

MONTHLY

# EPIC!

*Supplementary reading material for MGP and Current Affairs classes of  
ForumIAS Academy*

AN EXCLUSIVE CURRENT AFFAIRS MAGAZINE FOR  
**PRELIMS + MAINS**  
PREPARATION

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## The 19<sup>th</sup> edition

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**Dear Forumites,**

The 19th Edition of the EPIC Magazine comes at a time when the Mains Exam is just a couple of weeks away. Hence it is advised to revise all the EPIC Magazines thoroughly before the Mains Exam. This edition of EPIC showcases the analysis of the Glasgow Climate Summit and the issues therein. News and Issues related to Gender and Climate Change, the functioning of Judiciary, Data Protection Bill, DISCOMs, Farm MSP, Cryptocurrencies etc. have been covered among others. The EPIC team has tried to bring you the most relevant content to give you an edge in your civil services examination preparation.

A special shoutout to the students who diligently write to us and provide their valuable feedback. Your opinion is important to us. Topics are regularly included in the subsequent editions of EPIC based on our student's demands. Keep writing to us at [feedback@forumias.academy](mailto:feedback@forumias.academy).

**Stay safe and Happy reading!**

I was a part of ForumIAS MGP (Mains Guidance Program) and Essay Test Series. The detailed evaluation with remarks helped me immensely in improving my performance over the previous attempt. MGP comprises of sectional tests for each portion of GS papers, this ensured that I didn't leave any part of the Syllabus.

I am grateful to the entire ForumIAS team for their help and timely evaluation and uploading of answer sheets.

Monta Jaiswal  
AIR- 05, CSE-2020

FORUM IAS has been my friend, philosopher and guide during my tedious UPSC journey.

I joined the Mains Guidance Programme (MGP) and current affairs (online) classes.


Presence of mentors like Ayush sir and Dipin sir acts as a bonus. I am truly grateful to the entire ForumIAS team for being the building block of my preparation.

THANK YOU !!



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I had enrolled in the Mains Guidance Programme (MGP) 2020 for GS and Essay. The expansive coverage of questions, prompt correction of papers & toppers' answer copies and valuable feedback on answers, received from ForumIAS has helped me in my answer writing. I'm grateful to ForumIAS for the same.

Karishma Nair  
AIR 14   
CSE 2020

(On a side note, very grateful for the long motivating emails by Neyam sir as well)

55+ Students in Top 100 Ranks List of CSE 2020 are ForumIAS Academy students. 43+ ranks in Top 100 excluding Interview Guidance Program.

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## Focus Article

### #1 Climate Change, COP26, Climate Negotiations

**News:** The Conference of Parties (COP26) was held in Glasgow, Scotland in November 2021.

**What are the key points of the Glasgow Climate Pact?**

– (1) The Glasgow Agreement has emphasized that **stronger action in the current decade is most critical to achieving the 1.5-degree target**. Accordingly, it has asked countries to **strengthen their 2030 Climate Action Plans (NDCs) by 2022** at COP27, (2) The Agreement has called for a **phase-down of coal**, and phase-out of fossil fuels; (3) The Pact has asked the developed countries to **at least double the money** being provided for adaptation by 2025 from the 2019 levels. In 2019, about \$15 billion was made available for adaptation; (4) The Agreement will also fund the **Santiago Network**, which is supposed to build **technical expertise about climate adaptation in vulnerable nations**; (5) The developed nations have pledged that they will mobilize USD 100 billion/year for Climate Finance by 2023; (6) The Agreement acknowledged that the action taken so far is not enough to limit the warming to 1.5 degrees, so it asks the Governments to **strengthen those targets by the end of next year**, rather than every five years, as previously required; (7) The pact for the **first time** includes language that asks countries to reduce their reliance on coal and roll back fossil fuel subsidies; (8) Countries have expressed **commitments to achieve the NET ZERO** (e.g., Brazil 2050, Israel 2050, China 2060, India 2070).

**What are the issues with the Glasgow Climate Pact?** – (1) **Action on Climate Finance is missing**.

The developed countries have now pledged to mobilize the funds (USD 100 billion/year) from 2023. The developing countries have sought to **enhance the target to USD 1 trillion/year**. Various Academicians have estimated that developing countries (excluding China) would need about **\$800 billion per year by 2025, going up to \$2 trillion per year by 2030**; (2) Although, adaptation and loss and damage have received much more attention than before, the demands for **setting up of a standalone facility to coordinate loss and damage activities were not met**. Flow of funds under L&D may not be forthcoming anytime soon; (3) The new **targets are voluntary with no mechanism for enforcement** or penalties for non-compliance. Targets are also conditional on availability of adequate financial support; (4) Most countries have provided **no roadmap to achieve the NET ZERO target**.

#### PT BOX

##### UNFCCC

United Nation Framework Convention on Climate Change (UNFCCC) is an **international treaty to combat the human induced climate change**.

The treaty is aimed at **stabilizing greenhouse gas concentrations in the atmosphere** at a level that would prevent dangerous anthropogenic interference with the climate system. The UNFCCC was signed in 1992 during the **UN Conference on Environment and Development (UNCED)** or the Earth Summit.

**The UNFCCC is legally non-binding** but the agreements signed under the aegis of UNFCCC set **mandatory emission limits**.

##### Conference of Parties (COP)

The Conference of Parties (COP) is the **annual meeting of the parties to the UNFCCC** to assess the **progress in dealing with the Climate Change and negotiate on the new agreements**. COPs have held regularly every year since the first COP in Bonn in 1995 (barring in 2020 due to COVID Pandemic). The recent meeting in Glasgow was the 26<sup>th</sup> COP.

#### PT BOX

##### Santiago Network

The Santiago Network is a **network to enable Loss and Damage fund flow from developed to developing countries**. It will work towards the implementation of relevant approaches at the local, national and regional level, in developing countries that are particularly vulnerable to the adverse effects of climate change.

##### Loss and Damage

Loss and Damage **recognizes the losses caused by the anthropogenic climate change**. Under Loss and Damage, **Developed countries which have historical responsibility for climate change are held liable** to the Developing countries which are facing climate change impacts. However, there is a **lack of consensus** on establishing liability and compensation. At present, the **Warsaw International Mechanism** for Loss and Damage is focused on research and dialogue and not on establishing compensation.

**What are the India's Climate Pledges at Glasgow?** – India announced a new '**Panchamrit**' Strategy at the Glasgow. The five targets are: (1) India will increase its **non-fossil energy capacity to 500GW by 2030**; (2)

India will meet **50% of its energy requirements from renewable energy by 2030**; (3) India will reduce the total projected carbon emissions by one billion tonnes from now onwards till 2030; (4) India will **reduce the carbon intensity of its economy by 45% by 2030**; (5) India will **achieve the target of Net Zero by 2070**.

India has also given the slogan of **One LIFE, One World**, at Glasgow. LIFE is shorthand for Lifestyle For Environment Today which entails the need for all the world to come together with collective participation to change the lifestyle to limit consumption. With the new Nationally Determined Contribution announcement, India will occupy 9% of the remaining IPCC 400 Gt carbon budget for 1.5°C by 2030.

**What is the rationale for India's Pledge?** – (1) India was being criticized for not doing enough regarding the Climate Change; (2) **India is vulnerable to climate change**; the long coastline, the Himalayan glaciers and rivers, dependence on monsoons all of which are susceptible to climate related hazards. High proportion of poor citizens increases the vulnerability; (3) The **trade-off between emission reduction and economic growth is reducing rapidly**, e.g.; the UK reduced emissions by 40% between 1990-2020 while its economy has risen by 70%; (4) The pledge to achieve Net Zero by 2070 will entail lots of investments which will help develop new technologies like battery and storage technologies, hydrogen based energy etc.

Parameter	Paris (COP 21)	Glasgow (COP 26)
<b>Emission Intensity of GDP</b>	Reduction by 33-35% from 2005 levels by 2030	Reduction by 45% from 2005 levels by 2030
<b>Share of renewable energy</b>	Increase share of renewable energy to 40% by 2030	Increase share of renewable energy to 50% by 2030
<b>Carbon Sink</b>	To create an additional (cumulative) carbon sink of 2.5-3 GtCO <sub>2</sub> e through additional forest and tree cover by 2030	No New Announcement
<b>Net Zero</b>	No announcement	NET ZERO to be achieved by 2070

Comparison with Targets declared under Paris (COP 21)

**What is the significance of India's pledge?** – (1) This is the first time India has taken a target in absolute emissions. The earlier targets were in terms of reduction of emission intensity only; (2) India has undertaken **bold targets despite being a low historic contributor** (4% contribution in carbon emission between 1870-2019) and **large population below poverty which need to be uplifted**. India's actions will prod developed nations to increase their efforts.

**What are the challenges associated with India's new targets?** – (1) **Developing scalable storage capacities** for renewable energy; (2) **Managing Grid**

**Integration and stability** for renewable energy; (3) **Improving the efficiency of transmission and distribution sector** where DISCOMS face debt of INR 66,000 Cr. **Transmission losses (20%) need to be reduced**; (4) **Reducing dependence upon Coal** which constitutes 44% of India's Energy Mix and 55% of Electricity Mix; (5) **Creating Ecosystem for Electric vehicle adoption** including affordability by reducing battery cost, (6) **Getting access to Lithium reserves** which is crucial for battery technologies;

**Is India on track to achieve these targets?** – (1) **Non-fossil Fuel energy capacity to 500 GW by 2030**: Non-fossil fuel energy includes Nuclear and Hydro in addition to Solar and Wind. India's non-fossil fuel capacity is ~156 GW (31% of the target) as of September 2021. Over the past five years, Solar capacity has grown at an average growth rate of around 60% and wind capacity of around 10%. More than 60GW Solar capacity has been added in the last 4 years. With this pace India seems on path to achieve the target. CEA has already projected the share to be 520GW

#### PT BOX

##### Carbon Intensity

Carbon Intensity is measured as **carbon dioxide (CO<sub>2</sub>) emissions per unit of GDP**. It is dependent on the **fuel mix (carbon intensity of the energy sector) and energy intensity**. Theoretically, the lowest carbon intensity would be of a country that has the **least use of fossil energy in its fuel mix** and the energy that it uses, and has the **best energy intensity**. It would also depend upon the structure of the economy, e.g., a service based economy would be expected to have a lower carbon intensity compared to Manufacturing based economy.

India's Emission Intensity of GDP was **35.14 kg CO<sub>2</sub>e/1000 INR** (at constant 2004-05 prices) in 2005 which declined to **31.01 kg CO<sub>2</sub>e/1000 INR in 2010**. India's emission intensity has been declining at a rate of 1-2% annually, as per GOI submissions to the UNFCCC.



by 2030; **(2) 50% of Energy needs from Renewable Sources by 2030:** As of September 2021, Solar and Wind Power had a share of 26.4% and large Hydro a further 12%. Together the share is 38% already. The progress seems on track, **(3) Reduce Carbon Intensity of the Economy by 45% by 2030:** According to India's Third Biennial Update Report submitted in February 2021, the emissions' intensity of GDP had fallen by 24% in 2016 compared to 2005. With the rate of 2% annual fall in intensity, India can achieve the target by 2030, **(4) Reduce Carbon Emissions by 1 billion from now to 2030:** India's current emissions are approx. 2.7 Giga tonnes/year (2018) which are projected to reach 4.5 Giga tonnes/year by 2030. With the improved intensity of the economy cutting down 1 giga tonnes cumulatively seems an easy task; **(5) NET ZERO by 2070:** There is no roadmap at present and it would be premature to remark about the achievement of this target. 2070 is long horizon and India has time to formulate a strategy. A mix of both emission reduction and carbon capture approach may be helpful.

**What steps are required to achieve the Climate targets? –** **(1) Reduce emissions from transport and industrial sector** (esp. cement, iron, chemical industries). Public transport can be strengthened and electric vehicle adoption can be improved; **(2) Enhance private sector investment in renewable energy** sector to augment capacity. According to Chief Economist of HSBC India, the investment in energy must rise from USD 80 billion per year now to USD 160 billion per year; **(3) Reforming the power sector**, especially the distribution side to cut down the transmission and distribution losses; **(4) Increase investments in R&D** for new innovations in the renewable technologies; **(5) Increase share of Nuclear Energy** in the electricity mix; **(6) India's Climate diplomacy** must focus on **ensuring Climate Finance from the developed nations**; **(7) A think tank (CEEW) has suggested that India should consider giving legislative backing to the Climate targets with monitoring mechanism by the Parliament**, to make it obligatory for successive Governments to act towards these targets. Developing near-term, mid-term and long-term roadmaps will provide policy and regulatory clarity to the businesses; **(8) A National Commission on Climate Change** can also be created to inter-ministerial coordination and implementation of plans to achieve the targets.

#### What is India's stance regarding Climate Finance? –

At a ministerial meeting of Like Minded Developing Countries **India has asked for Climate Financing to be enhanced to USD 1 trillion per year.** India's argument is that the climate finance cannot continue at the levels decided in 2009 and must be enhanced in context of renewed targets and more pressing need to limit the temperature rise to 1.5°C. Climate Finance, in addition to the Carbon Markets, the timeframe for the Nationally Determined Contributions (NDCs) and the Frameworks related to transparency of the implementation of the Paris Agreement continue to be the contentious issues between the developing and developed countries.

#### PT BOX

##### Like Minded Developing Countries

LMDC is a group of developing countries who have organized themselves as **block negotiators in international organizations such as the UN and the WTO.** They represent more than **50% of the World's population.** LMDCs include Bangladesh, China, Cuba, Egypt, India, Indonesia, Iran, Malaysia, Pakistan, Saudi Arabia, Sri Lanka, Venezuela and Vietnam among others.

**How much finance does India require to achieve the Climate targets? –** **(1)** According to a study by Centre for Energy Finance under the Council on Energy Environment and Water (CEEW), India would require US\$10 trillion (Rs. 700 lakh crore) to meet its net-zero target by 2070; **(2)** Majority of the funds would be needed to significantly **scale up generation from renewable energy** and for the necessary integration, distribution and transmission infrastructure; **(3)** Some of the funds would have to be invested in **setting up green hydrogen production capacity**; **(4)** India would require investment support of US\$1.4 trillion, in the form of concessional finance from developed economies; **(5) Private capital** would be required from both domestic and international institutions. Public funds should work towards de-risking investments in existing and emerging clean technologies.



## What was the Coal Phase-down controversy?

– The UK (Host and President) had introduced the proposal to ‘Phase-out’ coal and it was supported by the SIDS, the LDCs and the EU. The phase out proposal did not provide developing countries a longer time frame compared to the rich countries to phase out coal. The proposal was amended by efforts of India and China and the ‘Phase-out’ term was replaced by ‘Phase-down’. Phase-down means progressively reducing the use of coal, whereas phase-out means altogether eliminating its use over a period of time. Phase-down provides a longer horizon to completely phase-out the use of coal. India had valid reasons for getting the proposal re-phrased; (1) The national imperative of growth and development necessitate **dependence on coal economy**; (2)

Only coal was being phased-out. India had argued for phasing out all fossil fuels as the other fuels also contribute significantly to global warming; (3) Keeping same time horizon for phase-out for both developing and developed countries **ignores the historic responsibility of the developed countries and is akin to new Carbon Colonialism**.

## BROAD STICKING POINTS

<p><b>1 CLIMATE FINANCE, LOSS &amp; DAMAGE AND ADAPTATION FINANCE</b></p> <ul style="list-style-type: none"> <li>&gt; Climate finance has long been a major issue of discontent among negotiating countries as the affluent nations failed to deliver on their promise to mobilise \$100bn per year by 2020</li> <li>&gt; There have been strong calls from India and other developing countries for this amount to be increased</li> <li>&gt; Developing countries call for the entire amount to be in the form of grants that are split 50-50 for adaptation and mitigation</li> <li>&gt; Private finance, investment and loans should not be counted as climate finance under \$100 billion per year promise</li> <li>&gt; How ‘loss and damage’ due to climate change should be compensated for have also remained unresolved</li> <li>&gt; No clarity on formulation of a global goal of adaptation which includes a roadmap to mobilise financial flows catering to adaptation</li> </ul>	<p><b>2 CARBON MARKET (ARTICLE 6)</b></p> <ul style="list-style-type: none"> <li>&gt; Article 6 of the Paris Agreement deals with market-based mechanisms and non-market approaches to emissions reductions</li> <li>&gt; The pre-2020 regime ran into trouble as carbon credits (CERs), generated through clean development projects, flooded the market while also being counted in domestic emissions inventories</li> <li>&gt; It leads to double accounting of emissions reductions, resulting in collapse of the market structure</li> <li>&gt; No consensus whether and how past CERs will be carried forward</li> </ul>
<p><b>3 COMMON TIMEFRAMES FOR NDCs</b></p> <ul style="list-style-type: none"> <li>&gt; Common timeframe for operationalisation of national commitments under the Paris Agreement has not yet been finalised</li> <li>&gt; As a result, there is also no clarity on the timelines that will be adopted for the implementation of the NDCs</li> <li>&gt; No clarity on how long it will take to meet commitments (some committed till 2025 while others opted for 2030 timelines)</li> </ul>	<p><b>4 TRANSPARENCY FRAMEWORKS</b></p> <ul style="list-style-type: none"> <li>&gt; No consensus on creation of mechanisms which will enhance transparency in the implementation of the Paris Agreement</li> <li>&gt; Developed countries link it with other key areas of negotiations like finance and technology transfer</li> <li>&gt; Developing countries say the transparency mechanism can be finalised only after progress on support and capacity building</li> </ul>

**What has the UN said about the new pledges by the countries at COP26?** – (1) The UNEP released the Emissions Gap Report in October 2021 and observed that the **planet is on track to warm by 2.7°C by 2100AD with the current trajectory of emissions reduction**. After the COP 26, the UNEP noted that the **renewed pledges will have a minimal impact on temperature rise this century**. The countries need to slash emissions more than 7 times faster to keep the warming in line with 1.5°C target under Paris Agreement. The UN report said the **global emissions must reduce by 45% by 2030 in order to limit the temperature rise to 1.5°C**.

## Why is it being said that Climate Justice eludes Climate negotiations?

Climate Justice is related to ethical and political dimensions of Climate Change taking into consideration the reasons for climate change, the distribution of its impact across the world and the responsibilities towards Climate Action. There are multiple dimensions to Climate Justice; (1) The gap in historical contributions; (2) The issue of distribution of emission reduction burden among States while considering the disparity in economic development level; (3) Uneven distribution of adverse impacts over countries and people; (4) Imbalance in the power relationships in the climate negotiation process; (5) Impact on future generations.

- (1) **Historical Imbalance:** Between the period 1870-2019, the **Big 7 polluters** (US, UK, EU27, Russia, Australia, Japan and Canada) contributed 60.53% of carbon emissions while China and India had 13.4% and 3.1% share in this period. Thus the developed western countries are majorly responsible for expending the **Carbon Budget** in this period. **In per capita terms, the emission inequity is starker.**
- (2) **Climate Action:** The Rio Convention had recognized the principle of **Common but Differentiated Responsibilities** (CBDR) which meant that all countries do not have equal responsibilities towards reducing carbon emissions. This was based on **disparities in historical contributions as well as present economic status**. However the principle had been diluted repeatedly and **now all countries have been put under the obligation to reduce emissions** under the Paris Agreement (NDCs). Kyoto Protocol was based on this principle (where the rich countries had legally binding targets) but was abandoned by the US and Canada (There was no penalty). The **developing countries need more Carbon Budget** because they still need carbon

based economic development (dependent on fossil fuels) to pull large share of their populations out of poverty. Putting stiff climate targets on developing countries limit their potential economic growth.

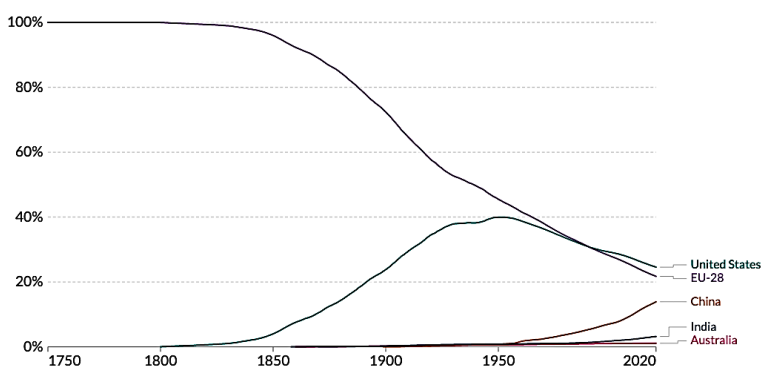
- (3) **Uneven Impact:** The impact of Climate Change has been disproportionately heavy on developing countries due to both Geographical and economic factors. The tropical countries are face challenges related to extreme weather events (Cyclone Storms, Droughts etc.) and lack the economic resources to fight the climate change.

- (4) **Imbalance in Power Relationships:** The imbalance in power distribution between the developed (the Big Polluters) and the developing countries has resulted in dilution of the equity principle (CBDR). Moreover the developed countries have not kept their promise of providing Climate Finance for various adaptive and mitigation measures to the developing countries. The revised timeline for USD 100 billion/year contribution is 2023.

- (5) **Impact on future generations:** The lack of immediate and commensurate action by the West has created an issue of intergeneration equity whereby not only the development but the very survival of future generations has

Share of global cumulative CO<sub>2</sub> emissions

Each country or region's share of cumulative global carbon dioxide (CO<sub>2</sub>) emissions. Cumulative emissions are calculated as the sum of annual emissions from 1750 to a given year.



Source: Our World in Data based on the Global Carbon Project

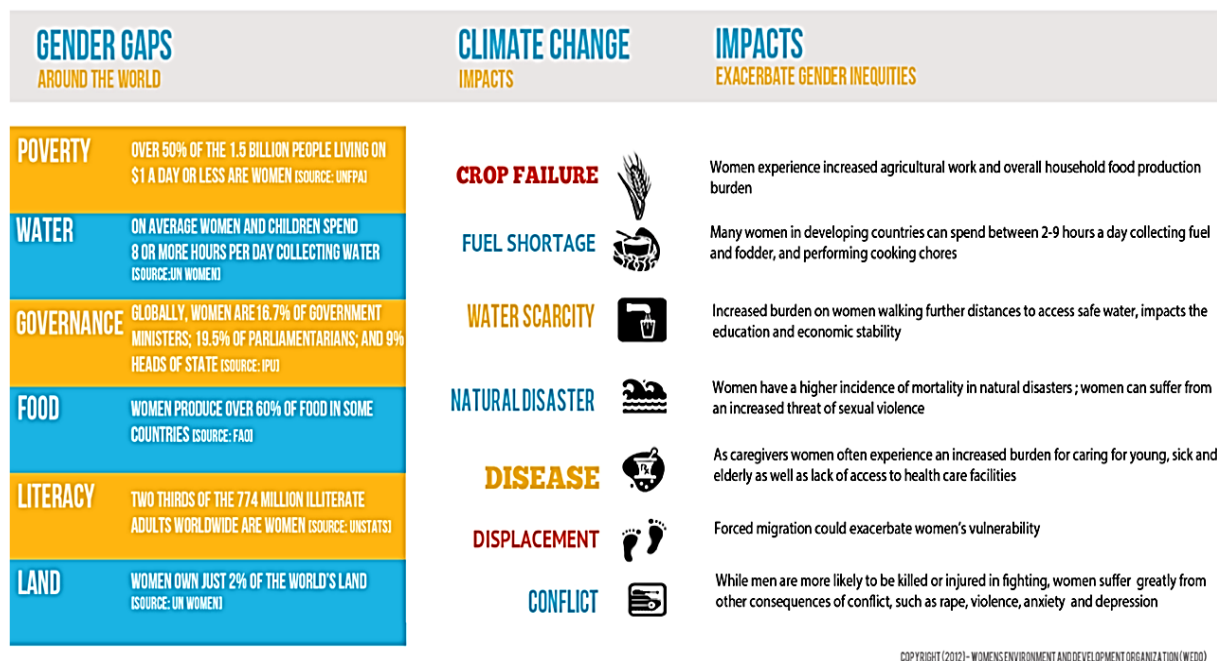
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

## General Studies Paper I

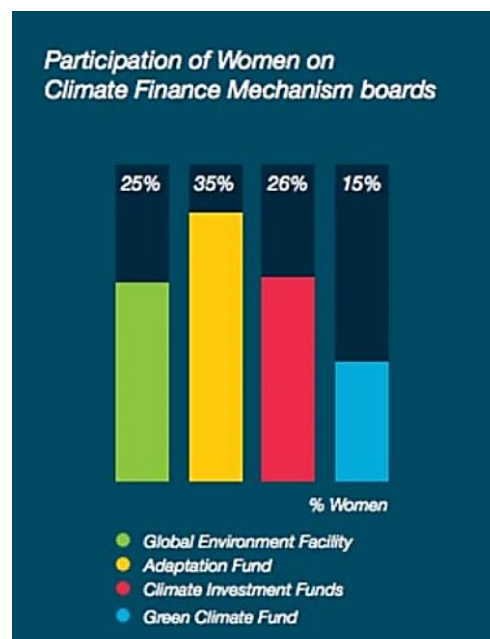
### #1 Climate Change and Gender: 'Women need more space at the Climate Table'

**NEWS:** Only 1 out of every 10 delegates at the COP 26 were women. The Indian Delegation at COP 26 constituted only 17% women.

**How are women more vulnerable to Climate Change?** – (1) In rural regions with subsistence farming, women and girls are the **primary providers of food, water and fuel**. Climate change directly impacts **resource scarcity**, making these tasks **increasingly difficult and dangerous**; (2) Consequently, women and girls are often **prevented from pursuing education and economic opportunities**; (3) **Limited rights to land and property** make women **more susceptible to displacement** due to climate disasters. A UNDP Policy Brief observes that **80% people displaced by Climate Change are women**. More than 70% of people who died in the 2004 Asian tsunami were women (Oxfam Report); (4) Women displaced by disaster often face **increased protection risks** such as **sexual and gender-based violence (SGBV), exploitation and trafficking**; (5) Displaced women's **adaptive capacities are often limited** due to socio-cultural norms, restricted livelihood options, lack of access to formalized safety nets and fewer possibilities to benefit from technologies and information; (6) **Limited access to healthcare** can also impede women's access to life-saving health services, including **reproductive and mental health services**; (7) Other impacts may include **increased hardship due to their lack of financial assets**. When women lack the resources and freedom to move, they may **become trapped in areas where climate and disaster risk is high**.



**How does low representation of women impact Climate Action Policy?** – (1) Due to low representation of women on the decision making platforms, the ‘gender perspective’ is **missing in the climate action plans**; (2) Two studies point out to direct correlation between representation of women in decision making bodies and Climate Action Policy (a) Curtin University in Australia found a positive relationship between **percentage of seats occupied by women in national parliaments and the stringency of climate change policy**; (b) Climate Analytics found that countries with **high levels of gender inequality usually see lower levels of climate action** (‘improvements in gender equality contribute to climate resilience’). Both studies point that increased **political participation and representation in governance for women** may have a positive impact on climate change action; (3) Low representation to women in Climate Finance Mechanism Boards (refer attached graphic) may translate into **low access to women in climate finance initiatives** and further exacerbate the inequalities.

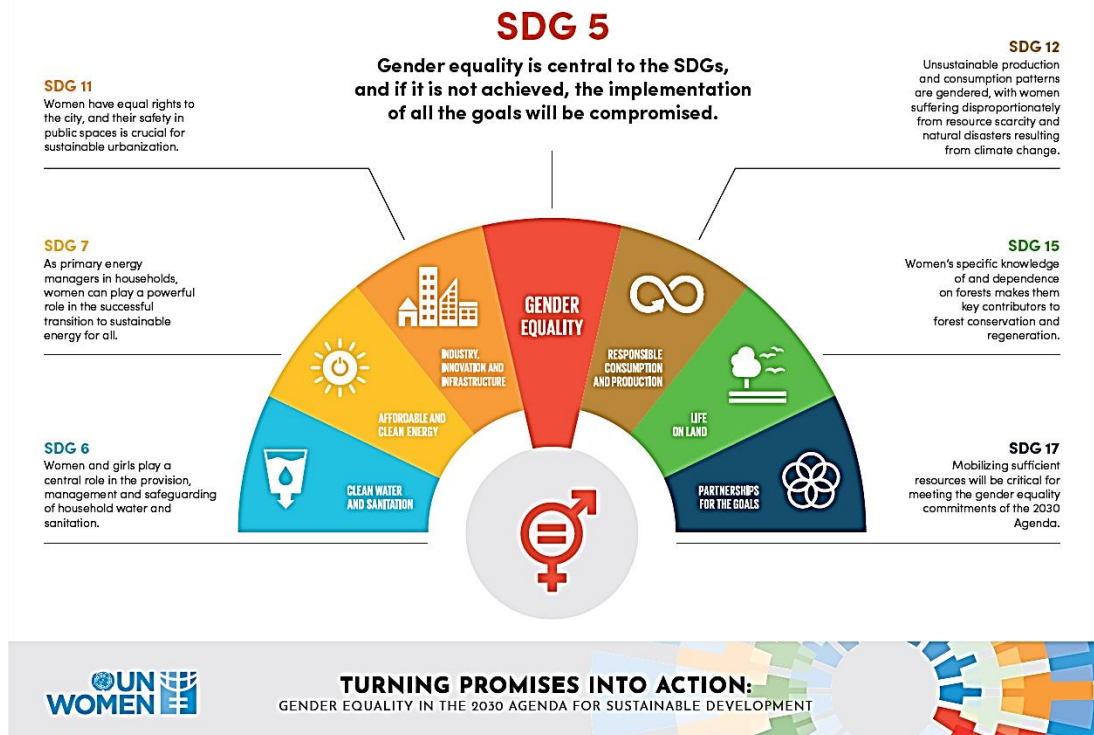


**What are the events voicing women participation at UNFCCC?** – (1) CoP-7 in 2001 stressed on the need for **women's equal participation and representation** in bodies established under the UNFCCC or Kyoto Protocol. It was reiterated in CoP16 in 2010; (2) At **CoP-20** in 2014, parties were formally invited to **enhance participation of women** in the Convention process. They established the first **Lima Work Programme on Gender (LWPG)**; (3) The **first Gender Action Plan (GAP)** under the UNFCCC was established at **CoP23**, (4) At **CoP25**, parties agreed for a five-year enhanced ‘LWPG’ and ‘GAP’.

