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DAILY NEWS ANALYSIS COMPILATION

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1. Urban missions to get big outlay.

Context: According to the Union Ministry of Housing and Urban Affairs the revamped versions of the **Swachh Bharat Mission-Urban (SBM-U)** and the **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)** that Prime Minister will launch soon would include convergence with the corresponding missions for rural areas and outcome-based funding for cities.

What's new?
- The SBM-U 2.0 and AMRUT 2.0 aim at "saturation", while the first five-year iterations of the schemes launched in 2014 and 2015 respectively focused on "transformation".
- While SBM-U focused on construction of toilets and making cities open defecation-free (ODF), SBM-U 2.0 would aim:
  - To make the facilities better
  - Reclaim all landfills and
  - Take processing of municipal solid waste to 100% from the present 70%.
- Similarly, AMRUT 2.0 would aim to provide universal coverage of water supply to all 4,378 statutory towns, an increase from the goal of covering 500 cities under AMRUT.
- The Ministry would collaborate with the Jal Shakti Ministry to ensure convergence with phase-II of SBM-Rural and Jal Jeevan Mission for areas such as villages on the outskirts of cities that have both urban and rural features.
- The two missions had been designed to make cities "garbage free" and "water secure", for which outlays of ₹1.41 lakh crore for SBM-U 2.0 and ₹2.87 lakh crore for AMRUT 2.0 had been proposed.

Improvements in Swachh Bharat Mission (SBM) till date
- **Amid the pandemic:**
  - The mission had had a deep impact on health, livelihoods, quality of life and behaviour, which had come in handy when dealing with the COVID-19 pandemic.
- **Waste processing:** When the mission was launched in 2014, waste processing was 18%. Now it has increased to 66%.
- **Increased coverage:**
  - The survey, which had begun with a survey of 73 cities in 2016, had grown to cover 4,242 cities, 62 cantonment boards and 97 "Ganga towns" in 2020
  - Survey teams visited 58,000 residential and 20,000 commercial areas in 28 days, while 1.87 crore citizens' feedback were received.

2. 'China can join Quad initiatives'.

Context: According to the Australian PM, the Quad is a partnership among "like-minded" countries and is not 'designed' to be a security alliance. He recently argued that even China is welcome to contribute to the objective of ensuring a free and open Indo-Pacific.

QUAD objectives cited by the Australia
- The Quad are not in the business of containing China.
- Its objective of working together is to ensure that we promote a free and open Indo-Pacific and everybody who wants

to participate in that, including China, is a welcome partner in that cause.

- The Quad, is certainly aimed at deterring any challenge that disturbs peace and stability in the Indo-Pacific region or "in any way seeks to limit" the sovereignty of nearby countries.Such a perspective is probably also shared by China and India.
- Quad have greatly benefited from their economic development, and they have been very successful indeed as India has, in taking millions, hundreds of millions of people out of poverty.
- Australia does not believe in creating a balance between India and China and instead Canberra's role in the Indo-Pacific and in the Quad is "very positive".
- The Quad will also play a role in critical and emerging technologies and exploration of rare earth minerals that are necessary for such technologies.

3. Failing on food.

Context: The findings in Phase I of the NFHS 5 for 22 States and Union Territories in December 2020 were shocking: childhood stunting rose in 13 States, there was high prevalence of anaemia among children and women, and wasting was a serious concern in 12 States.

New Changes:
- The **mid - day meal scheme** named has been changed for the **PM POSHAN ABHIYAN**
- The new scheme tenure for five years extended to pre - primary childrens, provides social audits and active engagement of farmers FPOs.

- The **Saksham Anganwadi Mission POSHAN 2.0**, which amalgamates the POSHAN Abhiyan and schemes covering anganwadis, crèches and adolescent girls, is fiscally stronger than its erstwhile component parts.

More about PM POSHAN:
Coverage:
- **Primary (1-5) and upper primary (6-8) schoolchildren** are currently entitled to 100 grams and 150 grams of food grains per working day each, to ensure a minimum of 700 calories.
- The scheme will be **extended to students studying in pre-primary or Balvatikas** running in government and government aided primary schools.
- **Balvatika is the pre-school that was started in government schools last year to include children aged younger than six years in the formal education system.**
- **Nutritional gardens** : The gardens are being provided **to offer additional micro-nutrients to students.**

Features:
1. **Supplementary Nutrition: supplementary nutrition for children** in aspirational districts and those with high prevalence of anemia
2. **Finance decentralization:** It **does away with the restriction on the part of the Centre** to provide funds only for wheat, rice, pulses and vegetables.
   1. earilier, if a state decides to add any component like milk or eggs to the menu, the Centre does not bear the additional cost. Now that restriction has been lifted.
3. **Tithi Bhojan Concept:** TithiBhojan is a **community participation**

programme in which people provide special food to children on special occasions/festivals.

4. **Direct Benefit Transfer (DBT):**The central government will ensure **Direct Benefit Transfer (DBT) from states to schools,** which will use it to cover cooking costs.

    Earlier money was allocated to the states, which then included their share of the money before sending it to a nodal midday meal scheme authority at district and tehsil levels.

5. **Nutrition Expert:** A nutrition expert is to be appointed in each school whose responsibility is to ensure that health aspects such as Body Mass Index (BMI), weight and haemoglobin levels are addressed.

6. **Social Audit of the Scheme: A social audit of the scheme has also been mandated** for each school in each state to study the implementation of the scheme, which was so far not being done by all states.

7. **Vocal for Local for Atmanirbhar Bharat:** Involvement of FPO and SHG(Self help group) in implementation of the scheme will be encouraged.

Significance of the move

1. **Holistic coverage of childerns:** it covers pre primary childerns also
2. **Atmanirbhar bharat**: FPO and SHG will contribute

Challenges of the scheme

1. **Meeting Nutrition Targets:** As per the Global Nutrition Report 2020, India is among 88 countries that are likely to miss global nutrition targets by 2025.
2. **Serious 'Hunger' Level:** India has been ranked at 94 among 107 countries in

the Global hunger index 2020. India has a level of hunger that is "serious".

3. Corrupt practices and Caste Bias and Discrimination in serving food.

Conclusion: Children are the future of India. Thus it is an imperative to have a good physical, social and mental health. In this context, the PM POSHAN Abhiyan is a welcome step. However, care must be taken that it may not suffer the same fate as the mid-day meal scheme. Certainly due to the comprehensive nature we can be optimistic about some of the productive changes that will surely help in countering the stunting, wasting and anemic numbers.

4. Project to secure Elephant corridor.

Context: As instances of human-elephant conflict rise, the Ministry of Environment, Forests and Climate Change has embarked on a massive project to identify and secure elephant corridors in the country.

- The corridors could also be notified in order to give legal protection to the movement of elephants.

Key Points

- The Environment Ministry has recently initiated the verification exercise of elephant corridors and is also working on **mapping land use and land cover of elephant reserves in the country using GIS technology** which will also aid conservation.
- Experts said elephant corridors have been changing over the years.
- Eighty-eight corridors were identified jointly by the Ministry and Wildlife Trust of India (WTI), and published in 2005.
- In 2015, a second round of identification took place — and when

published two years later, the number of corridors had gone up to 101.

- The number of corridors increased because of fragmentation of existing corridors.

Concerns

- Elephants were finding new routes for their journeys. Over the last decade, seven corridors have disappeared because of fragmentation and impaired animal movement — they are no longer being used by elephants.
- Fragmentation could take place either due to linear infrastructure such as roads and railways, or a change of land use, including the development of plantations or agricultural patches.
- The lists of elephant corridors prepared by the central and state governments do not match.
- Habitation has expanded in corridors that had hardly any earlier. Elephant areas have been encroached upon. Notifying the corridors will give them legal sanctity and help us preserve animal movement.

Steps Taken

- Earlier this year, the Ministry for the first time laid down parameters on what exactly an elephant corridor is, and how they are to be identified.
- This will eliminate the confusion around identification and subsequent preservation.
- The identification of the corridors, as well as checking land-use patterns in these corridors, will help us formulate policies and prioritise action on how the corridors need to be conserved.
- The corridor identification process will be undertaken in four elephant-rich

regions: North West, North East, East-Central, and South.

5. Growing locally.

Context: This editorial discusses various economic and socio-cultural benefits offered by the Geographical Indication (GI) Tagging.

What is Geographical Indication?

- A GI is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration and Protection) Act, 1999 w.e.f. September 2003.
- GIs have been defined under Article 22 (1) of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement.
- GI is granted for a term of 10 years in India. As of today, more than 300 GI tags has been allocated so far in India.

Why must we promote GI?
Several studies show that the patents and copyright protection of products under GIs result in higher economic gains, fostering quality production and better distribution of profits.

- **Lost in history:** Most GI are either assigned to the dusty pages of history books or left to rural artisans to propagate and preserve.
- **Source of income:** Today, with the emphasis on climate change and sustainability, these products can be ready revenue generators.
- **Demand in e-com market:** A modern distribution system exists in India's robust global e-commerce backbone

which will propel the nascent GI industry onto the national and world stage.

Need for govt support
- GI products need the support of governments.
- The Europeans are masters at it, as seen by products such as Brie cheese and sparkling wine from Champagne. The EU has an $87 billion GI economy.
- China has also done very well by GI, strengthening e-commerce in rural areas and actively promoting agricultural special product brands in lesser developed areas.

Socio-cultural benefits offered by GI
- GI protection has wider positive benefits, especially for local communities.
- In particular, it encourages the preservation of biodiversity, local know-how and natural resources. And this is where India can do well.
- Multiple benefits flows from a strong GI ecosystem, which can be a wellspring of economic and soft power.
- It will automatically resolve the three fraught India issues of poor pay for talent, low female participation in the labour force, and urban migration.

How can GI induce economic transformation?
(1) Promotes Entrepreneurship and 'Passion Economy'
- It will convert talent into entrepreneurship with gig workers, and create a "passion" economy, that is, a new way for individuals to monetise their skills and scale their businesses exponentially.

- It removes the hurdles associated with freelance work to earn a regular income from a source other than an employer.

(2) Employment generation
- The labour-intensive nature of GI offers the best solution to boosting the employment-to-population ratio in India.
- India presently has an abysmal 43 per cent compared with the 55 per cent global average.

(3) Women Empowerment
- GI production mostly involves artisanal work-from-home culture.
- Monetising this artisanal work done at home will increase India's low female labour force participation rate, which at 21 per cent in 2019 was half the 47 per cent global average.

(4) Prevents migration
- The hyper-localised nature of GI offers solutions to reverse urban migration and conserve India's ancient crafts, culture and food.

(5) MSME Promotion
- A rejuvenation of MSMEs, which account for 31 per cent of India's GDP and 45 per cent of exports, will follow.
- An estimated 55.80 million MSMEs employ close to 130 million people; of this, 14 per cent are women-led enterprises and 59.5 per cent are rural.

(6) GI Tourism
- Another revenue-earner, GI tourism, is typically a by-product of a strong GI ecosystem.

Hurdles in GIs progress
(1) Credit Facilities and Capacity Building
- Since GI businesses are micro, it is necessary to address the challenges of capacity-building, formal or easy access to credit.

- There is a need for forming marketing linkages, research and development, product innovation and competitiveness in both domestic and international markets.

(2) Issue of Intermediaries

- With the shift to digital platforms, the distribution margins of these gate keepers or mandi agents must be competitive.
- They often act as countervailing agents by getting into similar businesses or product lines which will erode GI producer incomes.

(3) Ensuring smoother transition

- As seen from the experience of the new farm laws, this will be a task for the central and state governments; they must ensure the transition without breaking down too many existing linkages.

Way forward

- **Control:** Guardrails like regular audits and consultations with the GI producers must be mandated.
- **Cooperative management:** Pulling it together will be local GI cooperative bodies or associations which can be nationally managed by a GI board.
- **Ministerial support:** The Department for the Promotion of Industry and Internal Trade (DPIIT) and the Ministry of Commerce department should be tasked with developing this new sector.
- **Digital literacy:** Finally, a required skill for GI producers is digital literacy. This should be a priority agenda item for NGOs and stakeholders like the DPIIT.

Conclusion

- It is an opportunity for India to redefine the future of work using automation, technology and artificial intelligence while simultaneously enhancing and adorning the country's talented local work force.
- The Indian GI economy can be a platform for India to showcase to the world a model for ethical capitalism, social entrepreneurship, de-urbanisation, and bringing women to the workforce, on the back of a robust digital system.
- It recalls and attributes of multi-cultural ethos, authenticity, and ethnic diversity are potential turbochargers for the country's economy.
- It encompasses the concept of trusteeship, as advocated by Mahatma Gandhi and more recently, by our PM at the UN. It is truly Made in India.

1. Drones used to spread seed balls for reforestation.

Context: A city-based technology start-up has come up with the innovative idea of an aerial seeding campaign as a solution for the reforestation challenge.

Hara Initiative

- Marut Drones, which had earlier deployed drones successfully in agricultural operations and for delivery of vaccines, is now using them for greening large swathes of denuded forest lands through its "Hara Bhara" initiative.
- The first payload of 1.5 lakh seed balls was delivered in the **KBR National Park** in Telengana, Hyderabad.
- Loss of vegetation occurs in vast tracts of forest areas every year due to fire and other causes.
- Initiative aim is to accelerate the target of 33% green cover throughout the country by dispersal of seed balls in inaccessible forest areas, using drones.
- The seed balls contain a variety of seeds rolled within a ball of clay, together with organic manure and fertilizer.
- The balls, after being dispersed in a barren area, are expected to dissolve when it rains, and result in germination of the seeds.
- Marut Drones has engaged the services of local people, self help groups and NGOs in the preparation of seed balls, and identified the locations for dispersal with the help of the Forest Department.

Growth monitoring and Future aspirations of the initiative

- The company has been given 12,000 hectares of forest land in 12 districts by the Forest Department. Where it aims to fire a total of 50 lakh seed balls.
- They will monitor their growth for the coming 10 years, and record the change in greenery annually through satellite monitoring.
- Depending on the success rate in Telangana, the company wishes to replicate the experiment throughout the country to achieve the desired levels of forest cover.
- It planned to plant 1 billion trees in the country by 2030 through drones.
- The entire operation is being done on a pro bono basis, with no funding from the government.
- Permissions for the use of drone technology have been obtained.

2. No clean sweep.

Context: The PM has launched the second phase of the Swachh Bharat Mission-Urban and Atal Mission for Rejuvenation and Urban Transformation.

What are the missions?
[A] Swachh Bharat Mission-Urban 2.0
The Mission will focus on ensuring complete access to sanitation facilities to serve additional populations migrating from rural to urban areas in search of employment and better opportunities over the next 5 years.

- **Complete liquid waste management** in cities in less than 1 lakh population to ensure that all wastewater is safely contained, collected, transported, and treated so that no wastewater pollutes our water bodies.

- **Source segregation**- Under Sustainable Solid Waste Management, greater emphasis will be on source segregation.
- **Material Recovery Facilities** and waste processing facilities will be set up, with a focus on phasing out single-use plastic.
- **Construction & demolition waste processing** facilities will be set up.
- **Mechanical sweepers** deployed in National Clean Air Programme cities and in cities with more than 5 lakh population.
- **Remediation of all legacy dumpsites** will be another key component of the Mission.

[B] AMRUT 2.0
- **Water management:** It will build upon the progress of AMRUT to address water needs, rejuvenate water bodies, better manage aquifers, reuse treated wastewater, thereby promoting circular economy of water.
- **Water supply:** It would provide100% coverage of water supply to all households in around 4,700 ULBs.
- **Sewerage:** It will provide 100% coverage of sewerage and septage in 500 AMRUT cities.
- **Rejuvenation of water bodies and urban aquifer management:** It will be undertaken to augment sustainable fresh water supply.
- **Recycle and reuse of treated wastewater:** It is expected to cater to 20% of total water needs of the cities and 40% of industrial demand.
- **Pey Jal Survekshan:** It will be conducted in cities to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies.

3. BP, cholesterol control key for Type 1 diabetics.

Context: Good control of not only blood sugar but also blood pressure and cholesterol is essential for survival and a good quality of life among Type 1 diabetics (T1D), according to a pan-India study of long-term survivors with the condition.

About:
- A first-of-its kind report of long-term survivors of T1D from India, a multi-centric study was published in the peer-reviewed journal Diabetes Technology and Therapeutics.
- Comparing survivors for over 40 years with people who did not survive up to 40 years, the researchers found that "survivors had better glycemic and blood pressure control, more favourable lipid profiles and lower prevalence of complications compared to non-survivors".
- Individuals with T1D have increased morbidity and excess premature mortality compared to those without diabetes and their life expectancy is reduced by an estimated 15-20 years, even with the life-saving insulin to their assistance. However, long-term survival with T1D is possible
- India is home to more than 95,000 children with T1D, reported to be the highest in the world, according to the 9th International Diabetes Federation Atlas.

4. Capability, not caste.

Context: The Union government said to the Supreme Court that it has decided as a matter of policy not to enumerate caste-wise

populations other than Scheduled Castes and Scheduled Tribes.

- Census has faced a discontinuation with the pandemic, which will require reconstruction for the year 2021.
- The census is the primary source of population data with all its distinct virtues of complete enumeration and levels of disaggregation to the lowest possible administrative unit.
- Improvement in Census quality has been possible with progress in the technology of data collection on the one hand and computerised validation on the other.

Need for census

- In the absence of the decadal census being held, the only alternative is to rely on population projections produced by the Registrar General about the age-sex composition of the population under certain assumptions.
  - But more detailed information — on households, assets, marital status, education, migration will perhaps remain unknown.
  - In the absence of any clue regarding population, together with a pandemic with its devastating course of fatalities, the need for a population enumeration is all the more urgent.
- **assessment in terms of rapid fertility declines** and **rising mobility**
  - The distinct visible features of population transition in terms of the **growing count** and **share of the elderly population** alongside the **declining share of the child population** calls for differential

strategies towards human resource building.

- On the one hand, **preparing a human capital of quality and adaptability** to the emerging labour market is the need of the hour.
- **Mainstreaming the elderly into renewed economic activities** to avoid pessimism towards their rising count is very important.

Issues with caste census

- **Diluting quality:** Imposing the collection of caste information may dilute the exercise at the very least and send wrong signals regarding its purpose. An attribute like caste being obtained in a census exercise makes matters complex on multiple grounds.
- **Scope for inaccuracy**: While reporting on caste in a caste-ridden society may well be inaccurate on one hand, the numerical count of caste in India is perhaps the most difficult to obtain.
- Given the **differences in caste hierarchies** across various regions of the country, a comparative reading along with generating a common hierarchy may be a challenge.
- **Difficult to analyse**: Caste linked deprivation or adversity may not be as common as occupation linked predicaments, which become easier to compare across states/regions.
- **Subjective bias:** Urban residents' need for anonymity about caste identity can always bias the reporting on caste.
  - Recognition and adherence to caste identity is to a large extent shaped by progressive ideals, cosmopolitanism and education, which has its own regional divide in the country between the north and the south.

- **Need for focussing on other variables**: The attributes obtained in the census like age, sex, residence, occupation and religion in themselves have not received adequate focus for understanding of differential population dynamics.
  - Attributes like caste and religion that are not modifiable should be less important compared to modifiable attributes like education, occupation and other endowment linked attributes.

In sum, the census enumeration should be a priority and the proposed digital enumeration should become more effective in generating required data of quality and accuracy. The upcoming census is certain to reveal interesting realities of population dynamics that go beyond the narrow and regressive outlook of the caste count to help gauge the transformation in human capital.

1. 'Pandora Papers' expose top world leaders.

Context: There are at least 380 persons of Indian nationality in the Pandora Papers.

What are the Pandora Papers?
- The Pandora papers are the largest trove of leaked data exposing tax haven secrecy in history.
- They provide a rare window into the hidden world of offshore finance, casting light on the financial secrets of some of the world's richest people.
- It includes over 11.9 million leaked files from 14 global corporate services firms which set up about 29,000 off-the-shelf companies and private trusts in not just obscure tax jurisdictions.

Indians included in these
- There are at least 380 persons of Indian nationality in the Pandora Papers.
- There are almost 60 prominent individuals and companies including the most decorated cricketer of India.

What do these papers reveal?
1. **Tax Avoidance:** to hide their real identities and distance themselves from the offshore entities so that it becomes near impossible for the tax authorities to reach them and,
2. **Tax Evasion:** to safeguard investments — cash, shareholdings, real estate, art, aircraft, and yachts — from creditors and law enforcers.

- The Pandora Papers investigation shows how businesses disguised as Trusts have created a new normal with rising concerns of money laundering, terrorism funding, and tax evasion.

What is a Trust?
- A trust can be described as a fiduciary arrangement where a third party, referred to as the trustee, holds assets on behalf of individuals or organizations that are to benefit from it.

Is setting up a trust in India, or one offshore/ outside the country, illegal?
- The Indian Trusts Act, 1882, gives legal basis to the concept of trusts.
- While Indian laws do not see trusts as a legal person/ entity, they do recognise the trust as an obligation of the trustee to manage and use the assets settled in the trust for the benefit of 'beneficiaries'.
- India also recognises offshore trusts i.e., trusts set up in other tax jurisdictions.
- But trusts are also used by some as secret vehicles to park ill-gotten money, hide incomes to evade taxes, protect wealth from law enforcers.

Why are trusts set up overseas?
Maintain a degree of separation: Businesspersons set up private offshore trusts to project a degree of separation from their personal assets.

Hunt for enhanced secrecy: Offshore trusts offer enhanced secrecy to businesspersons, given their complex structures.

Avoid tax in the guise of planning: Businesspersons avoid their NRI children being taxed on income from their assets by transferring all the assets to a trust.

Prepare for estate duty eventuality: There is pervasive fear that estate duty, which was abolished back in 1985 when Rajiv Gandhi was PM, will likely be re-introduced soon. Setting up trusts in advance, business families have been advised, will protect the next

generation from paying the death/ inheritance tax, which was as high as 85 per cent.

Flexibility in a capital-controlled economy: India is a capital-controlled economy. Individuals can invest only $250,000 a year under the Reserve Bank of India's Liberalised Remittance Scheme (LRS). To get over this, businesspersons have turned NRIs, and under FEMA, NRIs can remit $1 million a year in addition to their current annual income, outside India.

Can offshore Trusts be seen as resident Indian for tax purposes?

- There are certain grey areas of taxation where the Income-Tax Department is in contestation with offshore trusts.
- After The Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015, came into existence, resident Indians — if they are 'settlors', 'trustees', or 'beneficiaries' — have to report their foreign financial interests and assets.
- NRIs are not required to do so — even though, as mentioned above, the I-T Department has been sending notices to NRIs in certain cases.

2. NS2, a win-win proposition?

Context: Nord Stream 2 (NS2) running from Russia to Germany across the Baltic Sea is now complete despite controversy. NS2's manufacture began in 2016 and construction in 2018. The 1,224 km, $11-billion underwater link is the shortest, most economical and environment-friendly route to double Russia's gas export to Germany. The pipeline offers stability to the strategically important energy trade because Russia's dependence on the European Union and vice-versa are increased and this should promote realism.

Nord Stream 2 Pipeline

- It is a system of offshore natural gas pipelines running under the Baltic Sea from Russia to Germany.
- It includes two active pipelines running from Vyborg to Lubmin near Greifswald forming the original Nord Stream, and two further pipelines under construction running from Ust-Luga to Lubmin termed Nord Stream 2
- The first line Nord Stream-1 was laid and inaugurated in 2011 and the second line in 2012.
- At 1,222 km in length, Nord Stream is the longest sub-sea pipeline in the world, surpassing the Langeled pipeline.

3. Reimagining food systems with lessons from India.

Context: The first and historic United Nations Food Systems Summit (UNFSS) 2021 which was held in September this year. Aimed to find a solution and 'catalyse momentum' to transform the way the world produces, consumes, and thinks about food and help address rising hunger. India's model encourages this summit to discuss about the India's journey from food shortage to food surplus.

- The summit involving UN member states, civil society, non-governmental organizations, academics, researchers, individuals, and the private sector.
- The debate and response focused on five identified action tracks namely:
  1. Ensure access to safe and nutritious food for all

2. Shift to sustainable consumption patterns
3. Boost nature positive production
4. Advance equitable livelihoods
5. Build resilience to vulnerabilities, shocks, and stress.

GREATEST CONTRIBUTORS IN INDIA'S FOOD SECURITY

- NFSA (National Food Security Act 2013): It consists of PM Matru Vandana Yojana scheme for pregnant women's and PDS system
- Mid-day meal: it secures nutrition security among school going childrens
- ICDS (Integrated Child Development Scheme): it is an integrated approach which includes vaccinations with food security.

Importance of food security:

1. To ensure Peace
2. To ensure Economic development
3. Productive demographic dividend
4. Healthy population
5. **Sustainable Development Goals (SDGs):** out of 17 goals 11 are directly related to the food system. SDG -2 takes Zero hunger as a stated goal.

Way forward:

Hunger and food insecurity are key drivers of conflict and instability across the world. 'Food is peace', the Nobel Peace Prize 2020 highlighted the importance of addressing hunger to prevent conflicts and create stability. "Until the day we have a medical vaccine, food is the best vaccine against chaos."

4. Unmask the distress.

Context: Recently released economic data suggests that the Indian economy has emerged from the 2nd wave of the pandemic better than most expected:

- The impact of the localized restrictions on economic activity during 2nd wave was less damaging than the 1st wave.
- Within weeks & months, large parts of the economy are back to pre-COVID levels.
- However, the data points mask the distress lingering in large parts of the informal economy.

State of Informal India:

- India has nearly 90% of the workforce in the unorganized sector.
- Since 1991, about 15 million farmers have moved out of agriculture due to its non-remunerative nature & at the same time, 60 million people are displaced due to developmental projects.
- Though not India's entire unorganized workforce is insecure such as farmers, forest dwellers, etc. relatively secure if their resource base or access to the security net are intact.

Challenges & Issues faced by Informal Sector:

- Lack of frequent & up-to-date economic indicators makes it hard to track India's large informal sector.
- Ignoring problems of the informal sector leads:
  - Job & wage losses
  - Higher inflation
  - Risk the livelihood of migrant workers.
- The sector has an inadequate safety net that results in the displacement of informal workers.
- India is among the few countries with high inflation throughout the pandemic period.

- o This disruption & high inflation is due to the disruption of the informal firms.
- Of the total 384 million employed in the various groups of the informal sector,
  - o These groups have fared differently through the pandemic

The Consequences of the Distress:
- The sustained divergence between informal & formal labour forces results in the worsening of the income distribution.
- This results in a loss of purchasing power of the lower sections of the society that would shift the aggregate household consumption basket towards that of the affluent households.
  - o This raises demand for the less labour-intensive services & imported manufactured products & reinforce the current labour market trends.
- This labour market scarring has broader implications for aggregate consumption & investment & indicates subdued medium-term growth prospects.

Informal Sector Future Prospects: The Other Side of the Spectrum:
- The prospects for the 40% in the informal agricultural sector have been resilient.
- Rural wages have held up well over the pandemic because of:
  - o good monsoons
  - o recent higher agricultural exports
  - o Higher govt spending in various social welfare schemes.
- As this group emerges from the 2nd COVID-19 wave, they want to consume goods that make them feel more secure.
- Longer-term consumption will depend on agricultural reforms which will help

diversify income sources & raise agricultural productivity.
- But the other 40% of informal workers in the non-agricultural sector are most worrying because these are most vulnerable & borne the brunt of the economic disruption that the pandemic has unleashed

Way-Ahead:
- Indian informal sectors need the protection of their workers via social welfare schemes so that disruptions they are facing do not lead to a permanent fall in demand.
- Govt needs to prolong & increase budget allocation for the MGNREGA scheme.
- India doesn't have an equivalent urban social welfare scheme.
  - o Govt while doubling CAPEX that provides short-term jobs, needs to set up a more permanent direct urban social welfare structure.
- In meantime, govt needs to take steps to promote reforms that are needed to help small businesses grow.
  - o For instance, lowering the regulatory burden associated with growing firms.

5. Field work for survey on jobs in informal sector launched.

Context: The Ministry of Labour and Employment on Sunday (3 October), while commemorating the 101st foundation day of Labour Bureau, launched the fieldwork for the new Area Frame Establishment Survey (AFES).

About:
- The area frame establishment survey covers the unorganised sector (with less than 10 workers) through a sample survey. It is the second component of

the All-India Quarterly Establishment-based Employment Survey (AQEES), the first being the Quarterly Employment Survey (QES) which was released by the government last week.

- The QES had been initiated to compile relevant data from about 12,000 establishments selected through a sampling design to represent each of the nine selected sectors within each state/Union Territory.
- Both the QES and AFES would be combined to form the AQEES, which will provide a comprehensive data about the overall employment scenario in the country.
- The QES survey released by the ministry last week showed that there had been a growth of 29 per cent in employment in the first quarter of the current year as compared to the sixth Economic Census conducted in 2013-14.
- It also stated that out of the nine selected sectors of manufacturing, construction, trade, transport,

education, health, accommodation and restaurant, IT/BPO and financial services, the manufacturing sector employs the greatest number of people at 41 per cent followed by education sector, which employed 22 per cent of workers.

- Data for AFES will be collected in a paperless format through use of tablet PCs for fieldwork. According to the government, this would reduce the completion time of the survey by 30 per cent to 40 per cent. The Labour Bureau is being aided by BECIL, a government of India enterprise under the Ministry of Information and Broadcasting to provide the IT support. The survey will be conducted in major regional languages.
- The registrations on the e-Shram portal which was launched on 26 August has crossed 2.5 crore. As per the Economic Survey 2019-20, there are about 38 crore workers working in the unorganised sector of the country.

1. Govt. moots changes to Forest Conservation Act.

Context: The government has proposed absolving agencies involved in national security projects and border infrastructure projects from obtaining prior forest clearance from the Centre as part of amendments to the existing Forest Conservation Act (FCA).

About Forest (Conservation) Act, 1980

- The FCA is the principal legislation that regulates deforestation in the country.
- It prohibits the felling of forests for any "non-forestry" use without prior clearance by the central government.
- The clearance process includes seeking consent from local forest rights-holders and from wildlife authorities.
- The Centre is empowered to reject such requests or allow it with legally binding conditions.
- In a landmark decision in 1996, the Supreme Court had expanded the coverage of FCA to all areas that satisfied the dictionary definition of a forest; earlier, only lands specifically notified as forests were protected by the enforcement of the FCA.

What is the proposed amendment?

- The proposed amendment is part of a larger rationalizing of existing forest laws for infrastructure projects.
- The act was regressively interpreted over the right of way of railways, highways.
- As of today a landholding agency (Rail, NHAI, PWD, etc) is required to take approval under the Act as well as pay stipulated compensatory levies.
- They are required to pay Net Present Value (NPV), Compensatory

Afforestation (CA), etc. for use of such land which was originally been acquired for non-forest purposes.

