary defence against near-Earth objects.
- It is designed to assess the potential of a spacecraft impact to deflect an asteroid, through a transference of momentum. It is a suicide mission and the spacecraft will be completely destroyed.
- It was launched in November 2021 on a SpaceX Falcon 9 rocket from Vandenberg Space Force Base in California.
- It is a technology demonstration of the kinetic impactor technique that could be used to mitigate the threat of an asteroid hitting Earth.
- It is a joint project between NASA and the Johns Hopkins Applied Physics Laboratory (APL).
- **Kinetic impactor technique:** It is the impulsive deflection of the asteroid through the sudden addition of momentum. In simpler terms, DART will collide with an asteroid to change its orbital period.
- **Target of the DART spacecraft:** It is a small moonlet called Dimorphos (Greek for "two forms").
- It orbits a larger asteroid named Didymos (Greek for "twin"). This asteroid selected for the DART Mission poses no actual threat to Earth.



Configuration of DART Spacecraft

- **Weight:** It weighed about 610 kgs during launch and 550 kgs during the impact
- **Structure:** Its main structure is a box with dimension $1.2 \times 1.3 \times 1.3$ metres. It has two solar arrays. It uses hydrazine propellant for manoeuvring.

Payloads

- **DRACO:** It is fitted with a high-resolution imager called Didymos Reconnaissance and Asteroid Camera for Optical Navigation (DRACO) that gives precise images and information to the scientists to study the impact of the collision on the trajectory of the asteroid.
- **LICIACube:** It is a small satellite (CubeSat) named LICIACube (Light Italian CubeSat for Imaging of Asteroids). It will capture images of the impact and the impact crater formed as a result of the collision.
- It was released and deployed two weeks before the impact. It hovered 50 kilometres from the asteroid, and successfully captured the plume of the debris ejected by the collision after impact.

- **NEXT-C:** It is NASA's new thrusters called NASA Evolutionary Xenon Thruster–Commercial (NEXT-C) in space. It will be demonstrated using 10 kg of xenon.
- NEXT-C gridded ion thruster system will provide a combination of performance and spacecraft integration capabilities that make it uniquely suited for deep space robotic missions.

Planetary Defence Coordination Office (PDCO)

- It was established by NASA to manage its ongoing mission of planetary defence. DART is its first planetary defence test mission.
- It is mandated to provide early detection of potentially hazardous objects, track and characterise the objects, study strategies and technologies for mitigating possible impacts.
- It will play a leading role in United States (US) government response planning for an actual impact.

THE RACE TO PROVIDE EXHAUSTIVE SATELLITE BROADBAND SERVICES IN INDIA

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Satellite Broadband

Context:

- Last week, Hughes Communications India (HCI) announced the commercial launch of India's first HTS broadband service to deliver high-speed broadband across the country, including to the most remote areas beyond the reach of terrestrial networks.
- In comparison to traditional communication satellites, HTS offers greater throughput. When a satellite has a higher throughput, it can process and transfer more data while using the same amount of orbital spectrum as traditional satellites.
- Companies like Jio, OneWeb, Hughes, and Tata-backed Nelco are gearing up to offer these services, escalating the competition for providing satellite broadband access in India.

What is a Satellite Broadband Service?

- Broadband essentially means a wide bandwidth, high-capacity data transmission technique, using a broad range of frequencies.
- In the case of a satellite broadband service, broadband services are delivered directly via satellites instead of optical fibre or mobile networks.

How Is It Different From Existing Broadband Services?

- The primary distinction between satellite broadband services and the more widely used terrestrial ways of providing broadband services is that the satellite is where all of the data created and transmitted by users of the internet is aggregated.
- Contrarily, aggregation takes place on the ground, in the base stations, in cellular networks, a very popular method used to deliver broadband services in India.
- This holds true for all other terrestrial broadband delivery methods, including cable, optical fibre, and others.

- Another significant distinction is that, just like TV services, accessing satellite services requires the use of a dish antenna, so a typical mobile phone cannot directly access satellite broadband.
- For a user to access satellite broadband a clear line of sight to the satellite is needed.
- In a few remote areas of India, VSAT providers already provide satellite broadband services at a very limited capacity. Only a few applications, such as crisis management, defence, research sites, etc., can use satellite systems for broadband services.
- The main barrier is the significant latency of these systems, making real-time transmission challenging.



Significance of Satellite Broadband

- The emergence of LEO (low-earth orbit constellations), which promises to offer truly global coverage and lower latency service, and HTS (High Throughput Satellites Service), which offers unprecedented capacity and flexibility, are the two most significant developments in the global satellite communication space.
- **Connectivity to remotest corners:** The satellite broadband services can connect the most remote parts of the country which are otherwise difficult to connect through fibres.
- **Reduce the digital divide:** Satellite broadband services can contribute to meeting the market's need for flexible, high-reliability connectivity in the most remote areas of the nation.
- The digital divide in India may be bridged by the expansion of satellite broadband communication services.
- For instance, as part of BharatNet, Hughes India collaborated with Bharat Broadband Nigam Limited (BBNL) and Telecommunications Consultants India Ltd. (TCIL) to offer high-speed satellite connectivity to 5,000 distant gramme panchayats.
- These panchayats are situated in northeastern States, such as Manipur, Meghalaya, Tripura, Mizoram, Arunachal, and the Galwan Valley in Eastern Ladakh, which are devoid of fiber-optic or cable connectivity.

Need For Satellite Broadband Services

- Although India's satellite broadband market is still in its infancy, the Digital India initiative, which aims to link all unconnected areas, is driving up connection and Internet demand.
- Nevertheless, according to several reports, despite India's impending 5G service rollout, infrastructure issues including inadequate tower fiberization raise concerns about 5G's ability to serve areas of the nation that have not yet even had access to 4G.

- In this regard the satellite broadband services in India can play a significant role.

Challenges

- **Poor Internet speeds:** According to Resilio, a technological business, satellite data transfer offers extremely poor Internet speeds and constrained satellite bandwidth due to the lengths the signals must travel and all the potential barriers along the way. The surroundings, the length of the message, and the status and availability of the satellite network can all affect how long it takes to connect.
- While the same message takes 15 seconds to send in ideal circumstances with a clear view of the sky and horizon, it may take longer if the user is situated behind trees with light or medium foliage.
- If users are positioned in areas with dense vegetation or are surrounded by other impediments, they may not be able to connect to a satellite at all, Apple said in a blog post earlier this month.
- In locations above 62° latitude, such as northern Canada and Alaska, the Emergency SOS via satellite may not function.
- **Satellite Internet latency:** Furthermore, satellite Internet latency can be a serious issue. Even if the delay is only a few milliseconds, it can have a significant impact on real-time applications like video conferencing.
- **Weather:** Resilio claims that, in contrast to terrestrial communications, even slight variations in the weather can have a significant impact on the speed and latency of satellite data.
- Due to the complexity of satellite networks, satellite Internet service companies like Hughes frequently base their prices on throughput. According to the corporation, the cost of the service is increased by this and the complicated equipment needed to use satellite dishes.

Way Forward

- A significant portion of the GDP growth might be contributed by the SatCom (direct and indirect sectors) with the correct policy interventions, potentially unleashing a wave of innovation, R&D, employment, investment, and connectivity.
- However, deregulation and privatisation must be urgently reviewed.
- The majority of these value chain building elements have been privatised by advanced spacefaring countries.
- Building systems are required to support the development of the sector and build a robust ecosystem that will lead to the emergence of a "Space 2.0" in India.
- The space industry has a huge opportunity to emulate the IT industry's success, where a structured operating system offers options developed by the government for greater private sector participation.
- With a competent regulator and arbitrator, the industry will develop into a behemoth that generates income and jobs.

What is BharatNet Project?