**What is the way forward?** – A UNDP Policy Brief on Gender and Climate Change suggests, (1) **Integrate gender perspectives into Mitigation and Adaptation actions**. Climate change actions need to be based on **consultation with women**, to build and incorporate their skills and knowledge, and to provide opportunities for improving health, education and livelihoods; (2) Women's issues, needs and contributions should be **integrated across the planning and execution cycles of climate change policies and projects**; (3) **Adaptive actions should build asset base of women**. Access to assets determine adaptive capacities. So climate interventions should shore up women's



productive and reproductive resources, including land, access to credit and education, (4) **Ensure mitigation and adaptation efforts also address sources of gender-based vulnerability, gender inequality and poverty.** Actions, technologies and strategies need to be pro-poor and gender-responsive in their design, implementation, monitoring and evaluation, (5) IUCN's Issue Brief on Gender and Climate Change has also called for investing in **participatory, multi-stakeholder and multi-sectoral Climate Change Gender Action Plans** to help countries to develop comprehensive action that **integrates gender concerns and builds on women's unique knowledge and perspectives.** (6) World Economic Forum has also advocated increased participation of women in addressing the Climate Change concerns.



## #2 The menace of Child Marriage in India

**NEWS:** The recent data point to continuing menace of Child Marriage in India.

**What is the status of child marriages in India?** - NFHS 4 data showed that one in four girls in India was being married before 18. The first phase findings of **NFHS5** (2019-20) also show a similar result. According to other reports, more child marriages happened during the Covid pandemic.

**What are the reasons behind the prevalence of child marriage?** - (1) **Economic Factors:** Poverty and marriage expenses may force a family to marry off the girl child early to reduce costs. Girl child is considered economic burden; (2) **Lack of education:** Poor educational opportunities for girls. Education is considered inferior to girl's household responsibilities and the girls lack the power to resist; (3) **Declining gender ratio** had also led to increase in child marriage. It contributed to practice known as **Aata-Saata** where a daughter is exchanged for a daughter-in-law, irrespective of her age; (4) **Cultural Practice:** Some educated and affluent families have also conducted child marriages due to prevailing cultural practices; (5) Belief that girls need to marry early for their safety and protection. There are also apprehensions about risk to family honour.

**What are the negative impacts of child marriages?**

– (1) **Health Risks:** Child marriage contributes to high Maternal and Infant mortality; (2) **Susceptibility to violence and physical abuse.** The girl child lack of ability to resist. It can lead to trauma and mental health issues; (3) **Girls are forced to drop out of school leaving their education incomplete;** (4) **Lower marriage age results in higher fertility rate and higher population growth;** (5) **Child marriage contributes to issues like teenage pregnancy, child stunting, poor learning outcomes for children and the loss of women's participation in the workforce;** (6) **Early marriage violates rights of the girl child including right to education, health and protection against exploitation etc.**

#### PT BOX

##### Child Marriage

Child Marriage is defined as a marriage where either the **man is below 21 years of age** and the **woman is below 18 years**. Most child marriages involve girls below 18 years. The age limit has been set by the **Prohibition of Child Marriage Act, 2006**.

The NFHS-5 has observed that the proportion of **women between 20-24 years** who were **married before 18 years of age has come down from 27% (NFHS-4) to 23% in 2020-21 (NFHS-5)**. The share is 27% in rural India and ~15% in urban India. 41% of these cases were in **West Bengal and Bihar. Rajasthan, Madhya Pradesh, and Haryana** come next.

The NCRB data has shown that there was a **jump in Child Marriages during the pandemic**. The NCRB released data showing **50% jump in cases of Child Marriages in 2020** (785 cases) compared to 2019 (520 cases). UNICEF estimates that child marriage has come down from 47% in 2005-06 to 27% in 2015-16.

**What steps have been taken by the Government to stop child marriages?** – (1) **Prohibition of Child Marriage Act, 2006 limits the legal age of marriage for boys as 21 years (or above) and 18 years (or above) for girls;** (2) **Boys and girls forced into child marriages as minors have the option of voiding their marriage up to two years after reaching adulthood;** (3) **A male adult above eighteen years of age is liable to be punished with rigorous imprisonment up to 2 years for child marriage; a person solemnising the child marriage is also liable to same punishment;** (4) **Karnataka amended the Prohibition of Child Marriage Act in 2017 declaring every child marriage void, making it a cognizable offense and providing harsh punishment for those involved in child marriages;** (5) **The Government has launched several schemes like Dhan Laxmi Scheme, Apni Beti Apna Dhan scheme, Kishori Shakti Yojana etc. to curb the practice**

**What are the gaps in the Prohibition of the Child Marriage Act?** – **Section 3 of the Act** makes a child marriage voidable when **either of the contracting party** (who was below the legally marriageable age at the time of marriage) **files a petition of annulment in a District Court**. If the party is minor at the time of filing the petition, then it can be filed by the guardian or next friend along with the Child Marriage Prohibition Officer. **Moreover such a petition must be filed within 2 years of attaining majority** (i.e., a woman who was married as a child must file the petition before she attains 20 years of age). These provisions severely limit the efficacy of the Act.

**What is the way forward?** – (1) **Education:** Teachers should hold regular gender equality conversations with high school girls and boys to shape progressive attitudes that will sustain them into adulthood; (2) **Introduce reforms** like the expansion of secondary education, access to safe and affordable public transport, and support for young women to apply their education to earn a livelihood; (3) **Community engagement** through programmes like **Mahila Samakhya**; (4) **Involvement of all stakeholders including** Bureaucrats across multiple departments, teachers, Anganwadi supervisors, panchayat and others interacting with rural communities, should be notified as **child marriage prohibition officers**; (5) **Decentralized approach:** Decentralising birth and marriage registration to gram panchayats will protect women and girls with essential age and marriage documents, thus better enabling them to claim their rights; (6) **Awareness and enforcement of law must be strengthened.**

## General Studies Paper II

### #1 Case for All India Judicial Services

**NEWS:** Union Law Minister held a meeting with State Law Ministers to discuss the matter of All India Judicial Services and related infrastructure in lower judiciary.

#### What is the proposed All India Judicial Services? –

At present the **recruitment of Judges at the district level is done by the respective State Governments**. The High Court of the State is also consulted (**Article 233**); The selection process is conducted by the State Public Service Commissions and the concerned High Court. Panels of High Court judges interview candidates after the exam and select them for appointment. The judges of the lower judiciary below the level of district judge are selected through the Provincial Civil Services (Judicial) exam. PCS(J) is commonly referred to as the judicial services exam. The proposed All India Judicial Services is similar to the Central Civil Services and is **envisaged to centralize the recruitment of the Judges at the district level in all the States**.

#### PT BOX

##### Article 233

**Appointment and Promotion of District Judges shall be made by Governor** in consultation with the High Court; A person, not engaged in the service of the Union and State, to be eligible for appointment to a District Judge **must have been an advocate for 7 years or more**.

##### Article 234

Appointment of persons for other than the Judges shall be **carried out by the Governor** in accordance to the rules made by him after consultation with the State Public Service Commission and the High Court

##### Article 312

**Parliament may by law create more All India Services (including AIJS)** if the Council of State passes a resolution in this regard if it deems **creation of such service to be in the national interest**.

**What has been the progress so far regarding AIJS? – (1)** The Law Commission had first proposed the AIJS in its **14<sup>th</sup> Report in 1958 (Report on Reforms on Judicial Administration)**; **(2)** The Commission reiterated the need of AIJS in its **77<sup>th</sup> (1978) and 116<sup>th</sup> (1986) Reports** as well; **(3)** The AIJS was added in the **Article 312 of the Constitution through 42<sup>nd</sup> Amendment Act in 1976**; **(4)** The **Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice in its 15<sup>th</sup> Report backed the idea** of a pan-Indian judicial service, and also **prepared a draft Bill**. However there has been lack of consensus among the States; some States proposed some modifications while some others were outrightly against the idea of AIJS.

#### What is the view of Judiciary on AIJS? – (1)

In 1992, the **Supreme Court in All India Judges' Assn. v. Union of India directed the Centre to set up an AIJS**; **(2)** However, in 1993 review of the Judgment, however, the Court opined that Government should examine the feasibility of implementing the recommendations of the Law Commission for setting up of All India Judicial Service; **(3)** A comprehensive proposal for the constitution of an All India Judicial Service (AIJS) was formulated and approved by the **Committee of Secretaries** in

#### PT BOX

##### Vacancies in Judiciary

**Law Commission** prescribes at least **50 Judges per 10 Lakh Population**. India at present has only **19 Judges per 10 Lakh population**.

At present, there are 2,255 vacancies at the Civil Judge (Junior division, 22% vacancies) level, 1,280 at the Civil Judge (Senior division, 21.4% vacancies) level, and 1,612 at the District Judge level (19.7% vacancies).

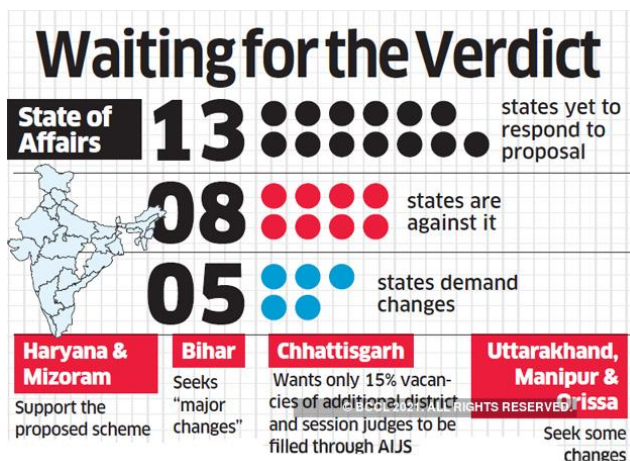
There are 4.02 crore cases pending in the district and taluka courts, with close to 23% of these cases pending for anywhere between 3 to 30 years.

November, 2012. The Proposal was discussed in the **Conference of Chief Ministers and Chief Justices of the High Courts** in April, 2013 and it was decided that issue needs further deliberation and consideration; **(4)** There were deliberations in **Joint Conference of Chief Ministers and Chief Justices of the High Courts and the Chief Justices Conference** held in April, 2015. So far there has been **lack of consensus**; **(5)** In 2017, the Supreme Court took suo-motu cognizance of the issue of appointment of district judges, and **mooted a "Central Selection Mechanism"**.



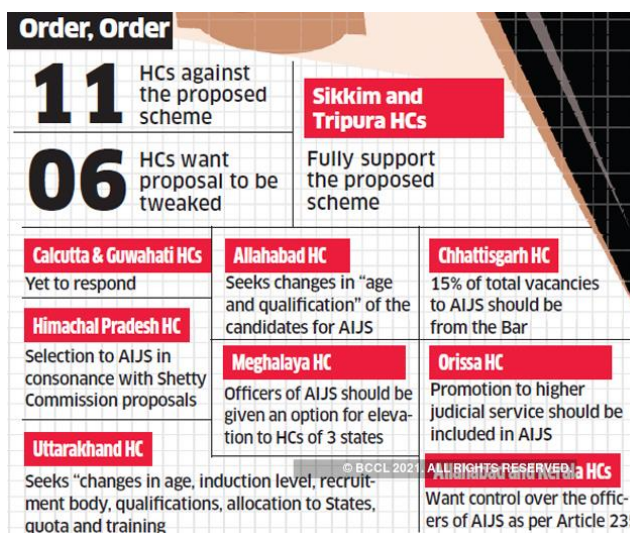
### What are the expected advantages of the AIJS?

- The Law Commission in its various reports have observed certain benefits of AIJS like; (1) **Efficient Subordinate Judiciary**; (2) **Address structural issues** such as varying pay and remuneration across states; (3) **Fill vacancies faster**; (4) **Ensure standard training across States**, (5) **Transparency** in Judicial appointments; (6) **Standard entrance test** by a Constitutional body like the UPSC or the proposed **Judicial Services Commission can attract best talent** to Judiciary and improve the pool for appointments to higher Judiciary. Most lower court judges are on the verge of retirement while they become eligible for promotion to Higher Judiciary. This discourages talented legal graduates to join Judicial services. They prefer to be advocate in the bar and hitch their prospects to career growth in the judiciary through direct appointment from the Bar. This is despite the judicial mandate for 75% of the district judge posts to be filled through the regular promotion route vis-a-vis 25% earmarked for direct recruitment from the Bar.



### What is the opposition to AIJS? – (1) The States

content that a **centralized recruitment process infringes upon the States' rights and violates principles of Federalism**; (2) There are **concerns related to the language** as the business in local judiciary is conducted in vernacular languages; (3) **Linguistic minorities, rural candidates and reserved candidates might be disadvantaged** due to handicaps and infirmities they face in terms of resources and access, (4) **Principle of Separation of Powers** might be impacted if the recruitment of Judges is undertaken by Executive's agency; (5) **AIJS will not address the structural issues plaguing the lower judiciary** especially the pendency of cases; (6) The issue of different scales of pay and remuneration has been addressed by the Supreme Court in the 1993 All India Judges Association case by bringing in uniformity across states; (7) There are high vacancies in AIS despite centralized recruitment by the UPSC, so **AIJS may not address the issue of vacancies and pendency of cases in Judiciary**.



**What should be done? – (1)** As has been opined by the Union Government, there are benefits like transparency, objectivity and uniform standards in appointments, there is merit in constituting an AIJS. However all stakeholders; including the States and Judiciary should be onboarded before going for the reform; (2) Additionally, focus has to be on **resolving pendency of cases** by increasing the number of judges, improving infrastructure and quicker disposal of cases by adherence to the procedural codes.

**What is the proposed National Court of Appeal and need for Regional Benches? –** The issue of pendency of cases plagues all the levels of Judiciary including the Supreme Court. One of the reason for high pendency of cases in the Supreme Court is the **large number of appeals from lower Judiciary**. The power under Art. 136 was to be used sparingly but has been allowed to settle appeals even on ordinary issues like disputes under the rent act. This has several negative aspects. (1) The important **Constitutional issues (like the Shreya Singhal and Lily Thomas Case) are being adjudicated by smaller benches** (2-3 Judges) instead of 5 or more Judge bench which is not in conformity with **Art 145(3)**; (2) The number of cases decided by **Constitution Bench** (5 or more Judges) **have come down from 15% between 1950-54, 1% by 1970 and 0.12% between 2005-**



**09.** From 1950 to 2020, the **only 17 Judgments were delivered by 9 Judge benches**; (3) As of November 2021, of the 69,855 pending matters before the Supreme Court, only 422 are Constitution Bench matters (0.6%).

The National Court of Appeal has been proposed to address this issue. The National Court of Appeal with Regional Benches in all the regions will hear the appeals from High Courts for non-Constitutional cases. The Supreme Court will hear only the Cases of Constitutional Importance or the cases involving substantial question of law. This would

not only address the above issues, but would also make Appellate Justice more accessible at the regional level.

#### PT BOX

##### Jurisdiction of the Supreme Court

The Supreme Court has three types of Jurisdiction; (1) **Original**: Disputes between Union and State(s) or between States, Enforcement of Fundamental Rights under Article 32; (2) **Appellate**: Cases involving substantial question of Law especially those related to Fundamental Rights and cases of Constitutional Importance; (3) **Advisory**: Matters which are specifically referred to it by the President of India under Article 143.

##### Article 136

The Supreme Court may, in its discretion, grant **Special Leave to appeal** from any judgment or order made by any Court or Tribunal in India.

##### Article 145(3)

The **minimum number of Judges** to decide any case involving a substantial question of law as to the interpretation of the Constitution or matter referred under Article 143 shall be **five**.

## #2 Transfer of High Court Judges

**NEWS:** The Supreme Court Collegium recommended transfer of the Chief Justice of Madras High Court to Meghalaya High Court. Chennai Bar Council questioned the move.

**What is the Constitutional provision for transfer of Judges? - Article 222** of the Constitution provides for the transfer of High Court judges, including the Chief Justice. The President, after consultation with the Chief Justice of India, may transfer a Judge from one High Court to any other High Court. It also provides for a compensatory allowance to the transferred judge.

**What is the current procedure for transfers? - The procedure after the Second Judges case and the evolution of the Collegium System is;** (1) The proposal for **transferring** a High Court judge, including a Chief Justice, should be **initiated by the CJI and his opinion in this regard is determinative**; (2) The **consent of the judge is not required**; (3) All transfers are to be made **in the public interest**, i.e., for promoting better administration of justice throughout the country; (4) For **transferring a Judge other than the Chief Justice**, the CJI should take the views of the Chief Justices of the two High courts concerned; (5) The CJI should also take into account

the views of one or more Supreme Court judges in the process of deciding whether a proposed transfer should take place; (6) **In the case of transfer of a Chief Justice**, only the views of one or more knowledgeable Supreme Court judges are required; (7) The views should all be **expressed in writing**, and they should be considered by the CJI and four senior-most judges of the Supreme Court- **Collegium** of five.

The recommendation is sent to the Union Law Minister who should submit the relevant papers to the Prime Minister who then advises the President on approving the transfer.

#### PT BOX

##### Collegium System

The **Collegium consists of the Chief Justice and 4 other senior-most Judges of the Supreme Court of India**. They consider the elevation of Chief Justices/Judges of the High Courts to the Supreme Court.

**Article 124** mentions that the appointment of the Supreme Court Judges shall be made by the **President after consultation** with such Judges of the Supreme Court and the High Court as the President may deem necessary.

The **Collegium System has not been defined or described in the Constitution** and has evolved through Judicial pronouncements; viz., **SP Gupta Case (1981, First Judges Case)**, **Supreme Court Advocates-on Record Association Case (1993, Second Judges Case)**, **Special Reference (1998, Under Article 143, Third Judges Case)**. In the Second Judges Case the Judiciary took the view that the **Chief Justice must be given primal importance in Judicial Appointments**.

In the Presidential Reference (Third Judges Case) the **Supreme Court laid down 9 principles and held that the CJI's views formed in consultation with the Collegium shall have primacy**.

In case of elevation of Judges to High Court, the Chief Justice will consult the two senior-most Judges of the Supreme Court.

**What is the Supreme Court's stand on the issue? - (1) Union of India vs. Sankalchand Sheth (1977):** The Supreme Court rejected the idea that High Court judges can be transferred only with their consent. It reasoned that the transfer of power can be exercised only in the public interest. The President is under an

obligation to consult the CJI and all relevant facts must be placed before the CJI. The CJI had the right and duty to elicit and ascertain further facts from the Judge concerned or others; (2) **S.P. Gupta vs. President of India (1981)**, (The 'Judges' Transfer Case'), the Supreme Court by the majority ruled that consultation with the Chief Justice did not mean 'concurrence' with respect to appointments. In effect, it emphasised the **primacy of the Executive in the matter of appointments and transfers**. However, this position was **overruled in the 'Second Judges Case' (1993)** where the concept of a '**Collegium of Judges**' came into being. That is the opinion of the CJI ought to mean the views of a plurality of judges; (3) **K Ashok Reddy case vs Union of India (1994)**: The Court held that primacy of the Judiciary in the matter of appointments and transfers introduces the judicial element in the process. As the process of transfer happens with the concurrence of the senior members of the judiciary, there is no need of further judicial review to check for executive's arbitrariness or excess.

**Why are the transfers controversial?** – (1) The accusation of the **punitive element** in the transfer of Judges makes the transfer controversial. The High Court of Meghalaya has only 4 judges while the Madras High Court has sanctioned strength of 75. So, the transfer of Chief Justice of Madras HC to Meghalaya HC seems like a punishment.; (2) The **lack of disclosure** of reason for transfer gives rise to speculations like whether the transfer was a punishment for certain judgments; (3) The senior-most Judges were not consulted in case of transfer of the Judge from the Madras High Court. The **lack of transparency** raises doubt about the process; (4) In the current case, another Judge from the Allahabad High Court is being transferred to the Madras High Court and is slated to be the senior-most Judge and acting Chief Justice of the Madras High Court. There was considerable delay in making this decision public which calls into question the reason for this transfer.

**What can be done?** – In the opinion of a former Madras High Court Judge – (1) Any decisions, factors and reasons related to transfer/appointment should be put in the public domain to instil trust in minds of the public. The Supreme Court had already struck down the NJAC citing independence of the judiciary. But the independence should also ensure accountability; (2) The Central Government should also step in and clear the doubts raised about the appointment mechanism and make it a transparent process.

### #3 Extension of tenure of the CBI and ED Directors: The use of Ordinance

**NEWS:** The Government extended the tenures of the CBI and ED Directors from 2 years to 5 years through two Ordinances DSPE (Amendment) Ordinance 2021 and CVC (Amendment) Ordinance 2021.

**What are the Central Bureau of Investigation and Enforcement Directorate?** – (1) The Central Bureau of Investigation is the premier investigation agency of India. It works under the jurisdiction of the Ministry of Personnel, Public Grievances and Pensions; (2) The CBI traces its origin to the **Special Police Establishment (SPE)** which was set up in 1941 with the purpose of investigating cases of corruption in the War Department. The **Delhi Special Police Establishment Act was brought into force in 1946** and the agency was tasked to investigate corruption and bribery cases in the Government; (3) The DSPE acquired the current name, Central Bureau of Investigation (CBI), through a Home Ministry resolution dated 1.4.1963. The ambit of the agency was **gradually expanded to include the PSUs and the Banks**. The agency now investigates economic crimes of high value, special crimes, and cases of corruption; (4) Directorate of Enforcement is a **specialized financial investigation agency under the Department of Revenue, Ministry of Finance**, which enforces the FEMA and the Prevention of Money Laundering Act, 2002. It is focused on economic crimes and coordinates with foreign countries in matters related to money laundering.

**What was the need to extend the tenures?** – (1) **Check the frequent transfers:** Temporary appointments tend to favour certain individuals who are considered 'compliant'. Many times seniority is ignored in appointments; and Directors are removed abruptly and frequently. A longer tenure will reduce the transfers; (2) **Continuity:** 2 year tenure may not be enough to make any significant impact on the organization. The Federal Bureau of Investigation Chief in the U.S. gets a 10-year term. A longer 5 year term may enable the Director to make decisions that are more impactful.

**What are the concerns associated with the Ordinances?** – (1) The Ordinances **circumvent the verdict of the Supreme Court**. The Supreme Court recently observed that the CVC Act stipulates minimum two year term for the Director of the ED. (Section 25 CVC Act, 2003). However the Court noted that the “*extension of tenure granted to officers who have attained the age of superannuation should be done only in rare and exceptional cases*”. And that the further extension should only be for “*a short period*”. The present Director of ED **has already attained Superannuation and now the Ordinance extends his tenure against the SC Judgment**; (2) The Ordinances **allow the Government to extend the tenure 1 year at a time** instead of full 5 year secure tenure. This will influence the functioning and independence of the Office of the Director and can impact the quality of investigations as well; (3) The **use of Ordinance route for extending the tenure** is being questioned. Instead, the Acts could have been amended to extend the tenures; (4) The Opposition parties are claiming that by making the Directors compliant through 1 year extension at a time, the CBI and the ED can be exploited to **target political opponents**; (5) The **Vineet Narain Judgment** by the Supreme Court (1997) created a legal structure to give operational autonomy to investigative agencies and statutory status to CVC.

The November 2014 amendment to the DSPE Act strengthened it further by providing for a selection committee for Director’s post which included the Leader of Opposition in the Lok Sabha. This ordinance reverses the trend of reforms.

#### PT BOX

**Ordinance Making Power of the President (Executive)**  
Articles 123 and 213 of the Constitution of India allow the Centre and the State Governments to frame laws through an Ordinance. The Ordinance can be issued when either or both the Houses of the Parliament are not in session and the Ordinance must be necessarily placed before both the Houses when reconvened. The Constitution had **envisaged a rare and restrained use of the Ordinances**.

In the DC Wadhwa Case, 1986; the Supreme Court clarified that the power to promulgate an Ordinance is essentially a power to be used to meet an extraordinary situation **and can’t be perverted to serve political ends**. In the 16<sup>th</sup> Lok Sabha, total 45 Ordinances were promulgated or about 9 every year. 15 Ordinances were promulgated in 2020.

**What can be done?** – A former Director of the CBI suggests; (1) The Directors should have a **mandated 5 year term instead of 1 year extensions** after the mandatory 2 year period. This security will ensure independence of functioning of the CBI and the ED; (2) The **use of Ordinances should be restricted to exceptional cases** as envisaged in the Constitution; (3) While the Director has the obligation to inform the Government of important matters, (s)he should not take orders from the Government and **should be isolated from political interference**; (4) The Government should enact a CBI Act which should have following features: (a) Removal of consent of States for CBI Investigation; (b) Enable CBI to launch investigations from its own statute instead of depending on the Criminal Procedure Code; (c) Enable the officers to act on their own like Income Tax Act and the Customs Act.

#### #4 The Working of the Office of the Ombudsman: Lokpal

**NEWS:** The Office of Lokpal has utilized only 30% of its allocated budget till November 30. This has renewed concerns regarding the functioning of the Office of Lokpal.

**What has been the history of Lokpal?** – The Lokpal was first proposed in 1960s. The Jan Lokpal Bill was presented in the Parliament in 1968. The Bill was passed in the Lok Sabha but wasn’t passed in the Rajya Sabha. Lokpal Bills were again introduced in 1971, 1977, 1985, 1989, 1996, 1998, 2001, and then in 2011. In 2013, a Bill was finally passed and the Lokpal and Lokayukta Act came into existence.

**What is the need for Lokpal in India?** – (1) India has consistently ranked poor in **Corruption Perceptions Index** published by Transparency International. India has been ranked **86 in 2020, 78 in 2018, 76 in 2015, and 95 in 2011**; (2) India has continued to **lose a large amount of money due illicit financial outflows**. A study by the **Global Financial Integrity estimated that India lost USD 510 billion over the period of 2004-13** due to illegal flow of money out of the economy. India was ranked 4<sup>th</sup> behind China, Russia and Mexico; (3) Public perception of **lack of independence of investigative agencies** which are susceptible to influence of the political executive; (4) The Office of the Lokpal had been **recommended by the First Administrative Reforms**

**Commission (1966)** in order to ensure an efficient **corruption-free administrative machinery** and **instill public confidence**.

**What are the salient provisions of the Act?** – (1) The Act provided provision to create Lokpal and Lokayukta at the Union and State level respectively to look into complaints of corruption against the public functionaries; (2) **Membership:** The Office of the Lokpal would consist of the Chairperson and 8 other members. Of the 8 members, 50% must have judicial background (Judicial members). 50% of the members must be women, SC/ST/OBCs or minorities; (3) **Appointments:** The members of Lokpal would be appointed by a Committee consisting of the Prime Minister, the Speaker of the Lok Sabha, the Leader of the Opposition, the Chief Justice of India (or her nominee) and an eminent jurist (nominated by President);

(4) **Removal:** The members can be removed by the President on the ground of misbehaviour after an inquiry by the Supreme Court. 100 Members of the Parliament must sign a petition for initiation of enquiry; (5) **Jurisdiction:** The Lokpal can enquire into complaints against the Prime Minister, a Minister in the Union government, a Member of Parliament or the officials of the Union government (all Groups A, B, C and D). Lokpal can also enquire complaints against any board, corporation, society, trust or autonomous body either established by an Act of Parliament or wholly or partly funded by the Centre. Society/trust/NGO that receives foreign contribution above ₹10 lakh can also be enquired; (6) **Exceptions in case of the Prime Minister:** Lokpal can't enquire allegations against the Prime Ministry on certain issues related to international relations, external and internal security, public order, atomic energy and space. Complaints against PM need to be approved by 2/3<sup>rd</sup> of the Members for moving to the investigation stage; (7) Lokpal will have two wings; **Inquiry Wing** for preliminary enquiries and **Prosecution Wing** for the prosecution of the public servants; (8) **Power over Investigation Agencies:** Lokpal will have power of superintendence over investigation agencies for cases referred to them. Transfer of investigating officers in such cases will require the approval of the Lokpal; (9) **Timelines:** The Act also defines timeline of the investigation (6 months) and allows for confiscation of property acquired with corrupt means even during investigation stage and prosecution is pending; (10) Expenses of the Office of Lokpal are charged on the Consolidated Fund of India.

#### PT BOX

##### Ombudsman and Lokpal

Ombudsman is an official appointed to **look into and resolution of complaints** filed against the institutions which may include the Governments and their bodies, public entities, private organizations and service providers, financial institutions etc. The origin of the word lies in the old Nordic language and Sweden was one of the first countries to establish the office of Ombudsman in 18<sup>th</sup> century. **Lokpal in India** is modelled on similar principle and has been **established to look into complaints of corruption against Government officials and other public entities**. Office of **Lokayukta** has a corresponding role to play at the State level.

**What are the issues with the functioning of the Lokpal?** – (1) According to the information shared in the Rajya Sabha by the Government, the Lokpal had received 1427 complaints in 2019-20, 110 in 2020-21. Only 12 complaints were received between April to June 2021. Of the 1427 complaints in 2019-20, 613 were related to State Government officials and four against Union Ministers and Members of Parliament. As of May 1, 2020, 1200 complaints were disposed off. Most of the cases were of the nature of public grievances. Some cases were referred to the CVC and Ministries for furnishing status report or for the necessary action.

**There has been drastic fall in the number of complaints filed because of perception of ineffective Lokpal;** (2) The members of Lokpal were appointed in March 2019 only after the filing of contempt petition in the Supreme Court following the failure of the Government to comply with the 2017 ruling of the Court to initiate the process of making appointments. The Act had become operational in January 2014. **Members of the Lokpal were appointed after a 5 year delay.** Moreover the appointments were made by the Committee in the **absence of the Leader of Opposition in the Lok Sabha**. The Supreme Court had allowed for appointments to be made in the absence of the Leader of Opposition in the Lok Sabha in 2017; (3) Rules to file complaints etc. were issued in March 2020 although members had been appointed in March 2019 (i.e., 6 years after operationalization of the Act and 1 year after appointment of the members). Almost of 1400 complaints were received in 1 year and 1200 were disposed off without proper rules; (4) **The position of two Judicial members has been vacant** for quite some time (almost 2 years); (5) **Inquiry and Prosecution wings have not been set-up** and the directors have not been appointed. The Lokpal had requested the Government for appointment of Directors in June 2021. Till the constitution of the prosecution wing, the **Union Government will support the Lokpal by deputing required staff** from the Ministries; but they are susceptible to influence from the



Government thus **impacting the independence of the Institution**; (6) The Lokpal didn't present any report to the President as required by the Section 48 of the Act. The President lays down this report before the President; (7) The **Lokpal has refused to entertain appeals and requests of review of its own orders** citing lack of appropriate provisions in the Act and the associated rules; (8) According to a report submitted to the Parliament, the **Lokpal has utilized only 30% of the sanctioned budget** till November 2021 indicating inactivity in the functioning of the body; (9) The **Lokpal lacks the Suo motu power** to enquire into the cases of corruption; (10) The Government had amended the Lokpal Act in 2016 to remove the mandatory disclosure of assets of spouses and children of the public servants. The mandatory disclosure on Ministry's website has also been removed. The details of the disclosure to be made will be notified by the Union Government.

