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CURRENT AFFAIRS
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1. POLITY & CONSTITUTION

1.1. ONE NATION, ONE RATION CARD

Why in news?

As part of the **Economic relief package amid COVID 19 outbreak**, the Central government has announced the national rollout of a '**One Nation, One Ration Card' system** in all states and Union Territories by **March 2021.**

About One Nation, One Ration Card Scheme

- Under this **'One Nation, One Ration Card' system,** beneficiary will be able to buy subsidized food grains from **any FPS across Country** using their **existing/same ration card** that is **Aadhaar linked**.
- Under **present Public Distribution System (PDS),** a **ration cardholder** can buy food grains **only** from **Fair Price Shop (FPS)** that has been assigned **in the locality in which he/she lives.**

> **About Ration Card**
> - It is a **document issued** under an order or authority of **State Government**, as per PDS, for **purchase of essential commodities** from FPS at **subsidized rates**.
> - State Governments issue **distinctive Ration Cards** to APL, BPL and Antyodaya families and conduct periodical review and checking of Ration Cards.
> - **Proof of identification**: It has become an important tool of identification **when applying for other documents** like Domicile Certificate, for inclusion in Electoral Rolls, etc.

- **Partha Mukhopadhyay Working Group on Migration** recommended for portability of Public Distribution System and its benefits in **2017**.
- Subsequently, Government launched **Integrated Management of Public Distribution System (IM-PDS)** in **April 2018.** (see box)
- The new system will identify beneficiary through **biometric authentication** on **electronic Point of Sale (ePoS) devices** installed at FPS.
- Under this, a migrant will be **allowed to buy maximum of 50% of family quota**. This is to ensure that the individual, after shifting to another place does not buy the entire family quota in one go.
- Once **100 per cent of Aadhaar seeding and 100 per cent installation of ePoS devices** is achieved, national portability of ration cards will become a reality. Currently, it is enabled in 17 States and UTs.

> **Integrated Management of Public Distribution System (IMPDS) Scheme**
> - IMPDS is **central sector scheme**, implemented under **Ministry of Consumer Affairs, Food & Public Distribution.**
> - **Objectives**
>   - Implementation of **nation-wide portability** in food grains distribution under **National Food Security Act 2013**.
>   - Creation of **national level data repository** for de-duplication of beneficiary data (Aadhaar based).
>   - Use of **advanced data analytics techniques** to bring about continuous improvements.

Benefits

- Provide **intra-state** as well **as inter-state portability** of ration cards benefitting **inter/intra state migrants** to avail benefits.
  - Inter-state portability at **IMPDS portal**
  - Intra state at **Annavitran Portal**
    - ✓ Annavitran Portal has been implemented to display electronic transactions made through ePoS devices for distribution of subsidized foodgrains to beneficiaries. This portal also shows all India picture of Aadhaar authentication of beneficiaries besides allocated and distributed quantity of foodgrains up to district level.
- Helps to **remove bogus ration card holders** through an integrated online system.
- It can **control rising food subsidy bill** by preventing leakages etc.

Challenges in implementation of ONORC

- **Technological glitches**
  - **Aadhaar authentication-** Around 85.41% of ration cards have been linked to Aadhaar up until August 2019, still leaving out a significant number.
  - **e-PoS machines-** As per data on the **Annavitran portal**, out of total 79,050, only 37,392 FPS have e-PoS machines as of January 2020. This is further low in states like Bihar and West Bengal, with some of highest out-migration rates in India.

- o **Internet connectivity and reliability -** Internet penetration remains low in India, especially in rural India.
- **Poor quality of rural electrification-** Running E-PoS machine under new scheme requires a steady source of electrical power. Survey by Ministry of Rural Development in 2017 indicates that only **half of all villages get more than 12 hours of power supply**, with power failures being rampant.
- **Huge gap in data on patterns of domestic migration-** This will challenge state governments in **making appropriate quantities of rationed commodities available** for masses.
  - o Unplanned distressed migration can further make it difficult to tackle problem at hand.
- **Centre state relations- Efforts to align different state implementation policies** on food security may be seen an encroachment on state subjects. This might create room for mistrust between Central and state governments and require engagement based on principles of **cooperative federalism**.
- **Disincentivizing provisions for local food habits and needs:** In current system, over and above central government's allocations, some states distribute additional food items such as iodised salt, spices, and pulses, among others, as per their capacity and local needs. As burden of eligible beneficiaries will be different for every state (based on in/out migration), new system may disincentivize states from diversifying diets of local people.

Conclusion

ONORC scheme has to cross multiple hurdles to be implemented successfully. Nevertheless, it has potential to achieve increased access to subsidized food by **most vulnerable sections of the population.** It can prove to be instrumental in bringing the country closer to achieving its **Sustainable Development Goal 2** of Zero Hunger in India by 2030.

National Food Security Act 2013 (NFSA)
- This marks a **shift in approach to food security** from **welfare approach to rights-based approach**.
- Act legally entitles up to **75% of the rural population** and **50% of the urban population** to receive subsidized foodgrains under **Targeted Public Distribution System (TPDS).**
- Under **NFSA**, about 81 crore persons are entitled to buy subsidized food grain, rice at Rs 3/kg, wheat at Rs 2/kg, and coarse grains at Re 1/kg — from their designated FPS of TPDS.
- It is operated under **joint responsibility** of Central and State Governments.
  - o **Central Government**- responsible for **allocation of foodgrains** to States/UTs, transportation of foodgrains up to designated depots and providing central assistance to States/UTs for delivery of foodgrains from FCI godowns to doorstep of FPSs.
  - o **State Governments- handle operational responsibility** including **identification** of eligible families and issue of Ration Cards and supervision of the functioning of Fair Price Shops (FPSs) etc.

Targeted Public distribution system
- It was **launched in 1997** to focus on poor. Under TPDS, beneficiaries are divided into 2 categories
  - o Below Poverty Line-**BPL Households**
  - o Above Poverty line- **APL Households**
- **Antyodaya Anna Yojana** was **launched in 2000** to make TPDS more focused and targeted.
  - o It focuses **poorest of the poor families** among BPL beneficiaries.

1.2. GOVERNMENT ADVERTISEMENTS ON SOCIAL MEDIA PLATFORMS

Why in news?

Ministry of Information & Broadcasting has issued **draft policy guidelines** for empanelment of social media platforms with **Bureau of Outreach and Communication** for Centre's paid outreach campaigns.

Benefits of using social media

- **Enhanced Outreach**- Social media acts as a powerful platform for forming an opinion as well as generating mass support.
  - o In India, Facebook alone has **over 210 million users**. India also has **nearly 400 million smartphone users** which offer unprecedented outreach.
- **Real Time engagement**: Social Media **releases shackles of time and place** for engagement and can connect policy makers to stakeholders in real time. E.g. During Libyan crisis, Ministry of External Affairs used social media platforms such as Twitter to assist in locating and evacuating Indian Citizens from Libya.
- **Targeted approach:** Social media platforms also **facilitate targeted approach** which helps in reaching out to desired set of people in an efficient and cost-effective manner.

- **Individual Interaction**: In traditional forms of media, interaction with individual user is either not possible or is very limited. Social Media platform offers **ability to connect with each and every individual.** It is also useful in seeking feedback on services.
- **Managing Perceptions**: One big challenge for government is to **avoid propagation of unverified facts and frivolous misleading rumors** with respect to government policies. Leveraging these platforms can help to counter such perceptions and **present facts to enable informed opinion making.**

> **Bureau of Outreach and Communication (BOC)**
> - It was **setup in 2017** by integration of erstwhile Directorate of Advertising and Visual Publicity (DAVP), Directorate of Field Publicity (DFP) and Song & Drama Division (S&DD).
> - **Mandate-** Branding of the Government as prime facilitator of people's empowerment and positioning of messages through Print, Audio-Visual, Outdoor and Digital Media to realize the same.

About Draft Policy guidelines

- **Need for advertisement on Social media:** Currently, organic reach of Government is limited to only such **people who are connected with social media handle of the concerned Ministry/Department.** Thus, there is need to reach or connect to people who are not connected with social media handle of concerned Ministry/Department.
- **Definitions:** Defines Social Media platform as **web / mobile based Internet Application** that allows **creation, access and exchange of user-generated content**. Content may be in form of text, audio-visual, graphics, animation etc.
- **Eligibility:** Social Media platform must be under **continuous operation since past 6 months** and with minimum of **25 million unique user count** per month from within India.