- It is the national government's flagship plan to connect all 2.5 lakh gramme panchayats in the country to the Internet via the National Optical Fibre Network.
- It is the largest rural broadband connection initiative in the

world.

- It is being deployed by Bharat Broadband Network Ltd. (BBNL), which is overseen by the Ministry of Communications' Department of Telecommunication.
- The Universal Service Obligation Fund is funding the project (USOF).
- The USOF was established to improve telecom services in the country's rural and remote locations.
- It was recently included in the Viability Gap Funding Program, which aims to enable the private sector to play a larger role.
- Viability Gap Funding (VGF) is a type of capital subsidy designed to encourage more private investors to invest.
- The government pays a specific proportion of the total capital cost to make the project economically feasible.

GIRAFFES BROUGHT TO INDIA 150 YEARS AGO FROM AFRICA MAY BE A CRITICALLY ENDANGERED SPECIES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Conservation, Biodiversity.

Context:

- According to a recent genealogical study of the largest captive herd in India at the Alipore Zoological Garden in Kolkata.
- The study has confirmed that the individuals in this facility, at least, are most likely "**critically endangered**" **Nubian giraffes** (*Giraffa camelopardalis camelopardalis*) or the **endangered Rothschild giraffe** (*Giraffa camelopardalis rothschildi*).



About the study

- Around 150 years ago, British colonialists brought herds of the northern giraffe, which they believed to be a single species, from their other African colonies to India.
- These currently make up a captive population of 29 northern giraffes spread out around the nation.
- A 2021 whole genome sequencing analysis concluded that the Nubian giraffes are one of three subspecies of the northern giraffe.
- The giraffes in Alipore were most closely linked to **Nubian and Rothschild giraffes**, according to a genetic distance analysis.
- The existence of a distinct subspecies of Nubian and Rothschild giraffes is still up for debate among scientists.

- The "stud-books" kept in zoos all over India had little to **no information on where the giraffes brought to India** from Africa had been captured, so the only way to identify the species would be through a mitochondrial gene study, according to Sulekha J. Backer, research scholar and one of the lead authors of the paper titled "Captive giraffes in Alipore Zoological Garden, Kolkata are Nubian!"

Nubian giraffe (*Giraffa camelopardalis camelopardalis*)

- The Nubian giraffe is the nominate subspecies of giraffe.
- **Habitat:** Ethiopia, Kenya, Uganda, South Sudan and Sudan.
- It is currently extinct in the wild of the Democratic Republic of Congo, Egypt and Eritrea.
- The Nubian giraffe used to be widespread everywhere on Northeast Africa.
- **IUCN status :** Critically Endangered.

Rothschild's giraffe (*Giraffa camelopardalis rothschildi*)

- It is a subspecies of the Northern giraffe.
- **Habitat:** In Uganda and Kenya, open woodlands, grasslands, and savannahs are home to small populations of Rothschild's giraffes.
- From South Sudan and the northern Democratic Republic of the Congo, they might be regionally extinct.
- **IUCN Status :** Endangered

IUCN

- IUCN (International Union for Conservation of Nature) was established on 5 **October 1948 in the French town of Fontainebleau.**
- As the **first global environmental union**, it brought together governments and civil society with a shared goal to protect nature.
- Its aim was to encourage international cooperation and provide scientific knowledge and tools to guide conservation.
- In 1964, IUCN established the **IUCN Red List of Threatened Species**, which has since evolved into the world's most comprehensive data source on global extinction risk.
- The IUCN Red List Categories and Criteria are designed to be a simple and universally recognised system for categorising species at high risk of extinction on a worldwide scale. It classifies species into nine groups: **Extinct in the Wild, Extinct, Not Evaluated, Data Deficient, Near Threatened, Vulnerable, Endangered, Critically Endangered, and Least Concern.**
- IUCN was fundamental in creation of key international conventions including the **Ramsar Convention on Wetlands (1971), the World Heritage Convention (1972), the Convention on International Trade in Endangered Species (1974), and the Convention on Biological Diversity (1992).**
- **Members:** It includes **national and subnational governments and government agencies as well as non-governmental and indigenous peoples'** organisations from over 160 countries.

SHRINKING BIODIVERSITY: 69% DROP IN WILDLIFE POPULATIONS IN NEARLY 5 DECADES, SHOWS LIVING PLANET REPORT

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Bio diversity

Prepp Mains Booster: Environmental Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

Context:

According to the most recent Living Planet Report 2022, published by the World Wildlife Fund (WWF) on Thursday, monitored wildlife populations, including mammals, birds, amphibians, reptiles, and fish, have seen a decline in population by 69% between 1970 and 2018. India is no different, either.

What are the findings of the Living Planet Report 2022?

Global Scenario:

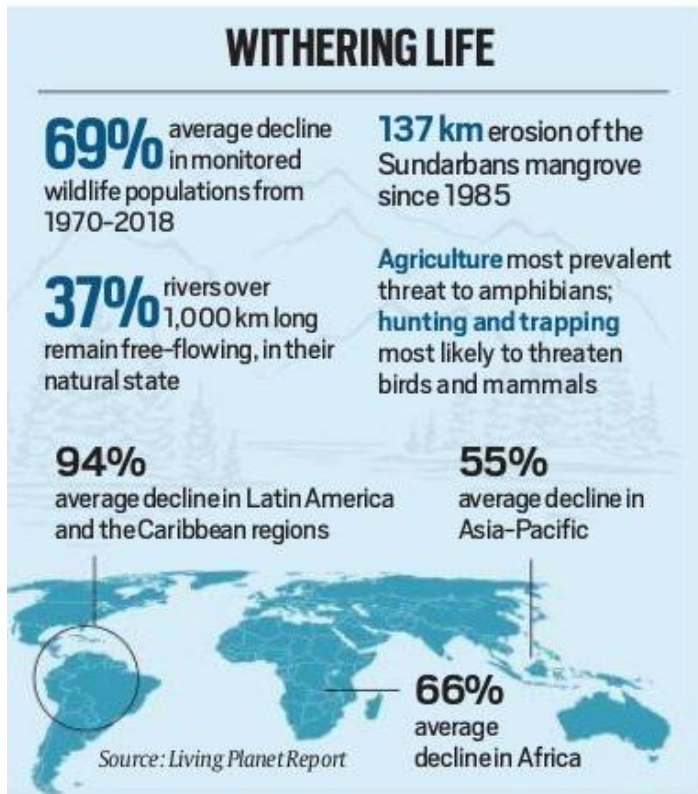
- The Report states that from 1968 to 2018, there had been an average 69% reduction in recorded wildlife populations.
- The report noted that between 1970 and 2018:
 - **Latin America and the Caribbean regions**, with an average decrease of 94%, have experienced the highest decline of monitored animal populations globally.
 - Africa saw a 66% decline in the same.
 - Asia Pacific saw a 55% decline.
- **New Species:** With 838 new species and little over 11,000 new populations, this year's report recorded 32,000 species populations of 5,230 species.
- **Fish:** The number of fish species that have been added to the Living Planet Report has significantly increased (481).
- **Freshwater populations** have decreased the most, according to the WWF, with an average reduction of 83% between 1970 and 2018.
- **Corals:** According to the IUCN Red List, amphibians are the species that are most in danger, followed by corals and an ancient group of seed plants called cycads.
 - A warming of 1.5 degrees Celsius will result in a loss of 70–90% of warm water corals, with about 50% already perished.
 - Following sea level rise, the little Australian rodent known as the Bramble Cay melomys was declared extinct.
- **Mangroves:** Despite their significance, mangroves are still being cleared for coastal development, aquaculture, and agriculture at a pace of 0.13% annually.
 - For instance, 137 km of the mangrove forest in the Sundarbans have been lost to erosion since 1985.
 - According to a study, there are still areas where mangroves are being lost, particularly in Myanmar.