**What is the way forward?** – Various transparency and anti-corruption activists have suggested; (1) **Providing Constitutional status** to the Office of the Lokpal; (2) Amending the provision regarding appointment committee to include the Leader of the largest opposition party instead the Leader of Opposition in the Lok Sabha; (3) The **delays in the appointments, filling of vacancies should be addressed** and appointments should be completed **within a prescribed timeline**; (4) Provisions related to the **protection of whistleblowers** should be included in the Lokpal Act.

## #5 Reservation Issue: Use of Data for decision making on Reservation

**NEWS:** The Tamil Nadu Legislative Assembly granted 10.5% internal reservation to the Vanniyar Community withing the 20% quota for the Most Backward Classes. The Madras High Court has declared the law unconstitutional.

**What was the Supreme Court Judgment in Indra Sawhney and Nagaraj Cases?** – (1) The Court **identified 'Caste' as a criteria for determining social and educational backwardness**. The Court upheld the 27% reservation to the Socially and Educationally Backward Classes; (2) The Court observed that 'Economic Condition' may be a consideration in addition to, social backwardness, but it can never be the sole criterion. The Court prescribed **11 indicators to ascertain social backwardness**; (3) The Court asked the Government to **identify 'Creamy layer' within the backward communities** which are to be **excluded from the benefits of reservation**; (4) The Court also said that the **reservations shall not exceed 50%** of the appointments or posts, **barring certain extraordinary situations**; (5) In a subsequent Judgment in **M Nagaraj's case**, the Supreme Court held that if the **State decides to allow reservation in promotions**, it would **have to collect quantifiable data showing backwardness of the class and inadequacy of its representation in public employment**.

**What was the issue with the internal reservation in TN?** – There is lack of use of data in the decision making process of providing reservation to various communities. Absence of data leads to an element of subjectivity in the decision; (1) The High Court opined that **there were no data**, quantifiable or otherwise, **available with the State Government for decision making** and hence quashed the provision; (2) **No exhaustive study has been undertaken** in Tamil Nadu on the **representation of various communities in education and employment** since the Second BC Commission (**J.A. Ambasankar Commission**) in 1982-85; (3) In 2011, the Tamil Nadu State BC Commission couldn't present the community wise break-up after being asked to justify the 69% quota granted to the BCs/MBCs/DNCs/SCs/STs under the 1994 Reservation Act (which was subsequently placed in the 9<sup>th</sup> Schedule of the Constitution).

### PT BOX

#### Special provisions for certain classes

**Art 15(3)** The State can make special provision for women and children.

**Art 15(4)** The State can make any special provision for the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes.

**Art 16(4)** The State can make special provisions for reservation in favor of any backward class of citizens which are not adequately represented in the services under the State.

**What is the need for the exhaustive study on status of communities?** – (1) The Madras HC observed that the **quantifiable data are required in order to understand the representation of communities** in services along with their **social and educational backwardness** to grant reservation in employment; (2) The two State BCs Commissions set up earlier had expressed similar opinion. The Second BC Commission had argued for

internal reservation within the backward communities based on their status, while the first BC commission (A.N. Sattanathan, 1969-70) had advocated periodic removal of top communities from the provisions of the reservation based on the progress made.

**What can be done? – (1)** One of the terms of reference of the existing State BC Commission (set up in July 2020), is to examine the demand for internal reservation and make a recommendation on the matter. The Commission can **undertake a comprehensive study to compile data and understand the way the benefits of reservation get accrued to the various communities** within the Umbrella BCs, MBCs, DNCs; **(2)** The Supreme Court of India also asked the same question to the Union Government during a hearing in October 2021. **The Court observed that reservation in promotion for scheduled castes and scheduled tribes cannot go on indefinitely but only till they are adequately represented.** The Court asked what exercise has the been undertaken by the Union Government after 1997 to find out adequacy or inadequacy of their representation to continue with reservation in promotion. Even in a 2006 Judgment, a Constitution bench of the Supreme Court had said that the **Central and State Governments need to collect quantifiable data showing inadequacy of representation of the communities in government jobs.**

In this context; the Government should undertake a detailed study of representation of all classes in education and services.

## #6 Pre-Poll Opinion Surveys

**NEWS:** The Chancellor of Austria had to resign for orchestrating fake surveys and bribing news media to show them as genuine opinion poll.

**What are Pre-poll Opinion Surveys? –** Pre-poll surveys are undertaken to **gauge the voter preference** before the actual election. Agencies conduct surveys on a sample of respondents drawn to represent the larger population who are asked standard questions. The responses to these questions **reveal likely voter preferences and behaviour.** The responses of the sample are **extrapolated to predict the outcome of the polls.**

**How do Pre-election Opinion Polls impact outcomes of the elections? –** According to one estimate by **Lokniti** (Centre for the Study of Developing Societies), **only 35% of voters are committed voters** who are **sure of their voting preference** before the beginning of the election campaigns. The remaining 65% voters make their decision a few days before the election day. **Nearly 30% of these non-committed voters (or 20% of the total voter base) choose the candidate most likely to win.** In India's First-Past-the-Post system of voting, candidates win with a thin margin. In 2019 General Elections the median winning margin was ~12% while in 2009 the median winning margin was ~7%. Thus the **decisions of non-committed voters have a major impact on the electoral outcomes.** A rigged pre-poll survey can easily sway voter share and impact the outcomes of the elections.

**What are the issues associated with the Pre-poll Surveys? – (1) Lack of Transparency:** Many Agencies do not share the methodology and the raw data of the surveys. Thus there is a **concern regarding objectivity of the surveys;** **(2) There are no regulations** (e.g., disclosure norms) regarding the opinion polls; **(3) Lack of transparency, standards and regulations make these polls susceptible to influence by political parties;** **(4) A genuine opinion poll may also commit mistake if the selected sample is not truly representative of the population.** A CSDS study had found that over the last decade, opinion polls were able to correctly predict the electoral outcomes only 50% of the times.

According to CSDS, **opinion polls can go wrong due to sociocultural diversity and volatility among voters, multipolar contests and alliances, wrong methods of sampling or wrong sample size and the accuracy of the statistical model to predict the number of seats.**

**What is the view of Law Commission regarding Opinion Polls?** – The 255<sup>th</sup> report of the Law Commission had **called for regulation of opinion poll** for three reasons; (1) To ensure that credentials of the organizations conducting the poll are in the public domain; (2) Public has a chance to assess the validity of the methods used in conducting the poll; (3) Public is adequately aware that the poll is in the nature of forecasts or predictions.

**What is the current situation regarding Opinion and Exit Polls?** – At present, Opinion polls are **barred from being published in the media 48 hours prior** to an election under Section 126(1)(b) of the RP Act, 1951.

The contravention of Section 126(1)(b) is punishable under Section 126(2) with imprisonment for a term which may extend to two years or with fine, or with both. The **Exit polls can be published only after the completion of all the phases of elections** (in multi-phase elections).

**PT BOX**

**Exit Polls and Opinion Polls**

In the Exit Poll, the voter is asked for her decision after she has exercised her voting right on the voting day. The 'exit' refers to survey done on people who have just exited voting booths

The Opinion Polls gauge the voter preference before the actual elections, typically 1-4 months before the scheduled elections. In 2008, Parliament amended the Representation of the People Act and inserted Sec 126A and 126B to explicitly ban the dissemination of result of exit polls during the period laid out by the EC, usually until the very last day of voting in a multi-phase election.

**Can the Election Commission ban Opinion Polls?** – The **Ministry of Law had suggested that the Election Commission can restrict opinion polls using its powers under Art 324**. However a former Chief Election Commissioner has remarked that the ECI can't ban opinion polls. In the opinion of the CEC, the **Parliament in 2008 had restricted the publishing of the Exit polls** (before completion of all phases of elections) and had **put no restrictions on the Opinion Polls**. A ban on Opinion Polls by an Executive Organ of the State when the Legislature had already considered the issue **may not be "legally sustainable"**.

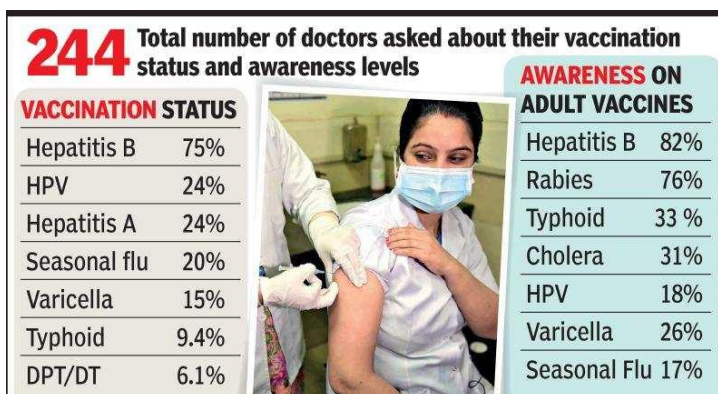
**What can be the way forward?** – (1) **Election Commission (EC) should set standards**: The EC can define the standards and guidelines regarding the polls including methodology as well as disclosure norms; (2) **All Opinion Polls must mandatorily disclose** their sample size, sample selection methodology, questionnaire shared with the respondents etc. Failure by the conducting agency to disclose the details should make the opinion poll suspect.

## #7 Vaccination for the adults

**NEWS:** The COVID-19 Pandemic has brought the focus on the need of vaccination for the adults and adult immunization.

**What is the status of adult vaccination in India?** – The first vaccine was developed for Small Pox in 1798. From then on vaccines were developed and administered for all age groups. However after eradication of smallpox and launch of an **Expanded Programme on Immunisation (EPI)**, the focus of immunization shifted to children. Adult vaccination went to the backstage with few efforts towards adult vaccination e.g., vaccination for adults was undertaken for Japanese Encephalitis outbreak in 2005. The issue of adult vaccination include;

(1) Limited research and data on the burden of **vaccine-preventable diseases (VPDs)** in adult age groups; (2) The **National Vaccine Policy of India, 2011 had no mention of adult vaccination**; (3) **National Technical Advisory Group on Immunisation (NTAGI) has provided recommendations for vaccination of health workers (high-risk group) only**; (4) Non-government professional groups like the **Association of Physicians of India** and **Indian Society of Nephrology** have





released guidelines on adult vaccination, but these are private and voluntary. Hence their impact is unknown and expected to be low.

A survey conducted on doctors in 2 hospitals in Gujarat in January 2021 **showed low level of vaccinations and poor awareness about adult vaccines even among doctors and healthcare professional.**

**What is the need for adult vaccination?** – (1) The review of available data on the burden of Vaccine Preventable Diseases (VPDs) in adult age group has shown that the increased focus on childhood vaccination has **resulted in proportionately higher cases of VPDs in adults**; (2) **VPD load in adult age group has higher social and economic costs** due to various factors like absenteeism from work and cost of hospitalization; (3) There is **emerging scientific evidence of waning immunity and the need for booster doses** in the adult age group for vaccinations administered in the childhood; (4) **Many new vaccines have been developed in the last 1-2 decades** which the adults have not received in their childhood e.g., there are more deaths due to pneumonia in adults than children and pneumonia vaccine programme must be expanded to include high-risk adults.

#### PT BOX

##### Vaccination

Vaccination as a simple, safe and effective way of protecting human body against harmful diseases before actual contraction of disease. Vaccines use body's natural defenses to build resistance to specific infections and make the immune system stronger. Vaccines train human body to develop anti-bodies just as the body is exposed to disease.

##### EPI and UIP

The **Expanded Programme on Immunization (EPI)** was initiated in India in 1978 with the objective to reduce morbidity and mortality from **diphtheria, pertussis, tetanus, poliomyelitis and childhood tuberculosis** by providing immunization services to all eligible children and pregnant women. EPI had limited reach, only in urban areas, so **Universal Immunization Programme (UIP)** was launched in 1985. **Measles vaccine was also added under UIP.** Under UIP, India's domestic vaccination production capacity was enhanced and supply chain was modernized (cold storage etc.)

**What steps should be taken?** – A prominent Physician and healthcare expert has provided the following recommendation; (1) **The mandate** of the National Technical Advisory Group on Immunisation (NTAGI) should be **expanded to include adult vaccination.** An NTAGI sub-group on adult vaccination can be constituted; (2) The VPD surveillance system and the capacity to record, report and analyse data on the disease burden and immunisation coverage need to be strengthened; (3) **Enhance capacity** of Research and Academic Institutions **to undertake research and provide evidence based policy guidance** for adult vaccination for high load VPDs; (4) Initiate the roadmap for drafting India's **national adult vaccination policy**; (5) **Address the issues of supply chain** and shortages of vaccines; (6) **The policymakers need to institutionalize mechanisms to examine the need of adult vaccination, take policy decisions and enable the adults to make an informed decision regarding vaccination.** There is a need to focus on a **Universal Immunization Programme Plus** for all age groups.

#### #8 Draft Data Protection Bill: Recommendations of the Joint Parliamentary Committee

**NEWS:** The Joint Parliamentary Committee has submitted its recommendations on the Data Protection Bill 2019. The Bill will be presented in the Winter Session (2021) of the Parliament.

**What is the need for a Data Protection Law?** – (1) India has nearly 800 million internet users. There is no separate **legislation related to data protection.** The **Information Technology Act, 2000** lacks relevant provisions and **does not address the issues created by rapid advancement in technology and social media** since 2000. A lot of internet based companies including the Tech Giants (like Google, Amazon, Meta etc.) drive their business by **showing personalized content to the users based on their browsing pattern and other online behaviour**, which requires **collection, storage and utilization of lot of personal data of the users.**

There is a big **regulatory gap**, including the **consent of the users** to collection and storage of data and the responsibility of the security of collected data. The **ensure the accountability** of the companies, the Government introduced the **Personal Data Protection Bill in 2019**; (2) In 2017, the Supreme Court had held that **privacy is a fundamental right under the Article 21 of the Constitution**. The Court also observed that **privacy of personal data and facts is an essential aspect of the Right to Privacy**. **Justice B. N. Srikrishna Committee** set up to examine various issues related to data protection in India recommended statutory backing to data protection. Till now the usage and transfer of personal data is regulated by the Information Technology (IT) Rules, 2011, under the IT Act, 2000.

#### What are the salient provisions of the Bill? – (1)

The Bill seeks to **provide for protection of personal data of individuals**, and **establishes a Data Protection Authority** for the same; (2) The Bill will **regulate the processing of personal data by the Government, companies incorporated in India, and the foreign companies** dealing with personal data of individuals in India; (3) The Bill **categorized certain personal data as sensitive data** like financial data, biometric data, political and religious beliefs etc.; (4) The Bill **defines the data fiduciary** (the entity that decides the means and purpose of processing personal data) and its obligations. The Bill includes **measures to ensure transparency and accountability** by mandating Data Fiduciaries to (a) Implement safeguards (like data encryption); (b) Instituting Grievance Redressal Mechanism; (5) The Bill **defines the rights of the individual** like seeking correction of data and **restriction of disclosure of personal data if consent is withdrawn**; (6) The Bill provides certain conditions where **personal data can be processed without the consent of the individual**. These include: (a) If required by the State for providing benefits to the individual, (b)

Legal proceedings, (c) To respond to a medical emergency; (7) The Bill **defines Social Media Intermediaries** (which enable online interaction between users and allow for sharing of information) and they have certain obligations like **providing a voluntary user verification mechanism**; (8) Sensitive personal data may be transferred outside India if **explicitly consented to by the individual**. However, such sensitive personal data should continue to be stored in India. Critical personal data (as notified by the Government) can only be processed in India; (9) The Bill sets up a **Data Protection Authority** which may: (a) Take steps to protect interests of individuals, (b) Prevent misuse of personal data, and (c) Ensure compliance with the Bill; (10) The Central Government can **exempt any of its agencies from the provisions of the Act** like In interest of **security of state, public order, sovereignty and integrity of India and friendly relations with foreign states** (Clause 35).

**What are the recommendations of the Joint Parliamentary Committee? – (1)** The Committee has recommended the ambit of the Bill to be expanded to **include Non-personal data as well**; (2) **Hardware manufacturers** that collect data through digital devices are not under covered in the Bill and the JCP has **suggested their inclusion**; (3) The JCP has recommended that all **social media platforms**, which did not act as intermediaries, **should be treated as publishers** and be **held accountable for the content they host**. It also recommended setting up a **statutory Media Regulatory Authority for the regulation of content on such platforms**; (4) The Social media firms shouldn't be allowed to function in India without setting up offices here.

#### PT BOX

##### Personal and Non-Personal Data

Personal data pertains to characteristics, traits or attributes of identity, **which can be used to identify an individual**. Non-personal data includes aggregated data **through which individuals cannot be identified**. For example, an individual's location data collected by cab-hailing app constitutes personal data. Information derived from multiple drivers' location, which is often used to analyse traffic flow, is non-personal data. A draft report released by the **Kris Gopalakrishnan Committee** had suggested that non-personal data should be provided to domestic companies for building products and services. However, it has been opposed by major social media firms, who think it will take away their competitive advantage.

##### Data Protection

Data protection refers to policies and procedures seeking to **minimise intrusion into the privacy of an individual** caused by collection and usage of their personal data.

#### Definitions

**Data Principal:** The person to whom the data belongs.

**Data Processor:** A person, entity or State which processes the data.

**Data Fiduciary:** A person, entity or State which controls the various aspects related to data storage and defines how it can be processed.

**Data Protection Authority:** A regulatory body for the Act which can have adjudicating powers and pass executive instructions in case of conflict between two parties under the Act.


The Government must ensure a 'mirror copy' of sensitive and critical personal data in possession of foreign entities be mandatorily brought to India.; (5) The Committee has recommended granting some **exceptions to data fiduciaries below a certain threshold**, in order to not to hamper the growth of firms that are classified under MSMEs; (6) The JCP has recommended that the **definition of harm should also include psychological manipulation** which impairs the autonomy of a person; (7) The JCP has recommended an **approximate period of 24 months be provided to data fiduciaries** and data processors **towards transition** of their policies, infrastructure and processes for the implementation of the provisions of this law; (8) The JCP has favoured a specific timeline for the data fiduciaries **to report data breach with 72 hours being considered a realistic and finite timeframe**; (9) The JPC is agreeable to the Central Government issuing directions to the DPA on certain matters other than policy but such directions to DPA should be disclosed in annual reports; (10) The JPC is **against hefty penalties against tech giants for breach**. The Bill provides for fine of INR 15 Crore or 2-4% of the worldwide turnover for violation of certain provisions. As there is no clear mechanism to quantify the global turnover of companies, the Government should be enabled to quantify the penalties in case of violation.

**What is the issue regarding Clause 35 of the Bill?** – (1) Some members of the Committee had **submitted dissent note** regarding exemption that can be granted to the Agencies of the Government under certain conditions (Clause 35). This **exemption violates the Right to Privacy** and creates two parallel systems of regulation; one for the public sector and other for the private; (2) The members had proposed alternatives like: (a) Having **Judicial or Parliamentary oversight** for granting such exemptions; (b) Providing the **order of exemption in writing** noting down the reasons; (c) Allowing only partial exemptions to select agencies; (3) The **recommendations were not accepted by the JPC** observing that the clause is for 'certain legitimate purposes' and called for a **balance of Privacy and National Security**. It cited the exemptions as reasonable and in conformity with the exceptions to the Article 19 and the Puttaswamy (2017) Judgement.

**Ringfencing data**  
Concluding its deliberations since 2019, the Joint Parliamentary Committee on Personal Data Protection Bill adopted its report on Monday

**Key recommendations**

- Treat as publishers all social media platforms which do not act as intermediaries, and they be held accountable for the content they host
- Allow no social media platform to operate in India unless the parent company handling the technology sets up an office in India
- Develop an alternative indigenous financial system for cross-border payments
- Set up dedicated lab for certification of all digital devices
- In case of cross-border transfer of data, a mirror copy of sensitive and critical personal data be mandatorily brought to India



## #9 Using International Laws for National Interests: Engaging in 'Lawfare'

**NEWS:** India has not utilized the potential of International Laws and treaties to advance its National Security interests

**What are the examples of non-usage of International laws by India?** – International laws cover wide array of security issues ranging from terrorism to maritime security. Article 1(1) of the UN Charter recognizes the maintenance of "international peace and security" as a principal objective of the UN. However, India has not been able to fully utilize international law to advance its national security interest – (1) After an attack by a Pakistan-based terror outfit in Pulwama in February 2019, India struck the terror camps in Pakistan. However, in justification for this action, India did not invoke the **Right to Self-defense**, rather, it relied on a **contested doctrine of 'non-military pre-emptive action'**; (2) As per General Agreements on Tariffs and Trade (GATT), countries can **deviate from their MFN obligations on grounds of national security**. In the wake of Pulwama attack, India increased the customs duties on all Pakistani products to 200% under Customs **Tariff**

### PT BOX

#### Principle of Non-refoulement

The principle of non-refoulement forms an essential protection under **International Human Rights, Refugee, Humanitarian and Customary Law**. Under international human rights law, the principle of non-refoulement guarantees that **no one should be returned to a country where they would face torture, cruel, inhuman or degrading treatment or punishment and other irreparable harm**. This principle applies to all migrants at all times, irrespective of migration status.



**Act, 1975**; and avoided the word 'National Security' in the notification; **(3)** Law Enforcement Agencies view Rohingya refugees as a threat to India's national security. But the justification of deportation of Rohingya refugees is being given that India is not a signatory to the Refugee Convention, whereas, India is bound by the **Principle of Non-refoulment under International Law** to not deport them. **National security is one of the exceptions to the Principle of Non-refoulment** in international refugee law, which is not used as a justification.

Only in limited cases has India used the International Law effectively like in the Kulbhushan Jadhav case.

**Why India is lagging behind in 'lawfare'?** - Lawfare means using law as a weapon of national security. According to a Senior Academic in a prominent University India has not engaged in 'lawfare' effectively because of - **(1) International lawyers** are marginally involved in foreign policymaking. **Legal and Treaties Division** of the Ministry of External Affairs is understaffed and also ignored in policy making. This division was formed to advice government on international law matters; **(2)** Ministries like Commerce and Finance which deal with different facets of international law have negligible expertise in international law; **(3)** Institutions created to undertake cutting-edge research in international law are suffering from low research quality and neglect; **(4)** Many of the outstanding international law scholars have failed to popularize international law among the larger public.

## #10 India's Approach to Eurasia

**NEWS:** Indo-Pacific Strategy has got a concrete political and institutional shape with the setting up of QUAD. India must develop a similar strategy for Eurasia as well. The Eurasian Strategy (Continental Domain) will complement the Indo-Pacific Strategy (Maritime Geopolitics)

### What is the concept of Eurasia?

The concept of Eurasia poses challenges similar to the Indo-Pacific. While the region can be defined unambiguously by the Physical Geographers, the **political definition of Eurasia remain fluid**. Russia defines Eurasia in terms of territory and neighbourhood of the former Soviet Union. Some others define it in terms of "Central Asia", "Inner Asia" and "Greater Middle East" by including West Asia as well. India must consider Eurasia in broadest term to shape its Eurasian strategy.



**How is the geopolitics changing in the regions?** - **(1) China's dramatic rise:** China asserts deep influence in the region due to its long borders. China has grown more aggressive in recent times as the region is **central to its BRI project** which extends till Atlantic Coast of Europe. Moreover Russia's differences with the West has brought China and Russia closer; **(2) US Realignment:** While the US has increased focus on the Indo-Pacific, there is realignment of America's strategic view regarding the Atlantic and Eurasia. US has already withdrawn from Afghanistan. **The US and NATO are debating the rebalancing of Europe's collective defense where the US had played a central role since WWII.** The US is calling this rebalance as "**Burden Sharing**" while EU might call it "**Strategic Autonomy**". But in essence, the US might reduce its role in Europe's strategic defense and Europe might take a more central role and would require a rethink regarding Europe's conception of Eurasia.

**What has been India's relationship with Eurasia?** - India's connection with Eurasia dates to ancient civilizational links since the Buddhist era. Foreign forces continued to come to India through the western border while the British got entangled with the Russians in the Great Game in 18<sup>th</sup> and 19<sup>th</sup> centuries. **The partition of India and a hostile neighbour in the West cut off India from Central Asia and Eurasia.** Overcoming this barrier would be central to India's Eurasian Strategy.

**What should be India's Strategy?** – A renowned Geopolitical expert and Director of Institute of South Asian Studies, National University of Singapore has suggested that there should be 3 core elements to India's Eurasian Strategy – **(1) Centrality of Europe:** Many Indian nationalists had made Europe their base during the freedom struggle. Post-independence, India's relationship with the USSR had led to distancing from Europe. India must have **strategic engagement with Europe (both EU and NATO) on Eurasian Security and should set up a military office in Brussels as the first step;** **(2) Engagement with Russia on Eurasian security:** There are differences between India and Russia regarding QUAD, China and Taliban; but there are significant common grounds between the two regarding Eurasian security; **(3) Collaboration with Iran and Arab World:** While Iran is central to connectivity; the Arabs are critical due to their religious influence. Both might help in countering the hostile Turkey-Pakistan alliance. India shouldn't let the internal contradictions between all the regional and extra-regional stakeholders. Eurasia presents both a challenge and opportunity to India's foreign policy.

## #11 The Rise of China's Nuclear and Armed Forces' Capabilities

**NEWS:** The US recently asked the UAE to disallow China from building a military facility in the UAE. This came in the backdrop of Pentagon report recognizing rising capabilities of China's Armed Forces.

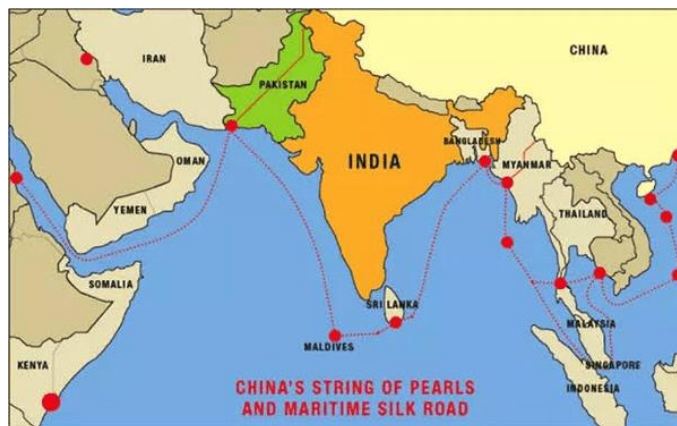
**What are the observations made in the report?** – The **China Military Power Report (CMPR)** released by the Pentagon reveals four specific areas where change is underway: **(1) Quantitative strength:** The size of the PRC's nuclear arsenal, is set to **increase from 200 nuclear warheads at present to 700 by 2027;** **(2) Atomic yield:** The PRC is likely to favour the **expansion of low-yield weapons.** These weapons are ideal for battlefield use during conventional military operations against targets such as concentrations of armoured, artillery and infantry forces. Lower yield warheads help the PRC avoid causing collateral damage; **(3) Delivery capabilities:** The low-yield nuclear warheads can be delivered by a range of ballistic missiles including **Submarine Launched Ballistic Missiles (SLBMs)** with a range of 7,200 kilometres capable of striking targets across continental Asia; **(4) Posture:** China has moved towards a **Launch on Warning (LoW) nuclear posture.** This higher alert posture risks reducing the threshold for nuclear use in the form of pre-emption and can lead to miscalculation and unintended nuclear use.

**What are the implications for India of China's rising Nuclear capabilities?** – **(1)** The size of China's nuclear arsenal limits the potency of India's nuclear arsenal. A significantly larger Chinese nuclear arsenal paired to missile defences will limit damage to the PRC. It also threatens the survivability of the Indian nuclear arsenal; **(2)** The **Launch on Warning (LoW)** posture reduces the decision time for any Indian retaliatory nuclear strike in the heat of a war or crisis and places pressure on India to pursue its own LoW; **(3)** The PRC could also significantly degrade an Indian retaliatory strike if China chooses to resort to First Use (FU) of nuclear weapons, and completely eradicate India's nuclear forces; **(4)** The Chinese have added two new SSBNs/nuclear-powered ballistic-missile submarines to their existing fleet and have carried out **bathymetric and ocean mapping surveys** in the Indian Ocean. **India is now exposed to a Chinese atomic pincer** from the maritime & the continental domain. A pincer attack is a military attack by two coordinated forces that close in on an enemy position from different directions.

**Which countries is China targeting for its foreign military bases?** – China opened its first **foreign military base in Djibouti** in the Horn of Africa in 2017. It is said to be building its **second** foreign military base at Ream, **Cambodia.** The recent US annual report on Chinese military power cites several countries that People's Liberation Army is targeting for military bases. These include Myanmar, Thailand and Sri Lanka in the Bay of Bengal. Seychelles, Tanzania and the UAE are in the Arabian Sea and the Indian Ocean Region. **Pakistan** is likely to emerge as the most important vehicle for Chinese naval power projection in the Indian Ocean, with significant implications for India's military planning.

**What are the reasons behind China's pursuit of acquiring foreign military bases?**

– China's policy of keeping a low profile and lack of interest in projecting power (defensive approach) has changed in to overt display of aggression. The change in approach can be: (1) Due to its vast globalized economy and growing reliance on foreign markets and resources, the Chinese want to **secure their regional and global interests**; (2) In the 1970s, China valued the US role in containing **Soviet social-imperialism** and **latent Japanese militarism**.



Today, China wants to establish **primacy in Asia and its waters** by expanding its military reach and is trying to push America out of Asia; (3) The desire in the Chinese leadership to **project China as the Global Superpower**.

China is following 'String of Pearls' strategy to establish ports in the Indian Ocean Region (IOR) with multiple objectives; (1) **Strategic**: China lacks access to the Indian Ocean which is crucial to China's **economic** (Sea Line of Communications and Oil & Gas supply chain) and **strategic security** (choke points, Strait of Malacca and Strait of Hormuz). China will be able to access and dominate the IOR with these bases; (2) **Maritime Security**: **Countering India's dominance in the IOR** by strengthening its presence. China is developing more firepower with more submarines, destroyers, vessels and ships. This endangers Indian maritime security; (3) **Economic**: The strategy is closely connected with **China's Belt and Road Initiative (BRI)** which will enhance China's dominance in the global economy.