> **Challenges related to use of social media**
> - **Which Platforms to use**: Given **plethora of platforms and even types of social media**, it is very difficult to choose the type and no. of platform on which to engage and how to create inter-linkages between these platforms.
> - **Who will engage**: Most departments have limited capacity to engage with traditional media itself and since **social media demands a deeper and constant interaction**, availability of such resources is even more limited.
> - **How to engage**: Many questions revolve around rules of engagement, like how to create and manage an account, what should be response time, what are legal implications etc.

Conclusion

In 2012, Department of Electronics and Information Technology, has released **"Framework & Guidelines for Use of Social Media for Government Organisations"** that can be used as guide in Social media advertisements by Government agencies. Some suggestions are:

- **Well defined objectives**: Objective for use of social media is not just to disseminate information but also to undertake public engagement for a **meaningful public participation**. Thus, due care must be taken so that **people can communicate in their own language**, and **due cognizance** of views expressed is **taken.**
- **Choosing Platform**- Since choices are many, it is essential **to identify one or two key platforms** from which the department may **begin interaction**. Based on objective and response, basket of platforms may be enhanced.
- **Governance Structure-** describes rules of engagement for Organisations.
  - **Response and Responsiveness**- It is important to state upfront the scope of response so that expectations are set correctly.
  - **Content governance**- Content should adequately address **challenges related to accessibility in Indian Languages** as well as **accessibility of content for differently abled**.
  - **Legal provisions**- These must be viewed in accordance with Right to Information Act, Information Technology (IT) Act 2000 & IT Amendment Act 2008 etc.
- **Institutionalization:** Rules must be established so that all policy announcements are undertaken simultaneously on traditional as well as social media.

For more details on Government Advertisements refer to Regulation of Government Advertisements article in April 2020 Monthly Current Affairs.

2. INTERNATIONAL RELATIONS

2.1. INDIA- CHINA BORDER DISPUTE

Why in news?

The border tensions between China and India come to the forefront once again following the ongoing standoff between India and China in the North Sikkim and Ladakh region across the Line of Actual Control (LAC).

More on news

- In the first week of May, there have been some clashes between the Indian and the Chinese soldiers at the Pangong Tso lake area.
- In recent weeks, **Chinese soldiers also crossed the LAC around the Galwan River valley.** There have been reports of Chinese soldiers having moved into Indian territory at **multiple locations in eastern Ladakh** across the LAC leading to high levels of tension between India and China. **(see the map).**

India- China Border Dispute

- The border between India and China is not clearly demarcated throughout and there is **no mutually agreed Line of Actual Control (LAC).**
- The LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory. India considers the LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km.
- The LAC is divided into three sectors, viz. Western, Middle and Eastern.
  - The **boundary dispute in the Western Sector (Ladakh)** pertains to the **Johnson Line** proposed by the British in the 1860s that extended up to the Kunlun Mountains and put Aksai Chin in the then princely state of Jammu and Kashmir.
    - ✓ India used the Johnson Line and claimed Aksai Chin as its own. China, however, do not recognise it and instead accepts **McDonald Line** which puts Aksai Chin under its control.
  - In the **Middle Sector (Himachal Pradesh and Uttarakhand)**, the dispute is a minor one. Here LAC is the least controversial except for the precise alignment to be followed in the Barahoti plains. **India and China have exchanged maps** on which they broadly agree.
  - The disputed boundary in the **Eastern Sector (Arunachal Pradesh and Sikkim)** is over the **McMahon Line (in Arunachal Pradesh)** decided in 1914 in a meeting of Representatives of China, India, and Tibet in Shimla.
    - ✓ Though the Chinese representatives at the meeting initiated the agreement, they subsequently refused to accept it. The Tawang tract claimed by China was taken over by India in 1951.

Reasons for Current standoff

It is always challenging trying to interpret China's intentions. Various experts cite different reasons some of which are as follow-

- **Infrastructure Development along the LAC:** In the past decade, India has worked hard to strengthen its position on the border and its presence along the LAC.
  - India is close to completing a major upgrade of border roads, including a strategic military-use road that connects an airfield at Dalut Beg Oldie in the northern tip of the western sector with the villages of Shyok and Darbuk toward the south. Completed in 2019, this **"DS-DBO road"** greatly facilitates the lateral movement of Indian forces along the western sector, reducing travel time by 40%.
  - India expects to complete a **network of feeder roads to the LAC** by 2022. Construction of a feeder road connecting the LAC near the Galwan River with the DS-DBO road was perhaps the **first critical trigger**.
- **Shadow of Dokalam Episode:** In a broader context, current confrontation is also attributed to the **2017 China-India standoff at Doklam**. India's strong opposition had prevented China from extending a track in the contested area at the trijunction of India- China-Bhutan.

- **Reorganisation of Jammu and Kashmir:** China had earlier also protested against the formation of new Union Territory of Ladakh and accused India of trying to transform the LAC unilaterally.
- **Global backlash against China for mishandling of COVID-19:** Though India has been cautious in its approach towards China, a general environment of distrust has cropped up. Recently India also supported a Resolution at the World Health Assembly demanding a fair probe into the origin of Coronavirus.
  - The present Chinese aggression has coincided with **India's assuming a leadership role at the World Health Organization by taking over as the chair of the WHO executive Board**.
  - As the head of the 34-member executive board, the Indian nominee will have considerable weight in administrative decisions and policies of WHO which is already being criticised for poor handling of COVID-19 under China's influence.

> **Border Dispute Settlement Mechanism**
> A **series of five agreements** signed between India and China to address disputes arising over the LAC:
> - 1993 Agreement on the Maintenance of Peace and Tranquility along the LAC
> - 1996 Agreement on Confidence-Building Measures in the Military Field Along the LAC
> - 2005 Protocol on Modalities for the Implementation of Confidence-Building Measures in the Military Field Along the LAC
> - 2012 Agreement on the Establishment of a Working Mechanism for Consultation and Coordination on India-China Border Affairs
> - 2013 Border Defense Cooperation Agreement.
>
> These agreements provide a modus operandi for diplomatic engagement at the military and political levels, as well as a set of "status quo" commitments both sides can return to in case of escalation.

- **Signs of new Chinese aggressiveness:** along the Sino-Indian border is one of the elements of China's new adventures including
  - the new security law Beijing has enacted to control Hong Kong,
  - the enunciation of new administrative structures in the South China Sea,
  - the new language on Taiwanese reunification used during the May 2020 National People's Congress plenary session in Beijing.
- **Growing India-US bonhomie:** In recent few years India has moved closer towards the US. On the other hand, China is engaged in a trade war with US and facing US's opposition over its actions in South China Sea, Hong Kong, and current COVID-19.

Why a full-blown Sino-Indian war in unlikely?

- **Nature of the dispute and the lack of ideological fundamentalism** - India and China do not see each other through an ideological lens. This is unlike how United States and China see each other. The Chinese Communist Party regime is not perceived to be antithetical to India's democratic character, and vice versa. Also, India's long-term strategy is to retain its strategic autonomy, and pursue alignments based "on issues, not ideology."
- **Willingness for diplomatic engagement at the military and political levels –** Summit diplomacy is likely to return if the crisis escalates further as was the case in 2015 Ladakh and 2017 Doklam crisis. Both sides have reiterated the intention to de-escalate the current stand-off based on the **already signed agreements**.
- **Element of ambiguity surrounding the details of the stand-off -** The ability of both governments to manage national media, and the inscrutability of the facts related to the dispute, aided efforts to **manage domestic audience**. For instance, media reports of 15-20 personnel of the Indo-Tibetan Border Police force being detained by the Chinese were refuted by the Indian side. This meant that **no domestic pressure for retaliation arose** and no great reputational damage was suffered.
- **Material costs of limited war for both parties far outweigh potential gains –**
  - **For China,** conflict on the border with India would diminish its ability to meet security challenges in the South China Sea, thus making it vulnerable to the United States, which Beijing considers its **primary security competitor**. It seems unlikely that Beijing would want to risk a two-front war. Additionally, **reputational damages** suffered due to COVID-19 and pre-existing fears surrounding China's rise will all temper Beijing's pre-emptive use of military force.
  - **For India,** the primary security challenge remains Pakistan-based terrorist infiltration on the Kashmir border. More importantly, beyond the protection of vital strategic points, the vast tracts of disputed land along the LAC do not hold any important material resources such as oil, precious mineral reserves. The benefits of territorial aggrandizement are therefore, limited to deterrence value and the natural terrain offers few advantages to offensive forces.

Conclusion

The current crisis unfolding along the LAC appears on one level to be a continuation of the trends witnessed in foregoing years. But this time, there is **one important difference**: unlike the discrete and geographically localized confrontations of the past, the latest encounters are occurring at multiple locations along the LAC which suggests a **high degree of Chinese premeditation and approval** for its military's activities from the very top.