Scenario in India:

- From 1970- 2018, the population of 17 different species of freshwater turtles as well as honeybees has decreased across the nation.
- In terms of biodiversity loss, the Himalayan region and the Western Ghats are some of the most vulnerable locations in the nation, according to the report. If temperatures rise, there will likely be an even greater loss of species in these areas.
- According to the report, initiatives like the recent cheetah translocation are beneficial for the preservation of species, and India has experienced success with initiatives like Project Tiger, or (projects for) the one-horned rhino and lions. The preservation of these species has a ripple effect on all other species that live in that habitat.

Reasons for the decrease in wildlife populations:

- As per report, the main causes of the decline in wildlife populations are pollution, disease, invasive species, habitat loss and degradation, exploitation, agriculture and climate change.
- The biggest threat to nature today is changes in land-use pattern, which has destroyed or fragmented the natural habitats of plant and animal species on land, in freshwater, and in the sea.
- Climate change, however, is projected to overtake other factors in the next decades as the primary cause of biodiversity loss if we are unable to keep warming to 1.5°C.



Living Planet Report:

- It is released by WWF every two years.
- It is a thorough investigation into trends in the state of the planet and global biodiversity.
- Through the Living Planet Index (LPI), the study provides a thorough picture of the state of the natural world.
- Living Planet Index (LPI): Based on the trends in the populations of vertebrate species in terrestrial, freshwater, and marine habitats, it is a gauge of the state of biological diversity around the planet.

World Wildlife Fund for Nature

- It is the largest conservation organization in the World and operates in more than 100 nations.
- Its headquarter is in Gland, Switzerland, where it was founded in 1961.
- **Aim:** Its goal is to protect the environment and lessen the most serious risks to the variety of life on Earth.
- **Objectives:**
 - preserving biological diversity worldwide
 - ensuring sustainable use of natural resources that can be replenished
 - encouraging a decrease in pollution and excessive consumerism

- WWF works in close partnership with people all over the world to create and implement creative solutions that safeguard local populations, wildlife, and the environments in which they reside.
- **Following Reports and Initiatives are taken by WWF:**
 - **Living Planet Report:** Since 1998, the WWF has released the Living Planet Report, which is based on the Living Planet Index and an assessment of ecological footprint.
 - **Earth Hour:** The event, which takes place every year on the final Saturday in March, calls on people, groups, and organizations to switch off all electric lights for one hour between 8:00 and 9:00 p.m. as a show of support for the environment.
 - **c(MSC):** Independent, non-profit Marine Stewardship Council sets a guideline for sustainable fishing
 - **Debt-for-nature swaps:** It is a financial arrangement in which a portion of the foreign debt owed by a developing country is cancelled in return for regional expenditures in environmental protection programs.

Life MISSION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: LiFE

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

Context:

- On 20/10/22, at the Statue of Unity in Ekta Nagar in Kevadia, Prime Minister Narendra Modi officially launched Mission LiFE (Lifestyle for Environment). Antonio Guterres, the secretary-general of the United Nations, also attended the ceremony.
- Mission LiFE seeks to change society's collective attitude toward sustainability by employing a **three-pronged strategy**.
- This involves encouraging people to take small-scale but impactful environmental measures in their daily lives (demand), enabling markets and industries to react quickly to shifting demand (supply), and influencing governmental and industrial policy to support both sustainable production and consumption (policy).

What is LiFE Mission?

Prime Minister Narendra Modi launched the Lifestyle for Environment (LiFE) campaign at COP26 in Glasgow in 2021.

- To conserve and maintain the environment, the PM had urged to lead LiFE as an international mass movement toward **"mindful and purposeful utilisation, instead of thoughtless and destructive consumption."**
- The mission aims to mitigate the effects of climate change by putting in place **major measures and initiatives** at both the individual and community levels.
- The vision of LiFE is to live a lifestyle that does not harm it but live in tune with it. And those who live such a lifestyle are called **"Pro-Planet People"**.
- This spirit is nurtured by LiFE through mindful choices, such as energy conservation at home, cycling and taking public transportation instead of driving, increasing plant-based foods and reducing waste, and utilizing our influence as clients and employees to demand climate-friendly choices.

- **Developed countries:** In order to promote climate adaptation and mitigation for those who are most impacted by it but are also least accountable, LIFE asks for increased commitments from rich countries.
- A person in a high income country has an average carbon footprint that is more than 80 times greater than a person in a least developed country.



Approach of LiFE Campaign

Focus on Individual Behaviours

- Make LiFE a Jan Andolan (mass movement) by focusing on the behaviours and attitudes of individuals and communities.

Co-create Globally

- Crowdsource scalable and empirical ideas from the world's finest thinkers through eminent institutions, global organisations, and think tanks.

Leverage Local Cultures

- Utilize climate-friendly social norms, beliefs, and daily household practices of different cultures worldwide to drive the campaign

India's leadership on climate action

- Panchamrit targets announced by Mr. Modi at COP26,
- the International Solar Alliance,
- the Coalition for Disaster Resilient Infrastructure and
- South-South cooperation platforms

Way forward

- By using "**nudges**," or **gentle persuasion strategies** to encourage positive behavior, **many of LIFE's objectives can be met.**
- The UN Environment Programme (UNEP) has proven nudge strategies, such as reducing food waste by providing smaller plates in cafeterias, encouraging recycling by making bin lids eye-catching, and promoting cycling by constructing bike lanes.
- The UNEP estimates that household consumption and lifestyles are responsible for more than two-thirds of greenhouse gas emissions, and that widespread adoption of more environmentally friendly consumption practises is the only way to achieve the urgent reductions in global emissions that are required.

SIX SPIDER SPECIES DISCOVERED ACROSS THE COUNTRY

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: CATE

Prepp Mains Booster: Biodiversity and Environment

Context:

- Arachnologists from Christ College's **Centre for Animal Taxonomy and Ecology (CATE)** in Irinjalakuda have discovered six new species of spiders from across the country.
- The new spider species were discovered in the Garo hills of Meghalaya, the Thar desert of Rajasthan, Wayanad Wildlife Sanctuary, Kottappara hills near Kothamangalam, Thumboormuzhi butterfly garden near Athirappilly, and the University of Calicut campus.

Study

- Studies conducted in the Garo hills of Meghalaya resulted in the first occurrence of the genus **Siamspinops** in India, as well as the discovery of a new species, *Siamspinops garoensis*.
- This spider belongs to the **Selenopidae** family of flat spiders. This spider lives in the crevices of rocks on hills, and its flat body is well suited to this lifestyle.
- The yellowish brown spider is about 10 mm long. A black circle surrounds its eyes, and there are black patches on its abdomen.
- Females lay eggs after mating and incubate them in an egg sac.

Species of Jumping Spiders

- Two new species of **jumping spiders (Salticidae)** were discovered in the Thar desert of Rajasthan and the Kurichiyad forest ranges of the Wayanad Wildlife Sanctuary.
- The Thar species, *Afraflacilla miajlarensis*, is distinguished by white fine hairs on a black head and black horizontal lines on the abdomen. This spider prefers to hide among dry leaf blades. The Wayanad species, *Afraflacilla kurichiadensis*, has red patches around the eyes and white hairs on the abdomen. This species is also distinguished by its bulged first pair of legs. This spider lives in the Kurichiyad moist deciduous forest.
- The next spider species lacks a venom gland and is a member of the **feather-legged spider family (Uloboridae)**. Because of the presence of a beak-like structure on the male reproductive organ, this new species has been named *Philoponella rostralis*. This spider spins a unique web beneath the leaves and can subdue prey with the help of woolly silk produced by their cribellum (additional silk producing organ in front of the spinnerets).

Species of Spiny-legged spiders

- Two new species of **spiny-legged spiders (Oxyopidae)** have been discovered in the Thumboormuzhi butterfly garden, near the Athirappilly waterfalls, and on the Calicut University campus.
- The former has a yellowish body and is known as *Oxyopes peetham*. The latter has been given the name *Oxyopes thumboormuzhiensis* in honour of the location where the spiders were discovered.
- Because of their lynx-like feeding behaviour, members of this family are commonly known as lynx spiders.