Other proposals

- The Environment Ministry has proposed provisions for penal compensation to make good for the damages already done to trees in forest land.
- The document also proposes removing zoos, safaris, Forest Training infrastructures from the definition of "non-forestry" activities.
- The current definition restricts the way money collected as part of compensatory cess can be spent towards forest conservation purposes.

2. Taproots to help restore India's fading green cover.

Context: This op-ed tries to establish a fair link between forest cover and population dependency on it.

A decline in Forest Cover

- The State of the World's Forests report 2020, says that since 1990, around 420 million hectares of forest have been lost through deforestation, conversion and land degradation.
- Nearly 178 million hectares have decreased globally due to deforestation (1990-2020).
- India lost 4.69 MHA of its forests for various land uses between 1951 to 1995.

India's dependency on forest resources

- Out of its 21.9% population living under the poverty line, nearly 275 million people including local tribals depend on the forest for subsistence.

- The intricate link between poverty and environmental degradation was first highlighted by India at the first UN global conference on the human environment in Stockholm.
- Though India's increasing economic growth is helping to eliminate poverty, there is continued degradation and a growing scarcity of natural resources.
- Further, encroachment of nearly 1.48 MHA of forest and grazing in nearly 75% of forest area is also linked to the livelihood of local communities.

Strategies adopted by India
- To combat this, India joined the Bonn Challenge with a pledge to restore 21 MHA of degraded and deforested land which was later revised to 26 MHA to be restored by 2030.
- However, continued degradation and deforestation need to be tackled effectively to achieve the remaining target of restoration by addressing various challenges.

Key challenges
- Local ecology with a research base: forest restoration and tree planting are leading strategies to fight global warming by way of carbon sequestration.
- However, planting without considering the local ecology can result in more damage.
- Similarly, planting a forest in the wrong places such as savannah grasslands could be disastrous for local biodiversity
- Nearly 5.03% of Indian forests are under protection area (PA) management needing specific restoration strategies.

- The remaining areas witness a range of disturbances including grazing, encroachment, fire, and climate change impacts that need area-specific considerations.
- Further, much of the research done so far on restoration is not fully compatible with India's diverse ecological habitats hence warranting due consideration of local factors.
- The involvement of multiple stakeholders in forest restoration is bound to cause a conflict of interests among different stakeholders; along with low priority and insufficient funding, it becomes even more challenging.

Policy measures
- There have been remarkable initiatives to involve local people in the protection and development of forests by forming joint forest management committees (JFMC).
- However, a review of their functionality and performance is essential to make them more dynamic and effective to scale up their involvement

Way forward
- Adequate financing is one of the major concerns for the success of any interventions including restoration.
- The active approach of restoration which includes tree planting and the involvement of communities seeks incentives and rewards and make the whole affair quite cost-intensive.
- Alternate ways of financing such as involving corporates and dovetailing restoration activities with ongoing land-based programmes of various

departments can help to make it easy for operation.

- Apart from these specific challenges, the common barriers to restoration as identified globally also need critical review before placing the required methodologies and area-specific strategies in place.

3. Science over smog towers.

Context: Two new smog towers have been recently inaugurated in Delhi. Bengaluru and Chandigarh also installed smog towers this year. Mumbai's clean air plan indicates a financial requirement of ₹25 crore for installing air filtration units at major traffic intersections in the city. The smog tower installed in China's Xi'an and another one installed in Beijing did not prove to be effective and were not scaled up.

- Smog towers create an illusion of progress towards clean air while diverting crores of public money away from proven solutions.
- Moreover, they misdirect policymakers and citizens by deflecting attention from areas that call for urgent action.
- Therefore, governments looking at investing in outdoor filtration systems should defer their deployment plans.

Way forward:
Meanwhile, governments must ramp up investments in proven solutions to reduce air pollution.

1. First, policymakers should expand air pollution monitoring in areas with limited or no air quality monitoring and strengthen forecasting capacity across cities. Of the 132 cities in the country that currently don't meet the National Ambient Air Quality Standards, 75 do not have a single real-time monitoring station.

2. Simultaneously, cities should strengthen their air quality forecasting systems by collaborating with scientific institutions

3. City-level emission inventories must be updated periodically. Until last year, over 75% of our city clean air plans did not contain vital information on emissions from different polluting sources. These data are critical to identify key sources of air pollution and design effective clean air plans as per the local context.

4. Targeted efforts must be made to improve air quality for urban slum dwellers who have no access to clean cooking energy. usage of LPG as the primary fuel.

5. Most importantly, cities should strengthen their enforcement capacity by investing in people and systems that can keep a round-the-clock watch on both egregious and episodic polluters.

6. Further, the data on the effectiveness of the newly installed smog towers should be made available publicly for independent evaluation. Until there is scientific consensus on their effectiveness, every new tower installed is just a violation of taxpayers' money and citizens' trust.

4. Court seeks model builder-buyer pact.

Context: The Supreme Court has stepped in to protect homebuyers from exploitation by builders who delay transfer of possession and often redraft delivery schedules.

Need for:
A petition was filed on the lack of a "uniform or model" form for agreements entered into among builders, agents and buyers.
The petition said **the Real Estate Regulatory Authority (RERA) Act of 2016** had hardly been implemented.

- Often hard-earned savings of ordinary citizens who aspired to have their own

homes were invested. But many families became penniless waiting for a roof over their heads that the builders had promised them.

The petitioner drew court's attention to Section 41 and 42 of the RERA:

- Section 41 mandated the establishment of a Central Advisory Council.
- Section 42 said the Council would ensure the implementation of the Act, drive major policy changes, assure that consumer interests were not thwarted by builders and promoters and craft the faster growth of the real estate sector.

The Real Estate (Regulation and Development) Act 2016:

It is aimed at bringing in transparency and redefining the engagement between various stakeholders.

Key provisions:

1. A requirement for developers to now register projects with RERA prior to any advertisement and sale.
2. It requires developers to maintain separate escrow accounts in relation to each project and deposit 70% of the collections in such an account to ensure that funds collected are utilised only for the specific project.
3. The Act also requires real estate brokers and agents to register themselves with the regulator.
4. The Act also attempts to establish an adjudicatory mechanism for the speedy redressal of disputes. RERA and the Appellate Tribunal are expected to decide on complaints within an ambitious period of 60 days.
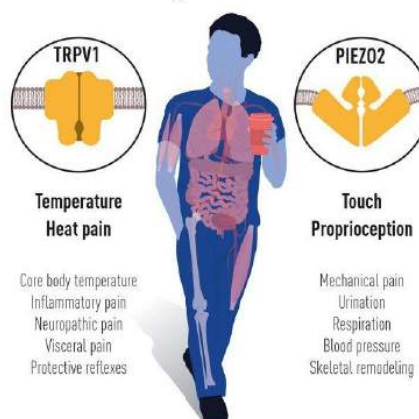
5. Nobel for deciphering the science of touch.

Context: U.S. scientists David Julius and Ardem Patapoutian have won the Nobel Medicine Prize for discoveries on receptors for temperature and touch.

Who are the Laureates?

- David Julius and Ardem Patapoutian, working independently in the United States, made a series of discoveries in the late 1990s and early 2000s.
- They figured out the touch detectors in our body and the mechanism through which they communicate with the nervous system to identify and respond to a particular touch.

What did they discover?

- They discovered the molecular sensors in the human body that are sensitive to heat, and to mechanical pressure, and make us "feel" hot or cold, or the touch of a sharp object on our skin.
- n 1997, Dr. Julius and his team published a paper in Nature detailing how capsaicin, or the chemical compound in chili peppers, causes the burning sensation.
- They created a library of DNA fragments to understand the corresponding genes and finally

discovered a new capsaicin receptor and named it TRPV1.

- This discovery paved the way for the identification of many other temperature-sensing receptors.
- They identified another new receptor called TRPM8, a receptor that is activated by cold. It is specifically expressed in a subset of pain-and-temperature-sensing neurons.
- They identified a single gene PIEZO2, which when silenced made the cells insensitive to the poking. They named this new mechanosensitive ion channel Piezo1.

How do they work?

- The human ability to sense heat or cold and pressure is not very different from the working of the many detectors that we are familiar with.
- When something hot, or cold, touches the body, the heat receptors enable the passage of some specific chemicals, like calcium ions, through the membrane of nerve cells.
- It's like a gate that opens up on a very specific request. The entry of the

chemical inside the cell causes a small change in electrical voltage, which is picked up by the nervous system.

- There is a whole spectrum of receptors that are sensitive to different ranges of temperature.
- When there is more heat, more channels open up to allow the flow of ions, and the brain is able to perceive higher temperatures.

Therapeutic implications

- Breakthroughs in physiology have often resulted in an improvement in the ability to fight diseases and disorders. This one is no different.
- There are receptors that make us feel pain. If these receptors can suppress, or made less effective, the person had felt less pain.
- Chronic pain is present is a number of illnesses and disorders. Earlier, the experience of pain was a mystery.
- But as we understand these receptors more and more, it is possible that we gain the ability to regulate them in such a way that the pain is minimized

1. 'Must look at weaknesses and strengths of 13A'.

Context: Indian Foreign Secretary Harsh Vardhan Shringla's official visit to Sri Lanka and meeting with Sri Lankan President Gotabaya Rajapaksa.

Bilateral projects:

- The need to **expedite bilateral projects** was emphasized during the meeting.
- This comes amid **considerable strain in relations over Sri Lanka's stance on bilateral projects**.
  - Sri Lanka had unilaterally cancelled a trilateral East Container Terminal (ECT) project at the Colombo Port, signed with India and Japan in 2019.
  - India had also raised concerns over the "slow pace" of India-backed development projects in Sri Lanka amid **China's increasing presence in Sri Lanka's economic and developmental spheres**.
  - The development of the **Trincomalee Oil Tank Farm** at the eastern tip of the island nation has been stalled.

13th amendment of the Sri Lankan Constitution: India has called for complete implementation of the provisions under the 13th Amendment to the Constitution, including devolution of powers and the holding of provincial council elections at the earliest.

- The Thirteenth Amendment to the Constitution of Sri Lanka is an amendment to the Constitution of Sri Lanka, **passed in 1987**, which created Provincial Councils in Sri Lanka. The 13th Amendment mandates a measure of **power devolution to the provincial**

councils established to govern the island's nine provinces.

- It is an outcome of the **Indo-Lanka Accord of July 1987**, signed by the then Prime Minister Rajiv Gandhi and President J.R. Jayawardene, in an attempt to resolve Sri Lanka's ethnic conflict that had aggravated into a full-fledged civil war, between the armed forces and the Liberation Tigers of Tamil Eelam, which led the struggle for Tamils' self-determination and sought a separate state.
- The Sri Lankan President has called for a more nuanced deliberation on the weaknesses and strengths of the 13th Amendment to the Sri Lankan Constitution.

Regional security:

- **India has raised concern over maritime security in the region**, particularly in the wake of Sri Lankan authorities recently apprehending **massive hauls of narcotics**.
- Any threat to Sri Lanka's peace and security is a threat to the region including India.
- Sri Lankan has sought India's support **declare the Indian Ocean a peace zone.**

2. RBI microfinance proposals that are anti-poor.

Context: In June 2021, the Reserve Bank of India (RBI) published a "Consultative Document on Regulation of Microfinance".

- While the declared objective of this review is to promote the financial inclusion of the poor and competition among lenders, the likely impact of the recommendations is unfavourable to the poor.

- However, if implemented, it will result in private lending at high rates of interest to the poor.

A Worrisome trend in rural finance:

- **Due to liberalization:** Branch authorization policy where mandatory opening of rural braches was required is significantly reduced from 75% to 25%.
- **Now:** Not only has the RBI abandoned any initiative to expand low-cost credit through public sector commercial banks to the rural poor, but, in addition, it also proposes to de-regulate the rate of interest charged by private microfinance agencies.
- **Further,** The rate of interest that would now be charged would be more than 20% in all practical sense.

Importance of Micro-finance:

- **Easy credit** for small loans to customers, without any collateral.
- **Financial Inclusion:** Credit reaches to the lowest rung of the society.
- **Serving the under-financed section:** as most loans are given to members of women's groups(SHGs).
- **Prevents people from poverty:** Since most of the loans are personal loans taken at the time of financial stress.

Problem:

- **Mostly personal loans:** These microfinance loans were rarely for productive activity and almost for house improvement and meeting basic consumption needs. These are difficult to be paid given the reported rates of interest of 22% to 26%.
- **High rate of interest compared to other means:** For example, Kisan credit card loans from banks are charged at 4% per annum (9% with an interest subvention of 5%) if paid in 12 months (or a penalty rate

of 11%). Other types of loans from scheduled commercial banks carried an interest rate of 9%-12% a year.

- **Borrowers are often unaware of the incremental cost in case of delay in payments**
- **Violations of recovery rules:** Contrary to the RBI guideline of "no recovery at the borrower's residence", collection is often done at the doorstep. Many private collector hired by the banks use bad language in a loud voice, shaming them in front of their neighbours.
- **In case of SHGs:** There is no organic connection of microfinance to any group activity or enterprise. This makes the collection for repayment a difficult task.
- **Post COVID:** post-COVID-19, the cost of funds supplied to NBFC-MFIs was lowered, but with no additional restrictions on the interest rate or other parameters affecting the final borrower.
- **Widespread malpractices:** Although microfinance is being promoted since 1991, by the mid-2000s, there have been widespread accounts of the malpractices of MFIs (such as SKS and Bandhan), and a crisis in some States such as Andhra Pradesh, arising out of a rapid and unregulated expansion of private for-profit micro-lending.

The recommendations

- **Doing away with interest cap:** The current ceiling on rate of interest is biased against one lender (NBFC-MFIs) among the many (commercial banks, small finance banks, and NBFCs).
- **Power to regulate interest rates - given to governing boards**
- **Minimum initial capital requirement increased** for licensing new banks be enhanced from ₹500 crore to ₹1,000 crore

for universal banks, and be raised to ₹300
crore from ₹200 crore for SFBs.

3. The Anti-defection law, and how it has often failed to discourage defection.

Context: The Calcutta High Court has given West Bengal Assembly Speaker Biman Banerjee a deadline of Thursday, October 7 to pass an order in the defection case involving MLA Mukul Roy. He had contested and won the 2021 Assembly elections on a BJP ticket and then joined the Trinamool Congress. BJP MLA Suvendu Adhikari, Leader of Opposition in the Assembly, has petitioned the Speaker to disqualify Roy and two other BJP MLAs for joining the Trinamool Congress. These petitions are under the Tenth Schedule of the Constitution, i.e. the anti-defection law.

What is the anti-defection law, and what is its purpose?
- The anti-defection law punishes individual MPs/MLAs for leaving one party for another.
- It allows a group of MP/MLAs to join (i.e. merge with) another political party without inviting the penalty for defection.
- And it does not penalise political parties for encouraging or accepting defecting legislators. Parliament added it to the Constitution as the Tenth Schedule in 1985.
- Its purpose was to bring stability to governments by discouraging legislators from changing parties.
- It was a response to the toppling of multiple state governments by party-hopping MLAs after the general elections of 1967.

What constitutes defection? Who is the deciding authority?

The law covers three kinds of scenarios:
1. One is when legislators elected on the ticket of one political party "voluntarily give up" membership of that party or vote in the legislature against the party's wishes. A legislator's speech and conduct inside and outside the legislature can lead to deciding the voluntarily giving up membership.
2. The second scenario arises when an MP/MLA who has been elected as an independent joins a party later.
3. The third scenario relates to nominated legislators. In their case, the law specifies that they can join a political party within six months of being appointed to the House, and not after such time.

How long does it take for deciding cases of defection?
- The law does not provide a time-frame within which the presiding officer has to decide a defection case.
- There have been many instances when a Speaker has not determined the case of a defecting MLA until the end of the legislature term.
- There have also been instances of defecting MLAs becoming ministers while a defection petition against them has been pending before the Speaker.
  Last year, the Supreme Court dismissed a minister in Manipur when the Speaker did not decide the defection petition against him even after three years.
- The court held that ideally, Speakers should take a decision on a defection petition within three months.

Has the anti-defection law ensured the stability of governments?

No. Parties often have to sequester MLAs in resorts to prevent them from changing their allegiance or getting poached by a rival party or an opposing faction of their party. Recent examples are Rajasthan (2020), Maharashtra (2019), Karnataka (2019 and 2018), and Tamil Nadu (2017).

Have any suggestions been made to improve the law?

- Some commentators have said the law has failed and recommended its removal.
- Former Vice President Hamid Ansari has suggested that it apply only to save governments in no-confidence motions.
- The Election Commission has suggested it should be the deciding authority in defection cases. Others have argued that the President and Governors should hear defection petitions.
- And last year, the Supreme Court said Parliament should set up an independent tribunal headed by a retired judge of the higher judiciary to decide defection cases swiftly and impartially.

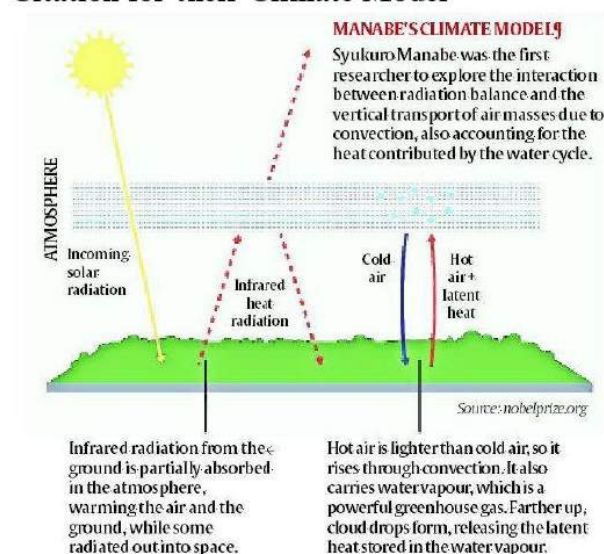## 4. First Nobel for Climate science.

Context: Three scientists received the Nobel Prize in Physics for work that is essential to understanding how the Earth's climate is changing, pinpointing the effect of human behaviour on those changes and ultimately predicting the impact of global warming.

Who are the laureates?

- The winners were Syukuro Manabe, Klaus Hasselmann of Germany, and Giorgio Parisi from Italy.

- In 2015, at a UK-based climate-focused online publication sought to identify the three most influential climate change research papers ever published.
- The paper that received the most votes was one by Syukuro Manabe and Richard Wetherald way back in 1967.
- These reports for the first time, had described the impact of carbon dioxide and water vapour on global warming.

Citation for their Climate Model

MANABE'S CLIMATE MODEL
Syukuro Manabe was the first researcher to explore the interaction between radiation balance and the vertical transport of air masses due to convection, also accounting for the heat contributed by the water cycle.

Infrared radiation from the ground is partially absorbed in the atmosphere, warming the air and the ground, while some radiated out into space.

Hot air is lighter than cold air, so it rises through convection. It also carries water vapour, which is a powerful greenhouse gas. Farther up, cloud drops form, releasing the latent heat stored in the water vapour.

Source: nobelprize.org

- Manabe is a senior meteorologist and climatologist at Princeton University.
- In the 1960s, he led ground-breaking research into how increased levels of carbon dioxide led to higher temperatures on the surface of the Earth.
- This laid the foundation for the development of current climate models.
- Hasselmann is a German physicist and oceanographer who greatly advanced public understanding of climate change through the creation of a model that links climate and chaotic weather systems.
- Parisi has focused on quantum field theory and complex systems.

Why it is significant feat?

- This is the first-time climate scientists have been awarded the Physics Nobel.

- The IPCC had won the Peace Nobel in 2007, an acknowledgement of its efforts in creating awareness for the fight against climate change.
- A Chemistry Nobel was also awarded to Paul Crutzen in 1995, for his work on the ozone layer, is considered the only other time someone from atmospheric sciences has won this honour.
- The recognition of Manabe and Hasselmann, therefore, is being seen as an acknowledgement of the importance that climate science holds in today's world.

5. Digitized healthcare slowly.

Context: Much recently, the Prime Minister had launched the Digital Health ID project (DHID), generating debate on issues related to the use of technology in a broken health system.

Good intents of the DHID
- The key objective of DHID is to improve the quality, access and affordability of health services by making the service delivery "quicker, less expensive and more robust".
- The ambition is undoubtedly high. Given that health systems are highly complex, the DHID would hardly be able to address some of the issues plaguing it.

Why need DHID?
(a) Record maintenance : The use of technology for record maintenance is not just inevitable but necessary. Its time has certainly come.
(b) Better tracking of medical history : The doctor has instant access to the patient's case history –the treatment undertaken, where and with what outcomes — enabling more accurate diagnosis and treatment.

(c) Better Diagnosis : Paperless hospitals can promote early diagnosis before the patient reaches the doctor after spending long hours in queue.
(d) Promoting medical research : Well organised repositories that enable easy access to records can stimulate much-needed research on medical devices and drugs.

Issues with DHID
(a) A costly affair : In the immediate short run, DHID will increase administrative costs by about 20 per cent, due to the capital investment in data infrastructure.
(b) Privacy concerns : Most important is the issue of privacy, the high possibility of hacking and breach of confidentiality.

Ground situation in India
- **Inherently unaffordable healthcare:** The costs in the Indian context can be high and that should lead to a careful assessment of the project.
- **Digital divide:** Such a scenario is not inconceivable and in the case of health, may cause immense hardship to the most marginalised sections of our population.
- **Infrastructure gap:** A large majority of facilities do not have the required physical infrastructure — electricity, accommodation, trained personnel.
- **Usual nature of technical glitches:** Cards getting corrupted, servers being down, computers crashing or hanging, and power outages are common in India.
- **Conformity over data synchronization:** The inability to synchronise biometric data with ID cards has resulted in large-scale exclusions of the poor from welfare projects.
- **Accuracy of records:** Besides, the efficacy of the DHID hinges on the assumption that every visit and every drug

consumed by the patient is faithfully and accurately recorded.

- **Increased workload on Medical Professionals:** Moreover, while electronic mapping of providers may enable patients to spot a less busy doctor near their location, it is simplistic to assume that the patient will go there.

Plugging the existing gaps

- Patient preference for a doctor is dependent upon perception and trust. Likewise, teleconsultations need a huge backend infrastructure and organisation.
- Teleconsulting has certainly helped patients access medical advice for managing minor ailments, getting prescriptions on the phone and even getting drugs delivered home.
- But in handling chronic diseases that necessitate continuity of care, teleconsultations have been problematic and cannot be substituted for actual physical examination.
- Continuity of care is central to good outcomes in inpatient management of chronic diseases.

Way forward

- What is needed is building very robust firewalls and trust.
- Seeing the frequency with which Aadhaar cards have been breached, it is not unreasonable to be concerned with this issue and the implications it has at the family and societal levels.
- For this reason, instead of a big bang approach, it is better to go slow and steady.
- That's the only way to ensure that a good policy does not die along the way due to poor implementation.

1. Duo win Nobel Chemistry Prize for work on catalysts.

Context: Germany's Benjamin List and U.S. based David MacMillan have won the Nobel Chemistry Prize.

Details:
- The duo has been awarded the Nobel Prize for developing a tool to build molecules which has helped make chemistry more environmentally friendly.
- They were cited for their work in developing a new way for building molecules known as "asymmetric organocatalysis."
- They developed the tool independent of each other in 2000

Organocatalysis:
- Catalysts are substances used to accelerate chemical reactions in a controlled manner and are a fundamental tool in chemistry.
- Both List and MacMillan independently developed organic catalysts, made up of carbon and other elements such as nitrogen, oxygen, phosphorus, and sulfur, which are cheaper and more sustainable than previously used catalysts, which were mostly made up of metals.
- The new technique relies on small organic molecules and is called "asymmetric organocatalysis".
- It is used for distinguishing and synthesizing molecules that are different from their mirror-image.
- It is widely used in pharmaceuticals, allowing drug makers to streamline the production of medicines for depression and respiratory infections, among others.
- Organocatalysts allow several steps in a production process to be performed in an unbroken sequence, considerably reducing waste in chemical manufacturing.

Significance:
- Their tool can be used to control and accelerate chemical reactions.
- This exerts a big impact on drugs research.
- Prior to their work, scientists believed there were only two types of catalysts — metals and enzymes.

2. U.P. tops list of States emitting fine particulate matter: study

Context: According to an analysis by the Council on Energy, Environment and Water (CEEW), Uttar Pradesh is the largest emitter of PM2.5, the class of particulate matter considered most harmful to health.
- The high emissions from U.P. were largely due to a significant share of PM2.5 emissions from solid-fuel use in households and, by virtue of being India's most populous State, had a higher proportion of households relying on this form of fuel.
- Maharashtra, Gujarat, Odisha, West Bengal, Madhya Pradesh, Bihar, Tamil Nadu, and Rajasthan too feature in the list of top polluters but are differently ranked by the five sources. Only Uttar Pradesh is at the top of everyone's list.
- Jammu and Kashmir, Himachal Pradesh, Uttarakhand, and the Northeastern States of Arunachal Pradesh, Nagaland, Manipur, and Mizoram, were among the lowest emitters of PM2.5.

Common pollutants
- There are differences in the periods over which these sources track the emissions as well as the pollutants, but most track the important ones:
- PM2.5, PM10, Nox (nitrous oxides), SO_2 (Sulphur dioxide), CO (Carbon Monoxide), NH_3 (Ammonia), and

NMVOC (Non-methane volatile organic compounds).

- They also track the sources of pollutants ranging from agriculture waste burning, power utilities, industry, dust, transport and waste which account for nearly 95% of the sources of air pollution.
- The CEEW analysis found "significant variation" in the estimates by various sources going up to as much as 37% for particulate matter (PM2.5 and PM10), Nitrogen oxide (NOx), Sulphur dioxide (SO2) and Carbon Monoxide (CO).
- The overall variation in residential PM2.5 emissions was less than 25%. However, SMoG's residential PM2.5 emission estimates are approximately 50% higher than those estimated by TERI.
- These differences had to do with the way each agency calculated emissions and the data sources they relied on.

Database needed

- The Council said India ought to "develop and maintain a comprehensive inventory of baseline emissions" to evaluate if its policy and technological interventions were succeeding in reducing air pollution.
- India has a National Clean Air Campaign (NCAP) that aims to reduce pollution in 122 of the most polluted cities by 2024.
- To meet the NCAP target of 20-30% reduction in particulate concentration by 2024, we need to estimate emission reductions needed across sectors. Estimating these reductions will only be possible when we have an official, representative emission inventory for India.

3. Trade multilateralism at risk.

Context: The World Trade Organization (WTO) — the global trade body — is facing a serious existential crisis. The upcoming WTO ministerial meeting scheduled for next month in Geneva provides an opportunity to rescue this critical global institution from irrelevance.

About WTO:

- It is an organisation aiming to bind world trade into **one single grand trade** agreement which aims at formation of rules relating various aspects of trade: Goods, Services, IPR etc.
- The **Marrakesh Agreement (1994)** officially established WTO regime in 1995. during the heyday of neoliberalism, the WTO became a shining example of triumphant free-market capitalism.
- It is a successor to General Agreement on Trade and Tariff (GATT)
a. WTO is a permanent organisation unlike GATT. It provides a continuing institutional mechanism which was lacking during operation of GATT.
b. WTO was required because world trade was growing very fast; an agency was needed to monitor, regulate and supervise the international trade. GATT was unable to deal with structural deficit.

Challenges with WTO

- **Critics of neoliberalism** chastised the WTO for pushing the American imperialist agenda.
- **Protectionism:** Paradoxically, more than two-and-a-half decades later, the United States seems to have lost interest in it. American view is that by failing to stem China's rise and regularly indicting the U.S. in several trade disputes, it hasn't served American interests.
- **Vacancies:** For example, in the Appellate Body (AB), which is part of the WTO's dispute settlement mechanism. Since December 2019, the AB has stopped functioning due to rising vacancies. Over

the years, the U.S. has consistently blocked the appointment of AB members.

- **Primary motive of resolving trade disputes now abandoned:** The U.S. also vetoes proposals to find solutions to this impasse, including stalling the proposal of the European Union to establish an alternative interim appellate arbitration mechanism. The number of pending appeals to the AB has increased sharply to around 20 cases. Countries now have an easy option not to comply with the WTO panel decisions by appealing into the void.

The Four existential Challenges:
1. **No solution to the public stockholding for food security purposes:** The WTO rules allow countries to procure, stock and distribute food. However, if such procurement is done at an market distorting price such as the MSP, then the budgetary support is subject to an overall cap. The 2015 Nairobi ministerial meeting made a clear mandate in this regard, however developed countries are not ready to follow it up.
2. **Disagreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement waiver COVID-19 related medical products**.
3. **Regulating irrational subsidies** provided for fishing that has led to the overexploitation of marine resources by countries like China, which is the largest catcher and exporter of fish. However, this agreement should strike a balance between conserving ocean resources and the livelihood concerns of millions of marginal fishermen. An effective special and differential treatment (S&DT) provision that accords adequate policy space is what India and other developing countries should insist on.
4. **Emergence of mega plurilateral trade agreements** like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP) agreements not only fragment the global governance on international trade but also push the multilateral order to the margin, converting the WTO to what some call an "institutional zombie".

Conclusion: Prime Minister Narendra Modi, during his recent U.S. visit, rightly pleaded for a rule-based global order. Institutional multilateralism would be the ideal antidote to unilateralism and economic nationalism. Notwithstanding its flaws, the WTO is the only forum where developing countries like India, not party to any mega plurilateral trade agreements, can push for evolving an inclusive global trading order.

4. WHO recommends first anti-malarial vaccine.

Context: In a historic move, the World Health Organization (WHO) has endorsed the first anti-malarial vaccine.

Mosquirix
- RTS,S/ASO1 (RTS.S), trade name Mosquirix acts against P. falciparum, the most deadly malaria parasite globally, and the most prevalent in Africa.
- The vaccine was able to prevent approximately 4 in 10 cases of malaria over a 4-year period in Africa.
- This is the first malaria vaccine that has completed the clinical development process.
- It is also the first malaria vaccine to be introduced by three national ministries of health through their childhood immunization programs —in Ghana,

Kenya, and Malawi where more than 800,000 children will benefit.

How the vaccine can help?
- WHO has recommended that in the context of comprehensive malaria control, the RTS,S/AS01 malaria vaccine be used for the prevention of P. falciparum malaria in children living in regions with moderate to high transmission as defined by it.
- The malaria vaccine should be provided in a schedule of 4 doses in children from 5 months of age for the reduction of malaria disease and burden.

5. A strategy for India in a world that is adrift

Context: The lack of a coherent international response to the COVID-19 pandemic is proof of an absence of international order and of the ineffectiveness of multilateral institutions.