India must be proactive to resist any Chinese transgressions and at the same time utilise its diplomatic skills to tone down the tensions. Recently India and China held a high-level military talk and agreed to peacefully resolve the current border issue in accordance with the bilateral pacts as well as the agreements reached between the leadership of the two countries.

2.2. INDIA -TAIWAN

Why in news?

Two Indian MPs, for the first time virtually attended the swearing-in ceremony of newly elected President of Taiwan.

India -Taiwan relations

- **Background**
  o Post-independence, bilateral ties between India and Taiwan ceased to exist when in 1950 India accorded diplomatic recognition to **People's Republic of China (PRC).**
  o Further, **during Cold War**, even **informal ties between New Delhi and Taiwan remained remote,** as Taiwan joined the US-led block and India the non-aligned movement.
  o This **changed in the 1990s** when Indian Government **reoriented India's policy towards Taiwan** in the face of India's domestic economic crises and foreign policy challenges.
  o India and Taiwan set up **unofficial relations in 1995 with establishment of the India-Taipei Association (ITA)** in Taipei (Capital of Taiwan).
  o Also, **Taipei Economic and Cultural Centre (TECC),** founded in 1995, is Taiwan government's representative office in India. It is responsible **for promoting bilateral relations** in the areas of economy, trade, investment, media, tourism, culture etc.
  o However**, India does not have any official diplomatic relations** with Taiwan **and nor does it recognise Taiwan as independent country.**
- **Strategic Prospects**
  o The **growing assertiveness of China in the region,** has become a medium to bring strategic communities of India and Taiwan closer for their security interests**.**
  o Through this, **Taiwan can further consolidate its identity as an independent state** and India can ensure freedom of navigation **in South China Sea and further expand its oil and gas exploration activities in the region.**
  o **Taiwan sees itself as an important member of the Asia-Pacific region** and accepted its responsibility to contribute to **regional peace, stability and prosperity,** which overlaps with India's vision for the region.

About Taiwan and One China Policy

- Taiwan, **officially the Republic of China (ROC)** was formed in 1949.
- In **1949 Chinese Communist Party** armies defeated **Nationalist forces** (Kuomintang party) and established **People's Republic of China** (Present China).
- Nationalist forces fled to **Taiwan resulting in the separation of Taiwan** from China in 1949 and **formation of ROC.** Both sides said they represented all of China.
- Initially, many governments including US **recognised Taiwan** separately. But with shift of diplomatic relation the US held **One China policy**.
- According to **One China Policy** any country wishing to establish diplomatic relations with China (PRC) must acknowledge **there is only 'One China' and sever all formal ties with Taiwan.**
- **Taiwan is not a member of the United Nations and WHO.** But is **member of WTO by name Chinese Taipei** (Taiwan).
- **179 of the 193 member states** of UN do not maintain diplomatic ties with Taiwan.

- **Economic prospects**
  - The two countries signed **Double Taxation Avoidance Agreement and the Customs Cooperation Agreement in 2011.**
  - Between 1995 and 2018, **bilateral trade turnover has grown manifold from $934 million to $7.5 billion** (went down to US$ 5.8 billion in 2019). Target is to achieve a trading volume of US$ 10 billion by 2020.
  - **Taiwan possesses huge foreign reserves** and is known for its **expertise in the field of hardware manufacture, construction, mines exploration, electronics, and automobiles** etc.
    - ✓ Thus, it **can play a critical role in the success of the Make in India, Digital India, and Skill India initiatives,** through collaboration between India's expertise in software and Taiwan's in hardware.
  - **India has abundant natural bamboo resources** while **Taiwan owns the world-class bamboo charcoal technology.** With this India can make use of its bamboo resources to produce high value-added goods.

> **India's Act East Policy (AEP) and Taiwan's New Southbound Policy (NSP)**
> - Taiwan's export-oriented economy and interest in diversifying traditional targets of investment make it a **natural collaborator for India under AEP.**
> - Taiwan launched **NSP in 2016** to mark **third phase of the 1994 Go South Policy.** It aims to reinvigorate and expand Taiwan's ties with South and Southeast Asia, Australia, and New Zealand and move away from China.
> - While India was not central to the first two phases of Taiwan's Go South Policy, it **has now become an integral part of NSP**.

> **Recent developments**
> - **Taiwanese parliamentary delegation visited India in 2017,** inviting criticism from China. **India-Taiwan Parliamentary Friendship Forum was established** in 2016 by as a "formal platform for friendship".
> - Recently, **Taiwan-India Webinars on COVID-19** were held, in which Taiwan shared best practices, knowledge with Indian medical staff engaged in battle against COVID-19.
> - Taiwan also **donated one million face masks to India** to help protect frontline medical personnel engaged in fight against COVID-19.

- **Cultural diplomacy and People to People relations**
  - With increasing emphasis on **soft diplomacy in foreign policy**, **religious tourism has great potential**, considering **Buddhism is the majority religion in Taiwan and India is its birth place.**
  - India has extended **e-visa privileges** to those traveling from Taiwan for tourism, informal business trips, while Taiwan allows **online travel authorization** and **30-day visa-free stay** for eligible Indian visitors.
  - Taiwan is host to **160 accredited universities** that accept hundreds of thousands of international students every year. Degrees earned in Taiwan are recognised worldwide.

Challenges

- **China opposes any official contact** between Taiwan and other countries and has asked India in the past to strictly follow 'one-China' policy.** Closer relations with Taiwan might upset China, especially when **bilateral relations are going through a difficult phase** and military tensions on border are rising.
- Despite the economic interests of the two nations, the **economic exchange is still insignificant.** Bilateral trade is around 1 % of total trade for both countries.
- Taiwanese entrepreneurs complain about **long drawn review process, longer clearances** (like no single window clearance), non-availability of and **one-time banking clearance** to bring in capital in India etc.

Way forward

- India's **acceptance of "one China policy"** should not deter it from seeking **close security and economic ties with Taiwan** in the same way as China is expanding its involvement with Pakistan in Pakistan-occupied Kashmir (PoK).
- Both India and Taiwan should establish a **mechanism to facilitate reciprocal high-level visits**, so as to **institutionalize economic cooperation** through a formal special economic partnership.
- **Closer relationship with Taiwan helps in better understanding of China's strategic depth** because of their close geo-strategic proximity, linguistic and cultural ties. Thus, **inclusion of Taiwan in India's triangular and quadrilateral coalitions** with U.S., Japan and Australia as a part of regional security strategy could prove very significant.
- Thus, India should maintain a **pragmatic approach toward Taiwan** that would help it to **delink its relationship with mainland China** from that of Taiwan.

2.3. INDO-NEPAL TERRITORIAL DISPUTE

Why in news?

Recently, **Nepal unveiled a new political map** that claimed strategically important land Kalapani, Limpiyadhura and Lipulekh of Uttarakhand as part of its sovereign territory.

More about news

- The map is in **retaliation of Nepal's objection to construction of road by India** from Dharchula to Lipulekh in Uttarakhand.
  - o This road connects **close to the Line of Actual Control** and opens a new route for Kailash Mansarovar yatra via Lipulekh pass.
  - o This **will help pilgrims** to avoid dangerous high-altitude routes through Sikkim and Nepal.
- India termed recent action by Nepal as a `unilateral act' which is not based on historical facts and evidence and also stated that these areas have always been part of the Indian Territory.
- Also, after the reorganisation of Jammu and Kashmir, India had published a new map in November 2019, which showed the region of Kalapani as part of the Indian territory.
- The new map—and the consequent objection from Nepal—brought forth the **unresolved border disputes between the two countries**.

About Indo-Nepal Territorial Dispute

- The disagreements between India and Nepal over the border dispute is over the regions which includes **Kalapani, Lipulekh, Limpiyadhura (all three in Uttarakhand)** and **Susta (Bihar).**
- **Kalapani area** is the **largest territorial dispute between Nepal and India** consisting of at least 37,000 hectares of land in the High Himalayas.
  - o It is located in the easternmost corner of Uttarakhand's Pithoragarh district.
  - o It is a **tri-junction between India, China and Nepal** which is of strategic significance in South Asian diplomacy**.**

- **Susta** in Bihar is on the **banks of River Gandak.** The changing course of River Gandak often created issue between two countries.
- **Nepal considers the 1816 Treaty of Sugauli** (signed between Gurkha rulers of Kathmandu and the East India Company) as the only authentic document on boundary delineation.
  - o Under the provisions of the Sugauli Treaty, Nepal lost Sikkim, Kumaon, Garhwal and Western Terai (Flat) area**.** River Mechi became the eastern border with India while the river Kali (called Mahakali in Nepal) was demarcated as the north-western border.
    - ✓ The Treaty of Sagauli also defined **Gandak as the international boundary** between India and Nepal.
  - o Nepal considers the source of Kali river near Limpiyadhura, which is higher in altitude than the rest of the river's flow. Thus, all the three areas **Limpiyadhura, Lipulekh and Kalapani** are considered to the east of the river Kali.