TAMIL NADU LAUNCHES MISSION TO SAVE CRITICALLY ENDANGERED VULTURES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Vultures

Prepp Mains Booster: Conservation; Biodiversity

Context:

- A State-level Committee has been established to set up an institutional framework for the effective conservation of vultures, which almost went extinct in the nation at the beginning of the 21st century.
- Concerned by the 96% reduction in the population of vultures in India between 1993 and 2003, the Central government established two action plans in 2006 and 2020–2025 to safeguard the species nationally.
- The creation of State-level committees to conserve the critically endangered vulture population is one of the crucial action objectives in this national plan.

Species of Vulture Found in Tamil Nadu

- The Oriental white-backed vulture, the long-billed vulture, the red-headed vulture, and the Egyptian vulture are the four vulture species found in Tamil Nadu.
- The first three are residents and can be found in the landscapes of the Nilgiris and Sathyamangalam. Only one location in Dharmapuri has Egyptian vulture breeding evidence.

Challenges

- Vulture fatalities were earlier reported after the species was exposed to the drug, when the birds consumed carcasses of animals treated with Diclofenac for ailments.
- other threats responsible for hitting Vultures include persecution, poisoning, electrocution, habitat loss and decline in food availability. The availability of food is a key factor determining vulture populations.

Steps taken by the government to protect Vultures

- The **Wild Life (Protection) Act of 1972** has moved the White-backed, Long-billed, and Slender-billed Vultures' protection status from **Schedule IV to Schedule I**.
- The **production of Diclofenac** for use on animals was **prohibited** by a Gazette Notification from the Ministry of Health on April 7, 2008.
- To conserve three vulture species, the State Governments have been advised to **establish vulture care facilities**.
- The Indian government created a **National Action Plan on Vulture Conservation in 2006**. The Action Plan outlines methods and measures for **ex-situ, in-situ vulture conservation to stop** the vulture population from declining.
- Through the Central Zoo Authority, captive breeding facilities have also been established at the zoos in Bhopal, Bhubaneswar, Junagadh, and Hyderabad.
- Additionally, the ministry has taken steps to **increase public education and awareness** of vulture protection.

Action plan (2020–25)

- The action plan (2020–25) with an estimated budget of Rs. 207 crore includes the establishment of five additional **Vulture Conservation Breeding Centers**, one in each of Uttar Pradesh, Tripura, Maharashtra, Karnataka, and Maharashtra,

- In addition to **disposing of dead animals in a scientific manner** to prevent vultures from coming into contact with the carcasses of animals that died during treatment.
- Additionally, it contains a plan for the **establishment of four rescue centres**, one each in Hyderabad in the south, Pinjore (Haryana) in the north, Bhopal in the center, and Guwahati in the northeast of India.
- In accordance with the 2020–25 strategy, the ministry will also work on a conservation breeding program for and assist states in establishing at least one ' ' in each state for the conservation of the remnant population.

Sr. No.	Name of the Vulture Species	IUCN status	Pictorial Representation
1.	Oriental White-backed Vulture (Gyps Bengalensis)	Critically Endangered	
2.	Slender-billed Vulture (Gyps Tenuirostris)	Critically Endangered	
3.	Long-billed Vulture (Gyps Indicus)	Critically Endangered	
4.	Egyptian Vulture (Neophron Percnapterus)	Endangered	
5.	Red-Headed Vulture (Sarcogyps Calvus)	Critically Endangered	
6.	Indian Griffon Vulture (Gyps Fulvus)	Least Concerned	
7.	Himalayan Griffon (Gyps Himalayensis)	Near Threatened	
8.	Cinereous Vulture (Aegypius Monachus)	Near Threatened	
9.	Bearded Vulture or Lammergeier (Gypaetus Barbatus)	Near Threatened	

Way Forward

- Vultures being specialized scavengers play a vital role in quickly disposing of carcasses that could harbor millions of pathogenic bacteria and fungi and cause severe implications for human and animal health.
- The presence of scavengers such as vultures also signifies a healthy ecosystem.

AHMEDABAD TO MUMBAI IN UNDER 6 HRS NOW: PM FLAGS OFF VANDE BHARAT TRAIN

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Vande Bharat Express

Prepp Mains Booster: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Context:

- On September 30, Prime Minister Narendra Modi flagged off Gandhinagar- Mumbai Vande Bharat Express at Gujarat's Gandhinagar station.
- This will be India's third Vande Bharat train, connecting the two state capitals of Gujarat and Maharashtra.
- The first two trains were launched in 2019 and are currently operating between New Delhi-Varanasi and New Delhi-Shri Mata Vaishnodevi Katra.
- By August 2023, Indian Coach Factory hopes to have produced 75 Vande Bharat trains.

What is Vande Bharat Train?

- There are 16 coaches each Vande Bharat trainset, and they can operate without an engine thanks to their self-propulsion.
- This is referred to as a distributed traction power system, which is quickly emerging as the norm for passenger operations all over the world.
- Distributed power trains have an advantage over loco-hauled trains in that they can accelerate and decelerate more quickly.
- Loco-hauled trains require much more time to reach their top speed or to gradually come to a halt.

Safety and characteristics of the Vande Bharat Express 2.0

- Vande Bharat Express 2.0 will offer passengers services and security features similar to those found in aircraft, such as Kavach technology, an in-house designed Train Collision Avoidance System.
- Additionally, the upgraded Vande Bharat Express is lighter, weighing 392 tonnes as opposed to 430 tonnes in the previous version.
- Additionally, the train features **improved floodproofing** for electrical equipment that is underslung, which can survive floods up to a height of 650 mm.



- The new Vande Bharat Express has several characteristics in addition to an **air purification system for purifying the air**.

- The new Vande Bharat Express is substantially more **eco-friendly because its air conditioning system will use 15% less energy**.
- This is the **first train with bio-vacuum toilets** that resemble aeroplanes and touch-free amenities.
- It also offers a dedicated restroom for passengers with special needs.
- To help the **visually impaired passengers, seat numbers are written in Braille on the handles of the seats**.
- It is largely indigenous and represents a significant development in the government's "Make in India" campaign. However, a few components for the train have been imported from other nations.
- In order to give passengers information and infotainment, the new train will also have a Wi-Fi content on-demand feature and a 32-inch screen in every coach.
- The seats in the executive class may rotate 180 degrees and are equipped with touch-free sliding doors inside coaches as well as automatic plug doors with sliding steps.
- Additionally, the coaches have emergency talk-back systems.
- Vande Bharat 2.0, which can race from 0 to 100 kilometres per hour in only 52 seconds and has a top speed of up to 180 kilometres per hour, is also equipped with a number of enhancements and new capabilities over its predecessors.
- The Vande Bharat Express 2.0 is expected to take approximately five and a half hours to go from Gandhinagar to Mumbai.

Benefits

- Business entrepreneurs from Gujarat would be able to travel to Mumbai and vice versa without having to pay the expensive cost of an aeroplane ticket while still taking advantage of the services offered by the air.
- The Vande Bharat Express 2.0 is expected to take approximately five and a half hours to go from Gandhinagar to Mumbai.

Concerns:

- The IRCTC has raised concerns about possible timing clashes with the already-running Mumbai-Ahmedabad Tejas Express.
- The two premium trains at the same time may defeat "the purpose of introduction of the Tejas Express" which is the Railways' premium corporate train.

Integral Coach Factory

- The Integral Coach Factory is one of the earliest production units of independent India.
- It was inaugurated by the first Prime Minister of India Pt. Jawaharlal Nehru on 2nd October, 1955.
- ICF has exported more than 750 coaches, shells and components to countries such as Thailand, Burma, Taiwan, Zambia, Philippines, Tanzania, Uganda, Vietnam, Nigeria, Bangladesh, Mozambique, Malaysia, Angola and Sri Lanka which also includes exports of shells and coach components.