New global order: No Order
- **Multipolarity:** The world is today adrift. We are neither in a bipolar Cold War nor in a multipolar world, though perhaps tending towards a world of several power centres.
- **Lack of cohesion:** The lack of a coherent international response to the COVID-19 pandemic is proof of an absence of international order and of the ineffectiveness of multilateral institutions.
- **Climate ignorance:** So is the ineffective international response to climate change and other transnational threats.

What are the major shifts in global order?
- Secular stagnation
- Retreat from globalisation
- Regionalisation of trade
- Shifting balance of power
- Rise of China and others

- Structural China-United States strategic rivalry

All above factors have shifted the geopolitical and economic centres of gravity from the Atlantic to Asia.

Major Concerns
- Chauvinism: Inequality between and within states has bred a narrow nationalism and parochialism.
- Existential threats: We are entering a new polarised information age, and face ecological crises of the Anthropocene, making climate change an existential threat.

Asia as the nucleus: With focus on China
- Shift of focus by the US: Over the next decade we expect Asia to remain the cockpit of geopolitical rivalries, and that the US remains the most formidable power, though its relative power is declining.
- China at the centre: China sees a window of opportunity but acts in a hurry, suggesting that she believes that window may close or is already closing due to push back from the West and others.

China's expansionism
- China's crowded geography constrains her both on land and at sea.
- Hence it expects her profile and power to continue expanding, particularly in our periphery.
- The result is likely continued friction, some cooperation, and quasi-adversarial relations between India and China, which others will take advantage of.
- Overall, we do not expect conventional conflict between the great powers in Asia, though other forms and levels of violence and contention in the international system will rise, with Taiwan a special case.

How can India reap the benefits?

- **Enhancing ties with the US:** Increasing congruence with the US in fields like: security, energy, trade, investment, education and health.
- **Climate cooperation with major countries**
- **Neighbourhood first:** Several middle powers like Sri Lanka, Bangladesh, Indonesia in the neighbourhood are now India's natural partners.
- **Digital space:** when new standards and norms are being developed, particularly in the digital space. India can and must be present at the creation.
- **Maritime cooperation:** At sea, the balance is today more favourable to us than before, possibly more so than on the continent. India must bat for the creation of a **Maritime Commission in IOR.**

Bottlenecks in India's neighbourhood policy

- **Over securitisation of policy:** towards our neighbours has driven trade underground, criminalised our borders.
- **Conducive environment for entry of China:** entry of Chinese goods destroying local industry in the northeast.
- **Lack of self-strengthening**: While lessening dependence on China, and seeking external balancing, our primary effort has to concentrate on self-strengthening.
- **Lack of socio-political enterprise:** If there is one country which in terms of its size, population, economic potential, scientific and technological capabilities

can match or even surpass China, it is India.

Way forward for India

(A) Bringing multipolarity in Asia.

- The way forward should be based on the core strategic principles in Non-Alignment 2.0 which are still relevant: independent judgement, developing our capacities, and creating an equitable and enabling international order for India's transformation.

(B) Making an issue-based coalition including different actors, depending on who has an interest and capability.

(C) Reviving SAARC

- could make India the primary source of both prosperity and security in the neighbourhood — the subcontinent and the Indian Ocean Region.

Conclusion

- Economic policy must match political and strategic engagement.
- Globalisation has been central to India's growth.
- A more active regional and international role for India is incompatible with a position on the margins of the global economy.
- Self-reliance in today's world and technologies can only be realised as part of the global economy.
- We should not imitate China's claims to being a civilisational state and its adoption of victimhood.
- Instead, we should affirm our own strength and historic national identity.

1. Stronger at the grassroots.

Context: Recently, the People's Plan Campaign and Vibrant Gram Sabha Dashboard were rolled out which aspire to strengthen the Panchayati Raj system by making gram sabhas more vibrant.

Panchayati Raj Institutions (PRIs) in India

- The Panchayati Raj was **first adopted by Nagaur** in Rajasthan on **October 2, 1959.**
- PRIs were **constitutionalized** through the **73rd Constitutional Amendment Act, 1992.**
- Since then, it has **expanded vastly.**
  - Currently in India, 2,60,512 Panchayati Raj Institutions (PRIs) are represented by about 31 lakh elected members.
- In this system of **local self-governance**, people in the villages participate in the decision-making process.
  - Therefore, it is the **backbone of democracy.**

Role/significance of PRIs during pandemic/crisis

- **Failing of traditional top-down disaster response system**: it was PRIs that played a remarkable role.
- **Provided essential leadership at the local level:** They helped reduce risks, responded swiftly and thus helped people recover quickly.
- **Performed both regulatory and welfare functions:** During the nationwide lockdown, PRIs set up **containment zones,** Arranged transport , Identified buildings for quarantining people, Provisioned food for the incoming migrants.
- **Role played by gram Sabhas:** They provide a platform to **build consensus**

and **make resolutions** in the community's interest.

- **Bridged the trust gap between the community and the officials: B**y regular engagement with frontline workers like ASHA workers and Anganwadi workers through committees.
- **Community-based surveillance systems**: During the pandemic, PRIs organised community-based surveillance systems involving to keep a strict vigil in quarantine centres and monitor symptoms in households.
- Role in mobilising citizens **for COVID-19 vaccination**.

Initiatives to be taken to building capacity of PRIs

- **Including disaster management in Panchayat Raj Acts**
- **Regular location-specific training programmes:** These will act as platforms for **sharing best practices.**
- **Community-based disaster management plans :** These plans would provide a **strategy for resource utilisation** and maintenance during a disaster.
  - These plans should tap the **traditional wisdom of local communities** which will complement modern practices.
  - Establishment of **community disaster funds** in all gram panchayats and encouraging financial contributions from the community.

Conclusion

The disaster like COVID-19 is an unusual crisis as it is long-drawn and affects people everywhere. Therefore, in order to tackle such crisis effectively, it is imperative to make disaster resilience an inherent part of the community culture now more than ever.

2. Seeding a data revolution in Indian agriculture.

Context: In June this year, two significant documents relating to the Indian agriculture sector were released.

What are the reports about?
- The first is a consultation paper on the India Digital Ecosystem of Agriculture (IDEA) and the second on Indian Agriculture: Ripe for Disruption from a private organisation, Bain and Company.
- Through their work, these reports have depicted the agriculture reforms announced by the union government as a game-changer in the agriculture sector.

Challenges highlighted
The major challenges of the agriculture sector are:
1. Food Sufficiency but Nutrition Deficiency
2. High import of edible oil and oilseeds
3. Yield plateaus
4. Degrading soil, Water stress
5. Inadequate market infra/linkages
6. Unpredictable, volatile prices
7. Post-harvest losses, wastages
8. Lack of crop planning due to information asymmetry

Key takeaway: Way for doubling farmers income
- These reports in short argues that benefiting from the huge investments into the agri-ecosystem
- The Indian agriculture sector in future will encompass farm to fork and pave the way for a single national market with a national platform with better

connection between producer and consumers.

The forecast
- The agriculture sector (currently worth $370 billion), is estimated to receive an additional $35 billion investment by 2025

The two enabling conditions for such investment opportunities are:
1. Changes in the regulatory framework, especially recent changes in the Farm Acts and
2. Digital disruption

The IDEA of integration
- **Integration:** Eventually, the farmer and the improvement of farmers' livelihood is the aim of the IDEA concept and it is proposed to happen through tight integration of agri-tech innovation and the agriculture industry.
- **Openness of data:** The IDEA principles explicitly talk about openness of data, which means open to businesses and farmers, indicating the kind of integration it aims at.
- **Value-added innovative services:** by agri-tech industries and start-ups are an integral part of the IDEA architecture.
- **Data architecture:** The services listed in the document (to be available on the platform) are equally important data for farmers and businesses.

Issues with these reports
- The Bain report has not been widely discussed — at least in the public domain.
- The assumptions used by authors especially for its 'future back approach', need more or less focusing

on widespread food production in controlled environments.

- The emission, energy, and other resource footprints and sustainability issues around these techniques are not adequately studied.

Yet these reports are important

- The report has convincingly demonstrated the business opportunity available in supply chains between farm to APMC mandi and mandi to the customer.
- This can be realised with the support of digital disruption and the latest agriculture reforms.
- Both these reports heavily rely on digital disruption to improve farmers' livelihoods, without discussing how much farmers will be prepared to benefit from the emerging business.

Way ahead: Focus on the farmer

- There need to be immense efforts to improve the capacities of the farmers in India – at least until the educated young farmers replace the existing under-educated small and medium farmers.
- This capacity building can be done through a mixed approach through FPOs and other farmers' associations where technical support is available for farmers.

3. CERC-SEBI resolution.

Context: Power Sector has been waiting for the big reforms in the power market for last more than 10 years which was held up due to the jurisdiction issues between SEBI and CERC.

- The long pending matter between SEBI and CERC regarding regulatory jurisdiction of Electricity Derivatives

has finally got resolved with the Honble Supreme Court favorably disposing of the matter in terms of the agreement reached upon by SEBI and CERC.

- Ministry of power took the initiative of resolving the jurisdictional issue between SEBI and CERC with regard to various forms of contracts in electricity for Efficient Regulation of Electricity Derivatives by constituting a committee on 26th October, 2018. Security Exchange Board of India (SEBI), Indian Energy Exchange, Power Exchange of India Limited and Multi Commodity Exchange to examine the technical, operational and legal framework for electricity derivatives and to give recommendation in this regard.

Based on the recommendations of the Committee both SEBI and CERC have come to an agreement that CERC will regulate all the physical delivery based forward contracts whereas the financial derivatives will be regulated by SEBI.

4. UN report: In India, 5 out of 6 Multidimensionally poor are from lower castes or tribes.

Context: According to the newly released United Nations analysis on **Global Multidimensional Poverty Index (MPI)**, 5 out of 6 multidimensionally poor people in India are from lower tribes or castes.

Global Multidimensional Poverty Index

- Global MPI is an international measure of multidimensional poverty covering 107 developing countries.
- It was first developed in 2010 by Oxford Poverty and Human

Development Initiative (OPHI) and United Nations Development Programme (UNDP) for UNDP's Human Development Reports.

- The index is released at the High-Level Political Forum (HLPF) on Sustainable Development of the United Nations in July every year.
- Global MPI is computed by assigning scores for each surveyed household on 10 parameters.
- These are based on nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing, and household assets.
- It utilises the National Family Health Survey (NFHS) data
- In Global MPI 2020, India was 62nd among 107 countries, based on the NFHS-4 (2015-16) data.
- **India saw the most people moving out of multidimensional poverty between 2005/06 and 2015/16.**

Key Highlights of the Global Multidimensional Poverty Index (MPI)
- ST group accounts for 9.4% of the population and is the poorest, with 65 million of the 129 million people living in multidimensional poverty.
  - o They account for one-sixth of all people living in multidimensional poverty in India.
- SC group with 33.3% (94 million out of 283 million people) living in multidimensional poverty.
- 27.2% of the OBC group lives in multidimensional poverty.
- **This exclusion of women from education has far-reaching impacts on societies around the world.**

- o Seven countries account for more than 500 million of them:
  - ▪ India (227 million),
  - ▪ Pakistan (71 million),
  - ▪ Ethiopia (59 million),
  - ▪ Nigeria (54 million),
  - ▪ China (32 million),
  - ▪ Bangladesh (30 million) and
  - ▪ The Democratic Republic of the Congo (27 million).
- **According to the report, the top five countries with the largest number of people living in multidimensional poverty are in:**
  - o India (2015/16) at 381 million,
  - o Nigeria (2018): 93 million,
  - o Pakistan (2017/18): 83 million,
  - o Ethiopia (2019): 77 million,
  - o Democratic Republic of the Congo (2017/18): 56 million.

- In India, close to 12 per cent of the population -- 162 million people -- live in female-headed households.

5. At least 40% students in 7 states lack access to digital devices.

Context: The report, initiatives by the School Education Sector in 2020-21, shows that the digital divide has hit some states disproportionately hard.

Key Findings
- Between 40% and 70% school-going children in seven large states – Assam, Andhra Pradesh, Bihar, Gujarat, Jharkhand, Madhya Pradesh and Uttarakhand – do not have access to digital devices, according to a report prepared by the Union Ministry of Education that documents the response

- to challenges thrown up by the Covid-19 pandemic.
- The digital divide has hit some states disproportionately hard, while a few may have coped well due to adequate availability of smartphones and television sets.
  - However, the picture remains incomplete in the absence of data from states such as Uttar Pradesh and West Bengal, and questionable claims like that of Rajasthan that it does not have students without digital access.
- The report has been prepared based on data shared by 22 of 28 states, and seven out of eight Union Territories.
  - The state-wise interventions to bridge the divide also reflect the same disparity – with some like Tamil Nadu claiming to have distributed 5.15 lakh laptops among students, as against 42 mobile phones by the Bihar government.
- In absolute numbers, prepared on the basis of surveys of various sample sizes by the states and UTs in 2020 and 2021, 29 crore students, including 14.33 crore in Bihar, were found without access to digital devices.
- The 'new normal' may also have a huge impact on the learning levels for almost all children; learning loss may be a reality for many children," the report says.
- Among the states to have responded, those having a very high share of students without digital access include:
  - Madhya Pradesh (70%), Bihar (58.09%), Andhra Pradesh (57%), Assam (44.24%), Jharkhand (43.42%), Uttarakhand (41.17%) and Gujarat (40%).
  - Among the better placed states and UTs are Delhi with around 4% students without access, Kerala 1.63%, Tamil Nadu 14.51%.

- **Driving home a point**
  - The Education Ministry report once again spotlights the grim reality of differential access to education, made starker by the pandemic-induced disruption and the consequential digital divide.
  - The official figures also validate the concerns expressed by non-profits working in the education sector.
  - The report also highlights the interventions at various levels to bridge the divide, but one cannot emphasise enough on the need to scale up the efforts.

1. Journalists from Philippines, Russia win Peace Nobel.

Context: In an age marked by authoritarian regimes around the world, misinformation and hate speech, the Nobel Prize for Peace was awarded to two journalists who have been running independent news organisations in their countries, often under the threat of detention and even death.

About:
- Maria Ressa of the Philippines and Dmitry Muratov of Russia received the Prize "for their courageous fight for freedom of expression".
- An investigative journalist, Ressa in 2012 co-founded Rappler, a digital media platform for investigative journalism, which she continues to head. Rappler has "focused critical attention" on President Rodrigo Duterte regime's controversial, murderous anti-drug campaign.
- In the RSF's 2021 World Press Freedom Index, the Philippines ranked 138 of 180 nations (India was ranked lower, at 142).
- Dmitry Muratov "has for decades defended freedom of speech in Russia under increasingly challenging conditions". During the Vladimir Putin regime, Russia has ranked 150 in the RSF's 2021 World Freedom Index.
- Five years after Muratov left the popular daily Komsomolskaya Pravda, he along with around 50 colleagues started Novaja Gazeta in 1993, as one of its founders. He has served as the newspaper's editor-in-chief since 1995.

2. Goyal pushes for a reset of India-ASEAN FTA.

Context: The Commerce and Industry Minister has called for a renegotiation of the India-ASEAN free trade agreement (FTA).

Why such move?
- The MCI aims to prevent its misuse by 'third parties' and remove trade restrictions as well as non-tariff barriers that he said had hurt Indian exports disproportionately since the pact was operationalized in 2010.
- The focus needed to be on new rules to eliminate misuse 'by third parties outside ASEAN', the minister said, hinting at China.
- India had to deal with several restrictive barriers on exports in the ASEAN region, particularly in the agriculture and auto sectors.

About ASEAN
Members: Officially the Association of Southeast Asian Nations, ASEAN is an economic union comprising 10 member states in Southeast Asia.
- It promotes intergovernmental cooperation and facilitates economic, political, security, military, educational, and sociocultural integration between its members and other countries in Asia.

India-ASEAN Free Trade Agreement

- The initial framework agreement for ASEAN–India Free Trade Area (AIFTA) was signed on 8 October 2003 in Bali, Indonesia.
- The FTA came into effect on 1 January 2010.
- The FTA had emerged from a mutual interest of both parties to expand their economic ties in the Asia-Pacific region.

Background of the AIFTA

- India's Look East policy was reciprocated by similar interests of many ASEAN countries to expand their interactions westward.
- After India became a sectoral dialogue partner of ASEAN in 1992, India saw its trade with ASEAN increase relative to its trade with the rest of the world.
- Between 1993 and 2003, ASEAN-India bilateral trade grew at an annual rate of 11.2%, from US$2.9 billion in 1993 to US$12.1 billion in 2003.
- Total Indian FDI into ASEAN from 2000 to 2008 was US$1.3 billion.

Acknowledging this trend and recognising the economic potential of closer linkages, both sides recognised the opportunities to pave the way for the establishment of an ASEAN–India Free Trade Area (FTA).

Structure of the AIFTA

- The signing of the ASEAN-India Trade in Goods Agreement paves the way for the creation of one of the world's largest FTAs – a market of almost 1.8 billion people with a combined GDP of US$2.8 trillion.
- It sees tariff liberalisation of over 90 percent of products traded between the two dynamic regions, including the so-called "special products".

- The products include palm oil (crude and refined), coffee, black tea and pepper.

Criticism

While there are many benefits to the ASEAN-India FTA, there is concern in India that the agreement will have several negative impacts on the economy.

- **Opening-up its market:** This FTA will allow them to increase the market access of their products.
- **No specific gains:** It is criticised, however, that India will not experience as great an increase in market access to ASEAN countries as ASEAN will in India.
- **Export driven ASEAN:** The economies of the ASEAN countries are largely export-driven. Considering India's expansive domestic market, the ASEAN countries will look eagerly towards India as a home for its exports.
- **Huge trade deficit:** Since the early 2000s, India has had an increasing trade deficit with ASEAN. It is feared that a gradual liberalisation of tariffs and a rise in imported goods into India will threaten several sectors of the economy.
- **Inaccessible Markets:** As a dominant exporter of light manufacturing products, ASEAN has competitive tariff rates that make it difficult for India to gain access to the industry market in ASEAN countries.
- **Cheaper imports:** The state of Kerala is an important exporter in the national export of plantation products. It fears that cheap imports of oil palm, rubber, coffee, and fish would lower domestic production, adversely affecting farmers and ultimately its economy.

3. Giloy is safe to use, says Ayush Ministry.

Context: According to the Ministry of Ayush, Giloy or guduchi (Tinospora cordifolia), a herb used in Ayurveda, is safe to use but similar-looking plants in circulation such as Tinospora crispa can be harmful.

Key Facts
- Giloyis a climbing shrub and an essential herb in Ayurvedic medicine.
- All its parts are thought to have health benefits. People have long used it to treat a wide range of ailments such as fever, infections, diarrhoea and diabetes.
- The Ministry clarified that it had recently noticed safety concerns on use of giloy that were published in social media and in some scientific journals.
- The Ministry noted in an advisory that there were a good number of studies published in peer-reviewed indexed journals to substantiate the safety and efficacy of giloy.
- It explained that giloy's hepato-protective properties were well-established. It was known for its immense therapeutic applications.

4. Palk Bay scheme will be given a fillip: Murugan.

Context: The Union Government is considering increasing the unit cost of deep-sea fishing vessels under the Palk Bay scheme to make it more attractive to fisherfolk.

Background
- Launched by the Prime Minister in July 2017, the Palk Bay scheme, being financed by the Union and the State Governments with beneficiary participation, envisaged the provision of 2,000 vessels in three years to the fishermen of the State and motivate them to abandon bottom trawling.
- The current year's Policy Note of Fisheries and Fishermen Welfare Department of the Tamil Nadu government said that 42 **deep-sea fishing vessels** had been launched with 43 more in various stages of construction.

Proposals
- The original unit cost of ₹80 lakh was "inadequate" (to meet the requirements of the fisherfolk). This was why the Union Ministry asked Cochin Shipyard Ltd., a company fully owned by the Union Government, to work out the revised cost.
- They [the Cochin Shipyard] have given their opinion. Now, the unit cost may touch ₹1.3 crore. Once the technical nod comes and the government will go ahead.

Marine Fisheries Bill
- As for the proposed Marine Fisheries Bill, it would not "in any way affect our fishermen in any place".
- It had been mooted in the absence of any law to regulate fishing activity taking place beyond 12 nautical miles from the shore. **Up to 12 nm, the State laws were in place.**
- The new legislation will protect our fishermen if there is any [illegal] activity by a foreign fishing vessel.
- As for the proposed penalty, the fishermen had to register themselves as part of the legislation, as otherwise there would be a fine of ₹1,000. In fact, State laws in Tamil Nadu and Kerala have higher amounts of fine.

- Regarding promotion of seaweed farming, the government states that Tamil Nadu would get a special economic park as a pilot project.
- The foundation stone for the park project was likely to be laid during the third week of November 2021.
- Fisherwomen would be among the beneficiaries of this programme.
- The Kisan Credit Card would also be extended to the fisherfolk.
- Under the PMMSY, five fishing harbours would be modernised as per international standards and the idea was to encourage exports of fish products.

Percentage of Fishing craft in India
- Traditional craft (24.2 %)
- Motorised craft (51.6 %)
- Mechanised craft (24.0 %)
- Deep sea fishing vessels (< 0.2%)

5. The rot at Bretton Woods.

Context: This article discusses some inherent issues with the international organizations (IOs) i.e., the World Bank (Bank) and International Monetary Fund (IMF) (aka Bretton Woods Twins). This comes in the backyard of the WB decision to scrap its flagship publication, the 'Doing Business' report.

Issue over chair: A monopoly of the West
- **Common individuals to head:** The individuals which are common to them: Paul Wolfowitz, Jim-Kim, David Malpass, Rodrigo Rato, Dominique-Strauss Kahn, Christine Lagarde, and Kristalina Georgieva.
- **Monopoly of US/EU:** They have all become heads via a dual monopoly selection procedure: Only an American can head the Bank and only a European can head the IMF.
- **Personal integrity:** This has been called into question, the most recent being the revelations of malfeasance at the World Bank where data was apparently massaged to make at least two major countries — China and Saudi Arabia— look better than they would otherwise have been.

Issues with these heads: Hypocrisy
- **Political accountability:** Within countries, we expect reasonable standards of integrity from heads of important institutions, and democratic political accountability mechanisms exist to ensure that.
- **Probity:** The effectiveness and legitimacy of these individuals and indeed of the international institutions they head require personal qualities of probity.
- **Non-virtuous preachers:** These heads often go around the developing world, preaching the virtues of good governance, from arguing against the scourge of corruption to improving data integrity.
- **Undue parameters:** There are even World Bank indices to rank countries on those metrics.

How has this impacted these institutions?
Ans. The credibility of the institutions is lost.
- It is not just the charge of hypocrisy, but also the effect on the morale and motivation of the staff of these institutions.
- Many of them chose to work here because of a commitment to public service.
- The recent letter by more than 300 former World Bank staff, expressing

their anguish at the recent revelations on the Doing Business index, captures this sentiment.

Why such issues grapple these institutions?

- **Goal definition:** International institutions operate in a grey zone of neither clearly being in or outside the realm of formal politics and hence have weaker mechanisms of accountability.
- **Selection of heads:** The selection procedure for choosing heads of the Bank and the Fund has been a dismal failure. Compromised heads are potentially more biased.
- **Indoctrination:** Contrast this with the growing alarm and anxiety that characterizes the rise of China and its attempts to place its own nationals in existing IOs as well as creating new ones.

Chinese has intruded even into these

- Countries place their nationals to head these institutions, both for prestige and to pursue their national interests.
- China has its own nationals now head four of the 15 UN specialized agencies (it suffered a rare setback to head the World Intellectual Property Organisation last year).

Conclusion

- The contest between the West (and especially the US) and China to shape the global order is becoming manifest.
- China's efforts, its success, and more broadly its influence in IOs should certainly raise deep concerns, most notably the suppression of the inquiry into the origins of the coronavirus.
- Looking ahead, if the US and Europe do not hold themselves to the standards they exhort to the rest of the world, their credibility and legitimacy will continue to degrade.
- This will cede ground and soft power to geopolitical rivals.

Way forward

- So, global political leaders convening next week for the annual meetings of the Bank and Fund must act with urgency and conviction to stem the rot.
- They must open the selection of the heads of these institutions to the best candidate, regardless of nationality.
- And to pave the way, they should clear up the current mess over the Doing Business saga.

1. U.S. outlines a softer focus for Quad.

Context: The Quad is a "non-defence, non-military" arrangement between Australia-India-Japan-U.S. grouping is meant to cooperate on what are considered "softer" issues as per US

American Stand
- The Quad is a vehicle which largely **operates in security realms that are non-military, non-defence.**
- Agendas covered in Quad are vaccines, and infrastructure, supply chains, technology and climate — all the forward-thinking ideas
- **The Quad is a cooperative effort to work on things like energy, people-to-people exchanges and infrastructure and supply chain resilience.**
- **It is not a military alliance or North Atlantic Treaty Organization (NATO) equivalent.**
- Maritime security, humanitarian and disaster response are core to the QUAD agenda.
- QUAD is going to be a vital arena for cooperation in the Indo-Pacific region.

2. A 'Taiwan flashpoint' in the Indo-Pacific.

Context: Recently, the U.S. Pacific Commander warned that China could invade Taiwan within the next six years as part of its strategy of displacing U.S. power in Asia.
- If the rising confrontation between the United States and China erupts into a clash of arms, the likely arena may well be the Taiwan Strait.

Historical background
- The **Guomindang (KMT) forces** under Chiang Kai-shek lost the **1945-49 civil war** to the CCP forces under Mao Zedong.
- **Chiang retreated to the island of Taiwan** and set up a regime that claimed authority over the whole of China and pledged to recover the mainland eventually.
- **The CCP in turn pledged to reclaim Taiwan** and achieve the final reunification of China.
- Taiwan could not be occupied militarily by the newly established People's Republic of China (PRC) as it became a **military ally of the United States during the Korean War of 1950-53.**
- This phase came to an end with the
  - **U.S. recognising the PRC as the legitimate government of China in 1979,**
  - ending its official relationship with Taiwan and
  - abrogating its mutual defence treaty with the island.

China-Taiwan relations
- Taiwan (Republic of China) calls itself a democratic, self-ruled country, however, according to the **"One China" policy,** Beijing considers Taiwan a province of Mainland China.
  - **One China Policy** refers to the view that there is only one state called China despite the existence of two governments that claim to be China.
  - As a policy it means that **countries seeking diplomatic relations with China should sever the ties with the 'Republic of China' - Taiwan - and vice versa.**

Current tensions between Taiwan and China

- China, is committed to **pursuing peaceful unification** but retains the right to use force to achieve the objective.
- **The PRC has pursued a typical carrot and stick policy to achieve the reunification of Taiwan with the mainland.**
- The ruling Democratic Progressive Party (DPP) in Taiwan favours independence from China.
  - o Ever since the DPP under Tsai Ing-wen won the presidential elections in 2016, China has resorted to a series of hostile actions against the island, which include economic pressures and military threats.
  - o **The prospects for peaceful unification have diminished.**
  - o Sentiment in Taiwan in favour of independent status has increased.
- The escalating military threats against Taiwan, through daily violations of its air defence identification zone (ADIZ) and aggressive naval manoeuvres in the Taiwan Strait are aimed at stopping any move towards independence and its closer military relationship with the U.S.

US policy

- The U.S. has declared that it will **"maintain the ability to come to Taiwan's defence"** while not committing itself to do so. This is the policy of **"strategic ambiguity"**.
- While the **U.S. does not support a declaration of independence by Taiwan**, it has gradually reversed the policy of avoiding official-level engagements with the Taiwan government.
- In a new incident last week, a **U.S. nuclear-powered submarine reportedly ran into an "unidentified object" while in the South China Sea.**
- The U.S. abides by the "Taiwan agreement", which means the U.S. would not overturn its one China policy.
- The recent crystallisation of the **Quad**, of which India is a part, and the announcement of the **Australia-U.K.-U.S. alliance, AUKUS,** may act as a deterrent against Chinese moves on Taiwan.
- But they may equally propel China to advance the unification agenda before the balance changes against it in the Indo-Pacific.

For these reasons, Taiwan is emerging as a potential trigger point for a clash of arms between the U.S. and China. In pursuing its Indo-Pacific strategy, India would do well to keep these possible scenarios in mind.

3. A carbon policy for the farm.

Context: The UK is set to host the 26th UN Climate Change Conference of the Parties (CoP26) in Glasgow from October 31 to November 12 with a view to accelerate action towards the Paris Agreement's goals. The focus should be on climate finance and transfer of green technologies at low cost.

Cause of concern for India

- According to the Global Carbon Atlas, India ranks third in total greenhouse gas emissions by emitting annually around **2.6 billion tonnes (Bt) CO2eq**, preceded by China (10 Bt CO2eq) and the United States (5.4 Bt CO2eq)
- India ranked seventh on the list of countries most affected due to extreme weather events, incurring losses of $69 billion (in PPP) in 2019 (Germanwatch, 2021).

- The fact that **22 of the 30 most polluted cities** in the world are in India is a major cause of concern.
- Delhi is the world's **most polluted capital** as per the World Air Quality Report, 2020.

Issues raised in global negotiation on climate change

- Nations are still quibbling about historical global emitters and who should take the blame and fix it.
- **Per capita emission:** Of the top five absolute emitters, the US has the highest per capita emissions (15.24 tonnes), followed by Russia (11.12 tonnes).
- **India's per capita emissions is just 1.8 tonnes,** significantly lower than the world average of **4.4 tonnes per capita.**

Sector-wise emission and share of agriculture in it

- The emissions pie in India owes its **largest chunk (44 per cent) to the energy sector**, followed by the **manufacturing and construction sector (18 per cent)**, and **agriculture, forestry and land use sectors (14 per cent),** with the remaining being shared by the transport, industrial processes and waste sectors.
- The share of agriculture in total emissions has gradually declined from **28 per cent in 1994 to 14 per cent in 2016.**
- However, **in absolute terms, emissions from agriculture have increased to about 650 Mt CO2 in 2018**, which is similar to China's emissions from agriculture.
- Agricultural emissions in India are primarily from the livestock sector (54.6 per cent) **in the form of methane emissions due to enteric fermentation** and the **use of nitrogenous fertilisers** in agricultural soils (19 per

cent) which emit nitrous oxides; rice cultivation (17.5 per cent) in **anaerobic conditions** accounts for a major portion of agricultural emissions followed by livestock management (6.9 per cent) and burning of crop residues (2.1 per cent).