- **India** on the other hand says the border begins at Kalapani which India says is where the river begins.
  - Kali originates in springs well below the Lipulekh pass, and the Sugauli treaty does not demarcate the area north of these streams.
  - Administrative and revenue records going back to the nineteenth century show that Kalapani was on the Indian side, and counted as part of Pithoragarh district, now in Uttarakhand.
  - **India has controlled this territory since 1950s** and built other infrastructure here before, besides conducting its administration and deploying military forces up to the border pass with China.
  - China in 2015 statement also recognised India's sovereignty over the area by agreeing to expand trade through the Lipulekh pass.

> **India Nepal Border**
> - India and Nepal share an approximately an 1,800-kilometre long open border running along **West Bengal, Uttar Pradesh, Bihar and Sikkim.**
> - It was after the **Peace and Friendship Treaty of 1950** that the two countries encouraged a well-identified and formally accepted "open border" between them.
>   - An "open border" means that there is free and unrestricted movement of people from either side.
>   - Open border has led to better social and trade connectivity between the two countries leading to what is called 'roti-beti ka rishta'.

Issues in settling border dispute:

- **China factor:** The recent political map issued by the Nepal Government is seen to be the influence of China due to the two Communist governments and emerging close relations between them.
  - China opening port facilities to Nepal and providing access to Trans Himalayan Railway reduces Nepal's dependency on India and reduces the leverage that India has with the Nepal to settle the dispute.
- **Interpretation of the boundary:** The dispute is mainly because of the varying interpretation of the origin of the river and its various tributaries that slice through the mountains.
- **Big Brotherly attitude**: India's Big Brotherly attitude towards Nepal has created a sense of insecurity in the Nepalese government and its citizens and any settlement would be seen as a weakness.
- **Nepal internal politics:** also pose problems as political parties flip from pro-India positions to anti-India positions.

Conclusion

The Kalapani dispute must be resolved expeditiously and earnestly, to the mutual satisfaction of both sides. **A Joint Boundary Demarcation Committee** could be appointed by both the countries to scientifically study the Maps and come to a conclusion diplomatically.

2.4. GILGIT BALTISTAN ISSUE

Why in the news?

India lodged a **strong protest against Supreme Court of Pakistan order** on the Gilgit-Baltistan region.

More on news

- Pakistan's Supreme Court has approved Federal government's plea to **amend Government of Gilgit-Baltistan Order, 2018**.
- This allows **Federal government to set up a caretaker government** and **conduct provincial Assembly elections** in Gilgit-Baltistan region.
- India said that entire **Union Territories of Jammu and Kashmir and Ladakh, including areas of Gilgit and Baltistan**, are "**integral part of India**".
- India's **parliamentary resolution of 1994** reaffirmed that this region is a "part of State of Jammu and Kashmir, which is an integral part of India by virtue of its accession to it in 1947".

About Gilgit Baltistan (GB) region

- The region was a part of erstwhile **princely state of Jammu and Kashmir**
- It has **been under Pakistan's control** since **November 4, 1947,** following invasion of Kashmir by tribal militias and Pakistan army.
- It was renamed as **'Northern Areas of Pakistan'** and put under direct control of Pakistan federal government through **Karachi Agreement, 1949.**

- After **GB Empowerment and Self-Governance Order** in 2009, 'Northern Areas' came to be known as **Gilgit-Baltistan**. It provided for a legislative assembly and a council.
- 2009 order was replaced by **Gilgit Baltistan Order, 2018.**
- **2018 order** is aimed at incorporating GB as its **fifth province** and to integrate GB with rest of federal structure of Pakistan by legislative, judicial and administrative measures.
  o Baluchistan, Khyber-Pakhtunkhwa, Punjab and Sindh being other four provinces of Pakistan.
- However, **2018 order** grants **only limited fundamental rights** to people of GB and **does not** grant any **constitutional status** to GB region.
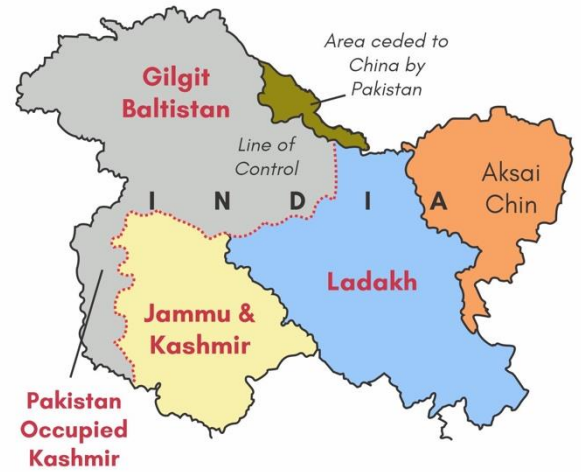
Importance of Gilgit- Baltistan region

- **Strategic Location**: GB lies at intersection of Indian Subcontinent, Central Asia and China.
- **Large Territory**: Territory of GB is **more than five times larger** than Pakistan occupied Kashmir. It consists of two ethno-geographically distinct territories: Baltistan, which was part of Ladakh, and Gilgit.
- **Water and energy Security**: GB is also significant due to its water and energy resources. Before entering Pakistan, **Indus River passes through GB**.
  o Important glaciers like **Siachen Glacier** are located in GB. **Hydro-electric potential** of Indus River makes it vital for energy security as well.
- **Chinese Interference**: China–Pakistan Economic Corridor is passing through GB making India more reluctant to join multinational transport and infrastructure corridor projects sponsored by China.

2.5. NON-ALIGNED MOVEMENT

Why in news?

Indian Prime Minister participated in **online Summit** of **Non-Aligned Movement (NAM) Contact Group 2020** to declare solidarity during COVID-19 Pandemic.

More on news

- Themed '**United against COVID-19**' the Summit was aimed to promote **international solidarity in the fight against the COVID-19 pandemic**.
- **Host** - **President** of the Republic **of Azerbaijan, current Chairman** of NAM grouping.
- NAM leaders announced **creation of a task force** to identify requirements of member countries through a **common database** reflecting their **basic medical, social and humanitarian needs** in the fight against COVID-19.

About Non-Aligned Movement

- The Non-Aligned Movement was **formed during the Cold War** as an organization of States that **did not formally align** themselves with either the United States or the Soviet Union, but sought to **remain independent or neutral**.
- **Origin: Asia-Africa Conference** held **in Bandung, Indonesia** in **1955.**
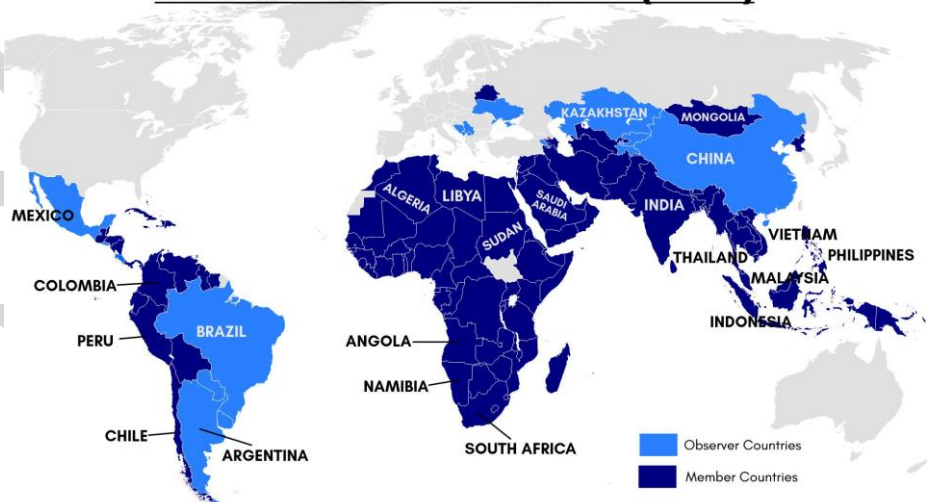
- **NAM's first conference** - The **Belgrade Conference** held in 1961 under the **leadership of India, Yugoslavia, Egypt, Ghana, and Indonesia.**
- It has **120 members** comprising 53 countries from Africa, 39 from Asia, 26 from Latin America and the Caribbean and 2 from Europe (Belarus, Azerbaijan).
  - There are 17 countries and 10 international organizations that are Observers at NAM.
- **Key principles of NAM**: The policy of non-alignment was based on the **five principles of Panchasheel**. These principles were
  - **Mutual respect** for each other's territorial integrity and sovereignty;
  - **Non-interference** in each other's military and internal affairs;
  - **Mutual non-aggression**;
  - **Equality** and mutual benefit;
  - **Peaceful coexistence** and economic cooperation.