PM MODI INAUGURATES 'ONE NATION, ONE FERTILIZER' SCHEME

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: One Nation One Fertilizer

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation; GS 3 - Issues related to direct and indirect farm subsidies

Context:

- Recently, during two-day PM Kisan Samman Sammelan 2022 event, PM Modi introduced the Pradhan Mantri Bharatiya Jan Urvarak Pariyojana, better known as "One Nation One Fertilizer."
- It requires businesses to promote all fertilizers that have received subsidies under the single brand "Bharat."



Other initiatives

- The prime minister unveiled **Indian Edge, an online publication about fertilizers**.
- The magazine will offer details on domestic and international fertilizer scenarios, including recent advancements, analyses of price trends, availability and consumption, and farmer success stories, among other things.
- PM Kisan Samruddhi Kendras (PM-KSK):** 600 PM Kisan Samruddhi Kendras (PM-KSK) were also opened. They would serve as a one-stop shop for farmers where they can buy products and take advantage of a variety of services linked to the agricultural industry.
- Additionally, the Center plans to gradually transform more than 3.3 lakh fertiliser retail stores nationwide into PM-KSKs (PM-Kisan Samruddhi Kendras).
- The PM-KSK will provide seeds, fertilizers, and farm equipment. Testing facilities for soil, seeds, and fertilizers also will be offered. Additionally, information on government initiatives will be shared.

About the Scheme

- Single brand:** All subsidized soil nutrients - urea, di-ammonium phosphate (DAP), Muriate of Potash (MoP), and NPK - will be marketed under the single brand Bharat across India.
- Standard bag design:** With the implementation of this program, India will have a uniform bag design for products like urea, DAP, MOP, NPK, and so forth.
- The justification is that there is no product differential between various brands for each type of fertilizer because fertilizers in a specific category must adhere to the nutrient-content requirements of the Fertilizer Control Order (FCO).

- For instance, DAP should include the same amount of nutrients regardless of which company produces it.

Benefits

- Awareness:** Farmers tend to be unaware of this issue and favor particular brands due to aggressive marketing tactics companies with robust merchant networks built over time.
- Reduced delays:** As a result of the increased freight subsidies required to be paid for the long-distance crisscross movement of fertilizers, it has been shown that such brand preferences have delayed fertilizer supply to farmers and added financial strain to the exchequer.
- Reduce freight cost:** The One Nation One Fertilizer scheme cut back on expensive freight subsidies.

Drawbacks

- It will **deter fertilizer manufacturers** from engaging in marketing and brand promotion activities.
- The main assets of every business are its **brands and long-standing farmer relationships**.
- They will now only serve as the government's **contracted importers and manufacturers**.
- At the moment, the corporation is held accountable for any bags or batches of fertilizer that don't adhere to the necessary criteria.
- However, that might now be **entirely transferred to the government**.

Way Forward

- Recent changes to the fertilizer industry, such as neem coating to stop urea from being diverted to industrial applications and gas pooling to increase production efficiency, are positive steps in the right direction.
- The second-highest fiscal subsidy after food, fertiliser amounts to a sizable 0.73 lakh crore or 0.5 percent of GDP.
- Many of these issues will be resolved by reforms to boost domestic availability through less restrictive imports ("decanalization") and to directly assist farmers utilizing JAM.

'INDIA FAST EMERGING AS WEB3 ECOSYSTEM'

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Web 3

Prepp Mains Booster: Achievements of India in science & technology

Context:

- According to recent study by Nasscom, India has a rapidly growing Web3 ecosystem, with over **450 active start-ups** in the space raising \$1.3 billion in funding.
- While the global response to Web3 was still shaping up, India's growing economy, demographic dividend, and exponential adoption of emerging technologies across sectors positioned the country to become one of the world's fastest growing Web3 markets.
- India has the right economic and demographic elements to become a high growth Web3 market.

What is Web3?

- Web 3.0 refers to the next generation of the internet, in which apps and websites will be able to handle data in an intelligent human-like manner by utilising technologies such as machine

learning (ML), Big Data, and decentralised ledger technology (DLT), among others.

- Web 3.0 was dubbed the Semantic Web by Tim Berners-Lee, the inventor of the World Wide Web, with the goal of creating a more autonomous, smart, and open internet. Web3 concepts differ, but they all revolve around the concept of decentralisation and frequently include blockchain technologies like cryptocurrencies and non-fungible tokens (NFTs).
- Data will be interconnected in a decentralised manner, which would be a significant improvement over our current internet generation (Web 2.0), where data is generally held in centralised repositories. Users and computers will be able to interact with data as well.
- However, in order for this to happen, programmes must be able to comprehend information both conceptually and culturally. With this in mind, the Semantic Web and Artificial Intelligence (AI) are the two cornerstones of Web 3.0.

Growth of Web3 Start-ups in India

- Indian Web3 start-ups have grown to a 450-plus community with four unicorns in the last two years. India registered more than 170 new Web3 start-ups between 2021-2022, representing a CAGR of more than 50% since 2015.
- More than 80% of these Web3 start-ups are located in Tier I cities. The tier II/III ecosystem, on the other hand, is rapidly expanding, with cities such as **Jaipur, Vadodara, Ahmedabad, Kolkata, Thiruvananthapuram, and Coimbatore** emerging as emerging hubs for Web3 start-ups.
- "With growing confidence and interest from global investors, investments in Indian Web3 and Web 2.5 start-ups have skyrocketed." The sector has seen robust funding across stages.
- The study, titled "The India Web3 Start-up Landscape, An Emerging Technology Leadership Frontier," aimed to promote a broader understanding of the diverse possibilities with Web3 and the landscape of Web3 start-ups in the country.
- Web3, a new iteration of the World Wide Web, has become a buzzword, incorporating concepts such as blockchain technologies, metaverse, and non-fungible tokens (NFTs).

Reasons why India is emerging as a centre for Web3 Development

- India's rapid adoption of new age technologies, its growing startup ecosystem, and the large-scale digitally skilled talent potential are all the right building blocks for India to emerge as a key player in the global web three landscape.
- India has the right economic and demographic elements to become a high growth Web3 market.
- A major share of Web3 developers are based in India. Initially, it used to be the US and UK but now India has a unique advantage.
- In the next 12 to 18 months, there is a rapid growth of Web3 developers in India.
- On the Web3 policy front, 'India is going to take over the G20 presidency soon'.
- India has a significant position in terms of shaping the Web3 and digital asset policy for the G20 collective.

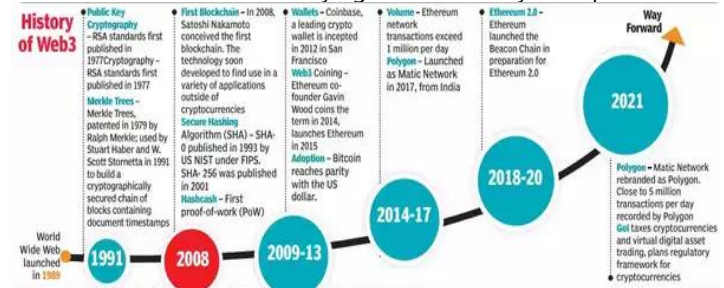
Challenges India must overcome

- India continues to be "critically hampered by onerous restrictions that are causing a talent and funding drain.

- Regulatory uncertainty and a high tax rate on gains from trading virtual digital assets are two of these barriers.