Way forward: Carbon policy for agriculture

- **Reward farmers through carbon credit:** A carbon policy for agriculture must aim not only to reduce its emissions but also **reward farmers through carbon credits** which should be **globally tradable.**
- **Focus on livestock:** With the world's **largest livestock population (537 million),** India needs better feeding practices with smaller numbers of cattle by raising their productivity.
- **Switch areas from rice to maize**
- **Efficient fertiliser use:** Agricultural soils are the **largest single source of nitrous oxide (N2O) emissions** in the national inventory
- **Incentives and subsidies:** The government should **incentivise and give subsidies on drips** for fertigation, switching away from rice to corn or less water-intensive crops, and promoting soluble fertilisers at the same rate of subsidy as **granular urea.**

Conclusion

Carbon policy for agriculture in India would help it meet its goals in reducing emissions while making agriculture climate-resilient.

4. Taxing big techs where it earns profits.

Context: A global deal to ensure big companies pay a minimum tax rate of 15% and make it harder for them to avoid taxation has been agreed by 136 countries, the

Organisation for Economic Cooperation and Development said.

About:

- **Why a global minimum tax?** With budgets strained after the COVID-19 crisis, many governments want more than ever to discourage multinationals from shifting profits – and tax revenues – to low-tax countries regardless of where their sales are made.

How would a deal work?

- The global minimum tax rate would apply to overseas profits of multinational firms with 750 million euros ($868 million) in sales globally.
- Governments could still set whatever local corporate tax rate they want, but if companies pay lower rates in a particular country, their home governments could "top up" their taxes to the 15% minimum, eliminating the advantage of shifting profits.
- A second track of the overhaul would allow countries where revenues are earned to tax 25% of the largest multinationals' so-called excess profit – defined as profit in excess of 10% of revenue.

5. Study: Heatwave events increasing in India, occurring in new regions.

Context: According to a recent study, **more than 3,56,000 people died in 2019** as a result of extreme heat and that number is likely to grow in the future.

- **Recent heat waves across the world** have been alarming in terms of **global warming** and have been **attributed to climate change.**

Heat Waves:

- The **India Meteorological Department** requires that temperatures should reach at least 40°C in the plains and at least 30°C in the hilly regions, and should reflect an increase of at least 5°C-6°C above the normal temperature to be classified as a heatwave.

Impact of Heat Waves:

- **Heat Strokes:** The very high temperatures or humid conditions pose an elevated risk of **heat stroke** or heat exhaustion.
  - Older people and people with chronic illness such as **heart disease**, **respiratory disease**, and **diabetes** are more susceptible to heatstroke, as the body's ability to regulate heat deteriorates with age.
- **Increased Healthcare Costs:** Effects from extreme heat are also associated with increased hospitalisations and emergency room visits, increased deaths from cardio-respiratory and other diseases, mental health issues, adverse pregnancy and birth outcomes, etc.
- **Lessens Workers' Productivity:** Extreme heat also lessens worker productivity. These workers often report reduced work output due to heat stress.

- **Risk of Wildfires:** The **heat domes** act as fuel to **wildfires**, which destroys a lot of land area every year in countries like the US.
- **Prevents Cloud Formation:** The condition also prevents clouds from forming, **allowing for more radiation from the sun to hit the ground.**
- **Effect on Vegetation:** The trapping of heat can also damage crops, dry out vegetation and result in **droughts.**
- **Increased Energy Demands:** The sweltering heat wave also **leads to rise in energy demand,** especially electricity, leading to pushing up rates.
- **Power Related Issues:** Heat waves are often **high mortality disasters.**
  - Avoiding heat-related disasters depends on the resilience of the electrical grid, which can fail if electricity demand due to air conditioning use exceeds supply.
  - As a result, there is the **double risk of infrastructure failure and health impacts.**

Recommendations:
- **Cooling Measures:**
  - Effective and environmentally sustainable cooling measures can protect from the worst health impacts of heat.
- **Climate Change Mitigation:** Climate change mitigation **to reduce carbon emissions** and alter the further warming of the planet can also help.
- **Effective Prevention Measures:** Identifying timely and effective prevention

and response measures, particularly for low-resource settings can help in mitigating the problem.

Initiatives Taken:
- **Global:** Global forums dealing with climate change issues—such as the **World Health Organization, World Economic Forum**, **First Global Forum on Heat and Health,** and **the Global Forum for Environment-OECD**—also focus on heat waves by investing in research on health risks of extreme heat, climate and weather information, advice on surviving heat waves, partnerships and capacity building, and communications and outreach.
- **Indian:** The **National Disaster Management Authority (NDMA)** has issued **guidelines** on dealing with heatwaves.
  - However, India **does not recognise heatwaves as a disaster** under its Disaster Management Act (2005).

Way Forward
In alignment with the **Paris Agreement**, the study calls for global warming to be limited to 1.5°C to avoid substantial heat-related mortality in the future. Reducing the health impacts of extreme heat is an urgent priority and should include immediate changes to infrastructure, urban environment, and individual behaviour to prevent heat-related deaths.

1. Tackling the climate crisis.

The threat posed by climate change:

- According to the **Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report** the past decade (2011-2020) was warmer by 1.09°C than the period from 1850 to 1900, and the **5°C global warming threshold set as per the Paris Climate agreement is likely to be breached very soon.**
- This is likely to lead to **severe weather events** leading to large scale death and destruction. This will derail the global development process.
- Countries like India are likely to face more intense heat waves, heavy monsoons and rise in weather extremes in the future.
  - The **Global Climate Risk Index (2021) ranked India the seventh-most affected country by weather extremes.**

Climate action measures being taken in India:

Mitigation Measures:

- NITI Aayog in collaboration with US-based Rocky Mountain Institute (RMI) and RMI India, has launched a campaign named **Shoonya,** to promote zero-pollution delivery vehicles by working with consumers and industry. The campaign will **promote the adoption of electric vehicles (EVs)** in the urban deliveries segment and create consumer awareness about the health, environmental and economic benefits of electric vehicles.
- The **National Mission for Enhanced Energy Efficiency** announced as part of India's National Action plan for climate change aims for **reduction in energy and** **carbon intensity of the economy** in a bid for more sustainable economic growth.

- India aims to have 175 GWs by 2022 and **450 GWs of renewable energy capacity by 2030.**
- India has set ambitious solar energy missions. As part of its **National Solar Mission, India has set itself a target of 100 GW of solar power by 2022.**
- In a bid to adopt more environmentally sustainable energy sources India has also announced the setting up of **green hydrogen mission.**

Adaptation Meaures:

- The National Mission on Sustainable Habitat, **Water Mission**, Mission for Sustaining Himalayan Ecosystem and the **Mission for Sustainable Agriculture** all aim at **streamlining of adaptation measures in critical sectors**.
  - **National Innovations on Climate Resilient Agriculture** launched by Indian Council of Agricultural Research aims at strategic research, technology demonstrations and capacity building to make the critical agricultural sector more resilient to climate changes.
- The **National Adaptation Fund for Climate Change (NAFCC)** has been established to meet the cost of adaptation to climate change for the State and Union Territories of India that are particularly vulnerable to the adverse effects of climate change.
  - **NABARD has been designated as National Implementing Entity (NIE)** for implementation of adaptation projects under NAFCC by Govt. of India.

Recommendations: Proactive and timely need-based adaptation measures are the need

of the hour. To strengthen adaptation and resilience, India can consider the following measures.

Improving forecasting capability:
- Given the criticality of early warning systems in reducing the vulnerability to climate disasters, India should focus on **improving its forecasting capability with emphasis on high-quality meteorological data.**
- Premier research institutes must be roped in to **develop regional climate projections for robust risk assessments.**

Nature based solutions:
- Nature based solution should be promoted. There is the need to **protect mangroves and forests** to address climate-related risks by blending traditional knowledge with scientific evidence.

Decentralized approach:
- Adaptation planning requires **governance at different levels to understand, plan, coordinate, integrate** and act to reduce vulnerability and exposure.
  - This necessitates the need to **encourage local and non-state actors** to actively participate in adaptation measures against climate change.

Involving the private sector:
- A **more collaborative approach towards climate change adaptation involving the public and private sector is crucial.**
- There is the need to **encourage private sector participation** for investment in adaptation technologies and for designing and implementing innovative climate services and solution

Promoting sustainable products and their usage: India should work towards development of well-functioning markets for environmentally friendly products and disseminate them for the desired behavioural change.

Other measures: India should focus on creating **resilient infrastructural assets**, diversifying the economy and **enhancing the adaptive capacity of the most vulnerable sections** of the society through appropriate social protection schemes.

2. Why Rajasthan's marriage registration bill has kicked up a storm.

Context: The Rajasthan government has rolled back the Rajasthan Compulsory Registrations of Marriage Amendment Bill, 2021, after it got embroiled in controversy for making it mandatory to register all marriages, including those of minors.

Key Provisions of the Bill:
- The Bill sought to amend Sections 5 and 8 of the Act, dealing with the appointment of Marriage Registration Officers and the duty of parties to a marriage to submit the memorandum for registration.
- The amendment authorises the women above 18 years to provide information of their marriage on their own.

Controversial provisions: The amendment amends Section 8 of the Rajasthan Compulsory Registration of Marriages Act, 2009, which deals with "Duty to submit Memorandum".
- The original provision in the law required mandatory registration of marriage within 30 days if the bride and bridegroom were under 21 years of age. The age criterion for both men and women were the same. The

registration was to be done by their parents.

- The amended version said the parents must register the marriage within 30 days of the wedding "if the bride is under 18 and the bridegroom is under 21".

Implications of the move:

1. If passed, it would open the floodgates" for child marriage in the state and give "validation to what is a social evil".
2. Compulsory registration of child marriage would legitimise it.
3. Activists have also said the marriage certificate might in fact, contrary to government claims, become a hurdle in getting an annulment later as courts could cite lack of a marriage certificate as a reason to not grant an annulment.

3. Top Prize for labour economics.

Context: The 2021 Nobel Prize in Economic Sciences was awarded to three US-based economists.

Who are the awardees?

- Nobel Committee awarded half the Prize to **David Card** for his "empirical contributions to labour economics"
- Other half to **Guido Imbens** and **Joshua Angrist** "for their methodological contributions to the analysis of causal relationships"

What makes this year's award special?

- This is the first time the economic prize has been divided in this fashion with one half going to one awardee and other half divided across two awardees.
- In the past, prize money was divided equally between the awardees even if the prize was for different topics as is the case this time around.

What are Natural Experiments?

- Economists are often interested in causal questions such as the impact of education on incomes, impact of COVID-19 on poverty and so on.
- They are also interested is understanding the direction of causality.
- Economists have used two kinds of experiments to study these causality and direction of causality questions: random experiments and natural experiments.

(I) Random experiments

- Under randomized experiments, the researchers allocate say medicines to a treatment group and compare the effect of the medicine with the control group which is not given the medicine.

(II) Natural experiments

- In natural experiments, economists study a policy change or a historical event and try to determine the cause and effect relationship to explain these developments.
- The trio used such natural experiments to make some landmark contributions to economic development.
- Natural experiments are more difficult for two reasons. The first is to identify what will serve as a natural experiment.
- Second, in a random experiment, the researcher knows and controls the treatment and control groups which allows them to study the cause and effect of medicine.
- But in natural experiments, such clear differentiation is not possible because people choose their groups on their own and even move between the two groups.
- Despite the limitations, the researchers could use the natural setting to answer some big policy questions.

Natural experiments conducted by David Card

- One question of interest for policymakers is to understand the impact of higher minimum wages on employment.
- Earlier studies showed that increasing minimum wages leads to lower unemployment.
- Economists were also not sure of the direction of causation between minimum wages and employment.
- Say a slowdown in the economy leads to higher unemployment amid lower income groups.
- This could lead to lower income groups demanding higher minimum wages. In such a case, it is higher unemployment which leads higher minimum wages.

Contribution of Angrist and Imbens

- Angrist and Imbens showed how natural experiments can be used to identify cause and effect precisely.
- We have discussed above how natural experiments make it difficult to separate control and treatment groups. This makes it difficult to establish causal relations.
- In the 1990s, the duo developed a methodology – Local Average Treatment Effect (or LATE) – which uses a two-step process to help grapple with these problems of natural experiments.
- Say, one is interested in finding the impact of an additional year of schooling on the incomes of people.
- By using the LATE approach, they showed that effect on income of an additional year of education is around 9%.
- While it may not be possible to determine individuals in the group, one can estimate the size of the impact.

India context

- The methodology date back to the early and mid-90s and they have already had a tremendous influence on the research undertaken in several developing countries such as India.
- For instance, in India, too, it is commonly held that higher minimum wages will be counterproductive for workers.
- It is noteworthy that last year, in the wake of the Covid-induced lockdowns, several states, including UP, had summarily suspended several labour laws.
- This included the ones regulating minimum wages, arguing that such a move will boost employment.
- The main learning is that minimum wages can be increased in India without worrying about reducing employment.

4. Public – Private Partnership breaches space frontier.

Context: The PM has launched the Indian Space Association (ISpA), an industry body consisting of various stakeholders of the Indian space domain.

Indian Space Association (ISpA)

- The ISpA is a premier industry association of space and satellite companies, which aspires to be the collective voice of the Indian space industry.
- It will be headed by retired Lieutenant General AK Bhatt, who will be its Director General.
- It will target to undertake policy advocacy and engage with all stakeholders in the Indian space domain. It will engage with the government and all its agencies.

Why is the formation of ISpA significant?
- **Million-dollar industry:** Governments across the world have poured millions of

Natural experiments conducted by David Card

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Details:

- The focus of this round of talks was working out the third phase of disengagement from Patrolling Point 15 in Hot Springs as part of the overall disengagement and de-escalation along the Line of Actual Control (LAC).
- The Corps Commanders were also set to work out new protocols for patrolling.

Issue:

- The Indian side pointed out that the situation along the LAC had been caused by unilateral attempts of Chinese side to alter the status quo and in violation of the bilateral agreements.

- Both sides are preparing to be deployed in the high altitude areas of eastern Ladakh for the second straight winter in 2021. In this backdrop, China is continuing the build-up of troops and infrastructure on its side along the Line of Actual Control.

Concerns:

- This impasse has left tens of thousands of soldiers facing the prospect of another harsh cold season on the heights of Eastern Ladakh, with no resolution in sight.
- This leaves the LAC in a perilous situation.
- The latest round was to discuss Hot Springs, while disputes remain over Demchok and Depsang. At present, several hotspots unresolved.

With India China relations at their lowest, there is an urgent need to find an early resolution to all the remaining issues along the Line of Actual Control (LAC) in Eastern Ladakh.

1. China launches biodiversity fund.

Context: China pledged to inject $233 million into a new fund to protect biodiversity in developing countries during a key UN conservation summit, despite disagreements among major donors on the initiative.

Background
- Beijing (the world's biggest polluter) has sought to play a more prominent role internationally on biodiversity conservation in recent years.
- Its pledge came as delegates from about 195 countries gathered in the southern Chinese city of Kunming for the first of a two-part summit on safeguarding plants, animals and ecosystems.
- The summit aims to establish a new accord setting out targets for 2030 and 2050.
- According to China, it will take the lead in establishing the Kunming biodiversity fund with a capital contribution of 1.5 billion yuan ($233 million) to support the cause of biodiversity conservation in developing countries.

'30 by 30' agenda
- A key proposal being debated at the conference is the "30 by 30" agenda that would afford 30% of the Earth's land and oceans protected status by 2030.
- Global spending to protect and restore nature needs to triple this decade to about $350 billion annually by 2030 and $536 billion by 2050 to meet this target, a UN report said in May.
- But some rich country donors say a new fund for conservation is unnecessary because the United

Nations' Global Environment Facility already helps developing nations finance green projects.

2. Govt. announces plastic waste recycling targets.

Context: The Environment Ministry has issued plastic waste recycling targets.

Details:
- The draft rules mandate producers of plastic packaging material to collect all of their produce by 2024 and ensure that a minimum percentage of it be recycled as well as used in subsequent supply.
- It has also specified a system whereby makers and users of plastic packaging could collect certificates — called Extended Producer Responsibility (EPR) certificates — and trade in them.
- Only a fraction of plastic that cannot be recycled — such as multi-layered multi-material plastics — would be eligible to be sent for end-of-life disposal such as road construction, waste to energy, waste to oil and cement kilns.
- Only methods prescribed by the Central Pollution Control Board (CPCB) would be permitted for their disposal.
- Producers of plastic would be obliged to declare to the government, via a centralised website, how much plastic they produce annually.
  - Companies would have to collect at least 35% of the target in 2021-22, 70% by 2022-23 and 100% by 2024.
  - In 2024, a minimum of 50% of the rigid plastic (category 1) would have to be recycled as

would 30% of their category 2 and 3 plastic.
- o Every year would see progressively higher targets and after 2026-27, 80% of their category 1 and 60% of the other two categories would need to be recycled.
- If entities cannot fulfil their obligations, they would on a "case by case basis" be permitted to buy certificates making up for their shortfall from organisations that have used recycled content in excess of their obligation.
- Non-compliance would not invite a traditional fine. Instead, an "environmental compensation" would be levied.

Plastic packaging Categories:
- Category 1 is "rigid" plastic;
- Category 2 is "flexible plastic packaging of single layer or multilayer (more than one layer with different types of plastic), plastic sheets and covers made of plastic sheet, carry bags (including carry bags made of compostable plastics), plastic sachet or pouches;
- Category 3 is called multilayered plastic packaging, which has at least one layer of plastic and at least one layer of material other than plastic.

3. Do not breathe easy on the silicosis prevention policy.

Context: Countless workers engaged in mines, construction and factories in India are silently dying of exposure to dust, utmost exploitation and apathy.

Silicosis: It is part of the **pneumoconiosis** family of diseases, described by the policy as **"occupational diseases** due to dust exposure... are incurable, cause permanent disability and are 'totally preventable by available control measures and technology' (emphasis added)".

Steps taken in this regard:
- **A 'silicosis portal'** was hosted by the **Department of Social Justice and Empowerment** and a system of worker self-registration, diagnosis through district-level pneumoconiosis boards and compensation from the District Mineral Foundation Trust (DMFT) funds to which mine owners contribute, was put in place.
- **Rajasthan's scenario:** It has the top-most share of over 17% in value of mineral production in the country. It was the first to notify silicosis as an 'epidemic' in 2015, under the Rajasthan Epidemic Diseases Act, 1957. In 2019, it announced a formal Pneumoconiosis Policy, only next to Haryana.
- Implementation of the **Occupational Safety, Health and Working Conditions (OSHWC) Code, 2020.** The immediate impetus for silicosis prevention could come from two related places in the **OSHWC Code.**
- **Section 6** of the Code makes it **mandatory for all employers to provide annual health checks** free of cost for certain employees
- **Section 20** gives **powers to the DGMS to conduct health and occupational surveys** in mines.

Challenges:
- **Exploitation of workers:** present system is designed to 'consume' the worker and dispense with him with a small compensation while the mine owner sits back and continues to hire the next able

worker — an inhuman cycle, which the Government is complicit in.

- **Non-reporting of cases - an otherwise legal requirement:** In the mining sector alone, none of the silicosis cases diagnosed has been notified by mine owners or reported by the examining doctors to the Directorate General of Mines Safety (DGMS), Ministry of Labour and Employment. But this is what they are legally required to do, according to **Section 25 of the erstwhile Mines Act, 1952** and **Section 12 of the now-effective OSHWC Code, 2020.**

- The DGMS, the sole enforcement authority for health and safety in mines, can take action against registered mine owners only.. But only 10% - 20% of the over 33,100 mining leases and quarry licences in Rajasthan are DGMS-registered.

- **Labour Code dilutions:** The **occupational safety code** sections are severely diluted from the earlier Mines Act provisions, which in turn, were simply never implemented.

- Section 20 places no obligation on the mine owner to provide any form of rehabilitation in terms of alternative employment in the mine, or payment of a disability allowance/lump sum compensation for a worker found medically unfit.

- A **'medically unfit' worker** is thus expected to leave the job and fend for themselves or subsist on the compensation of ₹3 lakh provided in Rajasthan from the DMFT — and not even that, perhaps, in other States.

- **DMFT fund lies under utilized:** The DMFT funds are both underutilised and spent in an entirely ad hoc manner.

Steps for prevention:
- State departments, in close dialogue with the DGMS, must urgently **draw up detailed guidelines** for district-wise health surveys.

- **Local manufacturers must be incentivised to innovate and develop low-cost dust-suppressant and wet-drilling mechanisms** that could either be subsidised or provided free of cost to the mine owners. Existing prototypes must be tested and scaled up.

- **DMFT funds must be streamlined and accountable system for the direct benefit of mineworkers** under clearly defined budget heads such as prevention, disability compensation, solatium, administrative expenses and others.

Conclusion: A systematic identification ultimately lies in the hands of the authorities and their will to enforce the law in this regard and a rising among the workers for their rights. No more time must be lost in bringing prevention to the heart of the pneumoconiosis policy.

4. Boost tourism through disruption.

Context: Given their contact intensive nature, **the Indian tourism and hospitality sector was adversely affected by the COVID-19 pandemic** and it experienced substantial job loss. In this context, the article discusses the measures required to revive the sector.

India's performance in the sector:
- India has improved its competitiveness in travel and tourism. **India has improved its ranking in the Travel and Tourism Competitiveness Report from 65 in 2013 to 34 in 2019.**

- Despite being home to diverse natural landscapes as well as a rich cultural

heritage, India has not been able to use this to its advantage. **The international arrivals have remained comparatively low in India,** at around 9 to 10 million.

Significance of the sector:
The tourism and hospitality sector has **huge potential in India**.

- The **employment generation capacity** of the sector is much higher compared to the agricultural or manufacturing sector
- The tourism sector, unlike many other sectors, **can grow with smaller capital investments and that too without any industrial gestation period.**

Measures already taken by the government:

- In the pre-pandemic period, many initiatives were adopted to promote the tourism sector, such as providing **e-visas** under various categories for people from particular countries, **Global Media Campaigns** and the **Paryatan Parv celebration.**
- In the post-pandemic phase, the Government of India has announced **financial support for more than 11,000 registered tourist guides/travel and tourism stakeholders**. It has also announced the issuance of five lakh free tourist visas once international travel resumes.

Recommendations:
Skilling the workforce: There is a need to **train the workforce in India** so that workers can develop the skills to perform jobs in the travel and tourism sector.

Public-private partnership:

- **Travel and tourism startups should be encouraged** with active support

from the government for ideation and access to finance.

Use of technology: Frontier technologies like blockchain technology should be harnessed for use in the sector.

- Blockchain ledger coupled with IOT devices for healthcare could have a positive impact on medical tourism.
- Blockchain-based money solutions could help kick-start local tourism industries.

Conclusion:
India needs a comprehensive disruptive innovation strategy to tap the potential of the tourism and hospitality sector to create employment opportunities and create avenues for economic growth.

5. Why govt proposes to redefine forests, and the concern in raises.

Context: The Ministry for Environment, Forests and Climate Change (MoEFCC) has published proposed amendments to the Forest Conservation Act, 1980.

The Forest (Conservation) Act, 1980
The FCA is the principal legislation that regulates deforestation in the country.

- It prohibits the felling of forests for any "non-forestry" use without prior clearance by the central government.
- The clearance process includes seeking consent from local forest rights-holders and from wildlife authorities.
- In a landmark decision in in **T N Godavarman Thirumulpad v Union of India Case**, 1996, the Supreme Court had expanded the coverage of FCA to all areas that satisfied the dictionary definition of a forest; earlier, only lands specifically notified as

forests were protected by the enforcement of the FCA.

Why is the Act being amended now?
- The current definition of forests has locked land across the country; even private owners cannot utilise their own property for non-forestry purposes.
- The pressure for forest land diversion has been coming from — Ministries such as Rail and Roads.
- Under the Act, any diversion of any forest land for any purpose, including assignment of leases, needs prior approval of the Centre.

What are the proposed amendments?
(A) Exemptions for Road and Railways:
The MoEFCC has proposed that all land acquired by the Railways and Roads Ministries prior to 1980 be exempted from the Act.
- Once the lands had been acquired for expansion, but subsequently, forests have grown in these areas, and the government is no longer able to use the land for expansion.
- The Ministries will no longer need clearance for their projects, nor pay compensatory levies to build there.

(B) Relaxation: It distinguishes individuals whose lands fall within a state-specific Private Forests Act or comes within the dictionary meaning of forest as specified in the 1996 Supreme Court order.
- The government proposes to allow the "construction of structures for bona fide purposes'' including residential units up to 250 sq m as a one-time relaxation.

(C) Defense and other projects: Defence projects near international borders will be exempted from forest clearance.

- Oil and natural gas extraction from forested lands will be permitted, but only if technologies such as Extended Reach Drilling are used.
- Strip plantations alongside roads that would fall under the Act will be exempted.

What are the concerns?
- **Legalizing private ownership of forests:** The rules will facilitate corporate ownership.
- **Deforestation:** The exemption of forests on private land will lead to the disappearance of large tracts of forests.
- **Fragmentation:** Exemption for private residences on private forest will lead to fragmentation of forests, and open areas such as the Aravalli mountains to real estate.
- **Tribal concerns:** The amendments do not address what will happen to tribals and forest-dwelling communities over the cleared lands.
- **Threat to wildlife:** Exemption for roads and railways on forest land acquired prior to 1980 will be detrimental to forests as well as wildlife – especially elephants, tigers and leopards.

Positives with the amendment
- It has proposed making forest laws more stringent for notified forests, making offences non-bailable with increased penalties including imprisonment of up to one year.
- It has disallowed any kind of diversion in certain forests.
- It has attempt to define and identify forests once and for all — something that has been often ambiguous.

1. 'Gati Shakti' will boost infra projects: PM.

Context: Prime Minister Narendra Modi on Wednesday kicked off 'PM Gati Shakti', a national master plan for synchronising connectivity infrastructure projects across modes of transport, and said it will help India realise its dream of becoming the "business capital" of the world.

Key Points
- Gati Shakti scheme was announced by PM Modi on Independence Day, 2021.
- This Masterplan will bring together 16 Ministries and seven core infrastructure sectors, on a single platform in order to synergise project planning across stakeholder ministries for avoiding duplication, plug gaps and expedite clearances at the right time.

About Gati Shakti Platform
Gati Shakti platform was launched to provide information instantaneously. It will allow for better coordination among ministries. Gati Shakti Scheme was launched with the aim of achieving three basic goals namely:
1. Seamless multimodal connectivity for facilitating easy movement of goods & people,
2. Improved prioritisation, optimal usage of resources, timely creation of capacities, and
3. Resolution of issues like disjointed planning, standardisation & clearances.

Aim of the Master Plan
- This Master Plan will provide a framework for 'National Infrastructure Pipeline program'.
- The plan also aims to make Indian products more competitive by cutting down their logistics costs and improving supply chains. It also aims to give a foundation for holistic infrastructure and an integrated pathway for the economy.
- It will the local manufacturers of India in turning globally competitive.
- Apart from that, this scheme of worth over one hundred lakh crore rupees will create employment opportunities for the youth.
- It seeks to attract investment from worldwide to improve the infrastructure in India and will provide new direction & fresh momentum for overall infrastructure development in India.

Significance of the Plan
It is a seamless multi-modal connectivity platform and will ensure seamless movement of goods & people and will enhance ease of living & ease of doing business.

2. Deconstructing climate finance.

Context: In the run-up to the 26th UNFCCC media reports have claimed that developed countries are inching closer to the target of providing $100 billion annually. This view has been bolstered by the Organisation for Economic Co-operation and Development (OECD), which claimed that climate finance provided by developed countries had reached $78.9 billion in 2018.

Issue of climate financing and claim of reaching the target of $100 billion
- **Inclusion of Private Finance:** the OECD figure includes private finance and export credits. These claims reaching the target of $100 billion annually is erroneous.
  - However, the OECD report makes it clear that the public finance component **amounted to only $62.2 billion in 2018,** with bilateral funding of

about $32.7 billion and $29.2 billion through multilateral institutions.

- **Nature of finance:** Significantly, the final figure comes by **adding loans and grants.** Of the public finance component, loans comprise 74%, while **grants make up only 20%.**
- **Non-concessional loans:** From 2016 to 2018, 20% of bilateral loans, 76% of loans provided by multilateral development banks and 46% of loans provided by multilateral **climate funds were non-concessional.**
- **Differing Views:** In contrast to the OECD report, Oxfam estimates that in 2017-18, out of an average of $59.5 billion of public climate finance reported by developed countries, the climate-specific net assistance ranged only between **$19 and $22.5 billion per year.**
    - **The 2018 Biennial Assessment of UNFCCC's Standing Committee on Finance** reports that on average, developed countries provided only $26 billion per year as climate-specific finance between 2011-2016

Finance skews toward mitigation
- Climate finance has also remained skewed towards mitigation, despite the repeated calls for maintaining a balance between adaptation and mitigation.
- The 2016 **Adaptation Gap Report of the UN Environment Programme** had noted that the annual costs of adaptation in developing countries could range from $140 to $300 billion annually by 2030 and rise to $500 billion by 2050.

- Currently available adaptation finance is significantly lower than the needs expressed in the Nationally Determined Contributions submitted by developing countries.

Conclusion

Delivering on climate finance is fundamental to trust in the multilateral process. Regrettably, while developing countries will continue to pressure developed countries to live up to their promises, the history of climate negotiations is not in their favour.

3. Sowing better to eat better.

Context: The findings from the first round of the **5th National Family Health Survey (NFHS)** suggest that nutrition-related indicators have worsened in most States. The survey covers 17 States and five Union Territories, which comprise 54% of India's population. In addition, findings from the Comprehensive National Nutrition Survey (2016-18) have highlighted the role of micro-nutrient malnutrition.

- India produces sufficient food, feed and fibre to sustain about 18% of the world's population (as of 2020).
- Agriculture contributes about 16.5% to India's GDP and employs 42.3% of the workforce (2019-20).
- Yet there is malnutrition.

Malnutrition refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. The term malnutrition covers 2 broad groups of conditions.

1. **'undernutrition'**—which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals).

2. **Overweight, obesity and diet-related noncommunicable diseases** (such as heart disease, stroke, diabetes, and cancer).

Addressing various types of deficiencies - The way forward for India:

- **Calorie deficiency:** Effective use of provisions of **NFSA, 2013.** Taking advantage of **Enlarged food basket** which includes millets in addition to rice & wheat.
- **Protein deficiency:** Assuring increased **protein intake** by increased pulses **production** & increased consumption of **milk** & **poultry** products.
- **Hidden Hunger:** through establishment of **genetic gardens**.
- **Anaemia:** iron deficiency causing chronic systemic inflammation possibly a national grid of genetic gardens of bio-fortified plants.
- **Food Quality & Safety**: There should be a provision of clean drinking water, sanitation, primary healthcare & Nutrition literacy. Improving post-harvest management.