Relevance of NAM for India

PM has not attended previous two NAM summits, at Venezuela in 2016 and Azerbaijan in 2019. In this context following can be seen as **rationale for intensifying engagement with NAM**.

- World expects **emergence of a new global order** in aftermath of COVID-19. As a nation seeking to **become an independent pole in global affairs**, India could do more with forums like NAM in mobilizing support on issues of interest to itself.
  - E.g. Strong support within NAM can make a difference to impending contentions at World Health Assembly like reviewing WHO's performance during COVID-19 crisis.
- New interest in NAM is **not a throwback to seeing NAM as an anti-Western** ideological crusade. It is based on the bet that **NAM remains a critical diplomatic forum** for pursuit of India's international interests.
- World is **more interconnected and interdependent** than ever before. Climate change, environmental degradation, terrorism, radicalization, poverty, public health emergencies etc. are challenges that can only be faced together, not when world is divided. NAM could **identify select cross-sectoral challenges that require immediate attention**.
- A democratic, effective, flexible, credible, transparent and representative, multilateral Organisation like NAM is imperative for 21st century world order.

> **Highlights of Prime Minister's address to NAM**
> - Highlighted that **democracy, discipline and decisiveness** can come together to create a genuine people's movement to fight COVID-19.
> - Called for a **platform for all NAM countries, to pool experiences, best practices**, crisis-management protocols, research, and resources.
> - Stating NAM as **World's Moral Voice**, he called for an **inclusive and cooperative global response** from all NAM countries in line with **founding principles** of the movement.
> - He referred **terrorism, fake news, doctored videos** that divide communities and countries as **deadly viruses.**
> - **Pointing out limitations of existing international system** he stressed on need of International institutions that are **more representative and inclusive.**
> - Suggested to **promote human welfare** and **not** focus on **economic growth alone, highlighting Indian initiatives** like International day of Yoga, International Solar Alliance and Coalition for Disaster Resilient infrastructure.

2.6. WORLD HEALTH ASSEMBLY (WHA)

Why in news?

Recently 73rd World Health Assembly (WHA) was convened which was the first ever virtual health assembly.

About WHA

- WHA is the **decision-making body** of World Health Organisation (WHO).
- It is **attended by delegations** from all WHO Member States and focuses on a specific health agenda prepared by WHO Executive Board.

> **Related news: WHO executive board**
> - Indian Health Minister took charge as the **chairman of the WHO Executive Board.**
> - Executive Board is **composed of 34 technically qualified members** in the field of health are elected for three-year terms. It meets at least twice a year.
> - **Primary function of the board** is to implement the decisions of WHA, advise and facilitate its work.
> - **Chairman post is held by rotation** for one year among 6 regional groups Africa, Americas, South East Asia, Europe, Eastern Mediterranean and Western Pacific.

- **Main functions** of WHA:
  - determine the policies of WHO,
  - appoint the Director-General,
  - supervise financial policies and
  - review and approve proposed programme budget.
- WHA is **held annually in Geneva, Switzerland.**

Key Outcomes of WHA

- WHA adopted the **resolution for impartial, independent and comprehensive** evaluation of the WHO's response to the pandemic as well as the identification of the "zoonotic" **source of the coronavirus**.
  - It specifically mentions to evaluate the **actions of WHO and their timelines pertaining to the COVID-19** pandemic.
- Called for **universal, timely and equitable access and fair distribution** of all quality, safe, efficacious and affordable essential health technologies and products in response to COVID-19.
- Called for **removal unjustified obstacles** in consistent with agreement on **Trade-Related Aspects of Intellectual Property Rights** (TRIPS Agreement) and the flexibilities within **Doha Declaration on TRIPS Agreement and Public Health.**

One-Health Approach
- WHA called for **identification of zoonotic source** of the virus as part of **One-Health Approach**.
- Zoonotic diseases (also known as zoonoses) are caused by **germs that spread between animals and people**.
- OneHealth is a **collaborative, multisectoral, and transdisciplinary approach**, working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes **recognizing the interconnection between people, animals, plants, and their shared environment.**

Doha declaration on the TRIPS agreement and public health
- It was **adopted in 2001, by World Trade Organization (WTO) Members** to clarify ambiguities between the need for governments to apply the principles of public health and terms of TRIPS.
- This Declaration affirms that **TRIPS Agreement does not and should not prevent Members** from taking measures to protect public health.

2.7. NEW SECURITY LAW IN HONG KONG

Why in news?

Recently China's National People's Congress (NPC) approved Hong Kong National Security Law.

More on news

- The law seeks to criminalise **secession, subversion, terrorism and foreign interference in Hong Kong**.
- It also says that **China could have its own law enforcement agencies in Hong Kong,** alongside the city's own to safeguard national security in accordance with the law.

Previous protests
- Article 23 of Hong Kong Basic law states that Hong Kong must "on its own" **enact laws against treason, secession**, sedition, subversion and the theft of state secrets.
  - Hong Kong government proposed such **local legislation in 2003** but met vast opposition before it could be passed into law.
- **Extradition bill in 2019** that allowed Hong Kong government to extradite **criminal suspects** to mainland China invite protests and turned violent and evolved into a broader anti-China and pro-democracy movement. The bill was later scrapped.

- It raised concerns that, it could lead to **prosecution of Hong Kongers** for criticising their or the mainland's leadership, joining protests or exercising their current rights under local laws.
- Also, it is said to weaken "**one country, two systems**" under which China agreed to protect Hong Kong's extensive freedoms, autonomy and its independent legal system.

One Country Two Systems (OCTS)

- One Country Two Systems policy was **originally proposed to unify China and Taiwan**, which was rejected by Taiwan.
- The idea **resurfaced when China started talks with Britain and Portugal**, who were running Hong Kong and Macau, respectively, as colonies.
- Under OCTS model, China proposed that, Hong Kong and Macau, **can have different economic and political systems** from that of mainland China, while being part of China.
- Likewise, **Hong Kong returned to Chinese control in 1997**, and Macau's sovereignty was transferred in 1999.
- Both regions became **Special Administrative Regions** (SAR) of China with their **own currencies, economic and legal systems**, but defence and foreign affairs would be decided by China.

- Also, Hong Kongers have **freedom of assembly and speech, and some democratic rights**, which are not available in main land China.
    - These freedoms are protected by **the Basic Law**, a mini-constitution that guides relationship between Hong Kong and China.
- **Basic law is valid for 50 years**, till 2047 for Hong Kong and 2049 for Macau. But it is unclear what will happen after this term.
- **Basic law can be amended** with two- third majority in Hong Kong's legislature (LegCo).

2.8. OPEN SKIES TREATY

Why in news?

Recently, U.S. announced that it will exit the **Open Skies Treaty ,** stating that Russia had "continuously and flagrantly" violated the treaty.

About Open Skies Treaty (OST)

- OST is an agreement that permits each state-party to **conduct short-notice, unarmed, reconnaissance flights over the others territories** to collect data on military forces and activities.
- It is aimed at **building confidence and familiarity** among states-parties through their participation in the overflights.
- OST was **signed in 1992** and came into **effect in 2002.**
- Currently **34 states are party to the treaty** while a 35th, Kyrgyzstan, has signed but not ratified it. Majority of members include **North American and European nations** like USA, UK, Russia, Turkey.
    - **India, China are not members** to the treaty.
- Though state-parties are allowed to **overfly all of a member's territory**, the **treaty determines specific points of entry and exit** and refuelling airfields.
- **Open Skies Consultative Commission (OSCC),** comprised of representatives of all states-parties, is responsible for implementation of OST.

3. ECONOMY

3.1. ATMANIRBHAR BHARAT: WHAT, WHY AND HOW?

Why in news?

Recently, the Prime Minister outlined Rs.20 lakh crore stimulus package which was accompanied with large scale structural reforms.

What does Atmanirbhar Bharat mean?

- Prime Minister in his address stated that India's self-reliance **does not advocate self-centric arrangements.** It is ingrained in the happiness, cooperation and peace of the world.
  - o It is based on the premise of 'माता भूमिः पुत्रो अहम् पृथिव्यः' - the **culture that considers the earth to be the mother.**
- It has been clearly specified that this idea of self-reliance is **not about a return to the era of import substitution** or isolationism.
- Following elements are essential to the proposed concept of Atmanirbhar Bharat:
  - o **Active participation in post-COVID-19 global supply chains**: Self-sufficiency in the present context refers to improving efficiency, competing with the world and simultaneously helping the world.