Principles of Web3

- **Web3 Decentralised:** Because of Web3's decentralisation, ownership of the internet is shared among its creators and users, rather than being primarily managed and owned by a few large, centralised organisations.
- **Web3 is permissionless:** There are no restrictions on who can engage in Web3 because everyone has equal access to it.
- **Web3 has native payments:** Web3 offers native payments, which do away with the antiquated infrastructure of banks and payment processors to allow users to transfer and receive money online using cryptocurrencies.
- **Web3 is trustless:** It operates through economic systems and incentives rather than relying on trustworthy third parties.



What are Cryptocurrencies?

- A cryptocurrency is a decentralized digital currency that does not rely on a bank or other central body to validate transactions.
- Because no single central authority has complete control over a cryptocurrency network, regulation and oversight are impossible to implement.
- Any cryptocurrency is built on top of a specially designed decentralised programme that employs blockchain technology to maintain a public ledger that each network node copies.
- This approach has the advantage of making the ledger tamper-resistant, making the entire system impervious to change.

ASI FINDS BUDDHIST CAVES, TEMPLES IN MADHYA PRADESH'S BANDHAVGARH TIGER RESERVE

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Buddhist caves

Context:

- Recently, the Archaeological Survey of India (ASI) reported 26 Buddhist caves in Madhya Pradesh's Bandhavgarh Tiger Reserve.
- The caves date back to the time between 2nd century BC and 5th century BC, and pertain to the Mahayana sect of Buddhism.
- The exploration was held in the region for the first time since 1938.

- The caves and some of their relics had stone beds and Chaitya [rounded] doorways typical of Mahayana Buddhist temples.
- With the addition of this cave, there are now 76 known caves in Bandhavgarh, up from 50 during the previous survey.



About findings

- The caves approximately date back to the same period as the Ajanta caves, Maharashtra.
- Along with the caves, reports have also been made of other **Mahayana sect** relics including chaitya-shaped doorways and cells with stone beds.
- The ASI crew discovered a piece of a **Buddhist pillar** from the second to third centuries AD carved with tiny stupas.
- It was told that a total of **24 Brahmi inscriptions** from the second to the fifth centuries AD had been discovered.
- In addition to 26 ancient temples and **Kalachuri era (9th-11th century AD)** remnants, the exploration project also discovered Gupta period artefacts like door jambs.
- The **Kalachuri dynasty**, which spread over parts of **Gujarat, Maharashtra and Madhya Pradesh**, is also associated with the earliest Ellora and Elephanta cave monuments.
- According to ASI officials, 46 statues and 19 waterbodies that were all constructed between the **second and the fifteenth century** have also been discovered.
- Officials **claim that the inscriptions contain references to locals including Kaushami, Mathura, Pavata (Parvata), Vjabharada, and Sapatanaairikaa**, as well as notable rulers from the time period like Shri Bhimsena, Maharaja Pothasiri, and Bhattadeva.
- Although all the reported remains were apparent to visitors in those particular areas of the reserve, according to ASI officials, the exploration is noteworthy because this is the **first time everything has been formally documented by the agency**.

Challenges

- The scope for **exploration is "very limited"**, given that it's in a **tiger reserve** under the state Forest Department's purview
- An MoU will have to be signed with the Forest Department if any conservation or restoration exercise is to be undertaken.
- **Metal signage cannot be put up for visitors**, as these may harm animals.

Mahayana Buddhism

- Mahayana Buddhism is the world's largest Buddhist sect, and its teachings and practices are what most non-adherents recognise as "Buddhism" today.
- It arose as a school of philosophy sometime after 383 BCE, possibly from the earlier Mahasanghika school.
- The fundamental scriptures and teachings of early Buddhism are accepted by Mahayana.
- Around 500 BC, Mahayana Buddhism flourished.
- Three Buddhist Councils were organized, according to history, to settle doctrinal conflicts among Buddhist leaders.
- Only the fourth, which was held in Kashmir, has historical evidence. Since then, Buddhism has been divided into two schools: Mahayana and Hinayana.
- A Mahayana Buddhist's objective may be to become a Bodhisattva, which is accomplished through the Six Perfections.
- Avalokiteshvara (bodhisattva of mercy and compassion), Maitreya (the future Buddha), and Manjushri (bodhisattva of wisdom) are among the most common bodhisattvas shown in sculpture and painting.
- These new elements seek a fresh perspective in Buddhism.
- As a result, the notion arose that a new Great Vehicle (Mahayana) had been discovered that would transport many people to salvation.
- Mahayana quickly gained popularity in many parts of India because it better suited the mood of the times and the requirements of many ordinary people than the lower Vehicle (Hinayana).
- The lesser Vehicle remained intact in Ceylon, and it quickly became the national religion in Thailand and other regions of South-East Asia.
- On the other hand, Mahayana (soon divided by multiple schisms) was taken to China and later to Japan by a series of Indian monks.
- Nalanda was a Mahayana Buddhist centre.
- Kanishka was a devotee of the Mahayana faith.
- Vajrayana is one of Mahayana's sub-sects.

Mahayana Scriptures

- The Mahayana scriptures are **written in Sanskrit as sutras**.
- Aside from the **Dhammapada**, a collection of 423 lines credited to Sakyamuni Buddha, the **Prajnaparamita**, composed by numerous Buddhist sages largely between c. 50 BCE and c. 600 CE, is the founding scripture of Mahayana Buddhism.
- It's a how-to guide for becoming a bodhisattva with a complete comprehension of Buddhist Dharma ("cosmic law"), unhindered by the ego's deliberate ignorance and pride.
- The verses in this work are intended to confuse rational cognition and linear reasoning in order to allow the mind to perceive the world from a different, higher perspective.
- Sutras, Sastras, and Tantras comprise the majority of the Mahayana canon. Sutras are the most authoritative and universally acknowledged religious texts.
- Sustras are significantly less widely acknowledged and are usually associated with a specific school of thought.
- They are frequently commentary attributed by name to a specific school of thought.

- Tantras are secret scriptures associated with esoteric Tantric sects that are only accessible to those who have been properly initiated.

Bandhavgarh Tiger Reserve

- Bandhavgarh National Park is situated in Madhya Pradesh's Umaria district. Bandhavgarh, a national park covering 105 square kilometres (41 sq mi), became a tiger reserve in 1993 after first being designated as a national park in 1968.
- Numerous types of deer and a sizable breeding population of leopards can be found in the park. In 1951, the Maharaja Martand Singh of Rewa caught the first white tiger in this area.
- Bandhavgarh is best known for Evergreen Sal forest and Mixed forest about 515 species of Plant are found there and is also home to 242 species of Birds and many species of Reptile and Insect are found there.
- The Major Mammals of Bandhavgarh is Tiger, Leopard, Wild dog, Wild cat, Hyena, Wolf, Chital, Sambar, Black Buck, Rojda etc are easily seen there.

62% OF RURAL HOUSES HAVE TAP WATER CONNECTIONS'

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: JJM

Context:

- According to a survey conducted by the Union Ministry of Water Resources to evaluate the performance of the government's flagship Jal Jeevan Mission, 62% of rural families in India have completely operational tap water connections in their homes.

Highlights of Survey

- **Only 8% of families received water once per week**, whereas nearly three-quarters had it every day.
- Households received water for three hours per day on average, and 80% said that the tap connections were providing them with enough water to meet their needs each day.
- Testing of the water quality in a few of the homes showed that 95% of them had pH levels that were within permissible ranges.
- Institutions at the village level, like schools and anganwadi centres, received potable water in more than 90% of cases.
- In more than half (57%) of the tested households, purification of the water before consumption was recorded.
- Only about 3% of the families said they purified their water before consuming it using reverse osmosis.

Challenges

- **Disparity among states:** More than 80% of homes in Tamil Nadu, Himachal Pradesh, Goa, and Puducherry reported having completely operational connections, compared to less than 50% in Rajasthan, Kerala, Manipur, Tripura, Maharashtra, Madhya Pradesh, Mizoram, and Sikkim.