Reform at a deeper level - A multi-pronged approach to sustainable agriculture

- **Multi-pronged approach:** Pathways for nutritional security consist of improving dietary diversity, kitchen gardens, reducing post-harvest losses, making safety net programmes more nutrition-sensitive, women's empowerment, enforcement of standards and regulations, improving Water, Sanitation and Hygiene, nutrition education, and effective use of digital technology.
- **Minimization of cost on climate:** the agri-food systems need to be reoriented to minimise cost on the environment and the climate.

- **Protecting diversity:** The more diverse an agricultural system, the greater its ability to adapt to shocks.
- **Integration of agriculture:** Different combinations of integrated crop-livestock-forestry-fishery systems can help farmers produce a variety of products in the same area, at the same time or in rotation.

Conclusion: In January this year, FAO in collaboration with NITI Aayog and the Ministry of Agriculture convened a National Dialogue to evolve a framework for the transition to a more sustainable agri-food systems by 2030 and identify pathways for enhancing farmers' income and achieving nutritional security. For Indians to eat better, India must sow better. A structural shift in dietary pattern and nutrition requires a shift in production.

4. India at 3rd in RE investment attractiveness index.

Context: India has retained the third rank in the Renewable Energy Country Attractiveness Index released by consultancy firm EY.

RE Country Attractiveness Index (RECAI)
- The RECAI ranks the world's top 40 markets on the attractiveness of their renewable energy investment and deployment opportunities.
- The rankings reflect assessments of market attractiveness and global market trends.

India's performance
- India remained at the third position since three consecutive years.
- India's thriving renewable energy market conditions, inclusive policy decisions, investment and technology improvements focusing on self-reliant supply chains have pushed the transition.

- RECAI highlights that corporate power purchase agreements (PPAs) are emerging as a key driver of clean energy growth.
- A new PPA Index – introduced in this edition of RECAI – focuses on the attractiveness of renewable power procurement and ranks the growth potential of a nation's corporate PPA market.
- India is ranked sixth among the top 30 PPA markets.

Global scenario

- The US, mainland China and India continue to retain the top three rankings and Indonesia is a new entrant to the RECAI.
- The top-performing markets have held their ground in this latest issue – with no movement into or out of the top eight.
- France (fourth position, up by one) and the UK (fifth position, down by one), while Germany (sixth position, up by one) has edged back ahead of Australia (seventh position, down by one).

5. A blanket cover.

Context: Recently, the Bombay HC passed guidelines concerning the Prevention Of Sexual Harassment Act (POSH) case that appears to be prohibitive & set a dangerous precedent.

In detail about the Guidelines:

- The guidelines prohibit the disclosure of the victim's, accused & witnesses' identities.
- It mandates that all such court hearings be held in-camera or in judges' chambers with only court stenographer, plaintiff, defendant & their lawyers being present.
- Even the orders & judgments will not be delivered in the open court.

- It prohibits all parties from disclosing any information relating to POSH trials to the media or in any form without permission from the court.
  - Breaching the court's order will amount to contempt of court.
  - Therefore, POSH cases judgments will no longer be published or uploaded for public consumption without court permission.
  - Even with permission, censored & anonymized version is allowed.

Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013 (POSH Act)

- It mandates that govt & private organizations redress complaints of sexual harassment at the workplace in a manner that is simpler & quicker than the judicial process.
- The Act defines sexual harassment at the workplace.
  - It creates a mechanism for redressal of complaints.
  - It also provides safeguards against false or malicious charges.
- Every workplace is required to constitute an Internal Complaints Committee (ICC).
  - The ICC is mandatory at each office or branch with 10 or more employees.
  - It has the powers of civil courts for gathering evidence.
- It prescribes penalties for employers. Non-compliance with the provisions of the Act shall be punishable with a fine

Consequences of the Judgment:

- The blanket ban imposed by these guidelines i.e. prohibiting the revelation of identities of anyone including the accused will **encourage habitual offenders to move freely.**

- Till now any law corresponding to any of the **crimes has not extended this veil of confidentiality to the accused**.
    - o Extending this confidentiality to the accused is a unfathomable mistake of the court.
- It could also prevent the public from learning about the actions of powerful employers accused of protecting perpetrators.
- Further not allowing POSH judgments to be published without court approval, & restricting access to such judgments goes against the need for transparency & accountability in the judicial process.

- o It prevents access to information that would otherwise assist in the better resolution of sexual harassment complaints.

Concluding Remarks:

In the current society, the reality of sexual harassment goes unnoticed & unspoken most of the time. It requires a lot of courage to raise a voice against powerful perpetrators bringing to light a truth that is hard for society to accept. A Judgment like the above could in effect lead to the silencing of many such voices without doing anything much to prevent future sexual harassment.

1. A stronger and finer frame.

Context: The bureaucracy that took India through the last 75 years can't be the one to take it through the next 75 — we need a proactive, imaginative, technology-savvy, enabling bureaucracy.

Role of bureaucracy
- The civil services, and the Indian Administrative Service (IAS) in particular played important role in holding India together post-Independence.
- Much of the impressive nation-building across sectors happened because of their dedication and commitment.
- It is also forgotten that the bureaucracy, unlike the private sector, is **a creature of the Constitution** and is bound by multiple rules, laws, and procedures.

Challenges faced by bureaucracy
- **Understaffed:** As per estimates compiled by the Institute of Conflict Management, the government of India (GOI) has about 364 government servants for every 1,00,000 residents, with 45 per cent in the railways alone.
  - About 60 per cent and 30 per cent are in Groups C and D, respectively, leaving a skeletal skilled staff of just about 7 per cent to man critical positions.
- **Inaction:** Further, faced with extensive **judicial overreach** reporting to an often rapacious, short-sighted political executive, and a media ever ready to play the role of judge, jury and executioner, the bureaucracy has in large part found comfort in i**naction and ensuring audit-proof file work.**

Suggestions
- **Get out of business:** many sectors is well-recognised — leave them to the markets — and politicians must get bureaucrats out of business, in more ways than one.
- **Prevent punitive actions:** To increase the officers' willingness to take decisions, one possible solution is to legally prevent enforcement agencies from taking punitive action, like arrest for purely economic decisions without any direct evidence of kickbacks.
- **Lateral entry:** needs to expand to up to **15 per cent** of Joint/Additional and Secretary-level positions in GOI.
- **Recruitment process:** Changes in recruitment procedures, like the interview group spending considerable time with the candidates, along with psychometric tests, will improve the incoming pool of civil servants.
- **Evaluation:** Most importantly, after 15 years of service, all officers must undergo a thorough evaluation to enable them to move further, and those who do not make it should be put out to pasture.
- **Adoption of technology:** Every modern bureaucracy in the world works on technology-enabled productivity and collaboration tools.

Conclusion
India cannot hope to get to a $5-trillion economy without a modern, progressive, results-oriented bureaucracy, one which says "why not?" instead of "why?" when confronted with problems.

2. India gets re-elected to UNHRC for 2022-24 term.

Context: India has been re-elected to the UN Human Rights Council (2022-24) for a record 6th term with an overwhelming majority.

- It vowed to continue to work for the promotion and protection of Human Rights through "Samman, Samvad and Sahyog."

Key takeaways

- India's current term was set to end on December 31 2021.

- **Countries elected by the UN General Assembly through secret ballot**: Argentina, Benin, Cameroon, Eritrea, Finland, Gambia, Honduras, India, Kazakhstan, Lithuania, Luxembourg, Malaysia, Montenegro, Paraguay, Qatar, Somalia, UAE and the US.

- USA, which had quit the council in 2018 under the previous Donald Trump's regime, was re-elected to the global rights body for a period of three-and-a-half years.
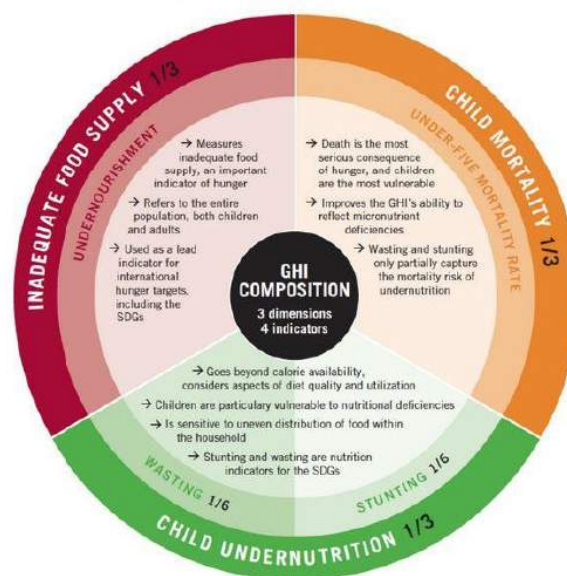
About UN Human Rights Council

- It is an inter-governmental body within the United Nations which consists of 47 Member States elected directly and individually by secret ballot by the majority of the members of the General Assembly.

- **Location**: Geneva.

- **Establishment**: It was founded in 2006.

- **Functions**: (1) It investigates allegations of breaches of human rights in UN member states; (2) It also addresses important thematic human rights issues such as freedom of expression, women's rights, LGBT rights, and the rights of racial and ethnic minorities.

- The members of the Council shall serve for a period of three years and shall not be eligible for immediate re-election after two consecutive terms.

- The membership is based on equitable geographical distribution.

3. Global hunger Index: India slips to rank 101.

Context: The Global Hunger Index 2021 has ranked India at 101 positions out of a total 116 countries.

Global Hunger Index (GHI)

- The Global Hunger Index is a peer-reviewed annual report, jointly published by Concern Worldwide and Welthungerhilfe.

- It determines hunger on a 100-point scale, where 0 is the best possible score (no hunger) and 100 is the worst.

- It is designed to comprehensively measure and track hunger at the global, regional, and country levels.

- The aim of the GHI is to trigger action to reduce hunger around the world.

For each country in the list, the GHI looks at four indicators:

1. **Undernourishment** (which reflects inadequate food availability): calculated by the share of the population that is undernourished (that is, whose caloric intake is insufficient)

2. **Child Wasting** (which reflects acute undernutrition): calculated by the share of children under the age of five who are

wasted (that is, those who have low weight for their height)

3. **Child Stunting** (which reflects chronic undernutrition): calculated by the share of children under the age of five who are stunted (that is, those who have low height for their age)

4. **Child Mortality** (which reflects both inadequate nutrition and unhealthy environment): calculated by the mortality rate of children under the age of five.

India's (poor) performance

- India is among the 31 countries where hunger has been identified as serious.
- Only 15 countries fare worse than India.
- Some of these include Afghanistan (103), Nigeria (103), Congo (105), Mozambique (106), Sierra Leone (106), Timor-Leste (108), Haiti (109), Liberia (110), Madagascar (111) and Somalia (116).
- India was also behind most of the neighbouring countries.
- Pakistan was placed at 92 rank, Nepal at 76 and Bangladesh also at 76.

Reasons for such poor performance

- **Poor maternal health:** Mothers are too young, too short, too thin and too undernourished themselves, before they get pregnant, during pregnancy, and then after giving birth, during breast-feeding.
- **Poor sanitation:** Poor sanitation, leading to diarrhoea, is another major cause of child wasting and stunting.
- **Food insecurity:** Low dietary diversity in India is also a key factor in child malnutrition.
- **Poverty:** Almost 50 million households in India are dependent on these small and marginal holdings.
- **Livelihood loss:** The rural livelihoods loss after COVID and lack of income opportunities other than the farm sector

have contributed heavily to the growing joblessness in rural areas.

Issues over credibility of GHI

- India has ranked among many African countries while it is among the top 10 food-producing countries in the world.

4. BSF powers and jurisdictions.

Context: Home Ministry has enhanced the powers of Border Security Force (BSF). Under the enhanced power, officers will have the power to search and arrest.

What are the enhanced powers?

- Officers will also have the power of seizure up to the extent of 50 km in three new states which are sharing international boundaries with Pakistan and Bangladesh.
- They have been given the right to take this action under the Code of Criminal Procedure (CrPC), Passport Act and Passport (Entry to India) Act.
- BSF officers will be able to conduct searches and arrests across a wider area in the states of Punjab, West Bengal and Assam.

- In the mentioned states, the BSF will have the right to search and arrest just like state police.
- They also have the power to search and arrest in Mizoram, Nagaland, Manipur, Tripura, and Ladakh.

Why this decision was taken?

- As per Ministry of Home Affairs (MHA), the decision to expand the jurisdiction of BSF was taken in the backdrop of recent droppings of drone weapons from across the border.
- This decision will help in curbing illegal activities related to national security across 10 states and two Union Territories.
- However, it is likely to raise administrative and political issues.

What are the concerns?

The primary goal of the BSF is to guard borders and stop infiltration. But the recent dropping of drones shows that they have failed to guard the delineated line. As per critiques, this decision might lead to regular confrontations with local police as well as villagers, when searches and seizures will be done.

1. U.S.-India ministerial dialogue adds focus on climate finance.

Context: Finance Minister and U.S. Treasury Secretary met for the eighth ministerial meeting of the U.S.-India Economic and Financial partnership.

- The ministerial held a session dedicated to climate finance for the first time.
- India and the US reaffirmed the collective developed country goal to mobilise $100 billion annually for developing countries from public and private sources, in the context of meaningful mitigation actions and transparency on implementation.
- With UN Climate Change Conference (COP26) in Glasgow coming up, India has been pushing for rich countries to meet their Paris Accord climate finance commitment of $100 billion per year.

Note:
India has been under pressure, including from the U.S. and U.K., to provide a deadline to reach 'Net Zero' emissions. India has so far not made commitments beyond its Paris-related goals and has argued that rich countries must move towards 'net minus' commitments.

2. Former CECs flag security concerns over e-voting.

Context: Telangana State Election Commission (SEC) is set to carry out an e-voting experiment and the Election Commission of India (EC) is also exploring remote voting.

- This would involve voting from another location set up by the authorities and not Internet-based voting from home.

Concerns:

- Former Chief Election Commissioners (CEC) have raised a range of concerns over the idea of online voting and remote voting.
- If the security of EVMs that are standalone devices is being questioned from time to time, then Internet-based voting would have even more critics.
- In case of e-voting several concerns arise with respect to maintaining secrecy of ballots and even bringing political parties on board.
- With respect to the e-voting plan, it is so far not clear how verification of voter identification, maintaining a free voting environment and secrecy of ballots would be maintained.

Security, verification, and anonymity are of utmost importance when it comes to voting. In case of e-voting, one of the largest complications is that an anonymous vote makes it very difficult to verify whether the result is accurate or if there has been a security compromise.

3. Fast forward & Connecting ministries for infra projects.

Context: Prime Minister Narendra Modi has launched a national master plan for multi-modal connectivity that aims to develop infrastructure **to reduce logistic costs and boost the economy.**

Details

- It is a digital platform which will bring Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects.
  - The plan aims to lend more power and speed to projects by connecting

all concerned departments on one platform
- It will incorporate the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN etc.
- Economic Zones like textile clusters, pharmaceutical clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, agri zones will be covered to improve connectivity & make Indian businesses more competitive.
- It will also leverage technology extensively including spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics).

Role of States
- States have a crucial role, considering that key pieces of the plan such as port linkages and land availability for highways, railways, industrial clusters and corridors depend on political consensus and active partnership.

Why was it launched?
- There was a lethargic approach to development work, with departments working in silos and there was no coordination on projects.
    - Example: A new good quality road is constructed by one department, and a few days later another department digs that very road to lay water pipelines. This shows lack of coordination
    - To overcome the difficulties, Gati Shakti joins different departments for the **coordinated development of projects** from road to railways, aviation to agriculture

- India has a high logistics cost at 13-14 per cent of GDP.
    - It was impacting competitiveness in exports. Gati Shakti is aimed at **reducing logistic cost and turnaround time**.

Significance
- The multi-modal connectivity will provide **integrated and seamless connectivity for movement of people, goods and services** from one mode of transport to another.
- It will facilitate the **last mile connectivity of infrastructure** and also reduce travel time for people.
- It will help **improve global competitiveness, promote manufacturing and modernize infrastructure** in the country
- Gati Shakti plan will help **raise the global profile of local manufacturers** and help them compete with their counterparts worldwide.
- The project can **generate employment** opportunities for the youth in future.
- GatiShakti portal would **help reduce the human intervention** required as ministries will be in constant touch, and projects will be reviewed by the project monitoring group in real time.

Way forward
- Given the Centre's inclination towards Geographic Information Systems and remote sensing to identify potential industrial areas, policymakers should reclaim lands already subjected to degradation and pollution, rather than alienate controversial new parcels.

4. Securing the states.

Context: The Ministry of Home Affairs recently issued a notification extending the jurisdiction of the Border Security Force from 15 km to a depth of 50 km along the international borders in three states — Punjab, Assam and West Bengal.

Background of the notification about jurisdiction of BSF
- The last **notification of the MHA (July 3, 2014),** which defined the jurisdiction of the BSF, stated that the force could operate in the **entire states of Nagaland, Manipur, Mizoram, Tripura and Meghalaya** without any restrictions whatsoever.
- Under the **latest notification issued on October 11, 2021**, there is no change in the northeastern states and Rajasthan.
- In Gujarat, jurisdiction has been reduced from 80 km to 50 km.
- The controversial change is in Assam, West Bengal and Punjab, where the BSF jurisdiction has been extended from 15 km to 50 km.

Why the government of India decided to extend the jurisdiction of BSF?
- Assam, West Bengal and Punjab have international borders.
- Changed threat perception: The threat perception from across the international borders has undergone a sea change in the context of recent developments in the Af-Pak region.
- Efforts to destabilise Punjab: Radical groups of different shades are feeling emboldened and are going to make a determined attempt to destabilise Punjab.
- Pakistan-sponsored terrorist groups, particularly the Lashkar-e-Toiba and Jaish-e-Muhammad, will almost certainly renew their onslaught in the border states.

- West Bengal has already undergone a huge demographic change.
- Assam faces multiple problems of ethnic insurgencies, smuggling, counterfeit currency, drug trafficking, etc.
- Police need assistance: The police across the country are in a state of atrophy and they need the assistance of central armed police forces for the emerging trans-border threats.

Implications for powers of police and federalism
- The home ministry's latest notification only seeks to reinforce the capabilities of the state police in securing the states under section 139 of the BSF Act, which empowers the members of the force to discharge certain powers and duties within local limits of the areas specified in the schedule.
- The jurisdiction of the state police has neither been curtailed nor its powers reduced in any manner.
- It is just that the BSF will also be exercising powers of search, seizure and arrest in respect of only the Passport Act 1967, Passport (Entry into India) Act 1920 and specified sections of the Criminal Procedure code.
- The power to register FIR and investigate the case remains with the state police.
- The Indian Constitution, no doubt, fulfils some conditions of a federation, but it leans towards a strong Centre.

Conclusion
National security is a paramount consideration. It is unfortunate that the BSF is being dragged into political controversy when it would actually be over-stretching itself to strengthen national security.

1. Powering the energy sector.

Context: Most discoms are deep into the red as high aggregate technical and commercial (AT&C) losses are chipping into their revenues. Against this backdrop, the Electricity (Amendment) Bill of 2020 is a game-changing reform.

Why the Electricity (Amendment) Bill of 2020 is a game-changing reform

- **De-licensing power distribution:** This will provide the consumers with an **option of choosing the service provider,** switch their power supplier and enable the entry of private companies in distribution, thereby resulting in increased competition.
- In fact, **privatisation of discoms in Delhi** has reduced AT&C losses significantly from 55% in 2002 to 9% in 2020.
- **Open access for purchasing power:** Open access for purchasing power from the open market should be implemented across States and barriers in the form of **cross-subsidy surcharge,** additional surcharge and electricity duty being applied by States should be reviewed.
- **Issue of tariff revision:** The question of tariffs needs to be revisited if the power sector is to be strengthened.
- **Tariffs ought to be reflective of the average cost of supply** to begin with and eventually move to customer category-wise cost of supply in a defined time frame.
- This will facilitate a **reduction in cross-subsidies.**
- **Inclusion in GST**: Electrical energy should be covered under GST, with a lower rate of GST, as this will make it possible for power generator/transmission/distribution utilities to get a refund of input credit, which in turn will reduce the cost of power.
- **Use of smart meters:** Technology solutions such as installation of **smart meters** and smart grids which will reduce AT&C losses and restore financial viability of the sector.
- **The impetus to renewable energy:** The impetus to renewable energy, which will help us mitigate the impact of climate change, is much needed.
- Despite its inherent benefits, the segment has shown relatively slow progress with an estimated installed capacity of 5-6 GW as on date, well short of the 2022 target.
- The Bill also **underpins the importance of green energy** by proposing a penalty for non-compliance with the renewable energy purchase obligations which mandate States and power distribution companies to purchase a specified quantity of electricity from renewable and hydro sources
- **Strengthening the regulatory architecture:** This will be done by appointing a member with a legal background in every electricity regulatory commission and strengthening the Appellate Tribunal for Electricity.
- This will ensure faster resolution of long-pending issues and reduce legal hassles.
- **Authority for contractual obligation:** Provision in the Bill such as the creation of an **Electricity Contract Enforcement Authority** to supervise the fulfillment of contractual obligations under power purchase agreement, cost reflective tariffs and provision of subsidy through DBT are commendable.

Conclusion

Early passage of the Bill is critical as it will help unleash a path-breaking reform for

bringing efficiency and profitability to the distribution sector.

2. India, U.S. militaries match skills in Alaska

Context: The 17th edition of the India-U.S. bilateral exercise, Yudh Abhyas 2021, got underway in mountainous terrain and cold climate conditions of Alaska, US.

Yudh Abhyas 2021
- Exercise Yudh Abhyas is the largest running joint military training and defence cooperation endeavour between India and USA.
- The exercise aims at enhancing understanding, cooperation and interoperability between the two armies.

Why it is significant?
- Interestingly, this is the only India-U.S. service exercise continuing in bilateral format.
- The India-U.S. Malabar naval exercise became trilateral with the addition of Japan in 2015 and further brought in all the Quad partners together with the inclusion of Australia in 2020.
- Similarly, Japan joined the India-U.S. bilateral air exercise, Cope India, as an Observer in 2018 and the plan is to make it trilateral in phases.
- Other than the Malabar, Japan had sent observers for the first-time during Cope India 2018 as an Observer in 2018.

3. Experts call for review of IMF role, data integrity, completing quota reforms.

Context: In the backdrop of the 2021 annual meetings of the World Bank Group and the **International Monetary Fund (IMF)** in Washington, leading experts have suggested the need to review the role of the IMF.

Rationale: Reforms due to changing economic weight of emerging countries, stressing on completing quota reforms and maintaining data integrity amid the World Bank discontinuing its Ease of Doing Business reports.

Experts Suggestions
- When it was alleged that the EoDB rankings were tweaked to inflate the ranks for China (in EoDB 2018) and Saudi Arabia, UAE and Azerbaijan **(EoDB 2020);**
  - It become important that the institutions do maintain their strictest vigilance and standards in repairing any damage to credibility, in ensuring that all such possibilities are eliminated to the extent possible
- Experts stressed the need to complete quota reforms in the IMF amid changing dynamics of developed and emerging economies including India.
- A restructuring of the Article IV consultations, under which the IMF holds bilateral discussions with its members usually every year and its staff prepares a report, is also being sought.
  - **Article IV** consultation is the most powerful instrument and it needs to be restructured and sharpened to make it more useful by using the new technologies and access to public data.

On IMF Quota Reform experts cited that
- Each member's quota determines its voting power as well as its borrowing capacity.
- The US and China should jointly lead the efforts on transformation of relative quota

shares in the IMF and associated reforms in the international monetary system.

1. First, as China approaches or even surpasses the United States in its share of global GDP at market exchange rates **its quota share would have to be of a magnitude similar to that of the United States.**

2. Second, **the share of the European Union countries, including that of the UK, will have to reduce significantly.**

3. Third, the **quota share of BRICS countries would have to increase significantly.**

- Another expert cited that the **IMF should focus on lower income countries and support other developing countries' market funds raising activities,** as its article IV consultation reports are utilised by credit rating agencies, impacting the fund-raising capacity of countries like India.
  - o Most of the Asian countries including India can now raise funds on their own on the basis of strength of their forex reserves, and do not have to necessarily go to the IMF like in the past to stem the tide of the crisis.
  - o Therefore, developed economies should now really focus on the much lower income groups and those who are not able to go to the market at all to raise funds.

- The second is that even though countries like India and others are no longer clients, there will still be occasions when because of the **sudden rise in the price of petroleum products or something, there may be a need and therefore, they need to look at the problems that may arise because of certain situations.**
  - o During the 1991 crisis, India was able to utilise funding facilities of

the IMF and was able to tide over the difficult situation.

- The larger issue that has been talked about is how we see the **management system in the IMF should be modified,** that this forever informal arrangement, that the head of the IMF should be a European and the head of World Bank should be an American.

- The time has come to reconsider this, and the IMF probably should really rethink on it.

Trends of EMs raising share in global GDP

- With a continuing trend of **emerging markets increasing** their share in global output or GDP over the years, many experts have called for **alignment of quotas and the accompanying lending windows of the IMF to reflect the changed economic positions of countries.**

- A call is also being made to restructure country-specific consultations being done by multilateral institutions.

4. China's hypersonic glide vehicle test.

Context: China's military has carried out its first-ever test of a nuclear-capable hypersonic missile.

Details:
- Chinese military launched a rocket that carried a hypersonic glide vehicle.
  - o The vehicle was launched on a Long March rocket, which is used for the space programme.
  - o Hypersonic speeds are 5 or more times the speed of sound.
- The missile has demonstrated an advanced space capability.

- It circled the globe, flew through low-orbit space before cruising down towards its target.
- However, it missed its target by about two-dozen miles.
- The development has caught U.S. intelligence by surprise.
  - It is believed that the test would pose a big challenge to U.S. missile defence systems because the weapon could, in theory, fly over the South Pole.
  - This would pose a big challenge for the U.S. military because its missiles defence systems are focused on the northern polar route.

Implications for India:
- This test by China certainly needs to be watched closely by the world, especially India considering its issues along the LAC with China in the recent past.
- Such capabilities highlight the threat for India's space assets along with the surface assets.
- The offence system operating at hypersonic speeds would mean the requirement to develop defence systems at these speeds.
  - India too is working on hypersonic technologies.
  - India's DRDO successfully flight-tested the Hypersonic Technology Demonstrator Vehicle (HSTDV), with a capability to travel at 6 times the speed of sound in September 2020.
    - A solid rocket motor of Agni missile took it to an altitude of 30 km where the cruise vehicle separated as planned.
    - The hypersonic combustion sustained and the cruise vehicle continued on its desired flight path at a velocity of six times

the speed of sound for more than 20 seconds.
- In December 2020, an advanced Hypersonic Wind Tunnel (HWT) test facility of the DRDO was inaugurated in Hyderabad.
  - It is a pressure vacuum-driven, enclosed free jet facility that simulates Mach 5 to 12.

Scramjet Technology:
- Most hypersonic vehicles primarily use scramjet technology.
- Scramjets are a category of engines designed to handle airflows of speeds in multiples of the speed of sound.
- This extremely complex technology also needs to be able to handle high temperatures.
  - This makes the hypersonic systems extremely costly.
- It is all about how long the systems can be sustained at those extreme conditions.
  - Most military powers in the world are in the process of developing hypersonic systems.

Note:
- Only the U.S., Russia and China are developing hypersonic glide vehicles, that are launched on rockets and then orbit the earth at their own speed.
- They are difficult to track because unlike ballistic missiles, they do not follow the fixed parabolic trajectory.

1. A new quad in West Asia.

Context: The first-ever meeting between the foreign ministers of India, Israel, the United Arab Emirates, and the United States is being widely perceived as a new QUAD group.

What is Abraham Accord?
- The Israel–UAE normalization agreement is officially called the Abraham Accords Peace Agreement.
- It was initially agreed to in a joint statement by the United States, Israel and the United Arab Emirates (UAE) on August 13, 2020.
- The UAE thus became the third Arab country, after Egypt in 1979 and Jordan in 1994, to agree to formally normalize its relationship with Israel as well as the first Persian Gulf country to do so.
- Concurrently, Israel agreed to suspend plans for annexing parts of the West Bank.
- The agreement normalized what had long been informal but robust foreign relations between the two countries.

The idea of the Indo-Abrahamic Accord
- The idea of an accord between India, the UAE and Israel was first suggested by Mohammed Soliman, an Egyptian scholar based in Washington.
- The focus, then, was on India taking full advantage of the normalisation of relations between Israel and the Arabs.

Prospects of India joining the accord
- Adding "Indo" to the Abrahamic Accords — from think tank level to the policy domain underlines the extraordinary churn in the geopolitics of the Middle East.
- It also points to new openings for India in the region and ever-widening possibilities for Delhi's strategic cooperation with Washington.

Significance for India
The new minilateral consultation with the US, Israel and the UAE should start breaking that political taboo by:

(1) Creating a minilateral in the Middle-East:
- Such events mark an important turning point in Delhi's engagement with the Middle East.
- It suggests India is now ready to move from bilateral relations conducted in separate silos towards an integrated regional policy.
- As in the Indo-Pacific, so in the Middle East, regional coalitions are bound to widen Delhi's reach and deepen its impact.

(2) India bridging the Arab-Israeli rift:
- Often the Arab nations and Israel are divided over Palestine.
- The simultaneous expansion of Delhi's cooperation with Israel and the Arab world was considered impossible.
- However, India's new foreign policy broke from that assessment and demonstrated the feasibility of a non-ideological engagement with the Middle East.
- This diplomatic pragmatism allows Delhi to reimagine its policies towards the Middle East.

(3) Extension of cooperation with the US:
- Thinking of the US as a partner in the Middle East is part of the reimagination.
- For long, India defined the US, and more broadly the West, as part of the problem in the Middle East.
- As a result, Delhi kept a reasonable political distance from the US in the region.

(4) Miscellaneous:

- India's scale with Israeli innovation and Emirati capital could produce immense benefits to all three countries.
- Add American strategic support and you would see a powerful dynamic unfolding in the region.

Is it a new Quad in making?

- It is perhaps too early to call the new minilateral with the US, UAE and Israel the "new Quad" for the Middle East.
- It will be a while before this grouping will find its feet and evolve.
- After all, it took quite some effort to build the Quad in the east with Australia, India, Japan and the United States.

What is the kind of agenda that this group can develop?

Economic Cooperation: Like the eastern Quad, it would make sense for the new Middle Eastern minilateral to focus on non-military issues like trade, energy, and environment and focus on promoting public goods.

Technology cooperation: Beyond trade, there is potential for India, UAE and Israel to collaborate on many areas — from semiconductor design and fabrication to space technology.

A new geopolitical entity: The new "Quad" in the Middle East is likely to be India's only new coalition in the region. It provides a thrust to new regionalism to the west involving India.