**What are the features of the Chinese strategy of establishing foreign military bases?** – (1) **Dual-use facilities**: China's focus is on building dual-use facilities rather than explicit military bases on foreign soil. China's dual-use approach benefited immensely from its expansive foreign port construction to build infrastructure across the Indo-Pacific; (2) **Cultivating special relationships with the political elites**, as well as strengthening ties with the military establishments in a potential host country; (3) **Arms transfer, and military diplomacy**, are also an integral part of China's pursuit of foreign bases.

**What is the way forward for India?** – According to researchers from ORF and King's College London – (1) Indian strategic planners will have to think about the quantitative nuclear balance and India's nuclear posture *vis-à-vis* the PRC; (2) The maritime dimension of China's nuclear capabilities might not be an immediate strategic challenge but will potentially become one in the coming years for New Delhi. It will have to specifically watch the pattern in the People Liberation Army Navy's (PLAN) nuclear submarine deployments and address the deficit in its subsurface nuclear delivery capabilities.

## General Studies Paper III

### #1 Economic Dualism in India

**NEWS:** COVID-19 Pandemic has sharpened the economic dualism in India. Poverty rate is increasing, and the Government needs to focus on expanding livelihood opportunities

**What is economic dualism?** – **Dualism** indicates co-existence of two different worlds. **Economic dualism** therefore means existence of disparities in economic sphere. Economic Dualism denotes the disparities between, Urban vs rural, formal vs informal, land (and other assets)-owning vs landless, employed vs jobless, well-educated vs ill-educated, and rich vs poor states.

**What are the possible reasons for the economic dualism in India?** – (1) **Rise in poverty**: India is witnessing a substantial increase in rural poverty in several major states and an overall increase in the poverty ratio for the first time in four decades; (2) **Slow economic growth** in the last ten years; (3) **Twin shocks of demonetisation** in late 2016 and **transition to Goods and Services Tax (GST)** in 2017-18; (4) **Sharp deterioration in employment conditions, youth unemployment rate and a massive decline in female labour force participation** between 2011-12 and 2017-18 as recorded by the employment/labour force surveys; (5) **Impact of the Covid pandemic and the nationwide lockdown** imposed in late March 2020. This further worsened the unemployment rate and labour force participation rate; (6) **Disproportionate impact on the non-agricultural informal sector**: The loss of jobs and earnings was disproportionate in the non-agricultural informal sector accompanied by slow recovery.

**What are the possible consequences of an increase in economic dualism?** – It is likely to exert **lasting negative influences** on our economic and social trajectory in the medium and long run. These might include – (1) **Reduced potential** for economic growth; (2) The persistence of very weak employment and poverty situation; (3) Rising social and political discord; (4) Heightened vulnerability to geopolitical challenges.

**What is the way forward?** – A former Chief Economic Adviser to the Government of India has suggested that the central focus of the government has to be the **expansion of job opportunities** in both the formal and informal segments of the economy. Higher rates of employment will reduce poverty and strengthen overall economic growth.

This can be done via the following measures; (1) Strengthening rural employment guarantee programmes; (2) **Encouraging labour-intensive manufacturing** for both domestic and external markets through better policies; (3) **Enhancing learning outcomes in schools** and overall skill-development; (4) Removing regulatory impediments to employment expansion in all areas; (5) Strengthening programmes for **public health and basic health care**; (6) **Raising the national tax to GDP ratio** to undertake more expenditure on public goods like education, health, roads and other social infrastructure; (7) **Improving the business climate** to nurture higher private investment.

## #2 Integrated Ombudsman Scheme: ‘One Nation One Ombudsman’

**NEWS:** Integrated Ombudsman Scheme was launched by the Prime Minister. The scheme enables single point of reference for grievance redressal related to Banking services.

**What is Bank Ombudsman?** – (1) Banking Ombudsman is a senior official appointed by the Reserve Bank of India to **redress customer complaints against deficiency in certain banking services**; (2) The Ombudsman was established under **Section 35 A of the Banking Regulation Act, 1949** by RBI with effect from 1995; (3) The **grounds of complaint have been specified under the Clause 8 of the Banking Ombudsman Scheme 2006**, these include non-payments or delay in payments, non-adherence to prescribed working hours, failure to provide or delay in providing a banking facility etc.; (4) A complaint can be filed with the Ombudsman if the **user hasn’t received satisfactory redressal of the grievance from the bank within one month** of the raising of the complaint; (5) There are 22 Offices of Banking Ombudsman (OBOs) covering all the States and the Union Territories. RBI reported 3,30,543 complaints in 2019-20.

**What is the One Nation One Ombudsman Scheme?** – (1) There were **three Ombudsman Schemes** of the RBI (a) **The Banking Ombudsman Scheme, 2006**. It covered all Scheduled Commercial Banks, Regional Rural Banks and Scheduled Primary Co-operative Banks; (b) **The Ombudsman Scheme for Non-Banking Financial Companies, 2018**. It covered all NBFC entities; and (c) **The Ombudsman Scheme for Digital Transactions, 2019**. It covered digital transactions undertaken by customers of **System Participants**. ‘System Participant’ means any **entity other than a bank participating in a payment system** as defined under Section 2 of the Payment and Settlement Systems Act, 2007; (2) The three schemes have been **merged to create a single Ombudsman scheme**; (3) The Scheme also includes under its ambit **Non-Scheduled Primary Co-operative Banks with a deposit size of ₹50 crore and above**.



**What are the salient features of the Integrated Ombudsman Scheme?** – (1) The user need not identify under which scheme (s)he should file the complaint; (2) The Scheme defines ‘deficiency in service’ as the ground for filing a complaint. The complaints would no longer be rejected on account of “not covered under the grounds listed in the scheme”. This will reduce the rejections of complaints on technical grounds; (3) The Scheme has **done away with the jurisdiction of each ombudsman office**. The new scheme makes the Ombudsman Scheme **jurisdiction neutral**; (4) A **Centralised Receipt and Processing Centre (CRPC) has been set up** at RBI, Chandigarh for receipt and **initial processing of physical and email complaints in any language**; (5) The Regulated Entity (Bank or NBFC) **will not have the right to appeal** in cases where an Award is issued by the ombudsman against it for not furnishing satisfactory and timely information/documents; (6) The Executive Director-in charge of Consumer Education and Protection Department of RBI would be the **Appellate Authority under the Scheme**; (7) A **multi-lingual toll-free number** will provide all relevant information on grievance redress and assistance for filing complaints.

**What was the need for the Integrated Scheme?** – (1) The consumers faced **confusion regarding the relevant Ombudsman** for filing the complaints due to multiplicity of Ombudsman; (2) Many **complaints to the Ombudsman were rejected on technical grounds**. Consequently the users approached Consumer Courts where the redressal timelines are stretched.

The Integrated Ombudsman Scheme will make the Grievance Redressal Mechanism more streamlined and user-friendly. The users will have single point of reference (One email, One Portal and One Address) for filing, tracking and receiving feedback related to complaints. This will help improve the banking services.

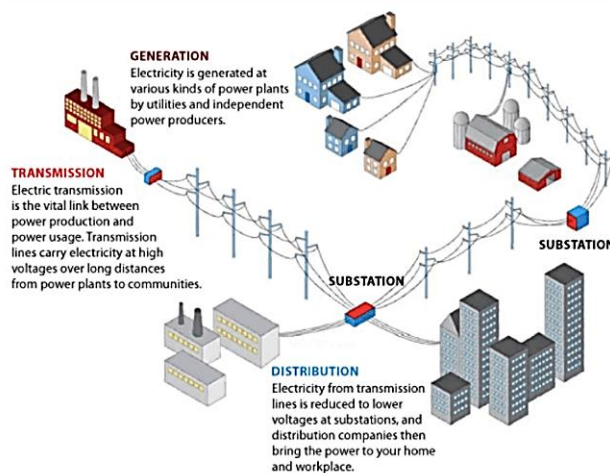
### #3 DISCOMs in India: Challenges and Solutions

**NEWS:** Power Distribution Companies in India are facing persistent losses and have accumulated huge debts.

**What are the Power Distribution Companies? –**

Power Generation, Transmission, and Distribution are the three main processes involved in the power sector. Distribution is done by the Distribution Companies (DISCOMs) which connect power producers to the households. They are the interface between utilities and the consumers and act as the cash register of the entire chain. Under the Constitution of India, Power is a Concurrent subject and the responsibility for distribution and supply of power to rural and urban consumers rests with the States. DISCOMs are predominantly owned by the State Governments. Private DISCOMs operational only in a few cities like Delhi, Mumbai, Ahmedabad etc. Government of India provides assistance to the States through various Central Sector/Centrally Sponsored Schemes for improving the distribution sector.

#### Transmission and Distribution Grid Structure within the Power Industry



**What are the challenges being faced by the DISCOMs in India?** – (1) **High AT&C losses:** According to Ministry of Power the **Aggregate Technical and Commercial losses in India are 18-19% (2019) compared to 6-7% in the US and the UK**. The annual losses are estimated to be INR 45-50,000 Crores. DISCOMs levy inadequate or less tariffs compared to cost of supply and there is insufficient subsidy support from the State Governments; (2) Frequent delays in the determination of tariffs; (3) Due to delay in collections from consumers, **DISCOMs face cash cycle mismatch and shortfall in payment receipts** and are unable to pay the generators. DISCOMs now **owe USD 14 Billion of arrear payments to power producers**.

This gap is met by borrowings (debt), government subsidies, and possibly, through reduced expenditure. This increases the DISCOMs' cost of borrowing (interest); (4) Even after six years of launch of UDAY, various levels in the distribution chain (the feeder, the distribution transformer (DT) and the consumer) have not been fully metered. As a result, it **difficult to isolate and identify loss-making areas and take corrective action**; (5) The domestic electricity consumers are **cross-subsidized** by the Industrial and Commercial users. **Fall in revenue from industrial consumers due to Pandemic has further strained the finances**, (6) Efforts to raise electric tariffs to cover the debt are met with stiff political opposition; (7) Schemes like "Electricity for all" (**which increase access**) **without appropriate augmentation of distribution networks increase the losses**; (8) The industrial sector is progressively shifting to renewable energy (increased funding for clean energy and falling cost); hence DISCOMs might not be able to cross-subsidize the domestic consumption sector, or their financial condition might deteriorate further; (9) According to one working paper prepared by the World Bank, firms in India report an outage every other day with average duration of 2 hours. **Power outages and low reliability of power** continue to be a challenge for the distribution sector.

**What are the implications of a weak DISCOM sector in India? – Difficulty in achieving the new climate targets:** India will struggle to meet its bold target of raising non-fossil-fuel generation capacity—including hydroelectric and nuclear power—to 500 gigawatts by 2030, up from roughly 150 gigawatts now. At COP26 meeting, India had recently committed to use non-fossil-fuel sources for half of its energy needs by 2030.

**What key schemes have been launched by the Govt to address the problems facing the DISCOMs? – (1) UDAY Scheme:** Launched in November 2015, under the Ujjwal DISCOM Assurance Yojana (UDAY), the State Governments took over 75 % of the debt of their DISCOMs, issuing lower-interest bonds to service the rest of the debt. In return, DISCOMs were given target dates (2017-19) to meet efficiency parameters like reduction in power lost through transmission, theft and faulty metering. The scheme was not successful in fulfilling its objective; (2) **Reforms-Linked, Result-Based Scheme for Distribution (RLRBSD):** In budget 2021-22, the Union government had announced the launch of a "reforms-based and results-linked" scheme for improving the financial health and operational efficiency of DISCOMs. Under the scheme, AT&C losses will be brought down to 12-15% by 2025-26, from 21-22%. Operational efficiencies of DISCOMs will be improved through smart metering and upgradation of the distribution infrastructure, including the segregation of agriculture feeders and strengthening the system.

**What is the way forward? – (1) DISCOM Restructuring:** Only 10% of India's population is served by private distribution licensees. Hence, **good Corporate Governance and higher private participation in distribution** hold out the possibility of greater efficiency; (2) **Regulatory Reforms:** The State Governments should promote **autonomy, competence and transparency** of the State Electricity Regulatory Commission (SERC). Depoliticization of DISCOMs is a must; (3) **Operational Reforms:** DISCOMs need to improve their

#### PT BOX

##### Elements of Electricity Supply Chain

**Generation:** Production of Electricity from fossil fuels (Coal, Natural Gas, Oil etc.), hydrological sources, Nuclear, or Renewable Sources (like Solar)

**Transmission:** Electricity is transmitted over long distances at **high voltage and low current to minimize losses**. Transmission involves transport of electricity from generation plants to regions of consumption through series of substations which maintain voltage in the network. It involves infrastructure like High Tension lines and towers, substations etc.

**Distribution:** Distribution involves bringing electricity from substations to domestic, industrial, and commercial consumption centers. It involves infrastructure like low tension wires, utility poles connecting substations to consumption centers and consumption meters etc.

#### PT BOX

##### AT&C Losses

It is combination of **energy loss** (Technical loss + Theft + inefficiency in billing) and **commercial loss** (Default in payment + inefficiency in collection).

The National Power Portal defines the formula for measuring the AT&C losses as:

**AT&C Losses = {1 - (Billing Efficiency X Collection Efficiency)} X 100**

Here, **Billing Efficiency = Total Energy Billed to Consumers (kWh) / Total Energy Input (kWh)**

Billing efficiency is an indicator of proportion of energy that has been billed (includes both metered and unmetered sales) to consumers with respect to energy supplied to an area.

**Collection Efficiency = Revenue Collected (In Rupees)\* / Billed Amount (In Rupees)**

Some consumers default on payments and the utility is not able to recover the entire amount which results in commercial losses.

billing efficiency through better and smart metering; **(4) Renewable Energy Integration:** DISCOMs need to prepare to accommodate an increasing amount of renewable energy (RE), from generators as well as prosumers; **(5) Managerial Reforms:** **(5a)** Effective reforms such as easily accessible call centres, convenient bill payment facilities can help reduce customer dissatisfaction and increase revenue. Moreover, Performance incentives can also help align DISCOM employees to the interests of the organisation; **(5b)** The creation of a **national power distribution company** to ensure procurement of electricity at competitive prices; **(6) A low-cost robust solar panel manufacturing industry** in India will lead to lower cost of power for DISCOMs. As the share of solar power increases, the cost for DISCOMs will come down; **(7) Privatisation of DISCOMs:** It is an experiment that has yielded positive results in many cities, including Delhi, Mumbai, Kolkata and Ahmedabad. The AT&C losses in Delhi have come down to 8% from 53% in 2002 due to privatization; **(8) Electricity Amendment Bill 2021:** The bill seeks to delicense power distribution to reduce entry barriers and create competition in the segment. Consumers will be able to choose from multiple service providers which will force DISCOMs to become more efficient.

#### #4 The Issue of Farm MSP

**NEWS:** The Government of India repealed the Farm Laws. However, the protesting farmers want legal guarantee on the Minimum Support Price (MSP).

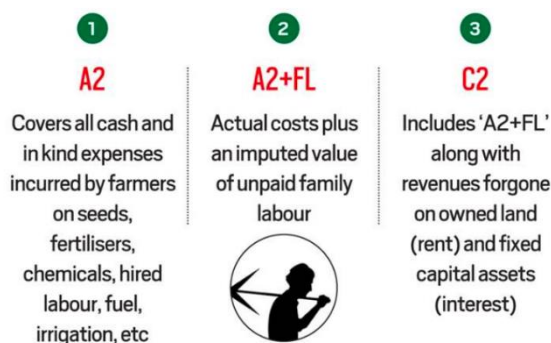
**What is MSP and its current status in India? – (1)** Minimum Support Price (MSP) is a form of **market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices**; **(2)** Minimum Support Price is the price at which, the Government **promises to procure agricultural produce from farmers**; **(3)** The major objective is to **support the farmers from distress sales**. In case the market price for the commodity falls below the announced minimum price, the Government agencies purchase the entire quantity offered by the farmers at the announced minimum price; **(4)** At present, the government announces MSPs for 23 crops, but procurement happens only for a few among them. Also, procurement varies quite a lot across states; **(5)** The Government is **not legally mandated by law to procure under MSP**. The Government can by its discretion choose, not to procure.

#### GOVERNMENT PROCUREMENT VS. PRODUCTION (MILLION TONNES)\*

	PROCUREMENT	PRODUCTION	% PROCURED
Rice	51.23	118.43	43.26
Wheat	38.99	107.59	36.24
Cotton	104.62*	354.50*	29.51
Chana	2.1	11.35	18.47
Arhar/Tur	0.72	3.83	18.8
Moong	0.14	2.46	5.69
Mustard	0.8	9.12	8.78
Groundnut	0.71	10.1	7.03

\*Lakh bales of 170 kg each; Data for 2019-20

**How is the MSP set in India? – (1)** The minimum support prices are announced by the Government of India at the **beginning of the sowing season** for certain crops on the basis of the **recommendations of the Commission for Agricultural Costs and Prices (CACP)**; **(2)** The CACP considers various factors before recommending the MSP. The factors include: **(a)** Demand and supply; **(b)** Cost of production; **(c)** Price trends in the market, both domestic and international; **(d)** Inter-crop price parity; **(e)** Terms of trade between agriculture and non-agriculture; **(f)** Minimum of 50% as the margin over cost of production; **(g)** Likely implications of MSP on consumers; **(3)** There are various methods to calculate the cost of Production. These are called **A2** (Cost of all inputs like seeds, fertilizers, irrigation etc), **A2+FL** (Cost of all inputs plus value of unpaid family labour) and **C2** (A2+FL plus value of rent of land and interest); **(4)** The CACP uses state-wise, crop-specific production **cost estimates provided by the Directorate of Economics & Statistics in the Agriculture Ministry** for calculating





the production costs. The CACP **uses the A2+FL costs for recommending the MSP**; (5) Farmers organizations are **demanding MSP based on C2 costs (C2+50%) as recommended by the National Commission for Farmers** (Swaminathan Commission). The Government is currently giving 50% premium over the of A2+FL costs.

**What are the arguments in support of legalising MSP?** – (1) Assured procurement at the MSP can address the issue of low farm income, raise income levels and provide income security to farmers; (2) Public procurement and stockholding can address the issue of hunger in India; (3) Lack of alternate avenues and the absence of productive non-farm jobs in India means continued support would be required to the farm sector; (4) Shanta Kumar Committee had pointed out low awareness of MSP and only 5.8% of the agricultural households sold their produce at MSP to Government agencies. MSP in its present form is not able to support the farmers as intended; (5) Proponents of the MSP argue that legal right to MSP comes under Farmers' fundamental right to livelihood.

**What are the challenges in legally mandated MSP?** – A legal mandate for MSP would oblige the Government to purchase all the produce that any farmer wants to sell at the declared MSP. The Government would also have to procure from all States, and all crops for which MSPs are announced. This will have many unintended outcomes; (1) **High cost to the exchequer**: According to one estimate, Government would need an additional INR 5 trillion to buy surplus crops. It will further incur holding and carrying costs, and might have to sell the stock at subsidised rates; (2) Loss of food grains in Mandis and storage; (3) Increase food inflation; (4) **Encourage unsustainable cultivation** of water intensive crops like Rice in water deficient regions. **Economic returns might become the prime considerations for crop cycle rather than agro-ecological conditions**; (5) The buffer food grain stock with the Government for Wheat and Rice is more than twice the requirement. Legal mandate to procure will increase this further and lead to wastage; (6) **Large public stockholding will further complicate WTO negotiations** where India might face stiffer opposition from the developed countries; (7) Poor farmers with marginal landholdings may not benefit much from MSP as they practice subsistence farming and have little agriculture surplus to sell.

**What are the issues that are hampering the growth of agriculture in India?** – (1) **Fragmented landholdings and consequently the small size hampers productivity**; (2) **Low public investment towards capital formation**, the focus has been more on provision of subsidies; (3) **The productivity of agriculture sector is stagnant** or falling; (4) **Low farm incomes** due to low productivity and hence no surplus income to invest on farm improvement; (5) **Lack of growth in non-farm sector jobs** and hence overdependence of population on agriculture. Almost 50% population is still dependent upon agriculture sector for livelihood.

**What options have the experts suggested?** –

Various agriculture economists and scientists have suggested that the Government shouldn't bypass the market through MSPs and should enable the farmers to participate in the market instead. An Economics Academic from University of British Columbia has observed that measures like MSP and subsidies (interest rate subvention on farm loans) do not address the long term productivity issue in Agriculture. Instead they trap the farmers in agriculture by giving them marginally better incentives in the short term

although the income and productivity are declining in the long term. So the Government should take steps for long term improvement; (1) **Ramp up investment in the agriculture sector**: Provide better irrigation facilities, easier access to credit, timely access to power, and ramping up warehouse capacity and extension services, including post-harvest marketing. This will increase farmers' bargaining ability and choices before them; (2) **Direct cash transfers to the rural poor**: In the short term, providing direct cash transfers to the rural poor can alleviate distress. \$100 billion in annual subsidies for food, farming and village unemployment should be slowly replaced by a basic income; (3) **Replicating the success of AMUL in agriculture** by supporting producers' organizations (FPOs) that capture more of the farm-to-fork value chain and can

#### Crop Cycle Distortion due to MSP

The MSP for Paddy is INR 1,900 per quintal while the MSP for Red Gram is INR 5,500 per quintal. The typical yield for Paddy is 24 quintal per hectare while that for Red Gram is 4 quintal per hectare. **The income from growing Paddy would be INR 45,600 per hectare while from Red Gram would be INR 22,000 per hectare.** Hence the farmers would tend to prefer Paddy instead of Red Gram. Paddy is **water intensive** and hence may not be conducive for regions suitable for growth of Red Gram, but the farmers would still prefer Paddy. This has **implications for the environment including depletion of water table, deterioration of soil quality** etc.

ensure better prices for farmers; **(4) Boosting India's industrial and services sectors:** Agriculture accounts for 17% of India's GDP while employing 50+% of population. Industry and service sectors can take up the excess labour in agriculture. More livelihood opportunities in Industrial and Services sector could help alleviate India's farm distress.

## #5 The Issue of Fertilizer Subsidies

**NEWS:** Fertilizer subsidy has witnessed a continuous increase in the Union Government's Budget over the recent years. This comes in the backdrop of recent shortage of fertilizers in several States

**What is the current fertilizer subsidy regime in India? – (1) Urea Fertilizers:** The farmers buy fertilizers at Maximum Retail Prices (MRP). The **MRP is fixed by the Government** below the normal supply-and-demand-based market rates or their import price (e.g., the MRP of Neem-coated Urea is ~INR 5,300 per tonne while the production/import cost is ~INR 17,000-23,000 per tonne). The **difference is the subsidy paid by the Government to the Fertilizer manufacturers;** **(2) Non-Urea fertilizers (DAP, MOP etc.):** the price is decontrolled and fixed by the companies. **The Government pays a flat per-tonne subsidy** (e.g., the price of DAP and MOP is ~INR 24,000 and ~INR 17,000 per tonne and the Government pays ~INR 6,000 and ~INR 8,400 per tonne subsidy on them respectively). **The market price varies but the Government subsidy per tonne is fixed;** **(3) Under the Nutrient Based Subsidy regime (non-urea),** a fixed amount of subsidy is calculated for each fertilizer based on its nutrient composition. The Government decides the rates for nutrients like Nitrogen (N), Phosphorous (P), Potassium (K), Sulphur (S), etc. which then are used for calculating a flat per tonne rate. The subsidy is different for the fertilisers having different proportions of NPK; **(4) The subsidy is paid by the Government to the manufacturers after the actual sale** of the fertilizer to the farmer by retailers. 2.3 lakh retailers across India have a point-of-sale (PoS) machine linked to the **Department of Fertilisers' e-Urvarak DBT portal**. The PoS captures the Aadhar or Kisan Credit Card number of the buyer. The subsidy is paid to the company after the register of sale on the e-Urvarak platform.

**What is the need to raise the subsidy support? – (1) Cushion to farmers:** The subsidy on DAP was raised from INR 500 per bag to INR 1,200 per bag. Till 2020, the actual price of DAP was INR 1700 per bag. The farmers were getting one bag for INR 1200 and subsidy of INR 500/bag was being paid to the companies. The price of DAP has risen to INR 2,400 per bag as international prices of phosphoric acid, ammonia etc. used in DAP have increased. To reduce the burden on the farmers, the Government has enhanced the subsidy. **(2) DAP is the second most commonly used fertilizer in India** after Urea. It has sales of 119.13 lakh tonnes in 2020-21. DAP is a crucial fertilizer for growing cotton and soybean; **(3) Farm stress during the Pandemic:** Farmers are undergoing severe stress due to the challenges posed by the Covid-19 pandemic, including loss of urban remittances, the rising cost of healthcare, and loss of life and livelihood. Subsidy will provide relief to them.

### What is the need of reforms in the Fertilizer sector?

– **(1) Fiscal Burden:** Fertilizer subsidy has doubled in a short period of three years between 2017-18 to 2021-22. The subsidy is expected to be USD 20.64 billion for FY 2021-22 (INR 1.55 trillion). This has put unsustainable burden on the Government exchequer. At present, taxpayers bear 78% of the cost of urea and farmers pay only 22%; **(2) Subsidies promote overuse** of fertilizers which results in wastage; **(3) Rising use of fertilizers** has contributed to **environmental pollution** including degradation of soil and water bodies; **(4) There is overdependence on fertilizer imports.** International prices are volatile which exposes India to price risks. Prices in international markets have risen recently due to rising energy prices and increased domestic demand in manufacturing nations; **(5) Urea can be used for multiple purposes** and the low market price due to subsidies results in **its diversion for other uses**. Moreover urea is also smuggled to Nepal and Bangladesh. **'Neem Coated Urea' has helped curb this diversion to some extent.**

#### PT BOX

##### Neem Coated Urea

The **New Urea Policy in 2015** made it mandatory for urea manufacturers to produce a minimum of 75% of domestic urea as neem coated. This has several benefits like **(1) Enhance of Nitrogen Use Efficiency (NUE)** of urea and thus **reducing usage**. NUE increases due to nitrification inhibition properties of Neem; **(2) Low usage provides economic benefits** to farmers and **reduces environmental impact;** **(3) Improvement in soil health;** **(4) Reduction in diversion of urea** for non-agriculture purposes.

**What reforms can be undertaken?** – According to Senior Advisors working with the NITI Aayog; **(1)** There is a need of **self-reliance in fertilizer manufacturing** and reduce dependence on imports. Domestic production must be enhanced; **(2)** The **Nutrient Based Subsidy model should be extended to Urea** to allow for price rationalization in Urea; **(3)** There is a need to shift towards **non-chemical fertilizers** like organic and biofertilizers and bring parity in prices and subsidies given to chemical fertilizers with organic and biofertilizers; **(4)** Use large biomass of crops that goes waste and enhance the value of livestock by-products; **(5)** Attention should be paid to improving **fertilizer efficiency** through **need-based use** rather than using excess fertilizer in the field; **(6)** In the long run, the government needs to augment the agricultural income of farmers so that they voluntarily give up their subsidies in the future. This would happen with better implementation of schemes like E-NAM, SAMPADA, PM Fasal Bima Yojana, etc.

## #6 Potential of Agritech Start-ups in India

**NEWS:** India's Agriculture Start-ups have received funding worth USD 2 billion in first half of 2021 and ranks 3<sup>rd</sup> in this metric behind the US (USD 9 billion) and China (USD 4.5 billion).

**What is the status of Agritech Start-ups in India?** – There are estimated 600 to 700 Agritech Start-ups in India at present operating at different levels of Agriculture value chains. While many of them are making losses at present, yet they are able to raise large sums of money from investors due to their future potential. This is because they disrupt the traditional system of doing business and increase efficiency. Agritech start-ups are operating in all domains Farm to Farm (F2F, e.g; buying, selling, renting farm machinery among farmers), Farm to Business (F2B, e.g., sourcing produce from farmers and supplying to retail chains), Farm to Consumer (F2C, e.g., providing farm produce directly to consumers).

Many of the start-ups use artificial intelligence (AI), machine learning (ML), internet of things (IoT), etc, to unlock the potential of big data for greater resource use efficiency, transparency and inclusiveness.

### How are Agritech start-ups empowering the farmers?

– **(1)** Ninjacart, Dehaat, and Crofarm (Otipy) are a few of the many start-ups are having a remarkable impact on the agri-food marketplace.

**Ninjacart & Crofarm (Otipy)** source fresh produce from farms and supplies to retailers, restaurants, grocery and kirana stores, and small businesses.

**Dehaat** is an online marketplace providing all the agricultural products and services to farmers.

**Ninjacart** has **reduced wastage** to 4% compared to up to 25% in traditional chains through demand-driven harvest schedule; **(2)** Ninjacart has **enabled deliveries in less than 12 hours at one-third cost of traditional supply chains** through its logistics optimization, while **improving incomes of associated farmers by 20%**; **(3)** Dehaat has enabled **up to 50% increase in farmers' income** as a result of savings in input costs, increased farm productivity, and better price discovery; **(4)** These start-ups are linking the farmers with bigger front-end players (like Big Bazaar, Reliance Retail, BigBasket and Grofers) who require quality produce in bulk but have challenge in directly linking with large number of farmers; **(5)** Agritech start-ups led e-commerce platforms have the potential to steer the shift from government-controlled agricultural markets towards more demand-driven digital markets.

**What are the challenges associated with Agritech Start-ups?** – Many start-ups fail at an early stage. Multiple others are consolidating through mergers and acquisitions. The biggest challenge is to sustain and scale up the farmer outreach.

### PT BOX

#### Start-ups in India

Start-ups in India are recognized by the **Department for Promotion of Industry and Internal Trade (DPIIT)** (Ministry of Commerce and Industry) under the **Start-up India Initiative**. The criteria to classify an entity as start-up include: **(1) Age:** Less than 10 years from date of incorporation; **(2) Turnover:** Should not exceed 100 Cr. in any financial year since incorporation; **(3) Original Entity:** Entity shouldn't be formed by splitting or restructuring an existing business; **(4) Innovative and Scalable:** Should work towards development or improvement of a product, process or service and/or have scalable business model with high potential for creation of wealth & employment.

According to DPIIT, **50,000 start-ups have been recognized** as of June 2021, of which 20,000 were added from April 2020 onward. **5.5 Lakh jobs have been created in about 48,000 start-ups** so far.

Ministry of Agriculture has launched "Innovation and Agri-Entrepreneurship Development" under the RKVY-RAFTAAR with the objective to promote innovation in Agriculture. 646 start-ups in the Agriculture and Allied Sectors have been selected under this scheme.