> **Atmanirbhar Bharat v/s Import Substitution**
>
> Import substitution relied **extensively on imposing high import tariffs** and discouraging foreign trade, while **Atmanirbhar Bharat focuses on reforms and improving ease of doing business**, including for foreign firms in the country.
>
> The Import Substitution model advocated a **centralised, top-down model** whereas Atmanirbhar Bharat emphasizes on **freeing Indian entrepreneurship and innovation** from bureaucratic hurdles.

  - o **Resilience:** This resilience refers to leveraging internal strengths, personal responsibility, and a sense of national mission (or "Man Making" as termed by Swami Vivekananda). Developing this resilience may require additional protection for domestic enterprises.
    - ✓ For example, the move to disallow global tenders up to Rs. 200 crores for foreign players aims to increase the system's resilience by protecting the MSMEs.
  - o **Decentralized Localism:** It is about creating a system that takes pride in local brands, encourages local capacity-building and indigenisation.
    - ✓ For example, the scrapping of the ECA-APMC system enables localised decision-making by farmers even as they can participate in a national common market.
  - o **System of Social Trust:** A system where economic entities are expected to be self-reliant, requires a generalised system of social trust and the ability to enforce contracts, which in turn requires reformation of the legal system.

Why being 'Atmanirbhar' is important?

- **Faster Economic Recovery:** India's ability to recover from the effects of COVID-19 and its economic fallout depends on the **resilience of domestic industries**.
  - o In this light, the mission aims to promote Indian industries while making them competitive through reforms and government interventions.
- **Supply Chain Fragility:** Countries all over the world are now looking at boosting domestic capabilities to be able to **absorb future supply chain shocks.**
- **Emergence of developmental gaps:** Continuous **dependence on external sector** for a long time creates developmental gaps in an economy. For example, technological dependence on imports has negatively affected the level of indigenous innovation and R&D.
- **Health and Economic Security:** The fallout of COVID-19 has showcased how dependency of any form such as raw material, labour etc. can precipitate into a security crisis.
  - o For example, absence of adequate Personal Protective Equipment (PPE) production capacity had created a crises situation for India during the initial period of the crises.
- **Geopolitical considerations:** High dependence on other countries for resources affects the geopolitical standing of the country in that region. For example, high import dependency of India on **China for Active Pharmaceutical Ingredients (APIs).**

How do we become 'Atmanirbhar'? – Strategy announced in the mission

The Prime Minister has announced Rs. 20 lakh crore stimulus and to ensure that all facets of the economy are addressed, **4L - Land, Labour, Liquidity and Laws** all have been emphasized in this package.

- The idea of Atmanirbhar Bharat if based on **5 pillars:**
  o First Pillar is **Economy**, emphasizing on Quantum Jump rather than Incremental change.
  o Second Pillar is **Infrastructure.**
  o Third Pillar is **Our System**, a special reference has been made to technology and contemporary policies as part of this system.
  o Fourth Pillar is **Our Demography.**
  o Fifth pillar is Our **Demand.**
- The package has tried to address all sectors of the economy in different parts viz.:
  o Part 1: Businesses including MSMEs.
  o Part 2: Poor including migrants and Farmers.
  o Part 3: Agriculture.
  o Part 4: New Horizons of Growth.
  o Part 5: Government Reforms and Enablers.
- The package has also highlighted the importance of preferring local products. In the light of this, citizens are urged to be **vocal about their local products** and help these **local products become global.**

Why the package is being criticized?
- The key criticism regarding the package is that the **government doesn't seem to be raising its total expenditure** by much. (Overall rise in Government expenditure due to the package **is close to 1% of the GDP.)**
- **Lack of immediate support:** Several experts and commentators have highlighted that the economic package lacked immediate relief to cope with current crises.
- **Exclusion of some structural reforms in agriculture sector:** Several structural reforms like decentralised procurement of perishable commodities, expansion of the rural jobs scheme and efforts to protect farmers' asset bases by giving seeds, fodder, fingerlings and day-old chicks were argued to be more critical to help farmers survive the current crisis.

Way forward

To enable the vision of Atmanirbhar Bharat, several large scale and long-term measures like making subsidies performance dependent and strengthening public regulation will have to be taken in conjunction with aforesaid measures. More importantly, increased **investment in Education and Skill development is imperative** to complement the structural reforms announced in the package.

Refer the appendix at the end of the document for the details of Atmanirbhar Bharat.

3.2. STATUS PAPER ON GOVERNMENT DEBT

Why in news?

Recently, the Central Government released the **Ninth Edition of the Status Paper on the Government Debt**, which provides a detailed analysis of the overall Debt Position of the Government of India.

More on the news

- The status paper analyzes **conventional indicators of debt sustainability** such as Debt/GDP ratio, interest payment to revenue receipts, shares of short-term Debt/ External Debt/ Floating Rate Bonds (FRBs) in total debt
- It contains **Debt Management Strategy (DMS) of the Central Government** for the financial years from 2019-20 to 2021-22 which guides the borrowing plan of the Government.
- The objective of the DMS is to ensure that the government's financing requirements and payment obligations are met at the lowest possible cost, consistent with prudent degree of risk.

Central Government Debt (CGD) includes-

Public Debt
All liabilities of Central Government contracted against the **Consolidated Fund of India.**

Other liabilities
Liabilities in the **Public Account** such as liabilities on account of State Provident Funds, Reserve Funds and Deposits, Other Accounts, etc.

Internal Debt

Marketable Debt
It includes Government dated securities and Treasury Bills, issued through auctions.

Non-marketable Debt
It includes intermediate Treasury Bills (14-day ITBs) issued to State Governments/ UT of Puducherry and select Central Banks, special securities issued against small savings, special securities issued to public sector banks/ EXIM Bank, securities issued to international financial institutions, and compensation and other bonds.

External Debt
Article 292 of the Constitution allows the Central Government to borrow from **outside the territory of the country.**

Recent Trends in Govt Debt

Parameters	2017-18 (as percentage of GDP)	2018-19 (as percentage of GDP)	Remarks
Public Debt	41%	40.0%	Decreased.
Internal debt	37.4%	37.3%	Decreased.
Marketable debt	32.8%	31.5%	Decreased.
Non-marketable debt	5.3%	5.8%	Increased.
External debt	2.8%	2.7%	Decreased
Other Liabilities	5.3%	5.2%	Decreased
Central Govt. (GoI) Liabilities	45.8%	45.7%	Decreased.
General Government Debt (GGD)	68.7%	68.6%	**Decreased**. It comprises of consolidated debt of the Central Government and State Governments.

Significance of managing Government debt

- **Affects investor confidence**: Due to higher debt burdens there is an increased risk of default which downgrades the sovereign credit ratings by the credit rating agencies. This impacts investor confidence, reducing FDI/FII in India, and makes future borrowing expensive.
- **Impacts fiscal capabilities of the government**: As borrowing increases, the government has to pay more interest rate payments to bondholders. This can lead to a greater percentage of tax revenue going to debt interest payments.
- **Crowding out effect**: As more money is lent to the government rather than invested in the market, corporate sector is crowded out leading to slower industrial and capital asset growth and potential loss of employment.
- **Fiscal repression of commercial banks**: When the government borrows more, it forces Public Sector Banks to purchase more of Government Securities (GSecs) which reduces the capital availability to the private sector and affects profitability of the banks.
- **Inflationary pressure**: High debt can force governments to print money and thus lead to inflation and reduction in real interest rates.

Important terms

- **Debt to GDP ratio**: The debt-to-GDP ratio is the ratio of a country's public debt to its gross domestic product (GDP). It indicates a particular country's ability to pay back its debts.
- **Roll over risk:** It is a risk associated with the **refinancing of debt**—specifically, that the interest charged for a new loan will be higher than that on the old. Generally, the shorter-term the maturing debt, the greater the borrower's rollover risk.
- **Currency or foreign exchange risk** relates to vulnerability of the debt portfolio to depreciation in the value of the domestic currency vis-à-vis the currency of denomination of external loans and the associated increase in the Government's debt servicing cost.
- **Interest payment to revenue receipts (IP-RR):** It is the ratio of total interest payments made towards the debt to the revenue receipts of the government.
- **Floating Rate Bonds (FRBs):** These are securities issued at variable coupon rates.
- **The gross fiscal deficit (GFD)** is the excess of total expenditure (including loans net of recovery) over revenue receipts (including external grants) and non-debt capital receipts.
- **Short-term debt** of the Central Government refers to the total amount of debt maturing within the next 12 months.
  - It includes 14-day intermediate treasury bills, regular treasury bills, dated securities maturing in the ensuing one year and external debt with remaining maturity of less than one year.
- **Treasury bills** are discounted instruments which help the Government in managing its short term cash flow mismatches.
  - Central Government currently issues treasury bills of tenor of 91, 182, and 364 days.
- **14-day Intermediate Treasury Bills (ITBs)** are non-marketable instruments issued to the State Governments (and select Central Banks) to enable them to deploy their short-term surplus cash at a fixed interest rate.