'Extended' neighborhood: This engagement will open the door for extending the collaboration with other common regional partners like Egypt (better call it Suez Canal), who will lend great strategic depth to the Indo-Abrahamic accords.

Conclusion

- This engagement has thus opened up a new opportunity for India to go for deeper engagement with Israel without risking its relations with the other Arab states of the Persian Gulf.
- In the evolving scenario, there seems much scope for a profitable trilateral synergy, but India cannot take its preponderance as a given.
- There is much to be done in realizing the full potential of the "Indo-Abrahamic Accords".

2. Improving livestock breeding.

Context: The revised version of the Rashtriya Gokul Mission and National Livestock Mission (NLM) proposes to bring focus on entrepreneurship development and breed improvement in cattle, buffalo, poultry, sheep, goat, and piggery.

Livestock breeding and challenges

- **Unorganised in nature:** Livestock breeding in India has been **largely unorganised.**
- **Lack of linkages:** Because of this unorganised nature there have been **gaps in forward and backward integration** across the value chain.
- **Impact on quality:** The above scenario **impacts the quality of livestock that is produced** and in turn negatively impacts the return on investment for livestock farmers.
- Roughly 80% bovines in the country are low on productivity and are reared by small and marginal farmers.

Entrepreneurship development through NLM and Rashtriya Gokul Mission

- The revised version of the Rashtriya Gokul Mission and **National Livestock Mission**

(NLM) proposes to bring focus on entrepreneurship development.

- **Breed improvement infrastructure:** It seeks to provide incentives to individual entrepreneurs, farmer producer organisations, farmer cooperatives, joint liability groups, self-help groups, **Section 8 companies** for entrepreneurship development and State governments for **breed improvement infrastructure.**
- The breed multiplication farm component of the **Rashtriya Gokul Mission** is going to provide for capital subsidy up to ₹200 lakh for setting up breeding farm with at least 200 milch cows/ buffalo using **latest breeding technology.**
- Moreover, the strategy of incentivising breed multiplication farm will result in the **employment of 1 lakh farmers.**
- The grassroots initiatives in this sphere will be further amplified by **web applications like e-Gopala** that provide real-time information to livestock farmers.
- **Poultry:** The **poultry entrepreneurship programme of the NLM** will provide for capital subsidy up to ₹25 lakh for the setting up of a parent farm with a capacity to rear 1,000 chicks.
- Under this model, the rural entrepreneur running the hatchery will be supplying chicks to the farmers.
- This is expected to provide employment to at least 14 lakh people.
- **Sheep and goat entrepreneurship:** In the context of sheep and goat entrepreneurship, there is a provision of capital subsidy of 50% up to 50 lakh.
- An entrepreneur under this model shall set up a breeder farm, develop the whole chain will eventually sell the animals to the farmers or in the open market.
- This model is projected to generate a net profit of more than ₹33 lakh for the entrepreneur per year.

- **Piggery:** For piggery, the NLM will provide 50% capital subsidy of up to ₹30 lakh.
- Each entrepreneur will be aided with establishment of breeder farms with 100 sows and 10 boars, expected to produce 2,400 piglets in a year.
- This model is expected to generate a profit of **₹1.37 crore after 16 months and 1.5 lakh jobs.**

Conclusion

The revised scheme of NLM coupled with the Rashtriya Gokul Mission and the Animal Husbandry Infrastructure Development Fund has the potential to dramatically enhance the productivity and traceability standards of our livestock.

3. Slide in China's GDP growth: the causes and implications for India.

Context: China's third-quarter GDP growth slowed to 4.9% as industrial output rose way below expectations in September, according to data released by the country's National Bureau of Statistics on Monday.

Is this worrying?

The main reason why growth was below expectation is the tepid rise in industrial production at 3.1% in September, way below the expected 4-4.5%.

There are two factors here:

One, it needs to be kept in mind that China was the first off the blocks when it comes to reviving growth after the pandemic. So, inevitably, even as the rest of the world struggles to get back to pre-pandemic levels, the Chinese recovery had already gathered steam and pre-pandemic milestones were crossed quarters ago. The base is consequently a factor in China's case.

Second, there are a combination of systemic issues evident in the latest data print that signal potential headwinds, both for the Chinese and the global economies. This includes a massive fuel crunch that is crimping the country's growth engine, worries of a systemic crisis in its real estate business precipitated by the Evergrande fiasco, and a souring of business sentiment amid the federal government's crackdown on multiple Chinese sectors and marquee companies that have been mascots of growth over the years.

Would there be an impact on India?

- There are concerns that a slowing Chinese economy could impact the incipient global recovery.
- India too could see an impact, given that the country's bilateral trade with China has grown nearly 50 per cent in the first nine months of 2021, according to Chinese government data.
- According to India's Commerce Ministry data, China was India's top trading partner in the April-July period, followed by the US, the UAE, Saudi Arabia and Singapore.
- India's total trade with China touched $90.38 billion during the January-September period, and is likely to cross $100 billion by the end of the year. Some of India's major imports from China include smartphones and automobile components, telecom equipment, active pharmaceutical ingredients, and other chemicals.
- A slowing Chinese economy portends worries on the buoyant trade front, apart from the overall loss of momentum to the global post-pandemic economic recovery.

4. Arctic melt: will polar bears vanish by 2100?

Context: According to a new study, if carbon emissions continue at current levels, summer ice will disappear by 2100 — and, along with it, creatures such as seals and polar bears.

About:

- In winter, most of the Arctic Ocean surface freezes, and scientists expect this to continue for the foreseeable future, even as climate warms.
- In summer, when some of the ice melts, winds and currents carry it for great distances — some of it into the North Atlantic, but much of it into the Arctic's farthest-north coasts, along Greenland and the Canadian islands.
- This results in a rich marine ecosystem. On the Arctic ice, algae bloom. These feed tiny animals, which in turn feed fish, which in turn feed seals, which feed polar bears at the top of the chain.
- The irregular topography also helps create lairs for seals, and ice caves for polar bears during the winter.
- But with a warming climate, summer sea ice has been shrinking fast, and now consistently spans less than half the area it did in the early 1980s.

1. India, Israel, UAE and U.S. launch quad forum.

Context: ndia, Israel, the United Arab Emirates and the United States have decided to launch a new quadrilateral economic forum.

Details:
- The newly announced quadrilateral meeting between India, Israel, the UAE and the U.S. is a forum for economic cooperation for the moment.
- The quadrilateral builds on ongoing cooperation between the U.S., Israel and the UAE after the Abraham Accords last year, and the India, Israel and UAE cooperation that was subsequently launched.
    - Through this process, the Israeli government normalised relations with Morocco, Sudan and Bahrain.
- The grouping has decided to establish an international forum for economic cooperation, and specifically discussed possibilities for joint infrastructure projects.
- Deepening of maritime cooperation, enhancing connectivity, transport and digital infrastructure topped the agenda of discussion.
- The ministers discussed expanding economic and political cooperation in the Middle East and Asia, including through trade, combating climate change, energy cooperation, increasing maritime security and ways to counter the COVID-19 pandemic.
- However, the quadrilateral meeting did not discuss the issue of Palestine and resuming the "Middle East peace process", although the Joe Biden administration has expressed support for a "two-state solution", that is in line with India's broader position.

What is its significance for India?
- India, the UAE and Israel have already enhanced trilateral cooperation, especially in trade and investment.
- Though India's focus over the last few years has been the east, West Asia looms large on India's horizon.
- It is the source of 60% of India's oil and gas and the remittances from the large Indian Diaspora in the region is the largest contributor to India's healthy foreign exchange reserves. India cannot afford to jeopardize either.
- Therefore, India must not only be engaged with this region but also ensure that regional stability and security is maintained.

2. IMF outlook and status of jobs.

Context: Recently, the IMF unveiled its 2nd World Economic Outlook (WEO).

Background
- The IMO comes out with the report **twice every year** (April and October) and also provides **regular "updates" to it on other occasions.**
- The WEO reports are significant because they are **based on a wide set of assumptions about a host of parameters** (such as the international price of crude oil) and **set the benchmark for all economies to compare one another with.**

What were the main takeaways from the WEO in October 2021?
- The central message was that the global economic recovery momentum had weakened a tad, thanks largely to the pandemic-induced supply disruptions.
    - But more than just the marginal headline numbers for global growth,

it is the increasing inequality among nations that the IMF was most concerned about.

- The dangerous divergence in economic prospects across countries remains a major concern.
- **Aggregate output for the advanced economy group is expected to regain its pre-pandemic trend path in 2022 and exceed it by 0.9 per cent in 2024.**
    - By contrast, aggregate output for the emerging market and developing economy group (excluding China) is expected to remain 5.5 per cent below the pre-pandemic forecast in 2024, resulting in a larger setback to improvements in their living standards.
- **There are two key reasons for the economic divergences:**
    - large disparities in vaccine access, and differences in policy support.
- **The employment growth is likely to lag the output recovery** (Chart 1).
    - Employment around the world remains below its pre-pandemic levels, reflecting
        - A mix of negative output gaps,
        - Worker fears of on-the-job infection in contact-intensive occupations,
        - Childcare constraints,
        - Labor demand changes as automation picks up in some sectors,
        - Replacement income through furlough schemes or unemployment benefits helping to cushion income losses, and
        - Frictions in job searches and matching.
- Further, **young and low-skilled workers are likely to be worse off than prime-age and high-skilled workers, respectively.**

What does this mean for India?
- As far as GDP is concerned, India's growth rate hasn't been tweaked for the worse.
- In fact, beyond the **IMF, several high-frequency indicators have suggested that India's economic recovery is gaining ground.**
- But what the IMF has projected on employment (that the recovery in unemployment is lagging the recovery in output (or GDP)) matters immensely for India.
    - According to the data available with the Centre for Monitoring Indian Economy (CMIE), the total number of employed people in the Indian economy as of May-August 2021 was 394 million — 11 million below the level set in May-August 2019.
    - To puts these numbers in a larger perspective, in May-August 2016 the number of employed people was 408 million.
    - In other words, India was already facing a deep employment crisis before the Covid crisis, and it became much worse after it.
    - As such, projections of an employment recovery lagging behind output recovery could mean large swathes of the population being excluded from the GDP growth and its benefits.
    - Lack of adequate employment levels would drag down overall demand and thus stifle India's growth momentum.

Why could employment lag output growth in India?
- There are several possible reasons.
    - **India already had a massive unemployment crisis.**

- The first thing to understand is that **India is witnessing a K-shaped recovery.**
- That means different sectors are recovering at significantly different rates.
- And this holds not just for the divergence between the organised sector and unorganised sector, but also within the organised sector.

- **The bulk of India's employment is in the informal or unorganised sectors** (Table 2).
  - The informal worker is defined as a worker with no written contract, paid leave, health benefits or social security.
  - The organised sector refers to firms that are registered. Typically, it is expected that organised sector firms will provide formal employment.
  - So, a weak recovery for the informal/unorganised sectors implies a drag on the economy's ability to create new jobs or revive old ones.
  - Recently, the IMF pointed out that the number of people using the Mahatma Gandhi National Rural Employment Guarantee Act provisions was still 50-60% above pre-pandemic level.
    - This suggests that the informal economy is struggling to recover at the same pace as some of the more visible sectors.

How informal is India's economy?

TABLE 3
HOW INFORMAL ARE DIFFERENT SECTORS

Sector	Share in GVA (%)	Share of unorganised/ informal sector (%)
Agriculture, forestry, fishing	17.2	97.1
Mining and quarrying	2.3	22.5
Manufacturing	16.4	22.7
Utility services (gas, electricity etc)	2.7	5.3
Construction	7.8	74.5
Trade, repair, food services, accommodation	11.8	86.6
Transport, storage, communication & services related to broadcasting	6.4	47.7
Financial services	5.4	11.9
Real estate, ownership of dwellings & professional services	15.6	52.8
Public administration, defence	6.2	0
Other services	8.1	47.9
Total	100	52.4

Source: Computed from National Accounts Statistics, 2019

- Table 3, sourced from the 2019 paper 'Measuring Informal Economy in India' (S V Ramana Murthy, National Statistical Office), gives a detailed breakup.
- It shows two things.
  - **The share of different sectors of the economy in the overall Gross Value Added (GVA or a measure of overall output from the supply side just as GDP is from the demand side).**
  - **The share of the unorganised sector therein.**
- **The share of informal/unorganised sector GVA is more than 50% at the all-India level, and is even higher in certain sectors,** notably those that create a lot of low-skilled jobs such as construction and trade, repair, accommodation, and food services. This is why India is more vulnerable.

3. Why global fuel prices are up, how India is impacted.

Context: As the global recovery gains strength, the **price of crude oil is nearing its highest level** since 2018, while the price of natural gas and coal are hitting record highs amid an intensifying energy shortage.

Reason behind the fuel price rise

- The price of Brent Crude breached the $85 per barrel mark, reaching its highest level since 2018 on the back of a sharp increase

in global demand as the world economy recovers from the pandemic.

- Key oil producing countries have kept crude oil supplies on a gradually increasing production schedule despite a sharp increase in global crude oil prices.
- The price of Brent crude has nearly doubled compared to the price of $42.5 per barrel a year ago.
- Recently, the OPEC+ group of oil producing countries **reaffirmed that they would increase total crude oil supply by only 400,000 barrels per day in November 2021** despite a sharp increase in prices.
- The output of the **top oil-producing countries** – Saudi Arabia, Russia, Iraq, UAE and Kuwait — would still be about **14 per cent lower than reference levels of production post the increase in November 2021.**
- **OPEC+ had agreed to sharp cuts in supply in 2020 in response to Covid-19 global travel restrictions in 2020** but the organisation has been slow to boost production as demand has recovered.
- India and other oil importing nations have called on OPEC+ to boost oil supply faster, arguing that **elevated crude oil prices could undermine the recovery of the global economy.**
- **Supply side issues in the US** including disruptions caused by hurricane Ida and lower than expected natural gas supplies from Russia amid increasing demand in Europe have raised the prospect of natural gas shortages in the winter.
  - **International coal prices have also reached all-time highs as China faces a coal shortage that has led to factories across China facing power outages.**
  - A faster than expected recovery in global demand has **pushed the**

price of Indonesian coal up from about $60 per tonne in March to about $200 per tonne in October.

Probable Impact on India
- High crude oil prices have contributed to the prices of petrol and diesel regularly setting new record highs across the country in 2021.
- India has seen a **faster recovery in the consumption of petrol than of diesel after pandemic-related restrictions with petrol consumption up 9 per cent in September compared to the year ago period but diesel consumption remaining 6.5 per cent below 2020 levels.**
- **Diesel accounts for about 38 per cent of petroleum product consumption in India** and is a **key fuel used in industry and agriculture.**
- **S&P Global Platts Analytics noted in a report;**
  - Demand for diesel in India was expected to go up in the next few months with the upcoming festive season set to accelerate the economic recovery and push up diesel consumption.
  - However predict that India's total demand for crude oil would only surpass pre pandemic levels in 2022.
- **High international gas prices have led to an upward revision in the price of domestically produced natural gas.**
  - The Petroleum Planning and Analysis Cell (PPAC) set the price of natural gas produced by state owned ONGC and Oil India under the nomination regime to $2.9 per mmbtu up from $1.79 per mmbtu in the previous six month period.

- o The PPAC also increased ceiling price of \$6.13 per mmbtu for gas extracted from ultra deep water, and high pressure, high temperature discoveries from \$3.62 per mmbtu in the previous six month period.
- **The increase in gas prices has put upward pressure on the price of both Compressed Natural Gas (CNG) used as a transport fuel and Piped Natural Gas (PNG) used as a cooking fuel.**
- High international prices of coal have added to a **coal shortage at India's thermal power plants** by **forcing thermal plants using imported coal that could not pass on the higher price of coal to procurers to stop supplying power.**
- Low coal stocks at a number of coal fired thermal power plants have led to power outages in a number of states including Punjab and Rajasthan and have forced states to buy power at well above normal prices on the power exchange.

1. House panel to study 'border management'.

Context: The Parliamentary Standing Committee on Home Affairs has decided to study "border management", which will also entail deliberations on the contentious extension of jurisdiction of the Border Security force (BSF) up to 50 km inside the international borders in Punjab, West Bengal and Assam.

Background
- The Home Ministry, through a notification recently, amended the BSF Act of 1968.
- The BSF's powers which include arrest, search and seizure were till now only up to 15 km in these States. Punjab and West Bengal have objected to the change.
- The parliamentary panel met to discuss the agenda. Other than the pending issues, it has added "border management" to the list, which will include deliberations of all borders protected by the Central Armed Police Forces.

No policing powers: The BSF does not have policing powers and after apprehending a suspect, it can only conduct "preliminary questioning" and the seized consignment or a suspect have to be handed over to the local police within 24 hours.

States Contention
- West Bengal has a 2,216 km long border with Bangladesh and the Trinamool contends that the extension of jurisdiction will effectively bring nearly one-third of the State's territory under the BSF's control.
- Out of 23 districts in the State nearly 10 districts will be affected. This will have an impact on 21 of the 42 Lok Sabha constituencies which could have larger political implications.
- The Opposition is expected to register its protest on the new amendment in the winter session of Parliament.
- The BSF Act, Section 139(3) requires the Government to lay the notification before Parliament and the members, within 30 days, can raise a motion for discussion on annulment of such an order.
- According to the state government it is clearly a violation of the federal values laid down in the Constitution.

Central government view
- The home ministry's latest notification only seeks to reinforce the capabilities of the state police in securing the states under **section 139 of the BSF Act,** which empowers the members of the force to discharge certain powers and duties within local limits of the areas specified in the schedule.
- The jurisdiction of the state police has neither been curtailed nor its powers reduced in any manner.
- It is just that the BSF will also be exercising powers of search, seizure and arrest in respect of only the Passport Act 1967, Passport (Entry into India) Act 1920 and specified sections of the Criminal Procedure code — in other words against those entering India illegally.
- It is merely an "enabling provision aimed at strengthening and complementing the efforts of the state police". The BSF would, in any case, be handing over the accused together with the seized contraband to the local police.
- The power to register FIR and investigate the case remains with the state police. To say that half of Punjab will now fall under the BSF jurisdiction is an extremely

misleading statement intended to arouse passions and generate anti-Centre feelings.

Need of the revision of BSF powers

- Assam, West Bengal and Punjab have international borders. The threat perception from across the international borders has undergone a sea change in the context of recent developments in the Af-Pak region.
- Radical groups of different shades are feeling emboldened and are going to make a determined attempt to destabilise Punjab, where there have been several attempts to drop weapons from drones.
    - The seizure of 3,000 kg of heroin that originated from Afghanistan on September 12 and the killing of five army personnel in Surankote (Jammu and Kashmir) on October 11 are straws in the wind.
    - Pakistan-sponsored terrorist groups, particularly the Lashkar-e-Toiba and Jaish-e-Muhammad, will almost certainly renew their onslaught in the border states.
    - West Bengal has already undergone a huge demographic change, thanks to its leaders' accommodative attitude towards illegal migrants. Assam faces multiple problems of ethnic insurgencies, smuggling, counterfeit currency, drug trafficking, etc.
- Under normal circumstances, it should have been possible for the state police of border states to deal with these problems.
    - However, the police across the country are in a state of atrophy and they need the assistance of central armed police forces even for maintaining normal law and order.
        - As such, their effectiveness against the emerging trans-border threats is suspect.

- It is in this context that the Government of India decided to extend the jurisdiction of the BSF in three states.

Conclusion

- The Indian Constitution, no doubt, fulfils some conditions of a federation, but it leans towards a strong Centre.
- As stated by Sir Ivor Jennings, "India has a federation with a strong centralising tendency".
    - In federations where police and public order are the responsibility of states (as in India), "the Union may devise emergency regimes in its Constitution through legislation to override the exclusive autonomy of the states in respect of law and order and policy".
    - National security is a paramount consideration. It is unfortunate that the BSF is being dragged into political controversy when it would actually be over-stretching itself to strengthen national security.

2. Kushinagar, Buddhist pilgrimage town and site of big infra push.

Context: The Prime Minister has inaugurated the Kushinagar International Airport in Uttar Pradesh, which will help connect key Buddhist pilgrimage sites.

About Kushinagar

- Kushinagar is a town in the Kushinagar district of the Indian state of Uttar Pradesh.
- It is an important Buddhist pilgrimage site, where Buddhists believe Gautam Buddha attained Mahaparinirvana after his death.
- It is an international Buddhist pilgrimage centre.

- It is also at the centre of a Buddhist tourist circuit, which includes Lumbini (Nepal), Sarnath and Bodhgaya.
- Other Buddhist destinations nearby include Nalanda, Sravasti and Kapilavastu.

History of Kushinagar
The present Kushinagar is identified with Kusavati (in the pre-Buddha period) and Kushinara (in the post-Buddha period).

[A] Ancient
- Kushinara was the capital of **Mallas** which was **one of the sixteen mahajanpada** of the 6th century BCE.
- Since then, it remained an **integral part** of the erstwhile empires of **Maurya, Shunga, Kushana, Gupta, Harsha, and Pala dynasties**.

[B] Medieval
- In the medieval period, Kushinagar had passed under the suzerainty of **Kultury Kings**.
- Kushinara continued to be a living city till the 12th century CE and was thereafter lost into oblivion.
- It was believed to be ruled over by a **Rajput adventurer, Madan Singh**, in the 15th century CE.

[C] Modern
- Kushinagar came into prominence in the 19th century with archaeological excavations carried out by **Alexander Cunningham**, the first Archaeological Surveyor of India.
- It was later followed by C.L. Carlleyle who exposed the main stupa and also discovered a **10 meters long statue of reclining Buddha in 1876.**
- Excavations continued till 1907 under J. Ph. Vogel, uncovering a wealth of Buddhist materials.

- **Chandra Swami**, a Burmese monk, came to India in 1903 and made Mahaparinirvana Temple into a **living shrine**.

What is the Buddhist Tourist Circuit?

- In 2016, the Ministry of Tourism announced the Buddhist Circuit as the country's first transnational tourism circuit, covering sites in Nepal and Sri Lanka alongside those in India.
- The map of the Buddhist Circuit includes Bodh Gaya, Vaishali, and Rajgir in Bihar, Kushinagar, Sarnath, and Shravasti in UP, and Lumbini in Nepal.

Significance of these places
- The Buddha was born as the prince Siddhartha Gautama in c. 563 BC in **Lumbini**, and he lived until the age of 29 with his parents in the Shakya capital of **Kapilavastu**.
- He attained enlightenment under the Bodhi Tree in **Bodh Gaya**, and gave his first sermon at **Sarnath** near Varanasi.
- He taught in the area around **Rajgir**, where he was built a forest monastery by king Bimbisara of Magadha, and he lived the largest part of his life as the Buddha in **Shravasti**.
- He delivered his last sermon in **Vaishali** and got parinirvana at **Kushinagar**.

Significance of this Circuit
Ans. Cultural Diplomacy

- **Look East:** There is an awareness in the government that the absence of tourist infrastructure is a major reason why India loses out to Southeast Asian nations such as Indonesia and Thailand.
- **Employment through Tourism:** The hope is that world-class facilities will be able to attract Buddhist tourists to India, and boost revenues and employment generation.
- **Gaining soft power:** The push is intended to assert and consolidate India's position as the original centre of Buddhism, against the claims from China.

3. Questions around the election of Dy. speaker.

Context: There is an ongoing row in Uttar Pradesh Assembly over the election of Dy Speaker, the post which was lying vacant for two years.

Constitutional mandate for Deputy Speaker
- Article 93 talks about the election of Speaker and Deputy Speaker for Lok Sabha and the case for their vacancies.
- Article 178 contains the corresponding position for Speaker and Deputy Speaker of the Legislative Assembly of a state.

Is it mandatory under the Constitution to have a Deputy Speaker?
- Constitutional experts point out that both Articles 93 and 178 use the words "shall" and "as soon as may be".
- This indicates that not only is the election of Speaker and Deputy Speaker mandatory, it must be held at the earliest.
- All that the Constitution says is the election must be held as soon as possible.

Time-frame and rules for their Election
- Generally speaking, the practice in both Lok Sabha and the state Legislative Assemblies has been to elect the Speaker during the first session of the new House.
- This usually falls on the third day after oath-taking and affirmations take place over the first two days.
- The election of the Deputy Speaker usually takes place in the second session, even though there is no bar on having this election too in the first session.
- However, the election of Deputy Speaker is generally not delayed beyond the second session without genuine and unavoidable constraints.

Rules for the elections
- In Lok Sabha, the election of Deputy Speaker is governed by the Rules of Procedure and Conduct of Business in Lok Sabha.
- According to the Rule, the election "shall be held on such date as the Speaker may fix", and the Deputy Speaker is elected once a motion proposing his name is carried.
- There are similar provisions in the State Legislative Assembly Rules.

Their tenure
- Once elected, the Deputy Speaker usually continues in office until the dissolution of the House.
- Under Article 94 (Article 179 for state legislatures), the Speaker or Dy Speaker "shall vacate his office if (S)he ceases to be a member of the House".
- They may also resign (to each other), or "may be removed by a resolution of the House of the People passed by a majority of all the then members of the House".

Do the powers of the Speaker extend to the Deputy Speaker as well?

- Article 95(1) says: While the office of Speaker is vacant, the duties of the office shall be performed by the Deputy Speaker.
- After the first Speaker, G V Mavalankar died, M Ananth Ayyangar officiated as Acting Speaker for the remaining tenure of the House and was then elected Speaker of the second Lok Sabha.
- There is another such incident.
- In general, the Deputy Speaker has the same powers as the Speaker when presiding over a sitting of the House.
- All references to the Speaker in the Rules are deemed to be references to the Deputy Speaker when he presides.
- It has been repeatedly held that no appeal lies to the Speaker against a ruling given by the Deputy Speaker or any person presiding over a sitting of the House in the absence of the Speaker.

Does being Deputy Speaker protect an MP or MLA from the law of disqualification?

Ans. No- with one specific exemption.

- The Tenth Schedule says that a person who has been elected Speaker/ Deputy Speaker shall NOT be disqualified if he voluntarily gives up the membership of the political party to which he belonged.
- This exemption applies to the Rajya Sabha Deputy Chairman, Chairman/ Deputy Chairman of a state Legislative Council, and Speaker/ Deputy Speaker of a state Legislative Assembly as well.

Can courts intervene in cases of a delay in electing the Deputy Speaker?

- In general, the courts do not intervene in the procedural conduct of Parliament.
- Article 122(1) says: The validity of any proceedings in Parliament shall not be called in question on the ground of any alleged irregularity of procedure.
- A petition before the Delhi High Court has argued that the delay in the election of the Lok Sabha Deputy Speaker violates Article 93 of the Constitution.
- There is no precedent of a court forcing the legislature to elect the Deputy Speaker.
- However, the courts do have jurisdiction to at least enquire why there has been no election to the post of Deputy Speaker since the Constitution does envisage an election "as soon as maybe".

1. Gene editing guidelines facing delay.
(GS Mains Paper 3, Science and Technology)

Context: The Centre is yet to decide on a research proposal from scientists which would allow plants to be genetically modified without the need for conventional transgenic technology.

What is Genome Editing?
- Genome editing (also called gene editing) is a group of technologies that give scientists the ability to **change an organism's DNA**.
- These technologies allow **genetic material** to be **added, removed, or altered** at particular locations in the genome.
- Several approaches to genome editing have been developed.

Techs for Genome Editing
The core technologies now most commonly used to facilitate genome editing are
1. Clustered regularly interspaced short palindromic repeats (CRISPR)- associated protein 9 (Cas9)
2. Transcription activator-like effector nucleases (TALENs)
3. Zinc-finger nucleases (ZFNs)
4. Homing endonucleases or meganucleases

Newer technologies
- The Institute has now moved to newer technologies such as **Site-Directed Nuclease (SDN) 1 and 2**.
- They aim to bring precision and efficiency into the breeding process using gene-editing tools such as **CRISPR**, whose developers won the Nobel Prize for Chemistry in 2020.

About CRISPR
- CRISPR-Cas9 was adapted from a **naturally occurring genome editing system in bacteria**.
- The bacteria capture snippets of **DNA from invading viruses** and use them to **create DNA segments** known as **CRISPR arrays**.
- The CRISPR arrays **allow the bacteria to "remember" the viruses** (or closely related ones).
- If the viruses **attack** again, the **bacteria produce RNA segments** from the CRISPR arrays to target the viruses' DNA.
- The bacteria then **use Cas9** or a similar enzyme **to cut the virus DNA apart**, which disables the virus.
- This method is **faster, cheaper, more accurate, and more efficient** than other existing genome editing methods.

What is Non-Transgenic Gene Editing?
- Unlike the older GM technology which involves the introduction of foreign DNA, the new proposal involves the use of gene editing tools to directly tweak the plant's own genes instead.
- It **does not involve inserting any foreign DNA**.

Use in India
- Scientists at the **Indian Agricultural Research Institute (IARI)** are in the process of developing resilient and high-yield rice varieties using such gene editing techniques.
- However, this proposal has been **pending** with the **Genetic Engineering Appraisal Committee (GEAC)** for almost two years.

Why need such technique?
- **Similar to natural mutation:** But in this case, this protein is right there in the plant,

and is being changed a little bit, just as nature does through mutation.

- **Faster and cheaper:** It is much faster and far more precise than natural mutation or conventional breeding methods which involve trial and error and multiple breeding cycles.
- **Safe for consumption:** When a protein comes from an outside organism, then you need to test for safety.
- **Pathbreaking:** It is potentially a new Green Revolution.

No approval issues
- The SDN 1 and SDN 2 categories of genome-edited plants **do not contain any foreign DNA** when they are taken to the open field trials.
- The **US, Canada, Australia and Japan** are among the countries which have already approved the SDN 1 and 2 technologies as not akin to GM.
- So, such varieties of rice **can be exported** without any problem.
- The **European Food Safety Authority** has also submitted its opinion that these technologies do **not need the same level of safety** assessment as conventional GM.

2. 'U.K., India joint military exercise is to keep peace and stability'.
(GS Mains Paper 2, International Relations)

Context: The United Kingdom (UK) and India are set to launch their biggest joint military exercise called "Konkan Shakti".

Key Facts
- In the exercise, there will be re-entry of UK's Carrier Strike Group (CSG) into western Indian Ocean waters.

- The CSG, along with HMS Queen Elizabeth, has been on deployment in the Indo-Pacific waters for all summer.
- Military of the UK engaged with their counterparts in Singapore and Bangladesh. They also did a "non-provocative deployment" in South China Sea.
- Deployment of CSG is significant for the UK as it is the biggest deployment after the end of Cold War.