**What is the way forward? – A prominent Agriculture Economist and Academic at ICRIER has suggested –**  
**(1)** An Ernst & Young 2020 study pegs the Indian Agritech market potential at \$24 billion by 2025, of which only 1% has been captured so far. **More investments are required to tap the potential;** **(2)** The start-up Farmer Producer Organisation partnership can be strengthened by incentivising the FPOs under the Central Government's programme to add 10,000 new FPOs by 2024, **(3)** The network of Agritech start-ups, incubators, accelerators and investors need to work closely with policymakers, academia, think tanks, and government departments to understand the dynamics of the agri-food sector better. This will also enable the government and policymakers to leverage the existing Agritech pool and co-create solutions for shared value.

## #7 12<sup>th</sup> WTO Ministerial Conference (MC-12)

**NEWS:** The 12<sup>th</sup> Ministerial Conference was supposed to be held in Nur-Sultan, Kazakhstan in June 2020 and was rescheduled to be held in Geneva in Nov-Dec 2021. It has now been postponed indefinitely due to the emergence of the new COVID-19 strain.

**What is the WTO Ministerial Conference?** – Ministerial Conference is the **highest decision-making body of the WTO**. It is attended by the trade ministers and other senior officials from the organization's 164 members. Under the Marrakesh Agreement, the **Ministerial Conference is to meet at least once every two years**.

**What is the importance of 12<sup>th</sup> Ministerial Conference?** – The 12<sup>th</sup> Ministerial Conference (MC) will be the first MC in the post-pandemic world. The global merchandise trade has recovered to pre-pandemic levels and services trade is also recovering rapidly. Global trade played a crucial role during the pandemic, especially in supporting development, production and distribution of vaccines, personal protective equipment (PPEs) and other vital equipment required to fight the COVID-19. Despite this there are strong disagreements over multitude of issues like **food security, agriculture subsidies, TRIPS and digital commerce** among others. It is expected that MC-12 might lead to consensus on some of the contentious issues and deliver tangible progress.

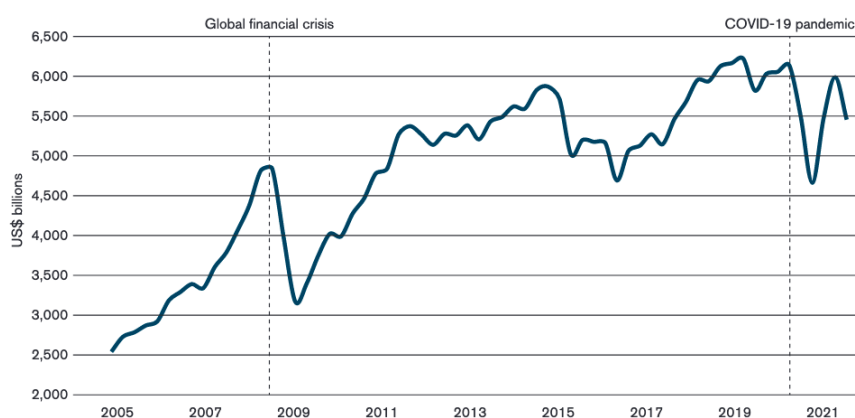
**What are the important issues to be discussed in the 12<sup>th</sup> MC?** – **(1) Vaccines and critical supplies:**

IP waiver on vaccine development, vaccine distribution and export restrictions, transparency in medical supply chains and trade policy response to the pandemic would be under negotiations; **(2) Fisheries:**

Negotiations have been underway

since 2001 to end harmful subsidies on fishing. The main challenge is different obligations of the developed and developing countries and exceptions for developing countries; **(3) Food Security vis-à-vis Agriculture Subsidies:** Developing countries are emphasizing on permanent solution to Government procurement beyond the permitted level of trade distorting subsidies. The Peace Clause introduced during Bali (MC-9) was a temporary measure and permanent solution has remained elusive; **(4) Electronic Tariffs and Digital Commerce:** A temporary prohibition on customs duties on electronic transmissions is under discussion. Supporters of the duties ban say that it will encourage digital commerce, while those against say governments are missing out on revenue and harming local digital services providers; **(5) Services Trade (Plurilateral):** 65 WTO members (accounting for 90% of Global services trade) have agreed to cut red tape in their services' regulation. The implementation of Services Domestic Regulation (SDR) could result in \$140 billion in cost

**Global trade has been more resilient during the COVID-19 pandemic than during the 2008-09 global financial crisis**





savings per year in G20 economies; **(6) Sustainable Trade** (Plurilateral): Multiple plurilateral groups are expected to achieve consensus on several issues like boosting sustainable trade and launching dedicated discussions on trade-related climate measures, phase out fossil fuel subsidies, and new trade rules to tackle plastic pollution; **(7) Digital Trade measures** (Plurilateral): 86 WTO members are negotiating on digital trade issues like e-signatures, e-contracts, consumer protection, open government data, open internet access and paperless trading; **(8) MSMEs** (Plurilateral): 64 WTO members are working to improve information collection, trade processes, access to finance and payments for MSMEs. A new platform might be launched to provide MSMEs with trade-related information; **(9) Gender Equality** (Plurilateral): 89 members are working on improving gender-disaggregated data for better trade policymaking and ensuring gender-mainstreaming in the WTO's development work.

**What is the issue of Fisheries subsidies?** – **(1)** The issue on fishery subsidies was first raised during the WTO's Doha Ministerial meet in 2001. The basic objective of the global pact on fisheries subsidies is to **eliminate subsidies that encouraged illegal and unregulated fishing**; **(2)** The present text tends to safeguard the commercial interests of the developed countries and fails to ensure sustainability of fisheries. According to the UN Food and Agriculture Organization (FAO) estimates, **nearly 66% of the \$35-billion subsidies go to enterprises engaged in commercial fishing**. The developing countries' subsidies are rather small in comparison and are aimed mostly at facilitating livelihood security for the fisheries-dependent coastal communities; **(3)** The draft text under negotiation has suggested a threshold of 0.7% for a country's share of global fishing up to which it would be exempted from subsidy cuts. India opposes this threshold.

#### PT BOX

##### Multilateral vs Plurilateral Agreements

WTO is a **member-driven, consensus-based organization** where **decisions are reached based on consensus of ALL the members**.

In Multilateral Agreements, all the members of the WTO are involved in negotiations.

In Plurilateral Agreements only some of the countries negotiate on issues based on common interests. At present there are **two Plurilateral Agreements under the aegis of WTO: Agreement of Government Procurement** (48 WTO members) and **Agreement on Trade in Civil Aircraft** (33 WTO members).

**What is the proposal given by India?** – India has moved certain amendments to the draft of the proposed agreement on fisheries subsidies in WTO. It is meant to **make the accord more balanced** by curbing in huge grants being given out by rich nations for exploitative fisheries. It will give space to other countries to consolidate their fisheries sectors. India has proposed that the **developed countries stop subsidising fishing in distant waters beyond their exclusive economic zones (EEZ) for 25 years**. This would give time to the other countries to build their own sustainable fisheries capabilities.

**Why there was a need for global pact on fisheries subsidies?** – **(1) Unsustainable Exploitation:** FAO's estimates that about **34% of the world's marine resources are already over-exploited**. Over-exploitation was estimated to be 10% in 1970 and 27% in 2000. This increasing rate of exploitation is **environmentally unsustainable**; **(2) Threat to Fisherman's livelihood:** Depletion of the fish stocks is threatening the livelihood of traditional fishermen.

**Why fisheries subsidies hold significance for India?** – **(1) Livelihood:** Around 16 million fishermen in India rely on fishing for their livelihood. More persons are engaged in the value chain; **(2) Increase Marine fish production:** Almost the entire growth in fish production is coming from the inland fisheries (aquaculture). A favourable outcome of the global deal on fisheries subsidies is imperative for the growth of Indian marine fisheries; **(3) Increases Competitiveness:** The subsidy given by the government to this sector is meagre, around Rs 770 crore. It meets only a part of the cost of diesel and essential fishing gear. Consequently, most Indian fisher-persons are unable to operate beyond the coastal waters.

**What is the issue related to IP waiver for vaccines?** – **(1)** India and South Africa have proposed that a three year **relaxation be provided on IP related rules under the WTO** (including Patents, industrial design, copyrights). More than 100 countries have supported the proposal. This would enable companies around the world to **manufacture the generic versions of COVID-19 vaccines** and **ensure equitable access** to the medical tools needed to fight covid-19 and bring the pandemic under control faster; **(2)** The **G7 countries are opposed to the waivers**. They have proposed to use existing provisions under the TRIPS (**TRIPS Flexibilities**)

like **compulsory licenses to bypass the IP rules**. The EU countries are strictly against IP waivers; (3) The US **has expressed support to temporary IP waiver** but hasn't provided any proposal. Moreover the US support is for a limited waiver only for vaccines and no other equipment. Developed Countries are proposing **strictly regulated technology transfers to regions that are most in need of vaccines** instead of broad waivers; (4) The Western countries are also more amenable to Compulsory Licenses instead of full waiver and both the US and the EU have supported compulsory licenses as a fallback option in case of health emergency. Some countries like Germany have amended their laws to allow for quicker issuance of compulsory licenses.

**What is the way forward?** – Various organizations and Academia have pointed out vaccine inequity and advocate IP waiver as the quickest solution to address the lack of access to vaccines in Low and Middle Income Countries (LMICs). The developed countries should relent and allow for IP transfers for COVID vaccines and the related equipment to contain the pandemic.

## #8 Decarbonization of the Economy

**NEWS:** A UNEP Report has observed that the Global Emissions need to be cut down by 45% by 2030 in order to limit the temperature rise to 1.5°C. This makes decarbonization of economy an immediate

**Why should India focus on decarbonization of the Economy?** – India's historical and current emissions are much less compared to those of the developed countries. This supports the argument that India must get its **fair share in Global Carbon Budget**. In addition, **India need access to cheap energy for meeting the development objectives and raising the living standards of the citizens**, hence India

should allowed to dependent on coal for energy requirements. However **India can meet the development objectives even with phasing down Coal from its energy mix and shifting to renewable resources** – (1) The recent data show that the **levelized cost of electricity** from renewable energy sources like the solar (photovoltaic), hydro and onshore wind **has been declining sharply** over the last decade. It is already less than fossil fuel-based electricity generation; (2) The **reliability of the renewable energy is improving** with improvement in technology; (3) Despite having abundant reserves, **India was the third largest importer of coal in 2020** with USD 15.9 billion worth of imports; (4) India has large potential for Solar and Wind Energy; (5) **Renewable energy sector offers huge livelihood opportunities** and can absorb surplus labour from agriculture. Renewable energy can provide **decentralised access to clean energy to the poor and the marginalised**, including in remote regions of India. So, it simultaneously addresses the issues of employment, technology, energy poverty, and self-reliance; (6) India's **tropical location, diverse terrain** (mountains, deserts, long coastal plains with high population density), **climate** (dependence on Monsoons) and **large underdeveloped population make India extremely vulnerable to climate change**; (7) **India spent USD 62 billion on oil imports** in 2020-21 which is expected to rise further as pointed out by the IEA. According to one estimate, **46% of India's primary energy needs are met through imports**. Reducing dependence on fossil fuels can reduce India's dependence on imports and cover the currency risk; (8) Steps by India towards reduction of coal use will **increase pressure on Developed countries for greater Climate action and contribution including Climate Finance**. Issue of coal use is a contentious issue in Climate Negotiations, because the Global North justifies operating coal mines since the South

### PT BOX

#### Decarbonization

Decarbonization refers to the **process of reducing the greenhouse gas emissions** produced by the burning of carbon-based fossil fuels. Decarbonization is linked with **reducing the carbon intensity of the economy** and **diminishing the dependence of economy on fossil fuels** is essential feature of decarbonization.

### PT BOX

#### Carbon Budget

Carbon Budget refers to the **cumulative amount of CO<sub>2</sub> emissions that are allowed over a period to keep the temperature of the planet within a certain threshold**. Carbon budgets are constructed on the premise that **there is a near-linear relationship** between rising global temperatures and the level of cumulative atmospheric CO<sub>2</sub> (As atmospheric CO<sub>2</sub> rises, the temperature rises). At present, the atmospheric CO<sub>2</sub> concentration is 420 ppm which is 50% above pre-industrialization levels and the planet was about 1.2° warmer in 2020 than in the pre-industrial age.

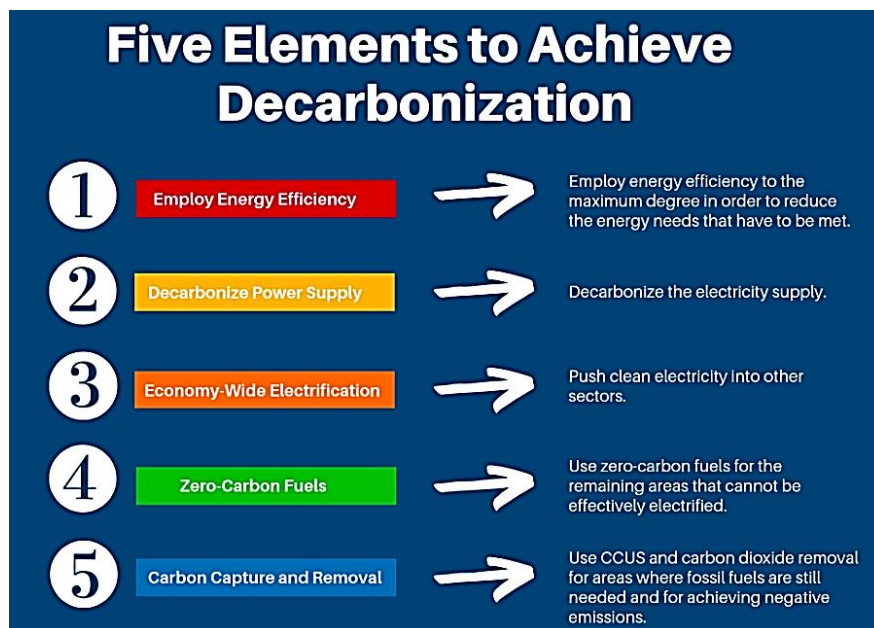
**Carbon Budget is dependent upon threshold temperature and time horizon**. Budget for 1.5°C rise is less than 2°C rise. The world currently emits about 40 GtCO<sub>2</sub> annually; the 1.5°C budget is likely to be exhausted in 9 to 11.5 years.

continues to emit more, while the Global South negotiates for a **higher share in carbon budget based on the past emissions of the North**. Universal reduction in coal use is the way forward.

**How much subsidies are being provided to fossil fuel sector in India?** – According to an estimate of the **Council on Energy, Environment and Water**, India's subsidy bill on coal, gas and oil was roughly **\$11 billion**. Another \$11 billion annual subsidy goes into the transmission and distribution of electricity, which is **mainly coal based, and hence an indirect fossil-fuel subsidy**.

By comparison, the **subsidies on renewable power and electric vehicles** till 2018-19 were barely \$1.4 billion, i.e., **just about one-seventh of the direct subsidy on fossil fuels**. With higher global oil prices, subsidies have also risen.

**Why is Government's role essential in decarbonization?** – Almost every aspect of our modern economy is dependent upon fossil fuel derived energy (transportation, electricity, industrial fuels etc.). Consequently, a large-scale change is required in the mechanisms of production and consumption of energy. Moreover the **pollution is a negative externality**. Each person that emits CO<sub>2</sub> inflicts a negative impact upon every other person in the world. This is a **market failure**. In the absence of any cost, there is no incentive to cut down the emission. Hence Government must take up this role.



## #9 Understanding the Metaverse

**NEWS:** There is new push by tech-firms for dominating the Metaverse Technology. Tech Industry views Metaverse as successor to today's Internet.

**What is Metaverse?** – (1) It is a network of **always-on virtual environments** in which **people can interact with one another and digital objects through virtual representations ("Avatars") of themselves**; (2) The term may also refer to **digital spaces which are made more lifelike by the use of virtual reality (VR) or augmented reality (AR)**; (3) There is also a specific type of metaverse which uses blockchain technology. In these, users can buy virtual land and other digital assets using cryptocurrencies.

Technology companies are aiming to make Metaverse the **setting for many online activities, including work, play, studying and shopping**. Facebook is aiming to play a leading role in shaping the metaverse, and is investing heavily in virtual reality. In Facebook CEO's view, the metaverse spans **non-immersive platforms** like today's social media, as well as **immersive 3D media technologies**, such as virtual reality, and that it will also be used in connection with remote working, as well as play.

**What are the key aspects of a Metaverse?** – There are three key aspects of a metaverse – (1) **Presence** is the feeling of **actually being present in a virtual space, with virtual forms (Avatars) of others**. This sense of presence is achieved through virtual reality (VR) technologies such as head-mounted displays. It improves the quality of online interactions; (2) **Interoperability** means being **able to seamlessly travel between virtual spaces** with the same virtual assets. That is, **one virtual representation can be used in different virtual**

**worlds; (3) Standardization:** These are common technological standards that are essential for widespread adoption. This **enables interoperability** of platforms and services across the metaverse.

**Why there's an increased interest in Metaverse? – (1) Decentralised Web:** Web 3.0 is the name given to the **next generation of Internet architecture** and will **be free from the centralisation** unlike today's Web 2.0 Internet systems, which are largely controlled by tech giants such as Google, Facebook and Amazon. Web 3.0 will entail the **use of technologies such as blockchains and tokens to create a decentralised Internet for online interaction and online payments;** (2) **'Creator economy'** will become a reality in the metaverse thanks to the popularity of NFTs (non-fungible tokens). NFTs will allow proof of ownership of digital assets, for example, virtual goods, paintings and memorabilia;

**(3) Multidimensional interactions:** At present people interact with each other online by going to websites such as social media platforms or using messaging applications. Metaverse will **create new online spaces in which people's interactions can be more multi-dimensional;** (4) **The pandemic effect:** Due to the COVID-19 pandemic more people have started working and going to school remotely and there has been an increased demand for ways to make online interaction more lifelike. Hence the push for an 'Open Metaverse' by some organisations.

#### PT BOX

##### Creator Economy

Creator Economy refers to **independent content creators and community builders** (social media bloggers, influencers, video makers) and the associated **software and finance tools** that enable them to **monetize the content they create**. The advent of the **online technologies and social media platforms** (like YouTube, Instagram, Medium etc.) has **decentralized the content creation from big media and publishing houses to individuals**. Creator Economy has contributed to proliferation of content and expanded the reach in various domains (Videos, Music, Writing etc.)

**What are some concerns associated with Metaverse? – (1) Psychological effects:** Metaverse **'Avatars'** may become the new version of **showing off glamorous social media profiles** – hiding who the person really is behind-the-scenes and **perpetuate narcissism, causing mental health issues and insecurities**. Some experts believe that people might even begin to prefer virtual interactions while ignoring their real world needs; (2) **Privacy and security concerns:** Data collection is expected to even more extensive in Metaverse (including Biometric Data) and the breach of data, theft, cybercrimes could prove costlier; (3) **Lack of self-moderation:** Facebook is already facing criticism for lack of action on curbing hateful content. **Private corporations' economic incentives are not aligned with stringent content moderation and regulation**. Lack of moderation can promote similar hateful content through targeted advertising and propaganda; (4) **Emergence of virtual nation-states:** Virtual/cyber world transcend the national boundaries and are beyond the territorial jurisdictions of Nation-states. In the distant future, virtual worlds could someday grow into alternatives to the nation state itself. Big Tech firms already have revenues and valuations higher than GDPs of several small countries. Progression of Metaverse will require a fundamental rethink on Technology law; (5) **Environmental Costs:** The Metaverse will combine technologies of cloud computing, big data, advanced AI systems, AR/VR, blockchains, NFTs etc. Each of these technology requires tremendous computing power and hence have large environmental costs (e.g., cooling requirements of large servers); (6) **Commodification of human interaction:** Metaverse will further increase surveillance and tracking of human activities and tracking for the purpose of data collection and subsequent monetization (e.g., through targeted ads); (7) **Emergence of oligopolies and monopolies:** Facebook's move to rechristen itself of 'Metaverse' has pushed its competitors to work on their own versions of metaverses leading to a number of 'Closed' metaverses. This might lead to Web 2.0 like oligopolies

**What is the way forward? – (1) There is a need for strict regulation of the Metaverse and it should happen at the early stages of the evolution of Metaverse;** (2) **In Metaverse the biometric, personal and behavioural details of individuals are captured, so there is a need for stringent data regulation measures.**

## #10 Managing the Cryptocurrencies

**NEWS:** The Government has brought a bill to regulate the Cryptocurrencies.



**What are cryptocurrencies? – Cryptocurrency is a digital currency and are supposed to work as a medium of exchange. Cryptocurrencies do not exist in physical form and are not backed by any commodity and hence work as fiat currencies. A cryptocurrency prior to its creation (or mining) is considered to be centralized but are decentralized through distributed ledger technology (generally blockchain) which serves as public financial transaction database. Distributed ledgers based on strong cryptography are used to authenticate and secure transaction records and the creation of new currency. Since Cryptocurrencies are decentralized, they are different from Central Bank Digital Currencies (CBDCs).**

**What are the expected benefits from Cryptocurrencies? – (1) Transactions in cryptocurrencies are faster and no transaction or processing fees are charged. Hence they are more economical; (2) Cryptocurrencies do not require any middleman for undertaking the transactions; (3) Cryptocurrencies protect the privacy and prevents issues like identity theft because each transaction is a unique exchange between two parties; (4) Cryptocurrencies will facilitate international transactions due to elimination of requirement of currency exchange. This will improve business efficiency due to faster transactions.**

#### PT BOX

##### Fiat Money

Fiat Money is not backed by any commodity like gold. It has no intrinsic value but derives its value from the trust the users place on it. It is distinct from Commodity money which derives its value from the valuable commodity from which it is made (like gold coin).

Governments issued banknotes are fiat money because they are not backed by any commodity but are trusted by the people because they are backed by the Central Bank and are declared as legal tender by the Government.

**What are the concerns regarding Cryptocurrencies? – (1) Impact on Monetary Policy: The cryptocurrencies are not backed by any Central Bank and have no control over them. Widespread use of cryptocurrencies will render the Monetary policy ineffective as the Central Bank won't be able to control the money supply or interest rates. Independent and decentralized creation of cryptocurrency can destabilize the whole monetary and economic system; (2) Impact on Fiscal Policy: As Central Banks and Governments lack control over Cryptocurrencies, the Governments won't be able to tax the transactions. Lack of Government's scrutiny over transactions will lead to widespread tax evasion and consequently Government's revenues will fall. This will have serious negative impact on Fiscal policy. The impact on Monetary and Fiscal Policy can lead to macroeconomic instability; (3) Cryptocurrencies are fiat currencies not backed by any central authority. Their perceived value might vary with circumstances which makes them very volatile. Their volatility makes them unsuitable as a medium of exchange. It also makes them an erratic unit of account and unreliable as a store of value; (4) Cryptocurrencies could be misused to launder black money or finance terrorist activities and other illicit activities like drug trafficking through Darknet; (5) Cryptocurrencies are prone to cybersecurity breaches and hacks. The Swiss blockchain company, Trade.io, has reported that crypto tokens worth almost \$8 million have been stolen from their cold wallet; (6) Many cryptocurrencies like Bitcoin require advance computing power for their creation (mining) which necessitates large servers that consume high electricity and require constant cooling. Hence they have large environmental costs. Non-mined cryptocurrencies are more environmental friendly.**

**Is ban on Cryptocurrencies a pragmatic policy approach? – Although there are many genuine concerns regarding Cryptocurrencies, an outright ban would not be the prudent way forward; (1) Cryptocurrencies issued beyond the reach of country's jurisdiction cannot be banned, and outlawing them is likely to disrupt related crypto businesses. The Government can only ban crypto-exchanges operating in the country, but can't ban the cryptocurrencies. The Government can stop the use of the local currency to buy crypto, there's virtually no way to ban crypto wallets, which exist online and do not come under the purview of banks and governments. Peer-to-peer networks are also difficult to police, as people can simply transfer money to each other through bank accounts and transfer the equivalent crypto among each other through wallets; (2) A ban will drive cryptos into the dark net, increasing their use in criminal activities.**

According to the former RBI Governor D Subbarao there are three categories of responses; **(a) Passive tolerance:** It involves prohibiting regulated institutions from dealing in cryptos without explicitly clarifying their legal status. The RBI had tried to follow this option but the Supreme Court ruled in March 2020 that it is legal to trade in Cryptocurrencies; **(b) Total ban** on cryptocurrencies like in China. But that model entails

the risk of pushing the trade into invisible and illegal channels, possibly inflicting even greater damage; (3) **Regulation:** A third approach is to follow countries such as the UK, Singapore and Japan that have allowed space for cryptos to operate under a regulatory radar but without recognising them as legal tender. India will be well advised to follow this middle path. Hence, the ideal way forward will be **to ban Cryptocurrency use as legal tender while allowing it to be an asset.**

The Government will introduce **Cryptocurrency and Regulation of Official Digital Currency Bill, 2021** in the Winter Session (2021) of the Parliament. The bill seeks to prohibit all **private** cryptocurrencies in India, however, it **allows for certain exceptions** to promote the underlying technology of cryptocurrency and its uses.

**What has been the global response to Cryptocurrencies?** – (1) In September 2021, China imposed a complete ban on crypto transactions; (2) Countries including **Japan** and **the UK** have created space for their operation; (3) **Canada** has been one of the early adopters of Crypto. Canada Revenue Authority (CRA) generally treats cryptocurrency like a commodity for purposes of the country's Income Tax Act; (4) **Israel** has included virtual currencies in the definition of financial assets; (5) **Germany** categorizes virtual currencies as financial instruments; (6) **United States:** While the federal government does not recognize cryptocurrencies as legal tender, definitions issued by the states recognize the decentralized nature of virtual currencies.

Although most of these countries do not recognize cryptocurrencies as legal tender, they do recognize the value these digital units represent – as a medium of exchange, unit of account, or a store of value.

#### PT BOX

##### Central Bank Digital Currency

**Central Bank Digital Currency (CBDC)** or the **National Digital Currency** is the **digital form of a country's fiat currency**. The Central Bank issues electronic tokens and the **token value is backed by the Government**. The **Bank of England** defined CBDC as an 'electronic form of Central Bank Money that could be used by households and businesses to make payments and store value'. CBDCs would need a new centralized payment system and would be linked to electronic wallets connected to prepaid cards, smartphones or other electronic devices.

**What should be the way forward?** – (1) The Government can allow stablecoins to function. Multiple stablecoins are already functional in the market like Tether, Binance etc. Facebook had also planned its own currency (initially called Libra and then Diem but has been put on hold for now); (2) A digital rupee issued by RBI could be positioned for online use. Official backing would lend it a unique advantage and allow RBI keep control over monetary policy; (3) Digitisation is the future and it offers many advantages in lower transaction costs, including ease of cross-border transactions. Hence, **Central Bank Digital Currencies (CBDCs)** need to offer these facilities, to prevent a shift of users towards payment services of large global players such as Facebook; (4) Crypto can be banned as a medium of exchange, while **regulating it as an asset**. Tech-based regulation can provide investor protection, while taxing capital gains as well as transactions. Macro-prudential regulation could reduce volatility; (5) Exchanges must meet standards of governance, transparency and audit. Advertising must be responsible, highlighting the risks, providing investor education and raising awareness; (6) **Cross-border transactions can be tracked and capped** in line with the capital control regime in place; (7) Continuation of Cryptocurrency as potential competition to the domestic currency will encourage innovation and more stability in the latter.

#### PT BOX

##### Stablecoins

Stablecoins are a type of **digital currency** that's **pegged to an external asset**, like a fiat currency (e.g., US Dollar), gold, or other investments. Since the value is pegged to an external asset, the **Stablecoins are less volatile compared to other cryptocurrencies** that are not backed by any asset. Stablecoins have the benefit of instant processing, security and privacy of payments, and the volatility-free stable valuations of fiat currencies.

## #11 The Use and Misuse of UAPA

**NEWS:** The use of the UAPA against journalists in Tripura has evoked criticism regarding the stringent provisions of the Act and their misuse by the Law Enforcement Authorities

**What is the Unlawful Activities (Prevention) Act, 1967?** – (1) UAPA is an **anti-terror law** aimed at effective prevention of certain unlawful activities of individuals and associations; (2) Its main objective is to **empower the State to deal with activities directed against the Integrity and Sovereignty of India**. The Act assigns

absolute power to the Central Government to **declare an activity as unlawful**, by way of an Official Gazette; (3) Under the act, **both Indian and foreign nationals can be charged**. The act has the **death penalty and life imprisonment as the highest punishments**; (4) Under section-43D, the police are empowered to **detain the accused in police custody for 30 days** and in judicial custody for a period of 180 days **without the charge sheet**. This duration can be extended further after information to the court.

**What are the recent amendments to the UAPA?** – The Act has been amended six times since the enactment and the last amendment was undertaken in 2019. The significant changes under the 2019 amendment are; (1) Empowers the Director-General, National Investigation Agency (NIA) **to grant approval of seizure or attachment of property** when the case is under investigation by the agency; (2) Allows the State to **designate individuals as ‘terrorist’**. This provision **reverses the innocent until proven guilty principle**.

**What are the issues with UAPA?** – (1) The **definition of terrorism in Section 15 of UAPA is indefinite**, as it covers almost every kind of violent act. This makes the law **susceptible to misuse and curb dissent**; (2) **Issue of bail**: The accused does not have the **option of anticipatory bail**. There are instances where the accused had spent over one year in jail without trial. **It presumes the accused is guilty** solely on the basis of the evidence collected. This is **against the Principles of Natural Justice**; (3) **Low conviction rate**: While the cases filed under UAPA are rising, the conviction rate is falling. Conviction rate was 2.2% between 2016-19; (4) Under sections 43A and B, the **police are empowered to search, seize and arrest any person** involved in unlawful activities without a warrant.

**What are the recent Judicial observations regarding UAPA?** – (1) *Thwaha Faisal v Union of India, 2021*: Vague allegations of conspiracy, based on the general behaviour of the accused, or materials recovered from them, are not enough to file a charge sheet under UAPA; The court reversed the earlier judgment in *Zahoor Ahmad Shah Watali* case in which the Court had said that by virtue of Section 43D(5) of UAPA, the burden is on the accused to show that the prosecution case is not *prima facie* true; (2) *Asif Iqbal Tanha v State of NCT of Delhi, 2021*: (A) **Exceptionally stringent provisions** of the UAPA are meant to **apply only to exceptional cases**, and not as substitutes for ordinary penal law; (B) There should be a **distinction between the state of exception and the state of normalcy**; (C) criticised the State’s tendency to confuse “protest” for “terrorist activity”; (D) The word “terrorism” has to be given a specific meaning that distinguishes it from offences that are dealt with under ordinary law; (3) *Union of India vs K.A. Najeed, 2021*: The Bench said that even the stringent provisions under Section 43D(5) do not curtail the power of the Constitutional Court to grant bail on the ground of violation of fundamental rights.