- **Exchange rate risk**: The reduced demand of domestic securities relative to foreign securities (due to poor credit rating) might push the exchange rate down and weaken the domestic currency.
- **Higher taxes in the future**: If the debt to GDP rises rapidly, the government may need to increase taxes and/or limit spending to reduce debt levels in the future.
- **Vulnerability to volatile international capital markets**: High share of external debt exposes economy to capital flight.

Approach of the Central Government towards sustainable debt management

- **Dedicated agency to manage debt:** Institutionally, the Government has decided to set up a statutory **Public Debt Management Agency (PDMA)** to bring both, India's external and domestic debt under one roof.
    - The first step towards this direction was the establishment of a **Public Debt Management Cell (PDMC)** as an advisory body within Budget Division, Ministry of Finance in 2016.
- **Government's Medium-Term Debt Management Strategy (2019-2022):** Several steps will be taken by the government under it based on three broad pillars viz.,
    - **Low cost of borrowing-**
        - ✓ **Elongating maturity profile** of the debt portfolio.
        - ✓ **Rationalisation of interest rates on small savings schemes** and other instruments like PF, special securities, etc. in line with the interest rates prevailing in the economy.
        - ✓ Advising other Divisions of Department of Economic Affairs, engaged in the negotiations of external loans as regards cost, tenure, currency, etc. with a view to help them arrive at the best terms for external loans.
    - **Risk mitigation-**
        - ✓ **Setting benchmarks for certain indicators** such as share of short term debt and external debt, Floating Rate Debt etc. to ensure minimal risk in terms of Roll-over Risk and risks associated with movement in interest rates and exchange rates. E.g. Share of short-term debt should be maintained within 10 per cent of total outstanding Marketable Debt stock with a leeway of ± 3 per cent.
    - **Market development-**
        - ✓ **Maintaining transparency** in the market borrowing programme, **conducting regular investor interaction and consultations** with other stakeholders and **issuing a variety of instruments** to help investors manage their portfolio more efficiently.
        - ✓ **Creating benchmarks of desired tenors** by issuing sizeable volumes to enhance investor participation and liquidity.
        - ✓ **Supporting development of domestic investor base** and calibrated opening of the Government securities market to foreign investors.

India's performance on indicators of debt sustainability

According to the status paper, presently the Government's debt portfolio is characterized by favorable sustainability indicators:

- **The debt to GDP ratio** for the Central Government declined from 47.5 per cent in 2011-12 to 45.7 per cent in 2018-19.
- **Gross Fiscal Deficit (GFD)** as a percentage of GDP has been on a declining trend since 2012-13.
- **The share of short-term debt** is within safe limits and has stabilised after some rise during 2005 to 2012.
- **The Government has adopted a conscious strategy of elongating maturity to reduce roll-over risk.**
    - 69.9 per cent of total securities issued during 2018-19 were in the maturity bucket of 10 years and above.
- **Most of the Government debt is at fixed interest rates**, with floating internal debt constituting only 0.9 per cent of GDP in 2019, which minimises the impact of interest rate volatility on the budget.
- **Low share of external debt** implies that currency risk and the susceptibility of debt portfolio to volatile international capital markets is not substantial.
- **The ratio of interest payments to revenue receipts (IP-RR)** of the Central Government was 37.5 per cent in 2018-19 as compared to 35.6 per cent in 2012-13.

State Government Debt

- **The debt-GDP ratio of States has decreased** to 24.8 per cent in 2019 from 25.0 per cent in 2018.
- The outstanding liabilities of the State Governments have been **consistently registering double digit growth** since 2012-13 with the **exception of 2014-15 and 2018-19**.
- **The share of public debt increased within the overall debt portfolio** of the State Governments and constituted 19.1 per cent of their GDP.
- Within the public debt, the **share of market borrowings increased** while that of **borrowings from the National Small Savings Fund (NSSF) exhibited a steady decline** to 9.4 per cent in 2019 from a high of 24.4 per cent in 2012.
- **Loans from the Centre** have been decreasing over the years and accounted for 3.7 per cent of total liabilities in 2019.

3.3. SARFAESI ACT

Why in News?

A five-judge Constitution Bench of the Supreme Court (SC) recently held that **cooperative banks can use the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI Act)** for recovery of debts from its defaulters and can seize and sell their assets to recover dues.

More on the news

- The SC judgment addressed the following issues pertaining to cooperative banks (CBs) in view of several conflicting decisions by high courts:
  - o **Competence of the parliament to regulate debt recovery procedure of CBs registered under state-specific acts** (including multi-state CBs registered under the Multi State Cooperative Societies Act, 2002 (MSCS Act, 2002)).
  - o **Whether SARFAESI Act, 2002 can be applied to these CBs** and questioned the validity of -
    - ✓ **central government notification in 2003** which had brought co-operative societies within the purview of the SARFAESI Act and
    - ✓ the amendment of SARFAESI Act in 2013 which included a '**multi-state co-operative bank'** (MSCB) **within its definition of 'bank'.**
  - o Petitioners also questioned whether CBs fall under **Union List** (Entry 45-'banking') or **state list** (Entry 32-'cooperative societies').
    - ✓ Clarity was needed about whether the **definition of 'banking company' in the Banking Regulation Act, 1949** (BR Act, 1949) covers all CBs.

> **Cooperative banks**
> - They are **customer owned financial entities** established on a co-operative basis which provide a wide range of regular banking and financial services.
> - They are registered under the **States Cooperative Societies Act** or **MSCS Act, 2002**.
> - They also come under the regulatory ambit of the Reserve Bank of India (RBI) under two laws, namely, the **Banking Regulations Act, 1949**, and the **Banking Laws (Co-operative Societies) Act, 1955**.

- **The Constitution bench held that:**
  - o **Parliament has legislative competence** to provide for procedure for recovery of loan for all CBs under the SARFAESI Act.
    - ✓ Recovery of dues was held as an essential function of any banking institution.
  - o CBs registered under state laws (including MSCBs) are **covered within the ambit of Entry 45 of Union list.**
  - o CBs involved in the activities related to banking are **covered under 'banking company'** for the purposes of the **BR Act, 1949** and any other legislation applicable to banks under RBI Act.

> **Security:** It is a fungible, negotiable financial instrument that holds some type of monetary value. They can be broadly categorized into two distinct types:
> **Equity security:** It represents ownership interest held by shareholders in an entity (a company, partnership or trust), realized in the form of shares of capital stock.
> **Debt security:** It represents money that is borrowed and must be repaid, with terms that stipulate the size of the loan, interest rate, and maturity or renewal date.
> **Security Interest**
> - A security interest on a loan is a legal claim on collateral that the borrower provides that allows the lender to repossess the collateral and sell it if the loan goes bad.
> - A security interest lowers the risk for a lender, allowing it to charge lower interest on the loan.
> **Security receipt**
> - It means a receipt or other security, issued by an ARC to any qualified institutional buyer as an evidence of purchase or acquisition of the financial asset involved in securitization.

- The judgment holds significance for co-operative banks as it will help them **expedite recovery of their bad loans** using provisions of **SARFAESI Act.**

About SARFAESI Act, 2002

- The act was framed in order to address the problem of **Non-Performing Assets (NPAs) or bad assets** of banks/financial institutions through different mechanisms.
- It allows **only secured creditors** (lenders whose loans are backed by a security such as mortgage) to take possession over a collateral security if the debtor defaults in repayment.

- The act provides procedure for registration and regulation of **asset reconstruction company (ARC)** and allows them to carry out the business of-
  - **Asset reconstruction:** It is the activity of converting a NPAs or bad assets into performing assets. The ARCs can acquire financial assets (NPAs) from banks and try to recover dues through measures such as:
    - ✓ the proper management of the business of the borrower, by changing or taking over the management
    - ✓ the sale or lease of a part or whole of the business
    - ✓ rescheduling of payment of debts payable etc.
  - **Securitization:** It is the process of conversion of existing loans into marketable securities by ARCs through issue of security receipts.
- **Enforcement of Security interests by lenders without the intervention of the Court**: After giving a notice period of 60 days to the defaulting borrower, banks/financial institutions can-
  - take possession of the pledged assets of the borrower,
  - take over the management of such assets,
  - appoint any person to manage them or
  - ask debtors of the borrower to pay their dues too, with respect to the asset.
- **Creation of a Central Registry**: by the Central Government for the purposes of registration of transaction of securitization and reconstruction of financial assets and creation of security interest.
- **Application against measures to recover secured debts**: can be filed by borrowers/lenders with **Debt Recovery Tribunal** (with appeal to **Debts Recovery Appellate Tribunal)** established under Recovery of Debts due to Banks and Financial Institutions Act, 1993.
- **Provisions of this Act not applicable to:**
  - any security interest created in **agricultural land**
  - any case in which the **amount due is less than twenty per cent** of the principal amount and interest
  - any security interest for securing repayment of any **financial asset less than one lakh rupees**.