Entrance of CSG into Indian Waters
CSG will enter into Indian waters on October 21 while one of the ships will dock in to the Mumbai port. It will stay at anchorage and some invited guests will be taken on board. The UK's foreign secretary Elizabeth Truss will be in Mumbai for senior level discussions on a range of topics, including maritime propulsion technology, which the UK is keen to sell to the Indian Navy. The UK has an integrated electrical propulsion technology which it hopes to sell for future ships in the Indian Navy.

About Konkan Shakti: Konkan Shakti is the first tri-service exercise between India and United Kingdom.

Ajeya Warrior: Ajeya Warrior is an Army exercise between both the countries. It is ongoing in Uttarakhand in which about 120 British soldiers are participating.

3. NGOs cannot get unbridled foreign funds.
(GS Mains Paper 2 &4, Governance)

Context: The Government has told the Supreme Court that NGOs have no fundamental right to receive "unbridled foreign contributions" without regulations.

- The Centre was responding to petitions challenging amendments made in the

Foreign Contributions Regulations law in 2020.

- The petitions had argued that the amendments severely restricted the use of foreign funds by the NGOs for their activities and their transfer.
- The petitioners had also found it cumbersome that the new law expected 23,000 NGOs to open accounts in the main branch of the SBI in the Capital to receive their foreign funds.
- The Government contended that the amendments were meant to ensure that foreign funds were not used to impinge upon functioning of parliamentary institutions, political associations, academic and other voluntary organisations and individuals in India.

4. Pakistan to remain on FATF 'grey list'. (GS Mains Paper 2)

Context: The Financial Action Task Force (FATF) kept Pakistan on the grey list yet again since 2018. The FATF also announced the 'greylisting' of Jordan, Mali and Turkey.

India and FATF

- India became an Observer at FATF in 2006. Since then, it had been working towards full-fledged membership.
- On June 25, 2010, India was taken in as the 34th country member of FATF.
- The EAG (Eurasian Group) is a regional body comprising nine countries: India, Russia, China, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan and Belarus.

What is the role of FATF?

- Watchdog on terror financing: The rise of the global economy and international trade has given rise to financial crimes such as money laundering.
- Recommendation against financial crimes: The FATF makes recommendations for combating financial crime, reviews members' policies and procedures, and seeks to increase acceptance of anti-money laundering regulations across the globe.

What is the Black List and the Grey List?

- Black List: The blacklist, now called the "Call for action" was the common shorthand description for the FATF list of "Non-Cooperative Countries or Territories" (NCCTs).
- Grey List: Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.

Consequences of being in the FATF grey list:

- Economic sanctions from IMF, World Bank, ADB
- Problem in getting loans from IMF, World Bank, ADB and other countries
- Trade sanctions: Reduction in international trade
- International boycott

Pakistan and FATF

- Pakistan, which continues to remain on the "grey list" of FATF, had earlier been given the deadline till June to ensure compliance with the 27-point action plan against terror funding networks.
- It has been under the FATF's scanner since June 2018, when it was put on the Grey List for terror financing and money laundering risks.
- FATF and its partners such as the Asia Pacific Group (APG) are reviewing Pakistan's processes, systems, and weaknesses on the basis of a standard matrix for anti-money laundering (AML)

and combating the financing of terrorism (CFT) regime.

5. Not a zero-sum affair.
(GS Mains Paper 2, Trade & Economy Related)

Context: India's efforts for deepening India's trade ties with several countries could be scuttled by rising trade protectionism at home.

Increasing protectionism by India

- **Increase in average tariffs:** As Arvind Panagariya has argued, the simple **average of India's tariffs** that stood at 8.9 per cent in 2010-11 has increased by almost 25 per cent to 11.1 per cent in 2020-21.
- These increases in tariff rates have reversed the political consensus on tariff liberalisation that India followed since 1991.
- **Initiator of anti-dumping measures:** India is the **highest initiator of anti-dumping measures** aimed at shielding domestic industry from import competition.
- According to the WTO, from 2015 to 2019, India initiated 233 anti-dumping investigations, which is a sharp increase from 82 initiations between 2011 and 2014 (June).
- The anti-dumping initiations by India from 1995 (when the WTO was established) till 2020 stand at 1,071.
- **Expanding the scope of Article 11(2)(f):** India recently amended Section 11(2)(f) of the Customs Act of 1962, giving the government the power to ban the import or export of any good (not just gold and silver, as this provision applied earlier) if it is **necessary to prevent injury to the economy.**
- Expanding the scope of Article 11(2)(f) to cover any good is inconsistent with India's WTO obligations.

- WTO allows countries to impose restrictions on imports in case of injury to domestic industry, not to the "economy".
- **Restrictive rules of origin:** Finance Minister in her budget speech of 2020 said that undue claims of FTA benefits pose a threat to the domestic industry.
- Subsequently, India amended the rules of origin requirement under the Customs Act.
- Rules of origin determine the **national source of a product.**
- This helps in deciding whether to apply a preferential tariff rate (if the product originates from India's FTA partner country) or to apply the most favoured nation rate (if the product originates from a non-FTA country).
- But India has imposed onerous burdens on importers to ensure compliance with the rules of origin requirement.
- The intent appears to be to dissuade importers from importing goods from India's FTA partners.
- **Impact of vocal for local:** The clarion call given by Prime Minister Narendra Modi to be "vocal for local" is creating an ecosystem where imports are looked at with disdain, upsetting competitive opportunities and trading partners.

Conclusion

India can't maximise its interests at the expense of others. Its experiment with trade protectionism in the decades before 1991 was disastrous. We should recall Winston Churchill's warning: "Those who fail to learn from history are condemned to repeat it."

1. India weighs 'net zero' target ahead of CoP.
(GS Mains Paper 3, Environment)

Context: India has not entirely ruled out the possibility of agreeing to a "net zero" climate target, though it will not budge on demanding that developed nations make good their commitments.

Background: India has been pushing for rich countries to meet their Paris Accord climate finance commitment of $100 billion per year.

- The commitment to developing countries for:
    - Mitigating the impacts of climate change,
    - Facilitating technology transfer and
    - Putting in place a tangible market-based mechanism to activate the moribund carbon credit markets.
- Ahead of the 26th meeting of the United Nations Conference of Parties (CoP) that begins in Glasgow on November 1, **the focus on making the meet a success is to have all nations commit to "net zero", or a year by when a country's fossil fuel emissions will peak** and at some point be neutralised by taking out excess carbon from the atmosphere.

Impact on development

- All countries doing this by 2050, scientists say, will mean a chance of restricting the average temperature rise to 1.5 degrees Celsius, provided emissions fall to around 45% of the 2010 levels by 2030.
    - This, however, means deep and significant cuts to fossil fuel use that can affect the development trajectory of India and other developing countries.
- A study stated that for India to achieve the net zero target even by 2070, usage of coal, especially for power generation, will

need to peak by 2040 and drop by 99% between 2040 and 2060.
    - The consumption of crude oil across sectors will need to peak by 2050 and fall substantially by 90% between 2050 and 2070.
- India's long-term position in climate talks has always been that it will eschew the use of fossil fuels but only gradually because it cannot compromise on development, which is now primarily reliant on coal.
    - Also because it goes against the core principle of "common but differentiated responsibility" that requires developed countries, which are responsible for the climate crisis, to take on deeper cuts and pay developing countries for the environmental damage from rising temperature as well as finance their transition to clean energy sources.
- However, the U.S, and EU delegations, in recent months, had several meetings with the Indian officials to chart out a more ambitious pathway to cut emissions.
- All options are on the platter, but it will depend on how the negotiations will progress and whether we will be able to move ahead on getting developed countries to honour their commitments.

2. Metaverse - the post-internet future.
(GS Mains Paper 3, Science & Tech)

Context: Facebook Inc is set to invest $50 million to partner with organizations in order to build metaverse, which is a digital world where people can use different devices to communicate and move in a virtual environment.

Highlights: Facebook is the world's largest social network that has invested heavily in virtual reality and augmented reality.

- It has also invested in developing hardware like Oculus VR headsets and is working on AR glasses and wristband technologies.
- New XR Programs and Research Fund will invest the money globally in two years in order to build inclusive and empowering metaverse technologies.

What Is the Metaverse?

Metaverse is a set of virtual spaces where one can create and explore with other people who aren't in same physical space. Using this virtual space, one would be able to hang out with friends, play, work, learn, shop and create. This space is not necessarily about spending more time online but is about making time one spends online more meaningful.

How Metaverse will work responsibly?

- To develop the Metaverse, Facebook will work with experts in government, industry and academia in order to think through issues and opportunities in the metaverse.
- Success of Metaverse depends on building robust interoperability across services, only then experiences of different companies can work together.
- Facebook will also involve human rights and civil rights communities to ensure that these technologies are built inclusive and empowering way.

XR Programs and Research Fund

Facebook announced XR Programs and Research Fund which is a two-year $50 million investment in programs & external research. This programme will help in building Metaverse. Through this fund, Facebook will collaborate with industry partners, civil rights groups, non-profits & academic institutions and governments to determine how metaverse can be built responsibly.

3. 'Energy transition poses inflation risks'. (GS Mains Paper 3, Economy)

Context: A member of the MPC, has strongly argued for tightening the policy stating that inflation and growth risks are "well beyond the control" of the MPC.

Previous Monetary Policy Committee (MPC) key decision

- While the Reserve Bank's Monetary Policy Committee (MPC) retained the accommodative stance and kept the main policy rates unchanged in the review earlier.
- The 10.5% real GDP growth in 2021-22 forecasted by RBI will move in the range of 26.2 to 8.3% in the first half and 6% in the third quarter of 2021.
- The RBI has decided to restore the CRR in a non-disruptive manner from 3% to 4% in two stages by May 2021.
- Direct Retail Investment in Government Securities (G-Sec):
- The RBI has proposed to allow small investors direct access to the G-Sec platform. (The direct participation of retail investors in the bidding process will be enabled through the core banking solution of Reserve Bank of India- **E-kuber.**)
- A G-Sec is a tradable instrument issued by the Central Government or the State Governments and is considered to be the safest form of investment.

Accommodative Stance: The Monetary Policy Committee (MPC) of the RBI also decided to continue with the accommodative stance as long as necessary to revive growth on a durable basis and mitigate the impact of Covid-19 on the economy, while ensuring that

inflation remains within the target going forward.

- These decisions are in consonance with the objective of achieving the medium-term target for Consumer Price Index (CPI) inflation of 4% within a band of +/- 2 %, while supporting growth.
- The CPI calculates the difference in the price of commodities and services such as food, medical care, education, electronics etc, which Indian consumers buy for use.
- The CPI has several sub-groups including food and beverages, fuel and light, housing and clothing, bedding and footwear.

Concerns by the MPC member
- A pattern of policy making in slow motion that is guided by an excessive desire to avoid surprises is no longer appropriate.
- Since August, two other risks that have become salient globally in recent weeks.
  - o The first is that the **ongoing transition to green energy worldwide poses a significant risk of creating a series of energy price shocks similar to that in the 1970s.**
  - o This means that the **upside risks to long term inflation and to inflation expectations are now more aggravated.**
- According to the RBI Governor, going forward, if there are no spells of unseasonal rains, food inflation is likely to register significant moderation in the immediate term, aided by record kharif production, more than adequate food stocks, supply-side measures and favourable base effects.
- The ongoing worldwide transition to green energy poses a significant risk of triggering energy price shocks similar to the 1970s, which would accelerate inflation.

- The sole member of the RBI's Monetary Policy Committee (MPC) voted against continuing with the central bank's 'accommodative' policy stance.
- The tail risk to global growth posed by emerging financial sector fragility in China reminiscent of Japan of the late 1980s. Both of these risks are well beyond the control of the MPC, but they warrant a heightened degree of flexibility and agility. (Tail risk is the chance of a loss occurring due to a rare event).
- The COVID-19 pandemic had mutated into a human tragedy rather than an economic crisis, and monetary policy would be far less effective than fiscal measures in providing targeted relief to the worst hit segments of the economy.
- Also, inflationary pressures were showing signs of greater persistence than anticipated earlier.

'Slow motion'
- A pattern of policy making in slow motion that is guided by an excessive desire to avoid surprises is no longer appropriate, experts are in favour of raising the reverse repo rate from the current 3.35% towards 4%.
- Other members who voted to hold interest rates and retain the 'accommodative' stance flagged concerns about the outlook for inflation as the MPC observed that core inflation, inflation excluding food and fuel, remained elevated and sticky at 5.8% in July-August 2021.
- Core inflation is affected by the prices of transport fuels and transport services that are directly affected by the crude oil price shocks, the reduction in indirect taxes would play an important role in easing shocks on transport costs and overall inflation.

Challenges

- The RBI's challenges go beyond the repo rate decision.
- As part of the economic stimulus, it had engaged in an emergency bond purchase programme to infuse liquidity into the economy.
  - However, it has not announced anything specific about the liquidity normalisation procedure, except abstaining from announcing a further G-sec Acquisition Programme (G-Sec).
- Another decision to absorb excess liquidity was to tweak the monetary policy corridor — the space between the reverse repo rate and the upper bound of the overnight marginal lending facility.
- Tightening the corridor can reverse the "nudging" RBI engaged in by tweaking the reverse repo to help the pandemic-hit economy.
  - However, there was no upwards revision in the reverse repo rate.
  - The limited calibration was with regard to the cut-off yield of the variable rate reverse repo (VRRR), at 3.99 percent now.
  - The RBI has chosen to remain "accommodative" rather than moving towards a "neutral" stance.
- Mounting foreign exchange reserves have increased the liquidity in the economy, and in turn, can increase high-powered money in the system.
- **Operation Twist** — the simultaneous buying (long term) and selling (short term) of bonds to postpone the refinancing risks — was another method to infuse liquidity, as a part of the monetary stimulus package to tackle the pandemic.
- The RBI is grappling with multiple challenges — global macroeconomic challenges, which can trigger a capital flight, inflationary pressures and an uneven economic recovery.
  - In this policy dilemma, it has chosen to give priority to economic growth by keeping the rates status quo.
- Pressure is also mounting to keep control on the fiscal deficit, which flared up to 9.5 per cent of GDP in the revised estimates for 2020-21.
  - This is a tricky situation because any normalisation on the fiscal stimulus front is equally detrimental to the economy during a pandemic.
  - When the efficacy of monetary policy, despite its heavy lifting, has been inconclusive, fiscal dominance is crucial.
  - Steps towards controlling the fiscal deficit through expenditure compression can have negative repercussions on growth. North Block's articulation that a high deficit during the pandemic can be substantiated through enhanced capital infrastructure spending is thus welcome.
- To add to these policy uncertainties, the recent debates on "greening" the RBI have created controversies over the efficacy of the monetary policy reaction function to integrate climate change variables.
  - The green bonds strategy can open up a political economy question that may limit the degree of freedom the RBI needs to maintain price and financial stability.
  - Economists also suggest letting the greening of macro policy be "fiscal" in nature.

1. In Glasgow, all eyes on 2030 & The agenda for Glasgow.
(GS Mains Paper 3, Environment)

Context: The stage is set for the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow, starting October 31.

- Many high-emitter countries are short of the emissions reductions required by 2030 to restrict global temperature rise to "well below 2°C" or the now de facto goal of 1.5°C above pre-industrial levels.
- One hundred and thirteen parties out of 194 submitted updated NDCs by end-July 2021.
- The UN NDC report tells us that even accounting for these, global emissions in 2030 are expected to be 16.3% above the 2010 level, whereas the IPCC has called for 2030 emissions to be 45% less from 2010 levels for the 1.5°C goal.
- The report therefore calls for "a significant increase in the level of ambition of NDCs" till 2030.
- The U.K. and the European Union have raised their targets to a significant 68% and 55%, respectively, compared with 1990 levels by 2030.
- The U.S. has now promised net zero emissions by 2050.
    - o It has also promised to reduce emissions by 50–52% below 2005 levels by 2030. This is grossly insufficient as the U.S. is the world's second largest emitter.
- China, the world's largest emitter, whose relentless push to add maximum infrastructure, industrial and power-generation capacities before peaking in 2030, may use up much of the cumulative global emissions available for 1.5°C.

Concerns with Net-Zero goals
- Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change emphasised that to keep temperature rise within 1.5°C, **global emissions should be reduced by 45% from 2010 levels by 2030, on the way to net zero 2050.**

- The foundational principle of the UN Framework Convention on Climate Change (UNFCCC), which is **common but differentiated responsibilities (CBDR),** has been forgotten.
    - o Developed countries, responsible for over 75% of accumulated atmospheric GHGs causing climate change, should shoulder most of the burden for reducing emissions.
    - o Developing countries should do what they can, with technological and financial assistance from the former.
    - o CBDR would imply that developed countries should reach net zero by, say, 2035-40, while developing countries can get there later.
- Net zero 2050, **diverts attention away from the urgent 2030 target** that COP26 should focus on.

Way forward:
- **Carbon budgets**: Carbon budgets represent the quantum of CO_2 the atmosphere can hold for a given global temperature, best assessed through cumulative emissions and not annual flows.
    - o The report of updated NDCs states that "the cumulative CO_2 emissions in 2020–2030 based on the latest NDCs would likely use up 89% of the remaining carbon budget. It will be leaving a post-2030 carbon budget of around 55 Gt CO_2, which is equivalent to the average annual CO_2 emissions in 2020–2030.
    - o Estimates based on carbon budgets should be used at Glasgow, if only to assess flows-based arrangements.
- **Reducing emissions: COP26 should focus on achieving the 45% emission cuts from 2010 levels** required by 2030 for limiting temperature rise to 1.5°C.
- **Steps for India:** India emits 7% of global emissions, has extremely **low per-capita emissions and** yet ranks as the **world's third largest emitter.**

- o It is a **G20 member** and a reputed economic and industrial power.
- o India submitted the Nationally Determined Contributions (NDCs) with a **goal of reducing emissions intensity of GDP by 33%-35%** and **increasing green energy resources (non-fossil-oil based) to 40% of installed electric power capacity by 2030.**
- o India has **not yet submitted its updated NDC** as required and may face difficulties at Glasgow, especially from most vulnerable countries.
- o The well-known website Climate Tracker has now placed India in its **second- worst performing category of countries** regarding conformity with global 1.5°C goals, down from the top category for 2°C just after the Paris Agreement.
- o **India can raise its NDC pledge of reducing Emissions Intensity (ratio of emissions to GDP) by 33-35% from 2005 levels by 2030 to 38-40%.** This is quite achievable since India has been averaging around 2% p.a. reduction in EI as per its own NDC.
- o **India could also offer to achieve net zero by 2070-75,** invoking CBDR and comparing well with China's 2060 pledge.
- o For India to convert its ambitions of installing 450GW of renewable power by 2030, adding green hydrogen or increasing electric vehicles into commitments may require more homework.

2. India's Central Asian outreach.
(GS Mains Paper 2, IR)

Context: The dramatic developments in Afghanistan have generated new geostrategic and geo economic concerns for the Central Asian region.

- The evolving situation has also thrown up renewed challenges for India's regional

and bilateral ties with Central Asia and the Caucasus.
- The External Affairs Minister was in the region earlier this month.

Key points
- **In Kyrgyzstan**, he extended a credit line of $200 million for the support of development projects and signed an memorandum of understanding (MoU) on High-Impact Community Development Projects (HICDP).
- In Kazakhstan, he attended the 6th Foreign Ministers' **Conference on Interaction and Confidence-Building Measures in Asia** (CICA).
  - o At CICA, He targeted China's Belt and Road Initiative (BRI).
  - o Admonishing China's methods in promoting the BRI, he said while greater connectivity was essential for the promotion of regional stability, it must not be pursued for parochial interests.
- Before reaching Armenia, he met his counterparts from Russia, Uzbekistan and Turkmenistan to discuss regional cooperation.
- **India-Armenia ties:** Both countries agreed to enhance trade and cultural exchanges to boost bilateral relations.
- India also supported efforts for a peaceful solution of the **Nagorno-Karabakh conflict** between Azerbaijan and Armenia under the Organization for Security and Cooperation in Europe's (OSCE) Minsk group.
  - o **Nagorno-Karabakh is part of Azerbaijan**, but its population is majority Armenian. As the Soviet Union saw increasing tensions in its constituent republics in the 1980s, Nagorno-Karabakh voted to become part of Armenia - sparking a **war that stopped with a ceasefire in 1994.**
  - o The Minsk Group, the activities of which have become known as the Minsk Process, spearheads the OSCE's efforts to find a peaceful solution to the Nagorno-Karabakh conflict. It is **co-**

chaired by France, the Russian Federation, and the United States.

India and Central Asia- Caucasus relations
Central Asia, located in the heart of Eurasia, forms a part of India's extended neighbourhood. Its geographical proximity, strategic location, and historical linkages make it an important partner for New Delhi.

- After the breakup of the Soviet Union and the formation of the independent republics in Central Asia, India reset its ties with the strategically critical region.
- India provided financial aid to the region and established diplomatic relations. New Delhi signed the **Strategic Partnership Agreements (SPA) with Kazakhstan, Tajikistan and Uzbekistan** to stimulate defence cooperation and deepen trade relations.
- In 2012, **New Delhi's 'Connect Central Asia' policy** aimed at furthering India's political, economic, historical and cultural connections with the region.
- However, India's efforts were impacted by **Pakistan's lack of willingness to allow India passage through its territory.**
- China took advantage of the situation and unveiled the much-hyped **Belt and Road Initiative (BRI) in Kazakhstan.**
- The growing geostrategic and security concerns regarding the **BRI's China-Pakistan Economic Corridor (CPEC)** and its violation of India's sovereignty forced New Delhi to fix its Central Asia diplomacy.
- Soon after assuming office, the Indian Prime Minister visited all the Central Asian countries in July 2015. Eventually, Central Asia became the link that placed Eurasia in New Delhi's zone of interest.
- India signed MoUs with Iran in 2015 to develop the Chabahar port in the Sistan-Baluchistan province that was in the doldrums from 2003.

Opportunities and Way forward:
- **Willingness of Central Asian countries**: They have been keen to have India as a partner as they have sought to diversify their strategic ties, being in influence of China and Russia. Most of the Central Asian leaders view India's Chabahar port as an opportunity to diversify

their export markets and control China's ambitions.
- **Connectivity:** They have admitted New Delhi into the **Ashgabat Agreement**, allowing India access to connectivity networks to facilitate trade and commercial interactions with both Central Asia and Eurasia, and also access the natural resources of the region.
- **Rising anti-Chinese sentiments** within the region and security threats from the Taliban allow New Delhi and Central Asia to reimagine their engagement. India cannot afford to lose any time in recalibrating its regional engagements.

3. Time to seed a transition
(GS Mains Paper 3, Agriculture & Economy)

Context: The recent Situation Assessment Survey (SAS) of agricultural household's data shows that an average Indian farmer earned Rs 10218/month in 2018-19(July-June).
- Across states, the highest income received by a farming household in Meghalaya followed by Punjab & Haryana while the lowest income levels were in West Bengal & Jharkhand.
- However, it is not a fair comparison as holding sizes vary widely across states.
- When these incomes are normalized by their holding sizes, Punjab's ranking on per hectare income falls to 11th.
  - The states like Kerala, J&K, Meghalaya, etc. will do well in this aspect because people of these states earn their income from cultivating fruits, vegetables. Spices & livestock. These are high valued crops driven by market demand, not linked to MSPs.
- At the same time, the higher income in Punjab is due to the greater size of their landholding than their counterparts.
- However, from above the deduction is that Punjab needs to learn its lesson from the above states to augment their income on a per hectare basis & do sustainable farming.

Issues in Punjab Agriculture:
- Heavy dependence on rice & paddy cultivation.

- Highly MSP-driven agriculture.
- Depletion of state's water table.
- Contamination of ground water.
- Stubble burning is choking millions.
- Low yield per hectare.

A fund to switch Punjab farmers from Paddy to Maize:

The Centre needs to accept the idea of creating a Rs 25000 crore fund to help farmers switch from paddy to maize with the following inputs:

- The fund should be under a five-year plan to shift at least a million hectares of paddy area to maize.
- The corpus should have equal contributions from the Centre & State.
- Maize Corporation of Punjab should be created to buy maize from farmers at MSP.
- The corporation should enter into contracts with ethanol companies & most of the maize should be used to produce ethanol as the poultry & starch industries will not be able to absorb this surplus in maize.
- Maize productivity should be made competitive as that of paddy in Punjab ultimately making the production of ethanol from maize a globally competitive manner.
  - The best seeds as to be used for this purpose.
- What more can be done: other parts of diversification strategy:
  - Increasing the area under fruits & vegetables.
  - More focused policy to build efficient value chains in livestock & fisheries.
  - The sector needs to be backed by proper processing, grading & packaging infrastructure to tap its full potential.

Possible positive impacts of the policy:

- It will help in achieving GOIs policy for 20% blending of ethanol on petrol.
- It will arrest Punjab's depleting water table because maize needs less than 1/5th of the water that paddy needs.
- It will also help Punjab in saving much on power subsidy to agriculture.

  - This saving subsidy resulting due to maize switching can be used to fund a part of the state's contribution to the Maize Corporation.
- There will be lesser methane emissions & less stubble burning.
- Moreover, ethanol will also reduce GHG emissions in vehicular pollution.

4. Govt proposal at WTO: Fishery subsidies if stock kept at sustainable level.
(GS Mains paper 3, Trade related)

Context: According to a proposal submitted by India recently, a member country of the World Trade Organisation (WTO) can provide subsidies to its fishermen if it maintains stocks at a biologically sustainable level.

The Proposals

- India has also proposed that a country engaged in distant water fishing (fishing beyond 200 nautical miles from its sea shores) cannot provide fishery subsidies for 25 years from the date of entry into force of the fisheries subsidies agreement.
- Rationale:
  - Fishing in distant waters or in some other country's territory is a major problem when it comes to maintaining fish stocks at sustainable levels.
  - Such activities lead to depletion of fish stocks in the oceans and this happens because of use of highly mechanised vessels or boats for industrial fishing.
- This agreement is under discussion among the 164 WTO members in Geneva.

Objective of the Proposals: The aim of these negotiations is to discipline subsidies with the overall objective to have sustainable fishing and to eliminate IUU (illegal, unreported and unregulated) fishing subsidies and prohibit subsidies contributing to overcapacity and overfishing.

Area of Fishing

- There are primarily three areas of fishing --
  - Territorial waters (12 nautical miles from the sea shore),

- o EEZ (exclusive economic zones - 200 nautical miles), and
- o High seas.

WTO negotiations
- In the WTO, member countries negotiate through a text to finalise an agreement.
- The current draft text, which is under negotiations, does not provide a conducive policy space for developing and least developed countries (LDCs) that are yet to develop their fishing capacities.
- The current proposal submitted by India assumes significance as the suggestions (from its proposal) are considered and incorporated suitably, then only it will be a balanced text for negotiations.
- The principle of polluter pays and common but differentiated responsibilities and respective capabilities concept must be applied in line with the popular demand of developing countries made at a meeting on July 15 this year.
- The suggestion of India for a moratorium of 25 years on countries that are engaged in distant water fishing is based on FAO's (Food and Agriculture Organization) code of conduct for responsible fisheries, which was adopted in 1995.
- It has recognised the issues of overfishing and depletion of fish stocks.
- Further, India has also proposed that member countries engaged in distant water fishing after this agreement comes into effect should have to reduce such activities by certain specified percent every year till overcapacity or overfishing persists.

Impact
- These proposals are path breaking and will go a long way in meeting the desired objective of sustainability of marine resources globally.
- The proposal has also clarified that the 25 year prohibition on subsidies will not apply on LDCs;
- Developing countries that provide support to low income and resource-poor fishing communities who indulge in fishing activities within their territorial waters and EEZs; and

developing nations that are not engaged in distant water fishing as on date.
- Also, the proposed restrictions would not apply to any developing country whose share of annual marine capture fish production is less than one per cent of the global annual marine capture fish production.
- India's proposal has also stated that countries engaged in fishing in the high seas will have to declare certain details within 90 days after the agreement comes into force.
- These details include fishing vessels engaged in distant waters, and names and details of those high seas.

Fishing sector around the globe and India
- One of the key reasons for the problem of over exploitation is massive subsidies provided by governments each year -- amounting to an estimated $14-$54 billion globally per year and largely benefiting large-scale fishing operations while discriminating against smaller ones.
- While the developed economies like the U.S. and the EU have argued that all nations should do away with fishing subsidies linked to overcapacity and overfishing, developing countries have made a case for being exempted from such restrictions.
- India has also sought more time to implement disciplines on proposed prohibition of subsidies for fishing in exclusive economic zones and complete exemption on fishing activities in territorial waters, which is considered as 12 nautical miles from the sea shore.
- The sector in India provides direct employment to about 16 million fishermen and fish farmers and indirect jobs to around 32 million.
- New Delhi will oppose developed nations' proposal of forging government-to-government access agreements wherein two countries can enter into a pact for fishing activities. It is of the view that such agreements will lead to exploitation of least developed nations.

- India ranks among the top seven producing countries of global capture fisheries, which account for almost 50% of total captures.

Illegal, unreported and unregulated (IUU) fishing :

- The members emphasised the need for greater monitoring and transparency in fishing operations. Countries were urged to become a party to the FAO Agreement on Port State Measure (PSMA), considered a potent international instrument to combat IUU fishing.
- The Russian Federation announced it was becoming a party to the PSMA, joining another 68 FAO members including the European Union on behalf of its member states, which have adhered to the agreement since its adoption in 2009.
- The United Kingdom also agreed to become a party to the agreement in early 2021, following its departure from the European Union.

5. GIFT City a reinsurance hub in the making.
(GS Paper 3, Economy, Trade and Investment)

Context: The country is set to become a reinsurance hub with the International Financial Services Centre Authority (IFSCA), India's first single regulator for the Gujarat-based International Financial Services Centre (IFSC), announcing a new liberal regulatory regime.

- It is for facilitating the formation of various international and Indian insurance businesses in the Gujarat International Finance Tec-City (GIFT City).

Rationale

- The regulations for setting up IFSC Insurance Offices (IIOs) and IFSC Insurance Intermediaries Offices (IIIOs) were notified by the IFSCA on October 22.
- The new facilities will help India to develop a global reinsurance hub in the country, competing with offshore financial centres like Singapore, Dubai and Hong Kong, which currently dominate the insurance business in Asia.

- Even non-insurance entities can incorporate public companies in IFSC and undertake insurance or reinsurance business.
- The new regulations have the potential of unlocking opportunities for global insurers and reinsurers. The regulatory framework is very friendly and addresses the aspirations and expectations of the players.
- The new regulations also, for the first time, allow managing general agents under a binding agreement while a delegated authority from foreign insurers or foreign reinsurers will also be able to set up an IIO.
- Indian insurance companies can set up subsidiaries to undertake insurance or reinsurance business as IIO.
- Foreign intermediaries will also be allowed to set up IIOs alongside IRDAI registered intermediaries like insurance brokers and corporate agents.
- Although IFSC offers zero tax provision for 10 years, no foreign reinsurer has set up operations in the centre till now.
- Global reinsurers can procure business from the region around India by setting up an operation in the GIFT City.