**What can be done regarding the UAPA?** – A Senior Advocate of the Supreme Court has suggested – (1) The Supreme Court can **issue a set of guidelines** for invocation of UAPA; (2) The Parliament can incorporate recent Judicial verdicts via amendment to ensure the law is used for the intended purpose only; (3) All detentions under the Act should require higher levels of clearance, with a record kept of the rationale applied (for future scrutiny); (4) Deploying relevant models on the basic principles of Justice at every level of law-and-order will reduce misuse of UAPA. The Law enforcement authorities can be educated to prevent the problem of misuse.

**Associated Issue: Jailing the Accused** – Concerns have been raised about many cases of unjustified arrests and denial of bails, although **Supreme Court** has clearly stated that bail should be the norm and jail should be an exception. The SC observed that the State can’t use the power to arrest indiscriminately. The word

“custody” under section 170 of the CrPC does not mean police or judicial custody, but it only means the presentation of the accused in the court by the investigating officer.

In India, almost 70% of the jail inmates are undertrials, those who have not been convicted. Hence incarceration without conviction is violative of Fundamental Rights (Art 21) and Natural Justice.

**What are the issues in granting bail? – (1)** Conflict between personal liberty of the accused and interest of the community as a whole; **(2)** Legal issues: The presence of many non-bailable offences and routine denial of bails.

**When should a person not be arrested? – (1)** The offence is not heinous; **(2)** The person is cooperating with the investigation; **(3)** The person is not influencing the witness.

#### PT BOX

##### Custody

The word 'custody' means apprehending someone for protective care.

##### Police Custody

When a Police officer arrests a suspect involved in a crime and detains him in a police station, it's called Police Custody. During this detention the police officer may interrogate the suspect. The officer must produce the suspect before the appropriate Judge within 24 hours (excluding time of journey from Police Station to the Court).

##### Judicial Custody

Judicial Custody means an accused is in the custody of the concerned Magistrate. In former, the accused is lodged in police station lockup while in latter, it is the jail.

##### Difference between Police and Judicial Custody

When a person accused of a cognizable offence is arrested by the police and produced before the Magistrate, the Magistrate can: **(1)** Release him on bail; **(2)** Send him to Judicial custody; **(3)** Send him to Police custody.

In Judicial Custody, the suspect becomes responsibility of the Court. During Judicial Custody, the police officer in charge of the case is not allowed to interrogate the suspect. However, the court may allow the interrogations to be conducted if it deems necessary based on the facts produced before the Court.

**What can be done? –** A senior Advocate of the Supreme Court has suggested – **(1)** Legal laws imposing **difficult conditions for grant of bail should be amended**. Subjectivity in provisions regarding bail e.g., in section 45 of the Prevention of Money Laundering Act should be removed; **(2)** An effective method for **circulating important SC judgments and statutory changes to the lower judiciary and police**. Some Courts still accept Section 66A of the IT Act, unaware of SC's Judgment in Shreya Singhal case in 2015; **(3)** Better training and refresher courses for judicial officers; **(4)** Supreme Court should take *suo moto* notice of unacceptable arrests and issue urgent directives to the Centre and state. Judges should also understand the importance of bail, particularly when most of the poor and illiterate accused have little or no access to legal assistance.

## #12 The issue of Building Fires in Urban India

**NEWS:** A fire incident in a hospital in Maharashtra led to loss of 11 lives. India recorded 10,915 deaths in 2019 due to fire incidents.

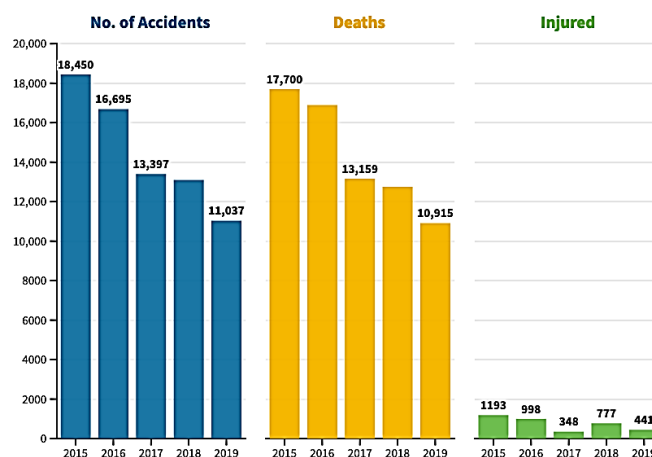
**What are the reasons for major fire incidents in India? – (1) Violation of safety norms:** The buildings do not comply with the

**fire safety norms listed under the National Building Code** which not only causes fires but also impacts incident management due to lack of compliance (e.g., poor access to building, lack of adequate fire-fighting infrastructure);

**(2) Lack of training and awareness:** Lack of awareness and training **hampers first and immediate response** which results in small fires transforming in big fire incidents e.g., most people are familiar with the use of fire extinguisher. Residential areas accounted for almost 58% of the fire incidents in 2019; **(3)**

**Human Error:** Lack of awareness results in lax and negligent attitude towards fire hazard and causes catastrophic mistakes; **(4) Faulty Infrastructure:** Faulty

Fire Accidents in India (2015-2019)





electrical equipment are the biggest cause of workplace fires, loose wires, plugs that are over loaded and old equipment cause most fire incidents.

**What are the measures to reduce fire risks? – (1) Stringent application of NBC:** The guidelines provided by the NBC must be implemented stringently with strict penal provisions for non-compliance; **(2) Training and Awareness** especially the use of simple fire-fighting equipment and avoiding common mistakes that cause fire incidents. **Regular fire safety drills** should be conducted so that people are aware of what to do in the event of such tragedy;

**(3) Proper Infrastructure:** Fire-fighting infrastructure needs to be bolstered. The data presented by the Government of India in Parliament observed that the manpower strength in fire stations was only 10% of the required and fire fighting vehicles were only 22% of the required standards. Against required number of 8559 fire stations, India had only 3377 (39%); **(4) Fire Safety Audits [FSA]** should be made mandatory and the auditing work should be delegated to third-party agencies with experience in the field; **(5) Legal Provisions: The NBC is recommendatory in nature** and the States do not have a comprehensive Fire Act. The GoI had prepared a draft model Fire Bill and circulated to all the States in 1958. Yet most States haven't enacted a law. The Fire Act should have comprehensive coverage related to each aspect of the **fire safety, fighting and management including architecture and layout, fire safety plans, infrastructure and equipment** (especially in commercial and residential buildings); **(6) Allocation of Resources to Local Governments:** Fire safety standards fall under the Local Governments (municipality) which lack adequate resources to support the fire fighting services. Proper allocation of resources must be ensured.

#### PT BOX

##### Fire Services in India

Fire service is a **State subject** and has been included as municipal function in the **XII schedule of the Constitution**. The Government of India had formed a Standing Fire Advisory Committee under the MHA in 1956. The mandate of the committee was to examine the technical problems relating to fire services and to advise the GoI for speedy development and upgradation of fire services all over the country. This committee was renamed as **Standing Fire Advisory Council (SFAC)** in 1980.

**National Building Code of India** covers the detailed **guidelines for construction, maintenance and fire safety of the structures**. National Building Code of India is published by **Bureau of Indian Standards** and it is recommendatory document. It can be adopted and adapted by development authorities to formulate building bye-laws.

## #13 Urban Floods

**NEWS:** Chennai faced flooding due to incessant rains. This was a repeat of 2015 flooding

**What are urban floods? – (1)** Flood refers to a situation in which a **particular tract of land**, that is usually dry, **becomes inundated with water**; **(2)** Floods may occur due to multiple reasons like heavy rainfall (caused by cyclones, cloudbursts or otherwise), overflow of water from rivers or lakes, breaches in dams, high tides etc.; **(3)** Urban floods are the floods that occur in the urban areas. According to NDMA, Urban flooding is significantly different from rural flooding as urbanization leads to developed catchments, which **increases the flood peaks from 1.8 to 8 times and flood volumes by up to 6 times**. Consequently, flooding occurs very quickly due to faster flow times. Urban areas are centre of economic activity and have vital infrastructure. Thus urban floods can have **economy-wide ramifications**. Exposure to infection post the floods can exacerbate the situation; **(4)** Many Indian cities have witnessed floods in recent times like Chennai (2021, 2015), Delhi (2021, 2010, 2009), Mumbai (2017, 2005), Srinagar (2014), Patna (2019) etc.

**What are the causes of the recent floods in urban areas? –**

**(1) Encroachment** on river bodies like lakes and tampering of natural course of water small streams; **(2) Underdeveloped Infrastructure:** Rapid urbanization has increased the population but the



infrastructure has not developed commensurately e.g., the drainage infrastructure is not enough to accommodate for increased load. According to NDMA, most stormwater drains were designed for rainfall intensity of 12-20 mm which is not enough; (3) **Improper upkeep of existing infrastructure** e.g., lack of regular cleaning leads to choking up of drains which obstructs the flow of floodwater; (4) **Urban infrastructure** like construction of roads, pavement of sidewalks has **reduced the ingress of ground water and increased the run-off**, causing flooding during high rainfall events; (5) Rapid changes in Land use pattern in peri-urban areas and springing up of residential/commercial buildings in farmlands; (6) **The urban heat island effect** causes increased precipitation in urban areas.

**How can the impact of urban floods be reduced?**

– (1) The infrastructure is required to be upgraded, including **construction of new storm water drains**, expanding existing sewerage infrastructure; (2) **Improved Coordination between various institutions** especially between water resources and disaster management authorities for integrated approach towards flood management; (3) Translate traditional water infrastructure investment into **nature-based solutions**: Ensure adequate space for river and flood plains to capture discharge from high-intensity rainfall, and invest in healthy

#### PT BOX

##### Sponge City

Sponge City is a type of city which is designed in such a way that it **acts like a sponge for rainwater**. The water is **absorbed and allowed to naturally filter through the soil to reach the aquifers**. The aquifer recharge helps fulfill the water needs of the city. The Sponge city has **contiguous open green spaces, interconnected waterways and channels and ponds** across neighborhoods to naturally detain and filter water. **City buildings have green roofs that can retain rainwater** and naturally filter it before it is recycled. There are also **porous design interventions across the city** including construction of **bioswales, porous pavements** that allow water to be absorbed and permeate to recharge the groundwater.

watersheds; (4) **Engagement of grassroots organisations** to promote awareness on holistic flood risk management and participatory approach for risk-based early action coordination among stakeholders to mitigate flood risks; (5) **Utilise the power of digital technologies** to digitise informal settlements, identify levels of vulnerability for flood protection strategies and ensure timely actionable information including financial supports; (6) **Land use in urban areas should be strictly regulated**, and the encroachment of existing water bodies need to be aggressively curbed; (7) As recommended by the draft New National Water Policy there is a need for **renewed thrust on protection and revival of traditional local water bodies in both rural and urban areas**. These water bodies would form part of urban blue-green infrastructure for improved water levels and quality, as also flood mitigation, through specifically curated infrastructure such as **rain gardens and bioswales, restored rivers with wet meadows (where they can meander), urban parks, permeable pavements, green roofs and green walls etc.**, (8) China is experimenting with concept of **Sponge Cities**, and initial experience has shown promise. If the solution is successful and scalable, same can be adopted in India in the new upcoming urban expansions. Sponge cities can solve the problem of urban flooding as well as scarcity of water during the summer season.

## #14 Role of Cities in battling Climate Change

**NEWS:** The Glasgow Climate Pact made no mention of critical role of urban areas in finding solution to Climate Change.

**Why towns and cities will play a critical role in the fight against climate change?** – (1) **Urbanization:** 56% of the World's population lived in urban areas in 2019 (80% in developed and 51% in developing countries). According to the UN, 68% of the global population is expected to live in urban areas by 2050; (2) Cities are **responsible for producing over three-quarters of the world's carbon emissions** that cause the climate change; (3) Urban areas are **disproportionately located along coasts** and rivers and are **highly exposed to climate-induced disasters** such as floods and sea level rise; (4) Over 33% urban residents live in slums and 25% urban residents earn less than \$2 a day. Cities contain vast numbers of people who **lack the capacity to withstand the impacts of a changing climate**.

**What are potential negative implications of climate change on the urban population?** – (1) **Climate disasters faced by Indian cities:** From past few years, Indian cities have faced the brunt of the climate change like Floods in Chennai (2021 and 2015); Heatwaves (such as the one in Ahmedabad in 2010) and Water scarcity (such as in Maharashtra in 2016 when the water had to be shipped in on trains); (2) **Deteriorating**

**health** of urban residents due to rising pollution and changing disease patterns; **(3) Many coastal cities globally are vulnerable to climate change and rising sea levels.** World Economic Forum has listed some cities which are especially vulnerable including Mumbai, Kolkata, Bangkok, Venice, New Orleans, New York, London, Dhaka etc. Indonesia is already moving its capital city from Jakarta because it is sinking fast. Sinking cities can induce large scale migration and give rise to climate refugees.

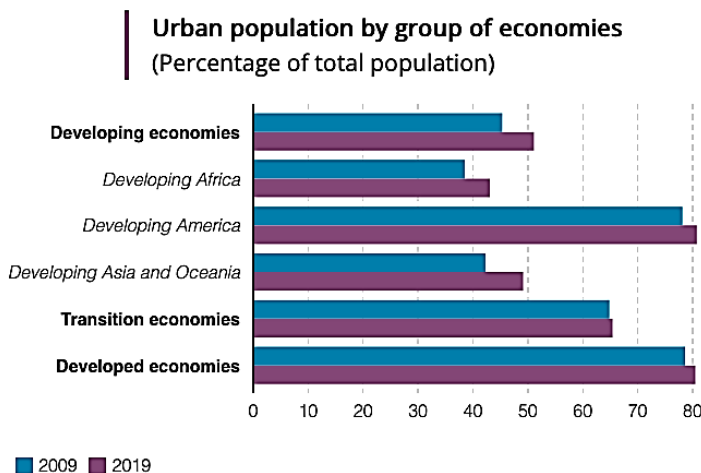
As a result, the overall wellbeing of city dwellers is reduced which reduces the economic productivity. Cities account for 80% of Global GDP.

**What should be the approach in context of Indian Cities? – (1)**

**Consultations with city residents:**

Comprehensive climate action plans need to be produced through genuine consultation with a wide cross-section of urban residents e.g., In **Odisha**, innovative public-private partnerships between municipal bodies in Odisha and research institutions is being undertaken. This has led to an improved understanding of practical steps that can be taken to reduce emissions and build resilience in cities; **(2) Role of State Govt:** The role

of State Governments is critical. They must ensure that all departments work together to make urban climate action a reality. A good example of this is **Maharashtra's** recent commitment to ensure that 43 cities in the state systematically reduce emissions; **(3) Addressing problems of the urban poor:** Poor people living in slums and working in the informal economy provide critical services. Unfortunately, they are the ones disproportionately affected by a changing climate. Any move to help cities deal with climate change must have their interests at its core; **(4) Climate finance:** A key component of equipping cities to deal with climate change is the provision of finance. Glasgow COP has once again proved that international climate finance is not a certainty. Hence, our State Governments must enable cities to generate their own streams of finance for tackling climate change. This can be done by **issuing municipal green bonds:** These have been used by cities such as **Cape Town** to raise large amounts of money to deal with crippling water scarcity. Cities such as **Pune** have issued bonds in the past, but there is a lack of understanding and most cities also lack the basic financial systems for issuing these. The international community must share lessons in such innovative climate finance approaches.



## Factly

### Polity

#### #1 Khasi Inheritance of Property Bill, 2021

**News:** A district autonomous council in Meghalaya has announced that it would introduce the 'Khasi Inheritance of Property Bill, 2021'.

#### Purpose of Khasi Inheritance of Property Bill, 2021

The bill is aimed at the **"equitable distribution"** of parental property among siblings in the Khasi community. If implemented, the proposed Bill would modify an age-old customary practice of inheritance of the matrilineal Khasi tribe.

### Matriliny in Meghalaya

The three tribes of Meghalaya Khasis, Jaintias, and Garos practise a **matrilineal system of inheritance**. In this system, **lineage and descent are traced through the mother's clan**. In other words, children take the mother's surname, the husband moves into his wife's house, and the youngest daughter (**khatduh**) of the family is handed over the full share of the ancestral property.

The khatduh becomes the "custodian" of the land and **assumes all responsibility associated with the land, including taking care of aged parents, unmarried or destitute siblings**.

This inheritance tradition applies only to ancestral or clan/community property which has been with the family for years. The self-acquired property can be distributed equally among siblings.

**Inheritance rights do not translate to women empowerment** – (1) The khatduh **cannot sell the property without the permission of her mother's brother (maternal uncle)**; (2) The Dorbar Shnong (traditional Khasi village governing bodies) debar women from contesting elections; (3) Despite the custody of ancestral land, only 35–38% of women own property in the State.

The Bill would let parents decide who they want to will their property to. Another provision would **prevent a sibling from getting parental property if they marry a non-Khasi and accept the spouse's customs and culture**.

## #2 General Consent for the CBI

**News:** The Supreme Court has expressed concern about States withdrawing general consent to the Central Bureau of Investigation (CBI).

### Withdrawal of Consent

The CBI recently told the Supreme Court during proceedings of a case that since 2018, around 150 requests for sanction to investigate have been pending with **8 State governments** that have withdrawn general consent to the agency. These are Maharashtra, Punjab, Rajasthan, West Bengal, Jharkhand, Chhattisgarh, Kerala, and Mizoram. The court observed this as **"not a desirable position."**

### About General Consent

The CBI is governed by The **Delhi Special Police Establishment (DSPE) Act, 1946**. The jurisdiction of CBI is confined to Delhi and Union Territories under this Act. **Section 5** of the DSPE Act **empowers special police establishments (SPEs), including CBI, to investigate cases in the States**.

**Section 6** of the DSPE Act restricts the powers of SPEs under section 5 and puts the condition of the **consent of the State Government** to investigate any case in that state.

The CBI must mandatorily obtain the consent of the state government concerned before beginning to investigate a crime in a state. It can be either case-specific or general.

**Implications of withdrawal of General Consent** – (1) CBI has the power to investigate cases that had been registered before consent was withdrawn; (2) CBI will **not be able to register any fresh case** in the state **without the consent** of the state; (3) CBI officers will **lose all powers of a police officer**, whenever they enter the state; (4) CBI can investigate cases registered anywhere else in the country, which involved individuals stationed in these states.

## #3 Remote Voting

**News:** The Election Commission has planned to start mapping the population of migrant workers across the country to prepare a roadmap for the introduction of remote voting.

### About Remote Voting

Remote voting refers to a mechanism that allows electors to **vote from locations other than polling stations assigned to their registered constituencies**.

There are lakhs of voters who are unable to exercise their voting rights on account of **geographical barriers** due to different reasons, remote voting aims to bridge that gap. This will make the electoral process more **inclusive**.



Election Commission(EC) has been **working with IIT-Madras on using Blockchain technology** for remote voting.

### Working of Remote Voting

There will be a voting machine which has no linkage with the Internet. It will mostly be an EVM. EC would then find areas with around 1000-1500 remote voters and will make arrangements and set up a booth. At the Booth, EC is trying to develop and deploy a machine that has an electronic display which will show the ballot paper of the voter's constituency once they press a number on the screen. After voting, the machines can be sealed and depending on the states, EC can fly them for counting to one location.

### Challenges to Remote Voting

The key challenges would be to **(1) Political Consensus; (2) Public Acceptance**. There are many people who question the authenticity of EVMs despite the availability of the VVPAT (Voter Verifiable Paper Audit Trail).

## #4 NHRC Directive to set up Police Complaints Authorities

**News:** The National Human Rights Commission(NHRC) core advisory group on criminal justice system reforms has issued several directives to the Union Ministry of Home Affairs and the State Governments on the reforms in the Criminal Justice System.

### Recommendations of the NHRC

**Police Complaint Authorities:** State and Central Governments should set up Police Complaints Authorities at the State/UT and district level as per the judgment in **Prakash Singh vs. Union of India, 2006**.

**Include section 114B to the Indian Evidence Act:** Government should consider implementing recommendations of the **113th report of the Law Commission** to add Section 114 B to the Indian Evidence Act. This would ensure that in **case a person sustains injuries in police custody, it is presumed that the injuries were inflicted by the police** and the burden of proof to explain the injury lies on the authority concerned.

**Technology Friendly Legal Framework:** Make the legal framework technology-friendly to speed up the criminal justice system.

**Install CCTVs in Police Stations:** The Supreme Court's December 2020 order to instal CCTV cameras with night vision in all police stations should be implemented immediately to ensure accountability.

**Community Policing:** Involve trained social workers and law students with police stations as part of community policing and incorporate community policing in police manuals, laws and advisories.

## #5 Global State of Democracy Report

**News:** The Global State of Democracy Report 2021 was released by the International Institute for Democracy and Electoral Assistance.

### About Global State of Democracy Report 2021

The report aims to review the state of democracy around the world over the course of 2020 and 2021, with democratic trends since 2015 used as contextual reference.

**Types of Regimes:** The reports refer to three main regime types: **Democracies** (which includes those backsliding), **Hybrid** and **Authoritarian regimes**. Hybrid and authoritarian regimes are both classified as non-democratic.

### Key Findings of the Report

The number of countries moving towards authoritarianism in 2020 was higher than that of countries going towards democracy. More countries than ever before are suffering from **"democratic erosion"** (decline in democratic quality). Around 70% of the global population now live either in non-democratic regimes or in democratically backsliding countries.

Democratically elected Governments, including established democracies, are **increasingly adopting authoritarian tactics**. This democratic backsliding has often enjoyed significant popular support

**Countries such as India and Brazil have been classified** as some of the most worrying examples of Backsliding democracies. India has remained in the category of a mid-level performing democracy since

2000. Backsliding democracies are those that have experienced gradual but significant weakening of Checks on Government and Civil Liberties, such as Freedom of Expression and Freedom of Association and Assembly over time.

The United States was added to the list of “backsliding” democracies for the first time, on account of the visible deterioration of its democratic credentials.

The year 2020 was the worst on record, in terms of the number of countries affected by **deepening autocratisation**.

Many democracies had proved to be **resilient to the pandemic**. Countries around the world learned to hold elections in exceedingly difficult conditions

**About the International Institute for Democracy and Electoral Assistance (IDEA)**

IDEA is an intergovernmental organization that supports sustainable democracy worldwide.

In 2003, IDEA was granted United Nations Observer Status.

The organization is currently chaired by Australia and includes **India as a member-state**. The institute is headquartered in Stockholm, Sweden.

## Policy

### #1 Amendment to the Legal Metrology Rules

**News:** The Department of Consumer Affairs under the Ministry of Consumer Affairs, Food and Public Distribution has amended the Legal Metrology (Packaged Commodities) Rules 2011.

#### About Legal Metrology

Metrology is the science of measurement. Legal metrology provides regulations for the control of measurements and measuring instruments. It also provides rules for protection of public safety, the environment, consumers, traders and is critical to fair trade.

#### Amendments to the Legal Metrology (Packaged Commodities) Rules 2011

**Indicate Unit Sale Price on pre packed commodities:** Companies will be required to print ‘unit sale price’ on the packaged commodities. For example, a packaged wheat flour of 2.5 kg should have a unit sale price per kg along with the total MRP. This will make it easier for the consumers to ascertain the cost in unit terms.

**Schedule 2 of rules scrapped:** The Ministry has scrapped the Schedule 2 of the rules under which 19 types of commodities were to be packed in quantities by weight, measure or number in a specified manner. Now the companies can sell the commodities in any quantity.

**Pre Packed Commodities:** Mandatory Declaration of date of manufacture on the pre-packaged commodities. Pre-packed commodity means any commodity which is placed in a package without the purchaser being present and the product contained therein has a predetermined quantity.

**Mandatory Declaration of MRP:** Government has made it mandatory to declare MRP in Indian currency inclusive of all taxes on pre packed products.

### #2 NFHS-5 Phase II data released

**News:** Ministry of Health and Family Welfare (MOHFW) has released the 2019-21 National Family Health Survey (NFHS-5) that belongs to phase-2 states along with all-India data.

**States covered in Phase II:** Arunachal Pradesh, Chandigarh, Chhattisgarh, Haryana, Jharkhand, Madhya Pradesh, NCT of Delhi, Odisha, Puducherry, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and Uttarakhand.

#### Findings of NFHS-5 Phase II

**Total Fertility Rates (TFR):** Declined from 2.2 to 2.0 at the national level. All Phase-II States have achieved replacement level of fertility (2.1) except Madhya Pradesh, Rajasthan, Jharkhand and Uttar Pradesh.

**Contraceptive Prevalence Rate (CPR):** Increased from 54% to 67% at an all-India level and in almost all Phase-II States/UTs with an exception of Punjab.

**Full immunization drive:** Improved among children aged 12-23 months from 62% (NFHS-4) to 76% at an all-India level. This increase is attributed to the flagship initiative of **Mission Indradhanush** launched by the government since 2015.

**Institutional births:** Increased substantially from 79% to 89% at all-India levels. Institutional delivery is 100% in Puducherry and Tamil Nadu and more than 90 per cent in 7 States/UTs out of 12 Phase II States/UTs.

There has also been a substantial **increase in C-section deliveries** in many States/UTs, especially in private health facilities.

**Child Nutrition:** When compared to NFHS-4, 1. Stunting – declined from 38.4% to 35.5%, 2. Wasting declined from 21% to 19.3%, 3. Underweight – declined from 35.8% to 32.1% and 4. Overweight – Increased from 2.1% to 3.4%. Further, breastfeeding is also shown an improvement from 55% in 2015-16 to 64% in 2019-21.

**Child marriage:** Declined from 27% to 23% in the last five years. West Bengal and Bihar had the highest prevalence of girl child marriage, and this has remained unchanged since the NFHS-4.

**Anaemia:** More than half of the children and women (including pregnant women) are anaemic in all the phase-II States/UTs and all-India levels compared to NFHS-4.

Assam is among the worst-performing states, with a huge spike in anaemic cases.

**Women's empowerment:** Significant progress has been recorded between NFHS-4 and NFHS-5 in regard to women operating bank accounts from 53% to 79% at an all-India level.

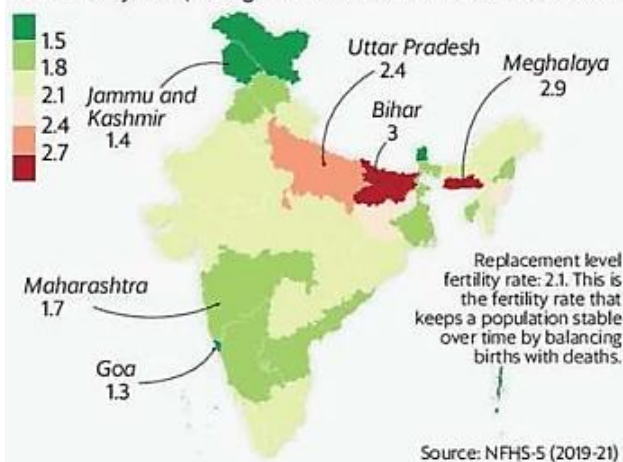
### Significant things to consider from NFHS-5 Survey

Achievement of TFR is a significant feat for the **country's family-planning programme**. But, the onus of family planning still lies with women. This is visible from an increase in female sterilisation and stagnated male sterilisation. An increase in people with overweight highlights the very large burden of NCD and diet-related diseases.

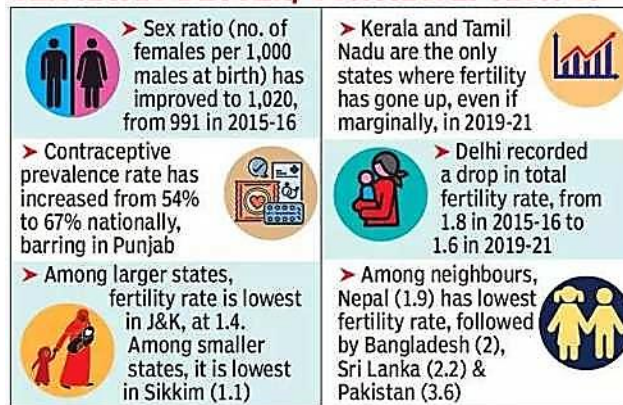
Anaemia among children and women continues to be a cause of concern.

### Just five states still have fertility rate above the replacement level

Total fertility rate (average number of children born to a woman)



### SEX RATIO BETTER, CONTRACEPTION UP



► **Child marriages still a concern**

► **Jump in no. of women a/c holders**

### Hunger watch

The nutritional status of children in India barely improved in 2019-20 from the levels in 2015-16, the National Family Health Survey-5 data show

Indicator	2019-20	2015-16	2005-06
Children aged six to 59 months who are anaemic	67.1	58.6	69.4
Children under five who are stunted	35.5	38.4	48
Children under five who are wasted	19.3	21	19.8
Children under five who are severely wasted	7.7	7.5	6.4
Children under five who are underweight	32.1	35.8	42.5
Children aged six to 23 months receiving an adequate diet	11.3	9.6	-
Institutional births	88.6	78.9	38.7



### #3 Multidimensional Poverty Index released by the NITI Aayog

**News:** NITI Aayog has released India's first National MPI (multidimensional poverty index).

#### About National MPI (Multidimensional Poverty Index)

National MPI seeks to measure poverty across its multiple dimensions and in effect complements existing poverty statistics based on per capita consumption expenditure.

The index has used the globally accepted and robust methodology developed by the **Oxford Poverty and Human Development Initiative** (OPHI) and the **United Nations Development Programme** (UNDP) for Global MPI.

The index is based on three equally weighted dimensions – health, education and standard of living – which in turn are represented by 12 indicators.