- **Presence of Chlorine:** Even though it was stated that 93% of the water samples were free of bacterial contamination, "**most of the anganwadi centres and schools had higher than the allowed range of residual chlorine and indicated inadequate local dosing.**"
- The Water Resources Ministry claims that having access to a tap does not necessarily mean having access to regular potable water.
- The COVID-19 epidemic created delays as well as a lack of a reliable local source of water, especially in drought-prone areas, in addition to insufficient pipes and variable prices, conflicting demand from other water sources like irrigation, financial management, and online payment.

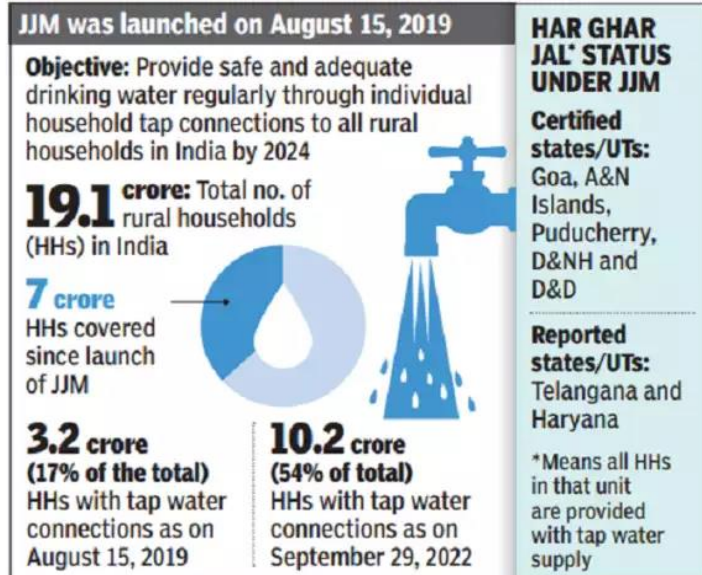
What is the Jal Jeevan Mission (JJM)?

- It is the Ministry of Jal Shakti's main program, with the goal of connecting every **rural family to tap water by 2024.**
- The Prime Minister made the announcement in 2019.
- It will take a **community-based approach to water**, with comprehensive information, education, and communication as a fundamental component of the goal.
- Source sustainability measures, such as recharge and reuse through greywater management, water conservation, and rainfall collecting, will be obligatory parts of the program.
- **Fund distribution under JJM is as follows:** 100% for Union Territories without legislature, 90:10 for North Eastern & Himalayan States and UTs with legislature, and 50% for the remaining States.
- Additionally, the budget distribution for Support and Water Quality Monitoring System (WQMS) operations is as follows: Union Territories receive 100% of the funds, Himalayan & North Eastern States receive 90%, and other States receive 60%.
- **Role of women:** By allocating 50% of the seats in village and water sanitation committees to women, the Jal Jeevan Mission is igniting change at the grassroots.
- They are urged to participate in all facets of the design, execution, administration, and management of village drinking-water delivery projects.
- Every community has at least five women who are responsible for monitoring the quality of the water, and many of them have received training to operate pumps, mechanics, and plumbers.
- These trailblazing women will undoubtedly have an impact on others who may fill traditionally male-dominated positions.

What are the components under JJM?

- **Infrastructure development** for in-village piped water delivery to ensure that every rural family has access to clean drinking water
- To ensure the long-term viability of the water supply system, it is necessary to develop reliable drinking water sources and/or supplement current sources.
- Where **water quality is a problem, technological treatments for removing pollutants.**
- Any such unanticipated challenges/ problems arising as a result of natural disasters/ catastrophes that have an impact on the Ministry of Finance's Flexi Funds objective of providing FHTC to every family by 2024.

STATUS OF JAL JEEVAN MISSION



What are the objectives of JJM?

- To **make Functional Tap Connection (FHTC) available** to every rural home.
- Prioritize FHTC distribution in quality-affected regions, such as villages in drought-prone and desert areas, Sansad Adarsh Gram Yojana (SAGY) villages, and so on.
- To link schools, anganwadi centres, GP buildings, health centres, wellness centres, and community structures to a functioning water supply.
- To **keep track of how well tap connections are working.**
- To encourage and secure voluntary ownership among the local community through monetary, in-kind, and labour contributions, as well as volunteer labour (shramdaan)
- To **aid in the long-term viability of the water supply system**, including the water source, water delivery infrastructure, and funding for routine maintenance.
- To **empower and develop human resources** in the sector so that construction, plumbing, electrical, water quality management, water treatment, catchment protection, operations and maintenance, and other needs are met in the short and long term.

NOBEL PRIZE 2022: MAKING CHEMISTRY CLICK

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Noble Prize in chemistry

Prepp Mains Booster: Science and Technology- Developments and their Applications and Effects in Everyday Life.

Context:

- Recently the Nobel Foundation announced three individuals - Carolyn R. Bertozzi, Morten Meldal, and K. Barry Sharpless - as the winner of the 2022 Nobel Prize in Chemistry.
- They received this honor for their contributions to the advancement of click chemistry and bioorthogonal chemistry.

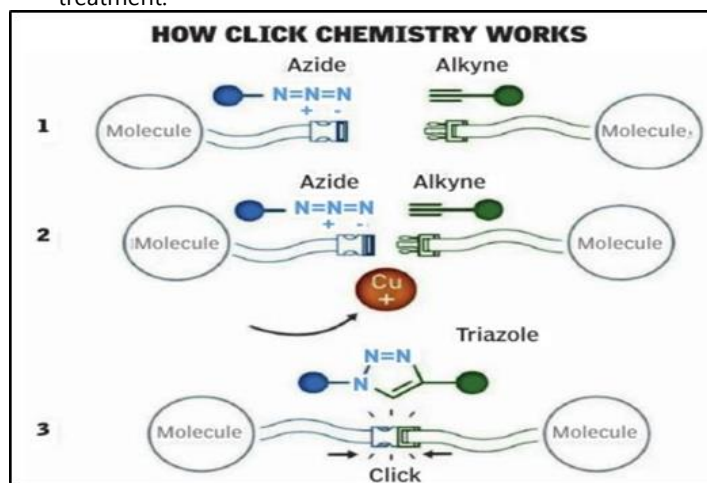
What are the contributions of Winners of the 2022 Nobel Prize in Chemistry?

- Making complicated processes simpler was the focus of the 2022 Nobel Prize in Chemistry.
- Click chemistry, which uses molecular building blocks to swiftly and effectively assemble molecules, was laid and pioneered by **Barry Sharpless** and **Morten Meldal**.
- By extending click chemistry into the realm of living things, **Carolyn Bertozzi** has advanced the field.

What is Click Chemistry?

Overview:

- Click chemistry is the rapid and irreversible fusion of two synthesized compounds.
- Some of these reactions are "bioorthogonal" because they can take place inside of living cells without interfering with biological procedures.
- In 2003, Carolyn R. Bertozzi had coined the phrase, click chemistry.
- A method for creating antibody-drug conjugates with highly focused therapeutic action in the body is click chemistry.
- In fact, click chemistry is currently being used directly inside patients as part of ongoing clinical studies for a potent cancer treatment.



Mechanism:

- The term "click chemistry" refers to a method of producing items that mimics natural processes that also produce compounds by fusing small modular parts together.
- Click reactions link a biomolecule and a reporter molecule in numerous applications.
- Click reactions occur in one pot, are not disturbed by water, generate minimal and inoffensive byproducts, and are "spring-loaded"- characterized by a high thermodynamic driving force that drives it quickly and irreversibly to high yield of a single reaction product, with high reaction specificity (in some cases, with both regio- and stereo-specificity).
- These qualities make click reactions particularly suitable to the problem of isolating and targeting molecules in complex biological environments. In such environments, products accordingly need to be physiologically stable and any byproducts need to be non-toxic (for in vivo systems).