Guidelines

- Under the new regulations, foreign insurers and reinsurers can set up branch offices as IIOs to undertake insurance or reinsurance business from IFSC either by setting up branches or subsidiaries.
- Even Indian insurance and reinsurance companies including foreign reinsurance branches (FRBs) registered with Irdai can also set up branch offices to undertake insurance or reinsurance business from IFSC.
  - In the case of a branch, a player doesn't have to bring in any capital and with regard to subsidiaries, new insurance or reinsurance companies will require a paid-up capital (as per Insurance Act, 1938) of Rs 100 crore for insurance and Rs 200 crore for reinsurance.

- The new rules specify that no onshore assigned capital will be required for foreign insurers or foreign reinsurers setting up IIOs as branches.
- The assigned capital of $1.5 million can be maintained in home jurisdictions. Further, there's no onshore solvency requirement for IIO in the IFSC.
- Also, the assigned capital solvency margin will have to be maintained in the home jurisdiction.

Insurance sector in India
- Insurance helps in protecting the health and assets of the people and stimulates the business activities to operate in a cost-effective manner.
- India's insurance sector has been growing dynamically in recent years, with total insurance premiums increasing rapidly, as compared to global counterparts.
- The insurance penetration i.e. the ratio of total premium to GDP (gross domestic product) and insurance density i.e. the ratio of total premium to population stood at 3.69% for FY18, which is low in comparison with global levels.

Challenges in the insurance sector
- Rural- Urban divide- Rural participation of insurers in India remains deficient, and the life insurers, especially the private ones, gravitate towards the urban population, that causes a detriment of the rural population.
- Lack of Capital- Insurers in India lack sufficient capital, and their financial health, particularly that of the public-sector insurers, is in a precarious state.
- Dominance of the public sector- though the monopoly of the government in the insurance sector has ended, the public-sector insurers to a large extent hold a larger share of the insurance market even though there are fewer in number.
- Nascent stage of Non- Life insurance- Life insurance dominates the sector with a huge share of 74.7%, with non-life insurance accounting for the remaining share of just 25.3%. Moreover, products catering to specialty risks such as catastrophes and cyber security are at a nascent stage of development in India.

1. A 'bubbles of trust' approach.
(GS Mains Paper 2, IR)

Rise of China and its consequences:
- China has been able to grow economically due to ongoing globalization. Chinese firms have been able to secure significant market shares in open economies.
- However there has been a marked asymmetric globalisation being observed. The Chinese market has not been open to foreign companies in the way foreign markets are to Chinese firms.
- The asymmetric globalisation favouring China allowed Beijing to attain power. It is now using that power to undermine liberal democratic values around the world.
- In such a scenario, there have been calls for a global retreat from the free movement of goods, services, capital, people and ideas.

Concept of bubbles of trust:
- The popular backlash against China is pushing many governments towards policies of self-reliance.
- Though the reorienting and de-risking of global supply chains is welcome, pursuing technological sovereignty could be inherently self-defeating as collective efforts could be more effective in harnessing critical and emerging technologies.
- The article proposes a **bubbles of trust approach.**
- The idea of 'bubbles of trust' offers a middle path between the extremes of technological sovereignty and laissez-faire globalisation. Unlike trading blocs, which tend to be insular, bubbles tend to expand organically, attracting new partners that share values, interests and economic complementarities.

Quad's role:
- The Quad countries – Japan, India, Australia and the U.S.– with their convergence of values and geopolitical interests are uniquely placed to envelop their economies inside bubbles of trust.

- The U.S. is a global leader in intellectual property, Japan in high-value manufacturing, Australia in advanced niches such as quantum computing and cyber security, and India in human capital. This configuration of values, interests and complementary capabilities offers huge opportunities.
- The Quad countries will have to create a new form of economic cooperation based on the bubbles of trust approach.
- The Quad's Critical and Emerging Technology Working Group is well placed to develop the necessary 'bubbles of trust' framework, which could be adopted at the next Quad summit. The Working Group must seek to strengthen geopolitical convergences, increase faith in each member state's judicial systems, deepen economic ties and boost trust in one another's citizens. Quad should not allow differences of approach on privacy, data governance and the digital economy to widen.
- The focus should not be on substituting China. Rather it should be based on the Quad countries managing their dependencies on China while simultaneously developing a new vision for the global economy.

Conclusion:
- Every measure needs to be taken to address the skewed globalization pattern and its negative consequences.
- The bubbles of trust offers a middle path between the extremes of technological sovereignty and laissez-faire globalisation and hence there is the need to promote it.

2. SC tells panel to fix maximum water level at Mullaperiyar dam.
(GS Mains Paper 2, Inter State Relation)

Context: The Supreme Court has directed the Supervisory Committee to take an immediate and firm decision on the maximum water level

that can be maintained at Mullaperiyar dam amidst torrential rains in Kerala.

What is the news?

- A report by United Nations has stated that the Mullaperiyar dam, situated in a seismically active area, faces the risk of failure.
- Earlier this year, the Supreme Court warned the TN Chief Secretary against the failure to give information on the rule curve for dam which decides the discharge of excess water.

Mullaperiyar Dam

- It is a **masonry gravity dam** on the Periyar River in Kerala (Cardamom Hills, Western Ghat).
- It was constructed between **1887 and 1895 by John Pennycuick** and also reached in an agreement to divert water eastwards to the Madras Presidency area.
- It has a **height of 53.6 m** (176 ft) from the foundation, and a length of 365.7 m (1,200 ft).

Operational issue

- The dam is located in Kerala but is **operated and maintained by Tamil Nadu**.
- The catchment area of the Mullaperiyar Dam itself lies entirely in Kerala and thus not an inter-State river.
- In November 2014, the **water level hit 142 feet for first time** in 35 years.
- The reservoir again hit the maximum limit of 142 feet in August 2018, following incessant rains in the state of Kerala.
- Indeed, the **tendency to store water to almost the full level** of reservoirs is becoming a norm among water managers across States.

The dispute: Control and safety of the dam

- Supreme court judgment came in February 2006, has allowed Tamil Nadu to raise the level of the dam to 152 ft (46 m) after strengthening it.

- Responding to it, the Mullaperiyar dam was declared an 'endangered' scheduled dam by the Kerala Government under the disputed Kerala Irrigation and Water Conservation (Amendment) Act, 2006.
- For Tamil Nadu, the Mullaperiyar dam and the diverted Periyar waters act as a lifeline for Theni, Madurai, Sivaganga, Dindigul and Ramnad districts.
- Tamil Nadu has insisted on exercising the unfettered colonial rights to control the dam and its waters, based on the 1886 lease agreement.

Rule of Curve issue

- A rule curve or rule level specifies the storage or empty space to be maintained in a reservoir during different times of the year.
- The gate opening schedule of a dam is based on the rule curve. It is part of the "core safety" mechanism in a dam.
- The TN government often blames Kerala for delaying the finalization of the rule curve.

3. A reminder that India still trails in the hunger fight.
(GS Mains Paper 2, Poverty)

Context: The recent Global Hunger Report (GHR) 2021 ranks India at 101 out of 116 countries, with the country falling in the category of having a 'serious' hunger situation.

- India is also among the 31 countries where hunger has been identified as serious.
- India ranked 94 among 107 countries in the Global Hunger Index (GHI) 2020, released last year.
- The ranks are not comparable across years because of various methodological issues and so it is wrong to say that India's standing has fallen from 94 (out of 107) in 2020.
- The Government of India refuted the GHI, claiming that it is 'devoid of

ground reality' and based on 'unscientific' methodology.

Background:

Global Hunger Index (GHI)

- **Annual Report:** Jointly published by **Concern Worldwide** and **Welthungerhilfe.**
- **Aim:** To comprehensively measure and track hunger at the global, regional, and country levels.
- **Calculation**: It is calculated on the basis of four indicators
    - **Undernourishment (percentage of undernourished in the population (PoU))**- it refers to the share of the population of a country that has an insufficient calorie intake. (**weight of one-third each**)
    - **Child wasting** - it refers to the share of children under the age of five who have comparatively low weight for their height which reflects acute undernutrition. (**one-sixth weightage**)
    - **Child stunting** - refers to the share of children under the age of five who have a low height for their age. This reflects chronic undernutrition among them. (**weight of one-third each**)
    - **Child mortality** - it is the mortality rate of children in a country under the age of five. (**one-sixth weightage**)

Scoring methodology

- The global hunger index determines the score of a country based on the above 4 indicators 100 point scale where zero is the best possible score reflecting no hunger 100 is the worst situation.
- Every country's GHI score is classified by severity from low to extremely alarming.
- Each indicator is standardised based on **thresholds set slightly above the highest country-level values.**

Government's objection

- The Government's objection to the methodology is that the **assessment is based on the results of a 'four question' opinion poll, which is not based on facts.**
- But the report is based on the **percentage of undernourished in the population -PoU data** of the Food and Agriculture Organization of the United Nations (FAO).
    - PoU is an estimate of the **proportion of the population whose habitual food consumption is insufficient** to provide the dietary energy levels that are required to maintain a normal active and healthy life.
    - PoU is estimated taking into account a number of factors such as food availability, food consumption patterns, income levels and distribution, population structure, etc.
- In the **absence of food consumption data in most countries,** this indicator is an estimate based on a modelling exercise using available data; therefore, there is some margin of error.
- Most of the criticism of the FAO's PoU data has been about how **it underestimates hunger rather than over.**

Therefore, while there is scope for a valid discussion on the GHI methodology and its limitations, this objection by the Government is not warranted.

Concerns for India

Slow rate of progress: India shows a worsening in PoU and childhood wasting in comparison with 2012. It is the PoU figure of 15.3% for 2018-20 that the Government is contesting.

- Comparable values of the index have been given in the report for four years, i.e., 2000, 2006, 2012 and 2021.
- While the **GHI improved from 37.4 to 28.8 during 2006-12, the improvement is only from 28.8 to 27.5 between 2012-21.**

- The partial results of the **National Family Health Survey-5** (2019-20) also show that stunting and wasting indicators have stagnated or declined for most States for which data is available.
- The leaked report of the **consumption expenditure survey** (2017-18) conducted by **National Sample Survey Office – (NSSO)** Ministry of Statistics and Programme Implementation has also shown that rural consumption had fallen between 2012-18 and urban consumption showed a very slight increase.
  - The Survey Collects information on the **consumption spending patterns of households** across the country, both **urban and rural.**

COVID-19 impact
- It must also be remembered that all the data are for the period before the COVID-19 pandemic.
- The situation of food insecurity at the end of the year 2020 was concerning, and things are most likely to have become worse after the **second wave.**
- Many of these surveys find that over 60% of the respondents say that they are eating less than before the national lockdown in 2020.
- Services such as the Integrated Child Development Scheme (ICDS) and school mid-day meals continue to be disrupted in most areas, denying crores of children the one nutritious meal a day they earlier had access to.

Cuts for schemes: The only substantial measure has been the provision of additional free food grains through the Public Distribution System (PDS).
- It leaves out about 40% of the population, many of whom are in need and **includes only cereals.**
- **Inflation in other foods,** especially edible oils, has also been very high affecting people's ability to afford healthy diets.
- On the one hand, while we need additional investments and greater priority for food,

nutrition and social protection schemes, **Budget 2021 saw cuts in real terms for schemes such as the ICDS and the mid-day meal.**
- **Integrated Child Development Services (ICDS)** is an Indian government welfare programme that provides food, preschool education, and primary healthcare to children under 6 years of age and their mothers.
- **The Midday meal scheme** (under the Ministry of Education) is a centrally sponsored scheme which was launched in 1995.
  - It is the world's largest school meal programme aimed to attain the goal of universalization of primary education.
  - The national Mid-Day Meal Scheme in government and aided schools popularly will now be known as **PM POSHAN** Scheme and will also cover students of balvatikas or pre primary classes.

The argument that the GHI is an indicator of undernutrition and not hunger, is only diverting attention away from more substantial issues. Of course, malnutrition is affected by a number of factors (such as health, sanitation, etc.) other than food consumption alone, but that in no way means that healthy diets are not central. There is no denying that diverse nutritious diets for all Indians still remain a distant dream.

1. Preparing for outbreaks.
(GS Mains Paper 2, Health Infrastructure)

Context: Prime Minister launched the PM Ayushman Bharat Health Infrastructure Mission, which will seek to address three critical gaps in India's public health sector:
- Augmenting health facilities for treatment;
- Setting up of Integrated Public Health labs for diagnosis of disease, and
- Expansion of existing research institutions that study pandemics.

What is the PM Ayushman Bharat Health Infrastructure Mission (PM ABHIM)?
- It is the largest pan-India scheme since 2005 for the creation and improvement of long-term public healthcare infrastructure.
- It is meant to be implemented in each district of the country with outlay of Rs 64,180 Cr for five fiscal years from 2021-22 to 2025-26.

Aim of ABHIM
- The ABHIM is another addition to the arsenal we have to prepare for such outbreaks in the future.
- In addition to the National Health Mission, this scheme will work towards strengthening public health institutions and governance capacities for wide-ranging diagnostics and treatment, including critical care services.
- The importance of laboratories and their lack of readiness during an outbreak in terms of having a robust surveillance system and diagnostic interface has never been more pronounced than in recent times.

The first component of the mission
- The first component is to establish comprehensive surveillance of infectious diseases.
- Setting up Integrated Public Health laboratories in all districts, 5 regional branches and 20 metropolitan units of the National Centre for Disease control at state level and Integrated Health Information Platform for national level.

The second component of the mission
- The second component is the creation of diagnostics and treatment facilities.

- To set up 17788 new rural health and wellness centre at districts, 11024 new urban health and wellness centre, one critical hospital block in each district having 5 lakh or more population.
- At the state level, 15 health emergency operation centres will be set up.
- At the national level, two container-based mobile hospitals will be set up; and critical care hospital blocks in 12 Government of India hospitals will be set up — which will also act as mentor institutions for training and capacity building.

The third component of the mission
- The third component of the mission will be on comprehensive pandemic research.
- At the district level, strengthening of existing 80 viral diagnostics and research labs.
- Creation of 15 new biosafety level III laboratories at state level.
- At the national level, 4 new regional national institutes for virology will be operationalized and a digital regional research platform for WHO southeast Asia Region will be created.

Constitution guarantees for healthcare in India
- The Constitution guarantees fundamental rights to its people. Article 21 gives the citizens the Right to Life.
- Many other obligations are listed under Directive Principles of State Policy. These include Article 47, 39 and 38, which argue for the need to raise the level of nutrition, enhance standards of living and improve public health.

Issues with healthcare in India
- India spends 1.4 per cent of total GDP expenditure on healthcare which is half that of Brazil, South Africa and much lower than China and Russia.
- Public spending on healthcare in India, at 33 percent of the total healthcare spend, is one of the lowest in the world.
- Infant Mortality Rate (IMR) at 33 is still among the highest in India.
- Due to low share of institutional deliveries India accounts for 20% of maternal mortality deaths in the world.
- The total bed capacity still remains far from sufficient. Indian hospital bed to population

ratio at less than1 per thousand is the lowest among all BRICS countries.

- Lack of skilled service providers is one of the biggest constraints in India. There is only 1 doctor per 10,000 people.

Factors that make health care unaffordable:

- **High private share:** Private share constitutes 70 per cent of overall expenditure. This creates a huge gap in healthcare funding leading to an increased monetary burden on individuals.
- **Low penetration of insurance:** Only 5% of health expenditure is being financed by insurance.
- **OOP remains a major source:** Out of pocket contributes close to 86 % of overall healthcare expenditure. 40 million people in India are in debt because of OOP expenditure.

Some international best practices in healthcare

- Hospitals that have forged collaborations among providers and community-based organizations that encourage self-management have rapidly reduced readmissions.
- Adopting telehealth Platforms that engage patients before and after surgery produce better results than traditional approaches.
- Studies suggest using Computer-assisted diagnosis technology can help by boosting diagnostic confidence & reducing costs.

Way forward

- **Priority sector:** The government should focus on the unfinished agenda such as 'priority sector' status to the health sector to ensure smooth credit flow, mandatory universal health insurance, creation of a dedicated infrastructure and innovation fund.
- **Primary health care:** In 2011, a high-level expert group on universal health coverage reckoned that 70% of government health spending should go to primary health care. This recommendation needs to be followed.
- **NHM:** The NHM's share in the health budget fell from 73% in 2006 to 50% in 2019 in the absence of uniform and substantial increases in health spending by States. Thus, allocation to NHM needs to be increased.
- **Investment:** There is a need to depart from the current trend of erratic and insufficient increases in health spending and make substantial and sustained investments in public health over the next decade.
- **Learning from neighbours:** India's neighbours, in the past two decades, have made great strides on the development front. Sri Lanka, Bangladesh and Bhutan now have better health indicators than India.
- **Artificial Intelligence:** AI in healthcare can help to leverage technology to deploy efficient, impactful interventions at exactly the right moment in a patient's care.
- **Medical assistants:** Practitioners of modern medicine trained through short-term courses, like those of a 2–3-year duration, can greatly help in providing primary health care to the rural population.
- **Preventive healthcare:** Focus on preventive healthcare such as special emphasis on yoga, ayurveda and fitness.
- **Accessibility:** Improve accessibility along with price control is needed.
- **Right to Health:** A constitutional amendment in relation to the Right to Health, similar to the Right to Education Act, should be considered
- **Spending:** The government needs to increase its public spending on health to at least 3 per cent of GDP, in keeping with its improved economic status.

2. Framework to manage drone traffic notified. (GS Mains Paper 2&3)

Context: The Ministry of Civil Aviation has notified a traffic management policy framework for drones, which envisages private, third-party service providers for ensuring safe operations.

What does the policy framework say?

- Under the framework, these **Unmanned Traffic Management Service Providers (UTMSP)** will extend automated, algorithm-driven software services instead of voice communication as in the traditional **Air Traffic Management (ATM) systems.**
- They will primarily be responsible for segregating and separating a drone from other drones and manned aircraft in the airspace below 1,000 feet in the country.

- The traffic management providers will be assisted by Supplementary Service Providers (SSPs), who will maintain data about terrain, weather, location of manned aircraft and provide services such as insurance, data analytics and drone fleet management.
- The drone traffic management policy also requires integration of UTM with ATM so that flight plans and real-time location of manned aircraft can be recorded as well in order to continuously separate manned and unmanned aircraft from each other.
- Law enforcement and security agencies will also have access to some information in the UTM ecosystem on a need-to-know basis.

Service fee
- The policy also allows UTMSPs to levy a service fee on users, a small portion of which will also be shared with the Airports Authority of India.
- In order to implement this policy, the government is likely to carry out UTM-based experiments in the country and float a request for proposal for onboarding UTMSPs. An evaluation process will be undertaken and successful participants will be awarded regions for establishment of UTM services.

3. Cost of doing business.
(GS Mains Paper 3, Economy)

Context: The controversy over Ease of the Doing Business (EoDB) notwithstanding, India must now sharpen its focus on the CoDB.

The Cost of Doing Business: The CoDB is any expense a business incurs while in the process of conducting business. Regardless of type, such costs must be considered carefully by managers, business owners, and anyone involved in running a company, since the amount of such costs will play a large role in determining if a company is profitable or not.

Two key factors influencing CoDB — energy costs and regulatory overload
- **High fuel costs:** Diesel prices in India are 20.8 % higher compared to China, 39% in the US, 72.5 % higher than Bangladesh and 67.8 per cent higher than in Vietnam.

- This is largely **because of heavy taxation**.
- **High power costs:** In the case of electricity, prices for businesses in India were higher by around **7-12 % vis-à-vis those in the US, Bangladesh or China** and by as much as 35-50 per cent
- Coal, which accounts for more than **70 per cent of electricity generation in India**, is also pricier vis-à-vis other countries leading to higher electricity prices.
- Like in the case of the petroleum sector, government levies account for nearly **half of the prices paid by coal consumers.**
- Coal producers cannot claim input tax credit because electricity is not under GST.
- Freight cost is amongst the highest.
- **Regulatory overload:** A Teamlease report highlights that a small manufacturing company with just one plant and up to 500 employees is regulated by more than 750 compliances, 60 Acts and 23 licences and regulations whereas a mid-sized company is regulated by 5500 compliances, 135 acts and 98 licences and registrations.

Way forward
- **Including fuels under GST** would lower costs for businesses owing to input tax credit even if taxation levels continue to remain high.
- **Cleaning up the power distribution sector,** which is largely state-controlled, could potentially lower electricity prices for businesses.
- **Fiscal incentives by the Centre:** A majority of the compliances stem from the states and reducing this burden would require a significant push on states to act on this front.
- The Centre could leverage the "carrot and stick" framework — using **fiscal incentives to nudge the states** to act and disincentivise them from maintaining the status quo.

Conclusion
The Government must prioritise reducing the cost of energy and compliances for businesses rather than focusing on de jure measures to boost ease of doing business. These will boost India's manufacturing competitiveness significantly and further increase formalisation in the economy.

1. SEBI clears norms for gold exchanges.

Context: The board of the Securities and Exchange Board of India (SEBI) has approved the framework for a gold exchange as well as for vault managers. This approval paves the way for gold exchanges to be set up for trading in 'Electronic Gold Receipt' (EGR).

What is EGR?
- SEBI's concept paper proposes issuing an electronic gold receipt in exchange pf physical gold (similar to equity shares), deposited with a vault manager (like a depositary participant) and this receipt can then be traded.
- The government wants India's outsized influence in the physical market for gold to be visible in the financial market for gold as well.

Why need EGRs?
- EGI is a way of getting people to not hoard gold, by creating an exchange that provides transparent pricing and liquidity (to cash or back to gold).
- India is a net importer of gold. We are price takers and not price setters. The whole idea is to move from being price takers to be price setters.
- Price discovery at the exchanges will thus lead to transparency in gold pricing.
- The gold exchanges would provide transparent price discovery, investment liquidity and assurance in the quality of gold.

What is the SEBI regulation?
- SEBI has also proposed a regulatory framework for setting up a gold exchange.

- Existing stock exchanges will be allowed to provide the platform for trading of EGRs.
- The denomination for trading of EGR and conversion of EGR into gold will be decided by the stock exchange with the approval of SEBI.
- The clearing corporation will settle the trades executed on the stock exchanges by way of transferring EGRs and funds to the buyer and seller, respectively.

How will EGR work?
- EGR holders, at their discretion, can withdraw the underlying gold from the vaults after surrendering the EGRs.
- SEBI-accredited vault managers will be responsible for the storage and safekeeping of gold deposits, creation of EGRs, withdrawal of gold, grievance redressal and periodic reconciliation of physical gold with the records of depository.
- The vault manager will have a networth of at least ₹50 crore.

2. Bureaucracy's digital challenge.

Context: The biggest challenge today to Indian bureaucracy is the shift from desk to digital.
- This shift is not limited to a transition towards e-office and e-governance, but includes the organisational and bureaucratic response to digital spaces, especially the use of social media.
- The focus has been mostly on the former, while the latter has remained largely unaddressed.

Arguments for bureaucrats using social media

- **The use of social media is gradually getting institutionalised i**n many Westminster system-based countries.
  - During the Brexit debate in the U.K., many civil servants shaped public debate through the use of social media even while remaining politically neutral.
- Many civil servants have become **accessible to the common people** and public service delivery issues have been resolved through the use of social media.
- Social media has also created a p**ositive outlook towards an institution long perceived as opaque and inaccessible.**
- Social media has **increased awareness among people** about government policies and programmes.
- Social media ensures that **blind obeying political executive is minimised and bureaucrats serve the people**
- **Values are becoming more dominant than facts i**n public policymaking. And both values and facts are getting reshaped due to fake news and systematic propaganda within public policy circles as well.
  - In such a scenario, the bureaucracy, which is expected to be the epitome of public values and a storehouse of facts, shouldn't be expected to govern in private.
- Social media is critical for bureaucrats to equip themselves against the **menace of misinformation and disinformation.**

Arguments against bureaucrats using social media

- **Anonymity** is the defining feature of Indian bureaucracy, and gets compromised while using social media.
- As an organisational form, **the bureaucracy is incompatible with social media**. While bureaucracy is characterised by hierarchy, formal relationships and standard procedures, social media is identified by openness, transparency and flexibility.
- **Accessibility and accountability:** In India, social media is getting used by civil servants for self-promotion.
- **Social media accountability is no alternative to institutional and citizen-centric accountability.** It is partly unethical to use social media during office hours and justify it when some people who have travelled long distances are waiting outside the office.

Bureaucrats should use social media to improve public policies. If they don't use social media appropriately, their role as independent advisers stands threatened.

3. Anti-defection law, for independent legislators.

Context: An independent MLA from Gujarat is said to have has joined a national political party "in spirit" as he could not formally do so, having been elected as an independent.

What is Anti-defection Law?

- The Anti-Defection Law under the Tenth Schedule of the Constitution punishes MPs/ MLAs for defecting from their party by taking away their membership of the legislature.

- It gives the Speaker of the legislature the power to decide the outcome of defection proceedings.
- It was added to the Constitution through the **Fifty-Second (Amendment) Act**, 1985 when Rajiv Gandhi was PM.
- The law applies to both Parliament and state assemblies.

Why in news?

- The anti-defection law specifies the circumstances under which changing of political parties by legislators invites action under the law.
- It includes situations in which an independent MLA, too, joins a party after the election.

Why are independents important?

- Independents give voters better opportunities to express their preferences.
- This can improve political representation, as independents are free from the dictates of a party line, and have the flexibility to represent local preferences in a way that party-affiliated candidates often do not.

Cases consider under the anti-defection law

The law covers three scenarios with respect to shifting of political parties by an MP or an MLA.

(1) Voluntary give-up

- The first is when a member elected on the ticket of a political party "voluntarily gives up" membership of such a party or votes in the House against the wishes of the party.
- Such persons lose his seat.

(2) Independent members

- When a legislator who has won his or her seat as an independent candidate joins a political party after the election.
- In both these instances, the legislator loses the seat in the legislature on changing (or joining) a party.

(3) Nominated MPs

- In their case, the law gives them six months to join a political party, after being nominated.
- If they join a party after such time, they stand to lose their seat in the House.

Covering independent members

- In 1969, a committee chaired by Home Minister Y B Chavan examined the issue of defection.
- It observed that after the 1967 general elections, defections changed the political scene in India: 176 of 376 independent legislators later joined a political party.
- However, the committee did not recommend any action against independent legislators.
- A member disagreed with the committee on the issue of independents and wanted them disqualified if they joined a political party.
- In the absence of a recommendation on this issue by the Chavan committee, the initial attempts at creating the anti-defection law (1969, 1973) did not cover independent legislators joining political parties.
- The next legislative attempt, in 1978, allowed independent and nominated legislators to join a political party once.
- But when the Constitution was amended in 1985, independent legislators were prevented from joining a political party and nominated

legislators were given six months' time.

4. Make hydrogen in India.

Context: Across the global arena, there is now increasing realization that to meet Paris's target of limiting temperature rise to 1.5°C, the countries need to shift the focus to more difficult options like Green Hydrogen.

Hydrogen: Green Hydrogen:
- o Hydrogen is a clean fuel. It is an energy carrier that can be used for a broad range of applications. Also, it could serve as a possible substitute for liquid and fossil fuels.
- o At standard temperature and pressure, hydrogen is a nontoxic, nonmetallic, odorless, tasteless, colorless, and highly combustible diatomic gas with the molecular formula H2.
- o Hydrogen is one of the most abundant elements on earth for a cleaner alternative fuel option.

Type of hydrogen depends upon the process of its formation:
- o **Green hydrogen** is produced by the electrolysis of water using renewable energy (like Solar, Wind) and has a lower carbon footprint.
  - o The electricity splits water into hydrogen and oxygen releasing water & water vapor as byproducts.
- o **Brown hydrogen** is produced using coal where the emissions are released into the air.
- o **Grey hydrogen** is produced from natural gas where the associated emissions are released into the air.
- o **Blue hydrogen** is produced from natural gas, where the emissions are captured using carbon capture and storage.

Advantages of Hydrogen as fuel/energy:
- **It is readily available:** It is a basic earth element and is very abundant.
- **It doesn't produce harmful emissions**
- **It is environmentally friendly:** It is a non-toxic substance that is rare for a fuel source.
- **It can be used as fuel in rockets**
- **It is fuel-efficient:** Compared to diesel or gas, it is much more fuel-efficient as it can produce more energy per pound of fuel.
- **It is renewable**.

Disadvantages of Hydrogen:
- **It is expensive:** While widely available, it is expensive. A good reason for this is that it takes a lot of time to separate the element from others.
- **It is difficult to store:** Hydrogen is very hard to move around.
- **It is not easy to replace existing infrastructure:** cars need to be refitted to accommodate hydrogen as fuel.
- **It is highly flammable**
- **It is dependent on fossil fuels:** Although hydrogen energy is renewable and has a minimal environmental impact, other non-renewable sources such as coal, oil, and natural gas are needed to separate it from oxygen.

Benefits of Green Hydrogen to India:
- It will drive India's transition to clean energy, combat climate change.
- Under the Paris Climate Agreement, India pledged to reduce the emission intensity of its economy by 33-35% from 2005 levels by 2030.

- It will reduce import dependency on fossil fuels.
- The localization of electrolyzer production and the development of green hydrogen projects can create a new green technologies market in India worth $18-20 billion and thousands of jobs.

Challenges for India in this regard:
- Converting electricity to hydrogen, shipping, storing it & then converting back to the electricity needs huge amounts of electricity from renewable energy which in turn put pressure on land.
- Transporting a very high energy content gas like Hydrogen needs huge containers & require a lot of energy.
- Though hydrogen can be used in various sectors, there are limitations on certain sectors.
  - For instance, use in transport & power is restricted since it has to compete with batteries.
- Highly expensive & need huge investment.
- It is not economically viable for most countries to produce green hydrogen domestically.

Way-Forward:
- India needs to draw up a effective & robust road map for green hydrogen.
- It needs to make huge investments in R&D to lower the cost of electrolyzers & make India a manufacturing hub.
- Further, India needs to incentivize the private sector to move towards green hydrogen.
- The most important thing is to lay down standards for large-scale use of hydrogen along with framing safety regulations

5. FM bats for social protection at UN meet.

Context: Speaking at the UN's high-level discussion on jobs and social protection for poverty eradication, Sitharaman shared the following views:
- Social protection should have digitisation of public financial management systems at the core of the design citing measures such as Direct Benefit Transfer-enabled Jan Dhan Yojana, Aadhaar biometric identification.
- Insights from behavioural economics can be leveraged in onboarding those workers who are currently not covered under the formal security net.