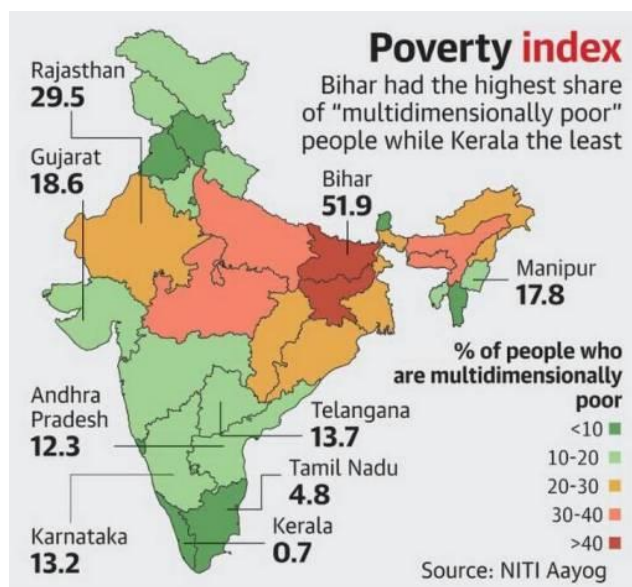
The index is based on the findings of the fourth **National Health Family Survey** (2015-16).

#### Key findings of the National MPI

**Multidimensionally Poor:** Around 25.01% of the Indian population is multidimensionally poor. **Bihar has the maximum percentage of the population living in poverty** among all the States and the Union Territories, with over 50% of the population in the State identified as “multidimensionally poor”. On the other hand, Kerala registered the lowest population poverty levels (0.71%).

The Global MPI had shown 27.9% of India's population were multidimensionally poor. The country ranked 62nd out of 109 nations on the index.

**Poverty Criteria:** The report took a person spending less than Rs 47 a day in cities and one spending less than Rs 32 a day in villages as poor.



#### Health

**Healthy Nutrition:** 37.6% of Indian households are deprived of healthy nutrition levels.

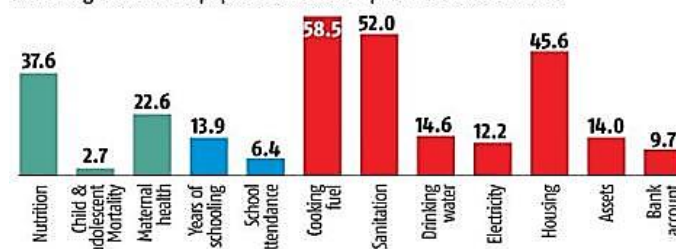
**Child and Adolescent Mortality:** 2.7% households have reported child and adolescent mortality. A household is deprived if any child or adolescent under 18 years of age has died in the household in the five-year period preceding the survey.

#### Education

At least 13.9% households have a member aged 10 years or older who has not completed six years of schooling. At least 6.4% of households have a school-aged child not attending school up to the age at which he/she would complete class 8.

#### THE OTHER INDIA

Percentage of the total population that is deprived in each indicator



#### Standard of Living

**Source of Cooking Fuel:** At least 58.5% of

households use dung, agricultural crops, shrubs, wood, charcoal or coal as their primary source of cooking fuel.

**No Access to Drinking water:** At least 14.6% of households do not have access to improved drinking water or a safe drinking water facility that is more than a 30-minute walk from home (as a round trip).

**Inadequate Housing:** Some 45.6% of households have inadequate housing. Their floor is made of natural materials, or the roof or walls are made of rudimentary materials.



## #4 Annual Survey of Education Report (ASER)

**News:** The Annual Status of Education Report (ASER) survey 2021 has been released.

### About the ASER Survey

The ASER survey is facilitated by **Pratham Education Foundation**. It is the oldest survey of its kind in the country. The survey is known for the range of insights it provides on **levels of foundational learning at the elementary level**.

### About the ASER 2021 Survey

The 2021 survey was based on a household-based telephonic survey conducted in rural areas across 581 districts in 25 states and three Union Territories.

The aim of the Survey is to understand the transition when it comes to the education system of India as the COVID-19 scare comes down.

The survey assesses **enrolment in schools and tuition classes and access to devices and learning resources** rather than the organisation's usual face-to-face survey which assesses learning outcomes and children's competencies in reading and arithmetic skills.

Unlike other ASER reports that are focused on learning outcomes, 2020 and 2021 reports are focused on **rural school education levels in a post-pandemic world**. It also captures trends during the early phases of partial school reopening.

### Key findings of the ASER 2021

**Increase in Enrolment in Government Schools:** There has been an overall increase in the proportion of children enrolled in Govt schools. Around 70.3% of children in India enrolled in government schools in 2021 up from 65.8% in 2020 and 64.3% in 2018.

**The enrolment rate in private schools** has decreased as compared to last year. In 2020, the enrolment rate was 28.8%, which decreased to 24.4% in 2021.

**Reason for Shift to Government Schools:** (1) Financial distress; (2) The closure of affordable private schools; (3) The movement of migrants to rural areas.

**Dependence on Tuitions:** There was a 40% increase in the number of school-going children taking tuition during the closure of their schools amid the pandemic.

**Digital Divide:** The youngest learners have the "least access to technology". Almost a third of all children in Classes I and II did not have a smartphone available at home.

Smartphone penetration in rural India had grown from 36.5% in 2018 to 62% in 2020. 68% of enrolled children had at least one smartphone at home, but their percentage varied sharply between children attending government schools (63.7%) and private ones (79%). In states like Bihar, UP, the lack of access varied from 54 to 34%.

## Economy

### #1 Financial Inclusion: India ahead of China on Financial Inclusion Metrics

**News:** According to the Chief economic adviser at State Bank of India (SBI), India is now ahead of China in financial inclusion metrics.

**Mobile and Internet Banking Transactions:** The mobile and Internet banking transactions have increased to 13,615 per 1,000 adults in 2020 from 183 in 2015 (75 times in 5 years).

**Bank Branches:** The number of bank branches has reached up to 14.7 per 1 lakh adults in 2020 from 13.6 in 2015 which is higher than in Germany, China and South Africa.

**No Frills Account:** The number of no-frills bank accounts has reached 43.7 Crores with INR 1.46 Lakh Crores in deposits. Of these, almost two-thirds are operational in rural and semi-urban areas and more than 78% of these accounts are with state-owned banks. The RBI had introduced 'no-frills' accounts in 2005 to **provide basic banking facilities to the poor and promote financial inclusion**. The accounts could be maintained without or with very low minimum balance.

**Banking Outlets:** The number of banking correspondents (BC) had increased from 34,174 in 2010 to 12.4 lakh in 2020. Banking Correspondents (BCs) are individuals/entities engaged by a bank for providing banking services in unbanked/under-banked geographical territories.

## #2 Logistics Index: LEADS

**News:** The Ministry of Commerce has released the LEADS (Logistics Ease Across Different States) 2021.

The Ministry of Commerce and Industry (MoCI) had launched LEAD Index in 2018 with the main objective of ranking States and UTs on the efficiency of their logistics ecosystem.

### About the Index

The survey parameters are based on three key pillars—**Infrastructure, Services, and Operating and Regulatory Environment**. The survey has 21 indicators, including 17 perception indicators and four objective indicators.

Gujarat has topped the index. Haryana has secured the second position followed by Punjab. North Eastern States and Himalayan Region: Jammu and Kashmir is the top ranker followed by Sikkim and Meghalaya

**Union Territories:** Delhi stands at the top rank among other UTs.

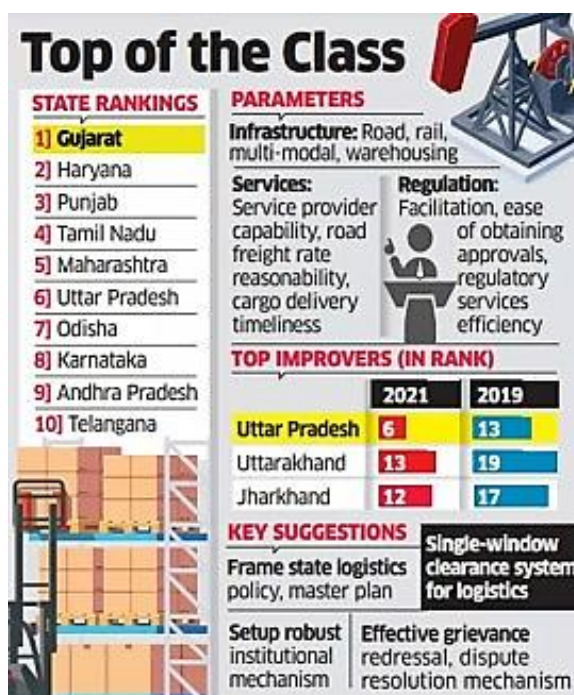
**Remarkable improvement:** Uttar Pradesh, Uttarakhand and Jharkhand have witnessed a remarkable improvement in their ranks compared to 2019 and have emerged as the top improvers.

The inputs given by the LEADS 2021 can lead the way to bring down logistics cost by 5% over the next 5 years.

### Importance of Logistics Improvement

An improvement in logistics environment will benefit the economy in the following manner; (1) Generating better economies of scale; (2) Minimizing cost per unit, leading to lower prices for the consumer; (3) Improved supply chain efficiencies will help bring down logistics costs; (4) Enhances industry competitiveness.

**India's logistics cost is approximately 13-14% of its GDP**, while that of developed countries is in the range of 8-10%. The World Bank's Logistics Performance Index ranked India at 44th position in 2018 as against 160 countries.



## #3 Natural Wealth of the Nations

**News:** The World Bank has released a report titled 'The Changing Wealth of Nations 2021'. The report is a periodic evaluation of wealth generation and distribution beyond the traditional GDP matrix and includes natural resources as part of a country's wealth.

### Key findings of the report

**Increase in Wealth:** Wealth has increased significantly across the globe between 1995 and 2018 but it did so by **worsening inequality and risking future prosperity**.

**Report on GDP:** GDP has traditionally been the measure of a nation's well-being. But it has been long criticized for not accounting for income inequality, pollution or other measures that affect the quality of life. Hence, the **report argues for considering natural and human capital to understand whether growth is sustainable**.

**Growing wealth Inequality:** Low-income countries share of global wealth has changed little from 1995 to 2018, remaining below 1% of the world's wealth, despite having around 8% of the world's population.

**Human Capital:** Human capital (earnings over a person's lifetime) is the largest source of worldwide wealth, comprising 64% of total global wealth in 2018.

**Women's wasted wealth:** Globally, women accounted for only 37% of human capital in 2018, which was only 2% points greater than the 1995 level. In South Asia, some 80% of human capital is attributed to men.

**Renewable Natural Capital:** Globally, **the share of total wealth in renewable natural capital (forests, cropland, and ocean resources) is decreasing** and being further threatened by climate change. At the same time, renewable natural capital is becoming more valuable as it provides crucial ecosystem services. For example, the value of mangroves for coastal flood protection has grown more than 2.5 times since 1995 to over \$547 billion in 2018.

**Non-Renewable natural capital wealth** (minerals, fossil fuels) has declined since 2014 mainly due to falling commodity prices.

#### #4 CCI Study on Pharma Sector

**News:** Competition Commission of India (CCI) has released a report titled 'Market Study on the Pharmaceutical Sector in India: Key Findings and Observations'.

##### Key findings of the report

**Pharmaceutical Sector:** Globally, India ranks 3rd in terms of pharmaceutical production by volume and 13th by value.

**Out of Pocket Expenditure (OOPE):** Pharmaceuticals including generic drugs account for about 43.2% of out of pocket healthcare expenditure in India and about 62.7% of the total health spending in the country.

**Generic Drugs:** India is the largest supplier of generic drugs globally. However, the market for generic drugs is driven by brand competition instead of price competition despite such drugs being functionally and chemically identical.

**Online Pharmacies:** The share of online pharmacies stood at 2.8% in 2018. The sector's reach has now expanded during the pandemic to 8.8 million households from 3.5 million households prior to the pandemic.

##### Suggestions given by the report

**Necessary regulations should be enforced to** safeguard patient privacy and protect sensitive personal medical data.

**Data and digital technology can be used effectively** to improve access to and efficiency of healthcare delivery.

**Online pharmacies should adopt self-regulatory measures** in the areas of collection, use, sharing of data and privacy.

**Effective price competition in generics** can benefit consumers and improve access to affordable healthcare.

**National Digital Drugs Databank** should be created and made available to regulators, industry, physicians and consumers to address information asymmetry in the sector.

CDSCO (Central Drugs Standard Control Organisation) should ensure uniform and consistent application of quality standards.

**There should be** an increase in the frequency of testing of drugs and in the capacity of drug testing labs.

## International Relations

### #1 Freedom of Air

**News:** Pakistan has denied permission to flight from Srinagar to Sharjah from entering the Pakistani airspace.

#### Freedom of Air

The Freedom of Air means a country grants airlines of a particular country the privilege to use and/or land in another country's airspace. Freedom of air rule emanates from the Chicago Convention.

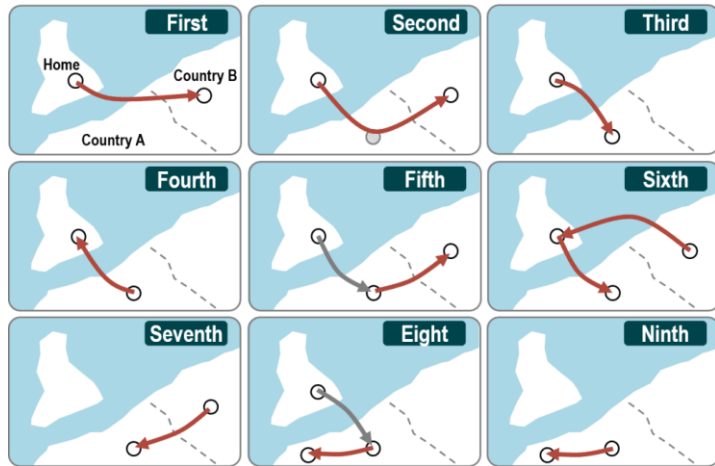
#### About the Chicago Convention

The Convention on International Civil Aviation, which is more commonly known as the 'Chicago Convention' was drafted in 1944.

The convention established the core principles permitting international transport by air. It also led to the creation of the specialized agency which has overseen the convention ever since – the International Civil Aviation Organization (ICAO).

The convention provides **Nine freedoms of air**, but only the first five freedoms have been officially recognized by the International Civil Aviation Organisation (ICAO).

**The Five Freedoms of Air – (1)** It is granted by one State to another State or States to fly across its territory without landing; **(2)** One State can grant another State or States to land in its territory for non-traffic purposes; **(3)** To put down, in the territory of the first State, traffic coming from the home State of the carrier; **(4)** To take on, in the territory of the first State, traffic destined for the home State of the carrier; **(5)** To put down and to take on, in the territory of the first State, traffic coming from or destined to a third State.



#### The Other Four Freedoms

**(6)** To transport, via the home State of the carrier, traffic moving between two other States. This has helped create international air transport hubs e.g., London and Dubai; **(7)** Traffic between two other States without the need to pass through home State of the Carrier; **(8)** Cabotage\* Traffic within the territory of another State in a service that originates or terminates in the home State of the Carrier (e.g., Lufthansa operating flights from Frankfurt to Mumbai and then New Delhi); **(9)** Cabotage Traffic within the territory of the granting State (e.g., Lufthansa operating domestic only flights between New Delhi and Mumbai)

(\*Cabotage is the transport of goods or passengers between two places in the same country by a transport operator from another country).

## #2 Delhi Declaration on Afghanistan

**News:** India hosted the 'Delhi Regional Security Dialogue on Afghanistan' to address the security concerns arising due to new developments in Afghanistan.

### About the Regional Security Dialogue

The dialogue was chaired by India's National Security Advisor(NSA) and was attended by the NSA of 7 countries including Russia, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

During the dialogue, the countries adopted the **Delhi Declaration**.

**Key provisions of the Delhi Declaration – (1)** The Declaration underlined the need for **forming an open and truly inclusive government in Afghanistan** that represents the will and representation of all sections of Afghanistan; **(2)** It reiterated strong support for a peaceful, secure and stable Afghanistan while emphasising the respect for sovereignty, unity and territorial integrity and non-interference in its internal affairs; **(3)** It stressed that Afghanistan's territory should not be used for sheltering, training, planning or financing any terrorist acts; **(4)** It expressed concern over the deteriorating socio-economic and humanitarian situation in Afghanistan and underlined the need to provide urgent humanitarian assistance to the people of Afghanistan.

## #3 18<sup>th</sup> Indo-ASEAN Summit

**News:** The Prime Minister participated in the 18th India-ASEAN Summit.

**Key highlights of the Summit – (1)** The summit highlighted the milestone of the 30th anniversary of the India-ASEAN Partnership. It announced the **Year 2022 as India-ASEAN Friendship Year**; **(2)** To further strengthen India-ASEAN cultural connectivity, India announced support for establishing the **ASEAN Cultural Heritage List**; **(3)** India's contribution of medical supplies worth USD 200,000 to ASEAN's humanitarian



initiative for Myanmar and USD 1 million for ASEAN's Covid-19 Response Fund was highlighted; (4) The importance of diversification and resilience of supply chains for post-COVID economic recovery was underlined and the need to revamp the India-ASEAN FTA was recognized.

**Challenges in India-ASEAN Relations** – (1) Caught between the rivalry of China and the USA in the Indo-Pacific; (2) ASEAN nations are worried about India joining **QUAD** as it impacts ASEAN centrality; (3) India's withdrawal from **RCEP**; (4) India's **Atmanirbhar Bharat** initiative is seen as economic inwardness by ASEAN countries, instead of open trade.

ASEAN-India relations are an important pillar of Indo-Pacific. Thus, India should need to build its narrative strongly and convey the same to the members of ASEAN.

## Environment

### #1 Glasgow Leaders Declaration on Forests and Land Use

**News:** The Glasgow Leaders Declaration on Forests and Land Use was signed on the sidelines of COP26. India refrained from signing this declaration.

#### About Glasgow Leaders Declaration on Forests and Land Use

It is an ambitious declaration initiated by the United Kingdom to “halt deforestation” and land degradation by 2030. The declaration has been signed by over 105 countries including the UK, US, Russia and China.

They established **\$19 billion in public and private funds to invest in protecting and restoring forests**. The private sector has also pledged to stop investing in activities linked to deforestation such as cattle, palm oil, and soybean farming and pulp production. Effective role Indigenous communities in preventing deforestation has been acknowledged.

The agreement vastly expands a commitment made by 40 countries as part of the 2014 New York Declaration of Forests, and promises more resources. **India, Argentina, Mexico, Saudi Arabia and South Africa** are the only G20 countries that did not sign the declaration.

#### India's refusal to sign the Declaration

The Declaration interlinks trade to climate change and forest issues. But India has objected that trade falls under the WTO, and it should not be brought under climate change declarations. India had proposed to remove the word “trade” but the proposal was not accepted.

#### Congo Basin Pledge at the COP26

**Congo Basin pledge:** The UK also presented the Congo Basin Pledge. It has been signed by over 10 countries, the Bezos Earth Fund and the European Union. The pledge aims to mobilize a 1.5 billion dollar fund to protect the Congo Basin –home to the second-largest tropical rainforest in the world.

### #2 Global Methane Pledge at COP26

**News:** The World leaders signed the Global Methane Pledge at Glasgow during the COP26

#### About the Global Methane Pledge

The Global Methane Pledge was first announced in September 2021. It covers emissions from two-thirds of the global economy. Nearly 90 countries have joined a U.S.-and EU-led effort to **slash emissions of methane by 30% by 2030 from 2020 levels**. China, Russia, and India have not signed the Pledge, while Australia has said it will not back the pledge.

#### Need for the Pledge

Methane is more short-lived in the atmosphere than carbon dioxide but **80 times more potent in warming the earth**. Methane is generated in cows' digestive systems, in landfill waste, and in oil and gas production. It is estimated that **Methane has accounted for 30% of global warming since pre-industrial times**.

IPCC research estimates that cutting **Methane emissions is easier compared to other emissions due to availability of technological solutions**. Also, according to the latest assessment by the UN, over 50% of

available targeted measures have negative costs i.e., they quickly end up saving money. But it is not yet clear that industrialized meat production system, which accounts for 32% of anthropogenic methane emissions globally, will be a part of reform or not.

### India's refusal to sign

India has not signed the agreement because the livestock and paddy cultivation account for 8% of methane emissions. India can use technologies that reduce methanogenic activity in bovines and sheep. For example, ICMR has developed a feed supplement that cuts down their methane emissions by 17-20%.

## #3 Proposed Amendments to the Energy Conservation Act, 2001

**News:** The Ministry of Power has proposed amendments to the Energy Conservation Act, 2001 with an aim to achieve higher levels of penetration of Renewable energy.

**Proposed amendments proposed to the Energy Conservation Act, 2001 – (1) Define the minimum share of renewable energy in the overall consumption by the industrial units or any establishment; (2) Provision to incentivise efforts on using clean energy sources by means of a carbon saving certificate; (3) To strengthen the institutions originally envisaged under the Act; (4) To expand the scope of the Act to include larger Residential buildings with an aim to promote Sustainable Habitat.**

### Significance of these proposed amendments

India has committed to an ambitious **Nationally Determined Contributions (NDCs)** of reducing emission intensity by 33-35% in 2030 against the levels of 2005.

India also aims to achieve more than 40% cumulative electric power installed capacity from non-fossil fuel energy resources by 2030.

**To achieve these goals**, the proposed amendments would help by facilitating the development of the carbon market in India, increasing private sector involvement in climate actions and **promoting green Hydrogen** as an alternative to the existing fossil fuels.

## #4 State of the Climate Report 2021

**News:** The World Meteorological Organisation (WMO) has the State of the Climate report 2021.

### Purpose of the Report

The State of the Climate report provides a snapshot of climate indicators including temperatures, extreme weather events, sea level rises and ocean conditions.

**Key Findings of the Report –** The report highlights that “**our planet is changing before our eyes**” - (1) The past 7 years have been the warmest years on record; (2) For the first time on record, **it rained at the peak of the Greenland ice sheet** (instead of snow); (3) A **heatwave in Canada** and adjacent parts of the USA pushed temperatures to nearly 50°C in a village in British Columbia; (4) Greenhouse Gas concentrations reached new highs in 2020. Levels of carbon dioxide were 413.2 parts per million, methane at 1889 parts per billion (ppb) and nitrous oxide at 333.2 ppb. These levels respectively were 149%, 262% and 123% more than pre-industrial levels; (4) The global mean temperature for 2021 (January to September) was about **1.09°C above the average during the 1850-1900 period**. 2016 was the warmest year on record according to most of the datasets surveyed; (5) 90% of the accumulated heat in the Earth system is stored in the ocean, which is measured through ocean heat content. The upper 2,000 meters depth of the ocean continued to warm in 2019 reaching a new record high. Most of the oceans experienced at least **one strong marine heatwave in 2021**; (6) The **oceans absorb around 23% of the annual emissions of anthropogenic CO<sub>2</sub>** to the atmosphere and so are becoming more acidic. Open ocean surface pH has declined globally over the last 40 years and is now the **lowest it has been for at least 26,000 years**. As the pH of the oceans decreases, the **capacity to absorb CO<sub>2</sub> from the atmosphere also declines**; (7) The global mean sea-level rise was 2.1 mm per year between 1993 and 2002, but it jumped to **4.4 mm per year between 2013 and 2021**, mostly due to the **accelerated loss of ice mass from glaciers and ice sheets**; (8) The report also highlighted the rising frequency of extreme weather events that compounded existing shocks like altered rainfall seasons, consecutive droughts coinciding with severe storms, cyclones and hurricanes. Extreme weather events and conditions, often exacerbated by

climate change, have had major and diverse impacts on population displacement and on the vulnerability of people already displaced throughout the year

#### #5 UNEP Report - Sustainable Urban Cooling Handbook: “Cities will be too hot to live in future”

**News:** The United Nations Environment Programme (UNEP) has released a report titled “Sustainable Urban Cooling Handbook” stated that cities will be the hotspots as global warming continues unabated.

##### Key Findings of the Report

Overheated cities will face climate change costs that are more than twice those of the rest of the world because of the **urban heat island effect**.

The study also suggests that higher temperatures can lead to **greater energy use** for cooling, increased air pollution, worsening water quality and loss in worker productivity.

Depending on the climate zone, the urban heat island effect can **raise urban temperatures** as much as 5°C, compared with surrounding rural areas.

The **urban population exposed** to high temperatures (average summertime temperature highs above 35°C) is expected **to increase by 800%** to reach 1.6 billion by 2050.

It will **disproportionately impact impoverished** urban population as it needs procurement of mechanical cooling solutions.

The International Labour Organization (ILO) projects that in 2030, the equivalent of 80 million full-time **jobs could be lost** worldwide due to heat stress. This will result in **global economic losses** of \$2.3 trillion. They will lose around 5% of working hours due to excessive heat.

The impact will be unequally distributed around the world: **Low-income countries**, especially in the hot regions of southern Asia and western Africa, are likely **to be the worst hit**.

The situation could be worsened by potential major **electric grid failures** during extreme weather and can expose large populations to severe heat stress both outside and within buildings.

##### Steps taken by India to resolve cooling problems

In 2019, India published the **India Cooling Action Plan (ICAP)** and laid down the roadmap.

ICAP focuses on adaptive thermal comfort, passive cooling design strategies across sectors.

It promotes insulation, shading and enhanced natural ventilation, to reduce requirement of active-cooling. This reduced cooling demand then can be met using the energy efficient and climate-friendly technologies.

The world needs urban heat island adaptation and mitigation measures along with a shift to more **sustainable cooling solutions** to provide cooling without perpetuating more warming.

This can be done through urban planning and design, energy-efficient building, efficient cooling technologies and practices and sustainable refrigerant use approaches for lower climate impact and greater access and equity than business-as-usual cooling approaches.

#### #6 Global Forest Resources Assessment

**News:** The Food and Agriculture Organization (FAO) of the United Nations has released the Global Forest Resources Assessment (FRA) 2020 Remote Sensing Survey.

##### FRA 2020 Remote Sensing Survey

The Survey was launched by FAO in 2018. The objectives of the survey are two-fold: **(1)** To build country capacities to use remote sensing for forest monitoring; **(2)** To generate independent, robust and consistent estimates of forest area and its changes over time at global, regional and biome levels.

##### Key findings of the survey

Around **420 million hectares of forest has been lost** since 1990.

**The major cause of deforestation:** Conversion of forest to cropland or grassland for livestock grazing is the prime cause. Almost 90% of deforestation worldwide **was due to agricultural expansion**.

Most of the deforestation was in the **tropical biomes** during 2000–2018.

The main deforestation reasons **differ across the world's regions**. The reasons are: **(1)** Agriculture is the main reason for deforestation in all regions except Europe, where urban and infrastructure development have a higher impact; **(2)** Conversion to cropland dominates forest loss in Africa and Asia; **(3)** In South America, almost three-quarters of deforestation was due to livestock grazing.

However, the survey has also found that there has been a **slowdown in global deforestation**.

## Science and Technology

### #1 Increase in incidences of Zoonotic Diseases

**News:** Viruses account for almost 50% of new and emerging diseases. Since mid-20th century about 75% of all emerging viruses are zoonotic, they spill over into humans from wild animals.

#### Reasons for increase in zoonotic disease incidence

Though humans comprise only 0.01% of the Earth's biomass, they have disproportionate impact on the environment and the planet. Today's era is called Anthropocene, or the Age of Man since the mid-20th century.

**Increasing livestock population**, with genetic links to wild animals and proximity to humans, acts as a natural intermediary for the spillovers. South and Southeast Asia with high densities of human and livestock populations are particularly at risk.

**Deforestation** brings wild animals near both livestock and humans, increasing the risk. For example, Malaysia cleared about 5 million hectares of primary forests between 1983 and 2003 for industrial logging, palm oil plantations etc.

**Redistribution of species:** Climate change is leading to increased global expansion and redistribution of the Aedes mosquito, which is the vector for several known human diseases such as yellow fever, dengue, chikungunya, rift valley fever, Zika and lymphatic filariasis.

The 20th century had three pandemics (Influenza 1918, 1957 and 1968) but the 21st century has already experienced two (Swine Flu 2009 and Covid-19) with a few narrow misses like SARS, Ebola and Zika

### #2 Action Plan on Antimicrobial Resistance

**News:** The Food and Agriculture Organization (FAO) of the United Nations has launched its Action Plan on Antimicrobial Resistance (AMR) 2021–2025.

The FAO Action Plan on Antimicrobial Resistance 2021–2025 is the continuation of the first FAO Action Plan, which covered the period 2016–2020.

#### Key Objectives of the Plan

The five key objectives of the plan are: **(1)** Increasing stakeholder awareness and engagement; **(2)** Strengthening surveillance and research; **(3)** Enabling good practices; **(4)** Promoting responsible use of antimicrobials; **(5)** Strengthening governance and allocating resources sustainably.

#### Key Features of the plan

The key features are: **(1)** It takes a 'One Health' approach and outlines several possible improvements in agricultural practices to better control Antimicrobial Resistance (AMR) from good nutrition for people and animals, vaccination, hygiene, sanitation and genetics among other areas; **(2)** It calls for more AMR-related research and surveillance in the crop, aquaculture and environmental sectors. This is because antimicrobials discharged by humans and animals, as well as hospitals and slaughterhouses, can enter the environment and accelerate the emergence as well as the spread of resistant strains and genes.

#### Antimicrobials and Antimicrobial Resistance

**Antimicrobials** (antibiotics, antivirals, antifungals and anti-parasitics) are medicines used to prevent and treat infections in humans, animals and plants.



Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.

As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become increasingly difficult or impossible to treat.

### Different types of AMR

**Natural (intrinsic, structural) resistance:** This kind of resistance is caused by the structural characteristics of microbes and is not associated with the use of antimicrobials. It has **no hereditary property**.

**Acquired resistance:** Due to changes in the genetic characteristics of microbes, acquired resistance occurs as it is now unaffected by the previous antimicrobial.

-This kind of resistance occurs mainly due to structures of chromosomes or extrachromosomal such as plasmid, transposon, and others.

**Cross resistance:** Some microorganisms are resistant to a certain drug that acts with a similar mechanism as some other drugs. However, sometimes it can also be seen in completely unrelated drug groups.

-This resistance is usually observed against antibiotics whose structures are similar. This may be the chromosomal or extrachromosomal origin.

**Multi-drug resistance and pan-resistance:** These are often bacteria resistant to the antibiotics used to treat them. This means that a particular drug is no longer able to kill or control the bacteria.

## Art and Culture

### #1 The Life of Adi Shankra

**News:** The Prime Minister inaugurated a 12-foot statue of Adi Shankaracharya at Kedarnath, Uttarakhand. It is believed that Adi Shankaracharya has attained samadhi at the age of 32 in the ninth century in Kedarnath.