Potential Areas of Application:

- Click chemistry is not just used in biological settings; it has also been applied in chemoproteomic, pharmaceutical, and different biomimetic contexts.
- They have been particularly effective in the identification, localization, and classification of biomolecules, though.
- Other area of Application:
 - modification of peptide function
 - modification of natural products and pharmaceuticals
 - natural product discovery
 - drug discovery
 - macrocyclizations using Cu(I) catalyzed triazole couplings
 - modification of DNA and nucleotides by triazole ligation
 - supramolecular chemistry: calixarenes, rotaxanes, and catenanes
 - carbohydrate clusters and carbohydrate conjugation by Cu(I) catalyzed triazole ligation reactions
 - polymers and biopolymers
 - surfaces
 - and material science
 - nanotechnology
 - bioconjugation,
 - biomaterials

What is Nobel prize?

- On December 10, 1901, the first Nobel Prize was presented.
- Since 1901, the Nobel Prize has been given in the categories of literature, peace, physiology or medicine, physics, chemistry, and a memorial prize in economic sciences.
- Thus, a total of six prizes are given out annually as Nobel Prizes.

About Alfred Nobel:

- Alfred Nobel was a Swedish manufacturer, scientist, and engineer best known for developing dynamite.
- He was born on October 21, 1833, in Stockholm, Sweden. He was multilingual and had a passion for poetry and play.
- He reportedly had opinions that were regarded as radical at the time and showed a keen interest in matters of peace. 1896 saw his passing.
- Most of his assets were left to the formation of five prizes, which later evolved into the Nobel Prizes, according to his will.

PLACES IN NEWS

MAUNA LOA

The ground is shaking and swelling at Mauna Loa, the largest active volcano in the world, indicating that it could erupt. Mauna Loa has last erupted in 1984 and is one of five volcanoes that together make up the Big Island of Hawaii, the southernmost island in the Hawaiian archipelago.



THE KYRGYZSTAN-TAJIKISTAN CONFLICT

- Nearly 100 people have been killed and scores injured in violent border clashes between Kyrgyzstan and Tajikistan over the weeks in September 2022. Recently a ceasefire, brokered by Russia, was agreed by both countries.
- The two landlocked countries share a 1,000-km long border, a large part of which is disputed.
- There have been the incidents of high tensions on border issue in the past as well over sharing water and land resources.



66 CHILDREN DEATHS IN GAMBIA, WHO FLAGS 4 SYRUPS MADE BY HARYANA-BASED FIRM AS UNSAFE

- After the deaths of 66 children in Gambia, the World Health Organization has issued a warning about four Indian cough syrups.
- According to WHO, using these medicines may result in death, and the organization is conducting investigations with their manufacturer, Maiden Pharmaceuticals in Haryana, as well as Indian regulatory authorities.



ISRAEL, LEBANON TO STRIKE 'HISTORIC' MARITIME BORDER DEAL

A maritime border agreement negotiated by the United States was separately signed by Israel and Lebanon. This agreement opens the door for the technically still at war neighbours to collect valuable offshore gas.

Israel-Lebanon maritime border dispute



COLD OCEAN CURRENTS SHELTER THE GALÁPAGOS ISLANDS FROM GLOBAL WARMING.



- According to a new study that was released in the journal PLOS Climate on September 7, 2022, cold ocean currents have protected the Galápagos Islands from global warming.
- A cool, eastward equatorial ocean current shields the islands from a Pacific Ocean that would otherwise be warming.

UNICEF CONCERNED FOR CHILDREN IN THE PHILIPPINES AS CYCLONE PAENG/NALGAE STRIKES

On October 29th, Tropical Storm Nalgae (also known as Paeng locally) made landfall in Catanduanes, affecting an estimated 3 million people. Strong winds and severe rains in the Philippines created landslides, flooding, and displacement.



MISSING EXECUTIVE 'KILLED' IN KENYA

The two missing Indians, Mohammad Zaid Sami Kidwai and Zulfiqar Ahmed Khan, were allegedly executed by a defunct organisation, according to a close advisor to the Kenyan president last week.

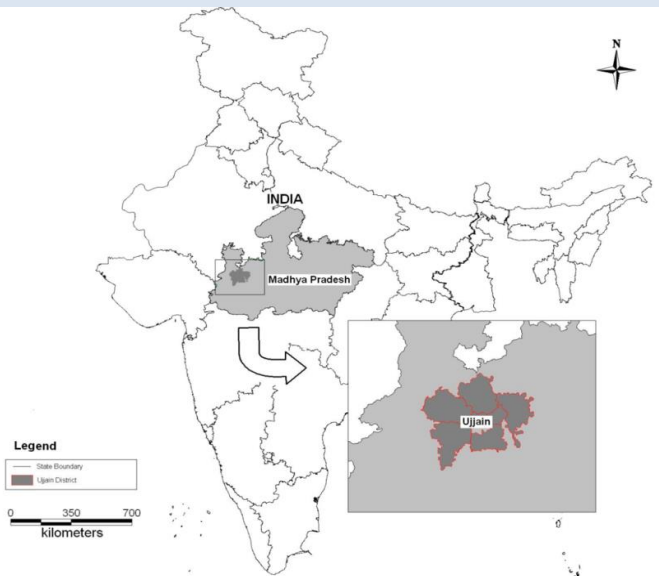


MULLAPERIYAR: PANEL TO READY EMERGENCY ACTION PLAN

- Recently, the Kerala government established a technical committee to develop an Emergency Action Plan (EAP) for the downstream portion of the Mullaperiyar dam in Kerala's Idukki district.
- The six-member technical committee, led by the Chief Engineer (Inter-State Waters), Irrigation department, is expected to draft and submit the EAP within three months.



MAHAKALESHWAR CORRIDOR

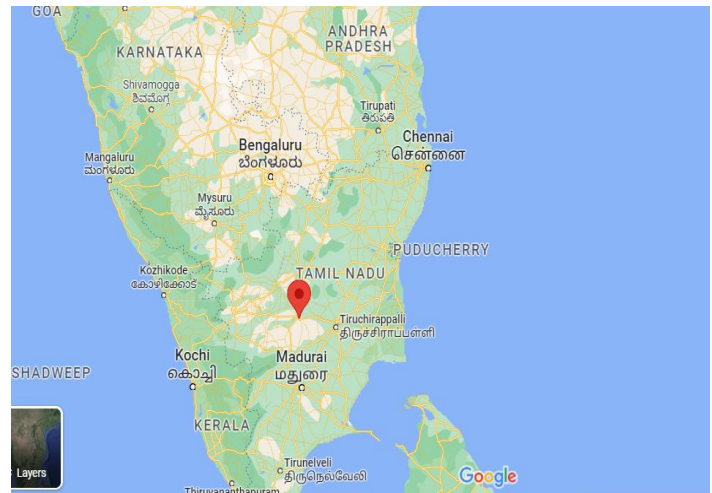


- Prime Minister Modi is to inaugurate the Mahakaleswar Corridor, constructed in Madhya Pradesh's Ujjain at a cost of Rs 350 crore, on October 11.
- Mahakal Maharaj Mandir Parisar Vistar Yojna is a plan for the expansion, beautification, and decongestion of the Mahakaleswar temple and its adjoining area in Ujjain district.
- Under the plan, the Mahakaleswar temple premises of around 2.82 hectares is being increased to 47 hectares, which will be developed in two phases by the Ujjain district administration. This will include the 17 hectares of Rudrasagar lake.

- The project is expected to increase annual footfall in the city from the current 1.50 crore to nearly three crore.

INDIA'S FIRST SLENDER LORIS SANCTUARY

The Government of Tamil Nadu has notified India's first 'Kadavur Slender Loris Sanctuary' covering an area of 11,806 hectares in the Karur & Dindigul districts. The sanctuary will play a significant role in the conservation of Slender Loris and will be another milestone in Tamil Nadu's conservation efforts.



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