#### Who is Adi Shankaracharya?

Adi Guru Shankaracharya was an 8th-century Indian spiritual leader and philosopher. He is said to have been born in Kaladi village on the bank of the river Periyar in Kerala.

#### Philosophy

**Advaita Vedanta:** Adi Shankaracharya propounded the philosophy of Advaita Vedanta which articulates a philosophical position of **radical non dualism**, a revisionary worldview which it derived from the ancient Upanishadic texts.

According to the philosophy, the whole world is a manifestation of the one and only God (brahman) and all diversity we see is delusion (maya) as the result of ignorance (advidya).

**Established Mathas:** Shankaracharya established **Mathas** in Sringeri, Dwaraka, Puri, and Joshimath for the spread of Advaita Vedanta.

#### Major Works of Adi Shankaracharya

He **authored 116 works**. Among them, the celebrated commentaries (bhashyas) are on Upanishads, the Brahma Sutra, and the Gita. His famous poetic works include **Maneesha Panchakam** and **Saundaryalahiri**.

He authored the **Vivekachudamani**. It spells out the qualifications required in a student of Vedanta.

He also composed the **Kanakadhara Stotram**, following which there was a rain of golden amlas which brought prosperity to the household.

Further, he also composed texts like **Shankara Smrithi** which seeks to establish the social supremacy of Nambuthiri Brahmins.

### #2 Rani Gaidinliu Freedom Fighter Museum

**News:** Union Minister of Home Affairs has laid the foundation stone for setting up of the Rani Gaidinliu Tribal Freedom Fighters Museum at Luangkao village in Manipur's Tamenglong district.

### About Rani Gaidinliu

Rani Gaidinliu was born on January 26, 1915, in the present-day Tamenglong district of Manipur. She belonged to the Rongmei Naga tribe.

### About Heraka Movement

At the age of 13, Rani Gaidinliu joined the Heraka Religious movement of her cousin Haipou Jadonang.

Heraka was a socio-religious movement that arose in the 1920s in the Zeliangrong territory. It was started by Jadonang to resist the infiltration of Christian missionaries as well as the reforms imposed by the British government.

However, in 1931, Jadonang was arrested by the British and was hanged for opposing colonial rule. To ensure the movement does not die down, Gaidinliu took up the movement.

She openly rebelled against British rule by telling the Zeliangrong people not to pay taxes. She also received donations from the local Nagas, many of whom also joined her as volunteers.

She was then arrested in 1932 and was sentenced to life imprisonment by the British rulers. Between 1932 and 1947, the Naga freedom fighter was kept at several prisons across the Northeast.

Acknowledging her role in the struggle against the British, Jawaharlal Nehru called her the “Daughter of the Hills” and gave her the title “Rani” or queen.

### Post-independence

In independent India, Gaidinliu was against the Naga National Council (NNC) demand for sovereignty and independence of Naga territory from India. She demanded a separate Zeliangrong area within the Union of India.

Since she faced opposition from other Naga leaders for her demand, she was forced to go underground in 1960. She later reached an understanding with the Government of India and dismantled the underground movement.

She was awarded with the Tamra Patra – an award bestowed upon distinguished individuals for their contribution to the Indian freedom struggle – in 1972 and the Padma Bhushan in 1982.

In 1993, Rani Gaidinliu passed away. The government of India issued a postal stamp in her honour in 1996, and a commemorative coin in 2015.

The Indian Coast Guard commissioned a Fast Patrol Vessel “ICGS Rani Gaidinliu” in 2016.

## Pointly

1. The UNESCO has selected **Srinagar as part of the UNESCO Creative Cities Network (UCCN)** under the **Crafts and Folk Arts category**. Srinagar is famous for crafts like **textiles, carpets and rugs, crewel embroidery, silverware, woodwork, papier-mâché, wooden crafts, Pashmina shawl** etc. UNESCO Creative Cities Network (UCCN) was launched in 2004 to promote cooperation among cities which recognized creativity as a major factor in their urban development. The Network covers **seven creative fields: Crafts and Folk Arts, Media Arts, Film, Design, Gastronomy, Literature and Music**. 5 Indian cities are already part of CCN viz., **Chennai and Varanasi** (Music), **Jaipur** (Crafts and folk arts), **Mumbai** (Film), and **Hyderabad** (Gastronomy). The **Indian National Commission for Cooperation with UNESCO** had recommended Srinagar and Gwalior for inclusion in the list of UCCN.
2. Union Cabinet has approved **15th November as Janjatiya Gaurav Divas** to remember the **contributions of tribal freedom fighters for the country**. This date was chosen as it is the **birth anniversary of Birsa Munda** who is revered as **Bhagwan** by tribal communities across the country. **Janjatiya Gaurav Divas** would recognize the efforts of the tribals for the preservation of cultural heritage and would help the coming generations know about the sacrifices made by the tribals for the country. The Government of India has also sanctioned **10 tribal freedom fighter museums** across the country.
3. **Birsa Munda** was born in 1875. He belonged to the **Munda tribe in the Chota Nagpur Plateau** area. He created a new religion called **Birsait**, which worshipped only one god. Given his growing influence in the tribal community, **Birsait** soon became the popular religion among the Mundas and Oraons. He was also

given the nickname '**Dharti Abba**' or **Father of the Earth**. During the 1880s, Birsa closely witnessed the **Sardari Larai movement** in the region, which demanded the restoration of tribal rights through non-violent methods like sending petitions to the Raj. However, the oppressive colonial regime paid no heed to these demands. He eventually led the Munda revolt.

4. Madhya Pradesh Government has renamed the Bhopal's Habibganj railway station after **Rani Kamlapati**. **Rani Kamalapati was the 18th Century Gond Queen** of the region. She was the widow of Gond ruler Nizam Shah, chief of Ginnorgarh. She is known to have shown great bravery in facing aggressors during her reign after her husband was killed. Kamlapati is also claimed to be the "last Hindu queen of Bhopal" who did great work in the area of water management and set up parks and temples.
5. **Oceanographic Research Vessel (ORV) Sagar Nidhi** is an **ice-strengthened** multidisciplinary vessel operated by the National Institute of Ocean Technology (NIOT). An ice-strengthened ship is a ship made of steel. These ships are made to get through the ice in Antarctica and the Arctic. The purpose of Sagar Nidhi is to explore the ocean resources, participate in search and rescue operations and in implementation of Deep Ocean Mission and carry out geoscientific, meteorological and oceanographic research. **Research Vessel (Ships)** is an important tool for ocean research and the development of ocean technology. The Ministry of Earth Sciences (MoES) has **at present has 6 ships** namely *Sagar Nidhi, Sagar Manjusha, Sagar Kanya, Sagar Sampada, Sagar Tara* and *Sagar Anveshika*.
6. The **first ship 'Visakhapatnam'**, of the four **Project-15B ships** has been delivered to the Navy. It is state-of-the-art stealth **guided missile destroyers**, being built at the Mazgaon Docks Limited (MDL). The overall indigenous content of the project is approximately 75% including weapons systems like medium range SAMs, torpedo tube launchers etc. The **design** of the ships has been **developed in-house** by the **Directorate of Naval Design**. These ships are **equipped with BrahMos supersonic cruise missiles** and long range Surface-to-Air missiles (SAM).
7. **INS Vela** is the fourth submarine in the series of six **Scorpene-Class submarines** being built under **Project-75**. *Vela* will be commissioned into the Indian Navy's Western Command and will be based in Mumbai. *Vela* is a **diesel-electric powered attack submarine** designed to act as "sea denial" as well as "access denial" warfare to the adversary. The submarine can engage in **offensive operations** across the entire spectrum of naval warfare, including **anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and area surveillance**. With this induction, the **Navy currently has 16 conventional and one nuclear submarine in service**. It includes 8 **Russian Kilo-class submarines**, 4 **German HDW submarines**, 4 **French Scorpene submarines** and the **indigenous nuclear ballistic missile submarine INS Arihant**. *INS Vela* is named after a type of Indian fish belonging to the stingray family.
8. **Project - 75** is related to the construction of six submarines of Scorpene design. These submarines are being constructed at Mazagon Dock Shipbuilders Limited (MDL) Mumbai, under collaboration with M/s Naval Group, France. Among them, three submarines namely *INS Karanj*, *INS Kalvari* and *INS Khanderi* are functional. The fourth one *INS Vela* was delivered now. The fifth one *INS Vagir* was launched in 2020 and the sixth one, *INS Vagsheer* is under construction.
9. **Defence Acquisition Council (DAC)** has approved the deal for the **manufacture of AK-203 assault rifles in India**. AK-203 is an **assault rifle designed by Russia**. It is considered to be the latest and most advanced version of the AK-47 rifle. They will **replace the Indian Small Arms System (INSAS) rifles**. The AK-203 rifle is reliable, durable, lighter, shorter and easy to maintain compared to INSAS. It also has better ergonomics, accuracy and density of fire. The production of the AK-203 will be undertaken in India by the **Indo-Russia Rifles Pvt Ltd (IRRPL)**, which was created as a **joint venture between the Ordnance Factories Board (OFB) and the Russian entities Rosoboronexport and Concern Kalashnikov**.
10. **Shakti** is an **advanced electronic warfare (EW) system** developed for the Indian Navy. *Shakti* has been **Defence Electronics Research Laboratory** in Hyderabad. It aims to **provide an electronic layer of**

**defence against modern radars and anti-ship missiles** to ensure survivability in the maritime battlefield. The First *Shakti* system has been installed on-board INS Visakhapatnam and is being installed on-board Indigenous Aircraft Carrier, INS Vikrant. It has been designed for the **Indian Navy's capital warships** for the purposes of interception, detection, classification, identification and jamming of conventional and modern radars. The system has been integrated with the wideband **electronic support measures (ESM) and electronic countermeasures** for the defence of Indian Navy ships against missile attacks. The ESM of the system helps in finding accurate direction and interception of modern radars.

11. **Goa Maritime Conclave** was organized by the Indian Navy under the aegis of Naval War College, Goa. The aim of the Conclave is to bring together the regional stakeholders and deliberate on the **collaborative implementation strategies in dealing with contemporary maritime security challenge**. The Chiefs of Navies/ Heads of Maritime Forces from 12 Indian Ocean Region countries comprising Bangladesh, Comoros, Indonesia, Madagascar, Malaysia, Maldives, Mauritius, Myanmar, Seychelles, Singapore, Sri Lanka and Thailand have participated in the conclave.
12. **Indian Ocean Naval Symposium (IONS)** is a biennial forum conceived by the Indian Navy in 2008. Its objective is to enhance maritime cooperation among Navies of the littoral states of the Indian Ocean Region. The inaugural edition of IONS was held in Feb 2008 in New Delhi with the Indian Navy as the Chair for two years. IONS is currently chaired by France. IONS includes 24 nations that hold territory within the Indian Ocean and 8 observer nations. France is member by virtue of its territory Reunion in the Indian Ocean.
13. Border Roads Organisation (BRO) has received the Guinness World Records certificate for constructing and black topping the **world's highest motorable road at 19,024 feet at Umlingla Pass in Ladakh**. The road was built under the '**Project Himank**' of BRO. It is a 52-km long motorable road that connects remote villages in eastern Ladakh. This beats the previous record of a road in Bolivia which connects volcano Uturuncu at 18,953 feet. The road will help the local population of the region and will also enhance the socio-economic conditions and promote tourism in Ladakh.
14. **Salami Slicing** is a divide-and-conquer tactic used to dominate opposition territory piece by piece. Such military operations are **too small to result in a war**. Because of limited nature of operations the opposition is not able to retaliate by full force. These small military actions also help **avoid international diplomatic attention**. These small actions cumulate over a period of time and result in a strategic advantage for the aggressive country. China has been following such tactic against its neighbours. China is the only country that has been expanding its territorial jurisdiction post-World War II at the expense of its neighbours. This expansion has taken place in both territorial and maritime regions.
15. **Zircon** is a Hypersonic Cruise Missile developed by Russia. The missile flies with an **advanced fuel** that gives it a range of up to 1,000 kilometers. The missile speed is so fast (9,600kmph) that the air pressure in front of the weapon forms a plasma cloud as it moves, **absorbing radio waves** and making it **practically invisible to active radar systems**. This successful test of Zircon is being termed as good news for India as it will hasten the development of the delayed BrahMos-II hypersonic cruise missile, a joint India-Russia project.
16. The United Nations Security Council (UNSC) has adopted a unique resolution called "**Resolution 2601**". Resolution 2601 calls for the **protection of education in armed conflict**. It urged the parties in armed conflict to immediately stop such violence and to safeguard the right to education. It also urged the Member States to **create domestic legal frameworks** to prevent attacks and protect schools, children, teachers during armed conflict and in post-conflict phases. The **Education under Attack Report 2020**, noted that more than 22,000 students, teachers, and academics were injured, killed or harmed in attacks on education during armed conflict over the past five years. **The Report of the Secretary-General 2020 and 2021 on 'Children and armed conflict'** also reported a significant increase in the number of attacks against schools.



17. The **Ministry of Jal Shakti** has released a document for the **safe rescue and release of stranded Ganges river dolphins**. The document has been prepared by **Turtle Survival Alliance** and the Environment, Forest and Climate Change Department (EFCCD) of the Uttar Pradesh Government. The Ganges river dolphin (*Platanista gangetica gangetica*) was officially discovered in 1801. It is found throughout the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India and Bangladesh. The global population is estimated at 4,000 and is mostly found in the Indian subcontinent.
18. The Arunachal Pradesh Cabinet approved **Kaiser-i-Hind** as the **State butterfly of Arunachal Pradesh**. **Kaiser-i-Hind** (*Teinopalpus imperialis*) literally means Emperor of India. The Butterfly is found in Nepal, Bhutan, Myanmar, Laos, Vietnam and Southern China. In India, it is found in six States along the eastern Himalayas at elevations from 6,000-10,000 feet in well-wooded terrain. It flies in the canopy of broad-leaved **temperate evergreen forests**. **It is an Indicator Species and** the presence of this butterfly indicates the existence of a good forest ecosystem. Its Protection Status is **IUCN Status: Near Threatened**, **CITES: Appendix II**, **Wildlife (Protection) Act, 1972: Schedule II**.
19. The Government of India is planning to set up a **National Interlinking of Rivers Authority (NIRA)**. NIRA is supposed to be an **independent autonomous body** for planning, investigation, financing and the implementation of the **river interlinking projects** in the country. NIRA will replace the existing National Water Development Agency (NWDA).
20. **e-AMRIT** (Accelerated e-Mobility Revolution for India's Transportation) is a web portal for **creating awareness about electric mobility in India**. It is a joint initiative between NITI Aayog and the UK Government. Its purpose is to serve as a 'one-stop site' to provide all the information related to the adoption of electric vehicles in India.
21. **Zero-Emission Vehicles Transition Council** was formed in November 2020. It is a global forum on enhancing political cooperation on the **transition to zero-emission vehicles**. The Council brings together **ministers and representatives of some of the world's largest automobile markets** to collectively address key challenges in the transition to ZEVs to enable a faster, cheaper and easier transition to EVs for all.
22. The **Climate Change Performance Index 2022** has been released by Germanwatch, the New Climate Institute, and the Climate Action Network. Climate Change Performance Index (CCPI) is an independent monitoring tool for **tracking the climate protection performance** of 60 countries and the EU – covering 92% of the Global Greenhouse Gas Emissions. It aims to **enhance transparency in international climate politics** and enable comparison of climate protection efforts and progress made by individual countries. **The first three ranks of the overall rankings were kept empty** because no country had performed well enough in all index categories to achieve an overall very high rating. Denmark has been placed 4th. India has been ranked in 10<sup>th</sup> place. China and the US were ranked 37<sup>th</sup> and 55<sup>th</sup> respectively.
23. The United Kingdom has announced the launch of the **Clydebank Declaration on Green Shipping Corridors** at the COP26 conference in Glasgow. The Clydebank Declaration aims to set up **green shipping corridors**, which are **zero-emission maritime routes** between 2 (or more) ports. Around 19 countries have signed the declaration. **India has not signed** the declaration yet. According to the World Economic Forum, **International shipping** which transports 90% of world trade **accounts for about 3% of global carbon emissions**.
24. India and the UK have launched the **Infrastructure for Resilient Island States (IRIS) Initiative**. IRIS is the first major initiative under the **Coalition for Disaster Resilient Infrastructure (CDRI)**. It aims to **make critical infrastructure in the SIDS (Small Island Developing States)** resilient against all kinds of disasters. As part of the initiative, the Indian Space Research Organisation (ISRO) will create a **special "data window"** for SIDS (Small Island Developing States). This window will provide SIDS countries timely

information **about cyclones, coral-reef monitoring, coast-line monitoring** through the satellite. This will strengthen their fences against climate disasters.

25. **Climate TRACE** (Tracking Real-Time Atmospheric Carbon Emissions) was launched in 2021 before COP26. It is a global coalition of non-profits, tech companies, and universities. It has been created to **collect and share greenhouse gas emissions from anthropogenic** (human) activities to facilitate climate action. It uses Artificial Intelligence (AI) and machine learning to analyze data from satellite imagery and sensor data to come up with accurate emissions estimates in near-real-time. Climate TRACE is the **world's first comprehensive accounting of GHG emissions** based primarily on direct, independent observation.
26. **Climate Equity Monitor** is a database that aims to **highlight the gap between the emissions of developed and developing countries**. Countries including the United States, Canada, Australia and in Western Europe are shown as having a **net carbon debt** while developing countries, including India and China, having **net credit**. India is the **3<sup>rd</sup> largest** emitter of carbon emissions annually but the **6<sup>th</sup> largest** when historical emissions are considered, and when accounting for the size of its population it is among the **lowest per capita emitters**.
27. **Glasgow Financial Alliance for Net Zero** (GFANZ) was launched in April 2021 by UN in partnership with the Race to Zero campaign. Its purpose is to provide a forum for leading financial institutions to accelerate the transition to a net-zero global economy. Its members currently include over 450 financial firms across 45 countries responsible for assets of over \$130 trillion. The financial firms have pledged to report annually on the carbon emissions linked to the projects they lend to.
28. New Zealand Parliament has passed the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Bill. With this, **New Zealand has become the first country in the world to have a climate-related disclosure law in place**. The bill requires banks, insurers, firms and investment managers to report the impacts of climate change on their business. These disclosures will become mandatory from 2023.
29. **Leadership Group for Industry Transition** (LeadIT) was launched by the Prime Ministers of Sweden and India with support from the **World Economic Forum (WEF)** during the UN Climate Action Summit in 2019, in New York. It is a voluntary initiative for promoting low-carbon transition through active participation of private sector companies especially in the sectors like Iron & Steel, Aluminium, Cement and Concrete, petrochemicals, fertilisers, bricks, heavy-duty transport.
30. **Octacopter** is an indigenous **medium-class drone** developed by National Aerospace Laboratories (NAL). The drone is made of lightweight carbon fibre with a foldable structure for ease of transportation. It can fly at an operational altitude of 500 metres and can carry a payload of 15 kg. The drone can be used for the last-mile delivery of medicines, vaccines, food, postal packets, agricultural pesticide spraying, crop monitoring, mining survey, magnetic geo survey mapping among others.
31. NASA has launched its first **planetary defense test mission**, named the **Double Asteroid Redirection Test (DART)**. The main aim of the mission is to **test the newly developed technology that would allow a spacecraft to crash into an asteroid and change its course**. This mission will help scientists understand whether the **kinetic effect of a spacecraft impact could successfully deflect an asteroid on a collision course with Earth**. The target of the spacecraft is a small moonlet called **Dimorphos** (Greek for "two forms"). Dimorphos orbits a larger asteroid named Didymos (Greek for "twin"). The mission was **launched on a SpaceX Falcon 9 rocket**.
32. **Leonids Meteor Shower** was discovered in 1833. It contains debris that originated from a small comet called **55P/Tempel-Tuttle** in the constellation **Leo**, which takes 33 years to orbit the sun. Every 33 years, a Leonid shower turns into a meteor storm, which is when hundreds to thousands of meteors can be seen every hour. The Leonids are also called **fireballs** and earthgrazer meteors. When Earth encounters many meteoroids at once, it is called a meteor shower.

33. According to a study, **India's Singhbhum region may have been Earth's earliest continental land** to rise above the ocean 3.2 billion years ago. Scientists found sandstones in Singhbhum region with geological signatures of ancient river channels, tidal plains and beaches over 3.2 billion years old. This has challenged the earlier view that the continents rose from the oceans about 2.5 billion years ago. In addition, according to the study, Earth's earliest continents emerged not through plate tectonic processes but from massive outbursts of magma that hardened into continental crust.
34. India has registered the **logos of the Darjeeling Himalayan Railway (DHR) as its intellectual property**. The use of these logos anywhere in the world will now require written permission from India and the payment of a fee. Darjeeling Himalayan Railway, also known as the DHR or the **Toy Train**, is a narrow-gauge railway built between 1879 and 1881. The railway runs between New Jalpaiguri and Darjeeling in West Bengal. In 1999, UNESCO declared the DHR a World Heritage Site. Two more railway lines (Nilgiri and Kalka-Shimla) were later added.
35. The Ministry of Commerce had launched an online portal to issue **Certificate of Origin (CoO)** to the exporters. The portal will facilitate exporters through a secure, electronic, paperless CoO issuance process. A certificate of origin (CoO) is a document declaring in which country a commodity or good was manufactured. The certificate of origin contains information regarding the product, its destination, and the country of export. The CoO is often mandated by importing countries because it can help determine whether certain goods are eligible for import or if they are subject to duties.
36. **Securities and Exchange Board of India (SEBI)** introduced **Business Responsibility and Sustainability Report (BRSR)** as a reporting mechanism in May, 2021. It is a standardised reporting format that **aims to encourage companies to go beyond regulatory financial compliance and report on their social and environmental impacts**. The reporting of BRSR will make it easier for regulators and investors to obtain a fair estimate of overall business stability, growth and sustainability. It will also give a baseline to draw comparison between environmental, social and governance (ESG) goals across companies and sectors. It will be mandatory for the top 1000 companies (by Market Capitalization) to report according to BRSR in the next financial year (2022-2023).
37. National Commission for Women (NCW) along with National Legal Services Authority (NALSA) has launched a pan-India Legal Awareness Program for Women titled **"Empowerment of Women through Legal Awareness"**. It will hold sessions to make the women aware about their legal rights and remedies provided by various women related laws. The program will make women fit to face the challenges in real-life situations.
38. The Ministry of Rural Development launched the **Lakshpati SHG Women Initiative**. The initiative aims to enable **rural Self Help Group (SHGs)** women to earn at least Rs.1 lakh per annum. **This will be achieved by focusing on diversifying livelihood activities** at the household level ranging from Agriculture and allied activities, Livestock, NTFP (Non-timber Forest Products) and other interventions. The target is to provide livelihood support to 25 million rural SHG women in the next 2 years.
39. The **Bribery Risk Matrix 2021** has been released by TRACE, an anti-bribery standard-setting organization. The risk matrix measures the likelihood of bribe demands in 194 jurisdictions. The index was originally published in 2014. **India slipped to 82<sup>nd</sup> position in 2021 (77<sup>th</sup> rank in 2020)**. India fared better than its neighbours like Pakistan, China, Nepal and Bangladesh. Bhutan secured 62<sup>nd</sup> rank. Denmark, Norway, Finland, Sweden and New Zealand had the best performance. North Korea, Turkmenistan, Venezuela and Eritrea were the worst performers.
40. **Indian Police Foundation (IPF) has released the SMART Policing Survey 2021**. The idea of SMART Policing was envisioned, articulated and introduced by the Prime Minister at the **Conference of DGPs of State and Central Police Organizations** in 2014. The Survey aims to gather information on citizens' perceptions of the impact of the SMART policing initiative, quality of policing and the level of public trust in the police. Index has been topped by Andhra Pradesh and Telangana. Assam, Kerala and Sikkim follow

next. Bihar, Uttar Pradesh, Chhattisgarh, Jharkhand and Punjab were ranked at the bottom of the survey. A majority of citizens (a weighted average of 66.93%) believe that the police are doing their job well and strongly support the police

41. NITI Aayog has released the first **Sustainable Development Goals (SDG) Urban India Index**. It has been developed in collaboration with the Indo-German Development Cooperation. Its purpose is to monitor progress of SDGs at the level of ULBs. The index ranks cities in 4 groups; Aspirants (0-49), Performers (50-64), Front Runners (65-99), and Achievers (100). **Shimla has topped the index** followed by Coimbatore, Chandigarh, Thiruvananthapuram, Kochi, Panaji, Pune, Tiruchirappalli, Ahmedabad and Nagpur. Dhanbad, Meerut, Itanagar, Guwahati, Patna, Jodhpur, Kohima, Agra, Kolkata and Faridabad are at bottom.
42. **CSIR Jigyasa Programme**: The Union Minister of Science & Technology has launched **India's first Virtual Science Lab for children** under CSIR Jigyasa programme. The aim is to provide quality research exposure and innovative pedagogy for school students to drive their scientific curiosity based on an online interactive medium. Virtual Lab will provide virtual tour of CSIR laboratories, interaction with scientists to clear doubts, Access content in regional languages; Project based support; Simulation Experiments; Science based webinars; Student Entrepreneurship etc.
43. **Anaemia Mukht Bharat (AMB) Programme** was launched in 2018 by the **Ministry of Health and Family Welfare**. Its objective is to **reduce the prevalence of anaemia among children, adolescents and women in the reproductive age group (15-49 years)**. The programme aims to reduce the proportion of anaemia among children to 40%, pregnant women to 32% and lactating women to 40% by 2022. The **6x6x6 strategy** under AMB implies six age groups, six interventions and six institutional mechanisms. This strategy focuses on ensuring supply chain, demand generation and strong monitoring using the dashboard for addressing anemia both due to nutritional and non-nutritional causes.
44. Pochampally Village in Telangana State has been selected as **one of the best Tourism Villages by the United Nations World Tourism Organisation (UNWTO)**. **Best Tourism Villages Initiative is an initiative of UNWTO**. It aims to award those villages which are outstanding examples of rural destinations and showcase good practices in line with its specified nine evaluation areas. Pochampally is a town in Nalgonda district of Telangana. It is often referred to as the **Silk City of India** for the exquisite sarees that are woven through a unique style called Ikat. Pochampally is also known as **Bhoodan Pochampally** to commemorate the Bhoodan Movement that was launched by Acharya Vinobha Bhave from this village on April 18th, 1951.
45. The Union Education Minister has launched the **Bhasha Sangam Initiative for schools, Bhasha Sangam Mobile App and Ek Bharat Shreshtha Bharat Quiz App**. Bhasha Sangam is an initiative of the Ministry of Education under **Ek Bharat Shreshtha Bharat**. Its aim is to teach school students basic sentences of everyday usage in 22 Indian languages. This will help students to acquire basic conversational skills in an Indian language other than their mother tongue. Bhasha Sangam Mobile App is an initiative of the **Department of Higher Education (DoHE)** in collaboration with MyGov. **Ek Bharat Shreshtha Bharat Quiz App** is a quiz game targeted toward children and youngsters for helping them learn more about our different regions, states, culture, national Heroes, monuments, traditions, tourist locations, languages, geography, history and topography.
46. **Har Ghar Dastak** is the Government of India's mega **COVID-19 vaccination campaign**. It is a month-long **door-to-door vaccination campaign**. Under this, the healthcare workers move door-to-door to vaccinate eligible candidates in poor-performing districts.
47. The Union Minister of Co-operation has launched the **Dairy Sahakar Scheme**. Its aim is to **encourage the cooperative dairy businesses** in the country which will help realize the vision of "from cooperation to prosperity". **National Cooperative Development Corporation (NCDC)** under the Ministry of Cooperation is the **implementing agency**. Financial support will be extended by NCDC to eligible



cooperatives for activities such as bovine development, milk procurement, processing, quality assurance, value addition, branding, packaging, marketing, transportation and storage of milk and milk products.

48. Digital India Land Record Modernisation Programme (DILRMP) is a Central Sector Scheme launched in 2008. Its aim is to digitize and modernize land records and develop a centralised land record management system. The Union Minister for Rural Development recently inaugurated '**Bhumi Samvaad**' – National Workshop on Digital India Land Record Modernisation Programme (DILRMP).
49. **National Generic Document Registration System** is a cloud-based application developed by **National Informatics Centre (NIC)** for registering land documents and properties digitally. It will lead to reduction in land disputes, check on fraudulent transactions, SMS and email enabled alerts related to transactions on property, PAN Verification etc. It will also provide ease of living to the people.
50. The **Unique Land Parcel Identification Number (ULPIN) System** is a unique system wherein a **14 digit unique ID based on Geo-coordinates** of the parcels is generated and assigned to the plots. This has been introduced to **share the computerized digital land record data among different States/Sectors** and a uniform system of assigning a unique ID to the land parcel across the country. So far, ULPIN has been implemented in 13 States and pilot tested in another 6 States.
51. Indian Institute of Technology (IIT) Kanpur has developed an **Aquatic Autonomous Observatory** named **Niracara Svayamsasita Vedh Shala (NSVS)** to monitor the "health" of the River Ganga. This observatory has been developed with the help of the Department of Science and Technology, the Government of India, and the Indo-US Science and Technology Forum (IUSSTF). NSVS is a low-cost, water quality monitoring platform that would **enable in situ monitoring, real-time data transmission and web-based visualisation of River Ganga**. NSVS consists of an array of sensors and auto sampler **on a stationary platform that is semi-submersible, all-weather, robust and perfectly stable**. It can also autonomously collect data every 15 minutes and report it through a wireless network to the institute.
52. **Rehabilitation Council of India (RCI)** was set up as a registered society in 1986. In 1992, the Rehabilitation Council of India Act was enacted by Parliament, and it became a Statutory Body in 1993. Its function is to develop, standardize and regulate training programmes/ courses at various levels in the field of Rehabilitation and Special Education. It maintains the Central Rehabilitation Register for qualified Professionals/Personnel and promote Research in Special Education. It takes punitive action against unqualified persons delivering services to persons with disabilities.
53. Union Minister of Fisheries has inaugurated the country's first-of-its-kind, dedicated **business incubator; LINAC- NCDC Fisheries Business Incubation Centre (LIFIC)** in Haryana's Gurugram. Its aim is to nurture fisheries start-ups under real market-led conditions. The centre will provide hand holding such as training, converting entrepreneurial ideas into business models. It will also **share seed money** to the new as well as existing business entrepreneurs who are keen to make big in the fisheries segment. National Cooperative Development Corporation (NCDC) is the implementing agency.