> **Insolvency and Bankruptcy Code (IBC), 2016 and SARFAESI Act**
> - The **IBC, 2016** was formulated to consolidate various laws, regulations and rules concerning insolvency, bankruptcy and liquidation of **non-financial entities**, systematically and comprehensively.
>   - **Insolvency** is the inability of an entity to pay its bills as and when they become due and payable.
>   - **Bankruptcy** is a situation when an entity is declared incapable of paying their due and payable bills.
> - It did away with overlapping provisions contained in various laws–
>   - Sick Industrial Companies (Special Provisions) Act, 1985, Recovery of Debts Due to Banks and Financial Institutions Act, 1993, **SARFAESI Act**, 2002 and Companies Act, 2013.
> - The IBC created a new institutional framework, consisting of a regulator, insolvency professionals, information utilities and adjudicatory mechanisms to facilitate a **formal and time bound insolvency resolution process and liquidation**.
> **Differences between IBC and SARFAESI Act:**
> - SARFAESI Act, 2002 covers **only secured financial creditors** while IBC protects the rights and interests of **both secured and unsecured creditors**.
> - **Section 14(1)(c)** of the IBC, 2016 provides that during the insolvency resolution process as defined in the Code, the Code takes precedence over the SARFAESI Act.
> - IBC provides for **separate adjudication authorities** for companies and Limited Liability Partnerships (LLP) (dealt by the National Company Law Tribunal (NCLT)) and individuals and unlimited partnership firms (under jurisdiction of DRT).
>   - While the SARFAESI Act assigns **DRT as the adjudication authority** on matters pertaining to the act.

Note: For more details on Cooperative banks, refer to VisionIAS Current Affairs-October 2019 edition.

3.4. TRIPS FLEXIBILITIES

Why in news?

India has asked the **G20 members to work on an agreement that would enable countries to use the flexibilities** under TRIPs.

More about news

- India called for an agreement to enable the use of TRIPS (Trade Related Intellectual Property Rights) flexibilities to ensure access to **essential medicines, treatments and vaccines at affordable prices.**
  - India uses these flexibilities under Patent Act, 1970 for the public health and emergency purposes.

- The reason for which India is asking for such an agreement is will make possible for nations to issue **compulsory licenses to make generic copies** of essential patented medicines that could be made available to people at prices much lower than the patented versions.

About TRIPS Flexibilities

- TRIPS flexibilities are **'policy spaces' for countries to mitigate the impact of patents** (i.e., the excessively high price of patented medicines due to lack of competition).
- TRIPs agreement and subsequent **Doha Declaration on TRIPS and Public Health of 2001** provide some flexibilities in this regard.
- Flexibilities aim to **permit developing and least-developed countries to use TRIPS-compatible norms** in a manner that enables them to pursue
  - their own public policies, either in specific fields like access to pharmaceutical products or protection of their biodiversity,
  - in establishing macroeconomic, institutional conditions that support economic development.
- **Some major flexibilities under TRIPs are**:
  - **Compulsory Licensing:** Compulsory licensing enables a competent government authority to license the use of a patented invention to a third party or government agency without the consent of the patent-holder.
  - **Parallel importation:** It is importation without the consent of the patent-holder of a patented product marketed in another country either by the patent holder or with the patent-holder's consent.
    - ✓ It enables access to affordable medicines because there are substantial price differences between the same pharmaceutical product sold in different markets.
  - **Exemptions from patentability:** The agreement does not require the patenting of new uses of known products including pharmaceuticals and permits countries to deny protection for such uses of lack of novelty, inventive step or industrial applicability.
  - **Limits on Data Protection:** As a condition for permitting the sale or marketing of a pharmaceutical product, drug regulatory authorities require pharmaceutical companies to submit data demonstrating the safety, quality and efficacy of the product.
    - ✓ The TRIPS Agreement requires that WTO Members protect undisclosed test data, submitted to drug regulatory authorities for the purposes of obtaining marketing approval, against unfair commercial use.
    - ✓ However, some limits are allowed to use the data for the generation of generic drugs for public health.
  - **Extension of transition period for Least-Developed Countries (LDCs):** The

> **About TRIPS Agreement**
> - The TRIPS Agreement, which came into effect in 1995, is the most comprehensive **multilateral agreement on intellectual property.**
> - It was negotiated between 1986 and 1994 **during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT),** which led to the establishment of the World Trade Organization (WTO).
> - It sets out the **minimum standards of protection to be provided by each Member.**
>   - Agreement is in line with the main conventions of the WIPO, the Paris Convention for the Protection of Industrial Property (**Paris Convention**) and the Berne Convention for the Protection of Literary and Artistic Works (**Berne Convention**).
> - It contains pr**ovisions on civil and administrative procedures and remedies, provisional measures**, special requirements related to border measures and criminal procedures.
> - The Agreement makes disputes between WTO Members about the respect of the TRIPS obligations subject to the WTO's dispute settlement procedures.
> - The areas of intellectual property that it covers are:
>   - copyright and related rights,
>   - trademarks,
>   - geographical indications,
>   - industrial designs,
>   - new varieties of plants;
>   - layout-designs of integrated circuit,
>   - trade secrets and test data.
> - Membership in the WTO includes an **obligation to comply with the TRIPS Agreement.**

amendment to Doha Declaration extended the transition period for LDCs for implementation of the TRIPS obligations to 2021.

3.5. LABOUR LAW REFORMS

Why in news?

Recently, some state governments in India have **temporarily suspend the operation of some labour laws in their state.**

Labour Laws framework in India

- Labour is subject in the Concurrent List of the seventh schedule, thus allowing both the Centre and states to legislate on labour related issues.
  - Currently, there are 44 labour laws under the purview of Central Government and more than 100 under State Governments, which deal with a host of labour issues.
- **Labour laws are primarily divided into four categories**
  - **Conditions of Work-** Including the Factories Act, 1948; the Contract Labour (Regulation and Abolition) Act, 1970.
  - **Wages and Remuneration-** including the Minimum Wages Act 1948; the Payment of Wages Act 1936.
  - **Social Security-** including the Employees Provident fund Act, 1952; the Workmen's Compensation Act, 1923.
  - **Employment security and Industrial Relations-** including the Industrial Disputes Act 1947; the Industrial Establishments (Standing Orders) Act, 1946
- The multiplicity of labour laws and difficulty in coping with them are the impediment to industrial development in India. Many of the laws are obsolete and are required to be reviewed to align them with current economic situation
- Also, these labour laws protect only 7-8% of the organised sector workers employed at the cost of 92-93% unorganised sector workers.

Some recent changes made to labour laws in states-

- **Madhya Pradesh-**
  - The employers have been exempted from some obligations under various labour laws, like **Madhya Pradesh Industrial Relations Act**, **Industrial Disputes Act**, **Contract Labour Act** etc. for 1,000 days.
  - The newly established factories need not file annual returns..
  - The employers will be allowed to **hire and fire** workers **at their convenience**.
  - An increase of **working hours in factories from eight to 12 hours**.
  - The factories will be allowed to operate without following **safety and health norms.** Also, new factories will be exempted under the Factories Act, 1948 **from inspection from the Labour Department** and permitted the flexibility to conduct third party inspections at will.
- **Uttar Pradesh-**
  - It has brought in **Uttar Pradesh Temporary Exemption from Certain Labour Laws Ordinance, 2020**, to exempt factories, businesses, establishments and industries from the purview of all key labour laws for the next three years.
  - All **details** of employed workers will be maintained **electronically**.
  - The worker will be **paid above minimum wages** of the state government and within the time limit as per the Act.

Need for these reform

- **To overcome COVID shock**: Industrial and economical activities have been severely affected due to COVID 19. Given the **temporary nature of suspension** in these laws, it will allow the enterprises to improve their financial viability and become sustainable over a period of time.
- **Employment opportunity**: Enabling the migrant workers to earn a living for themselves, given the unemployment rate rose to the highest level of 27.1 per cent in recent weeks in the wake of COVID-19.
  - Further, it will ease **pressure on hinterland and rural** areas due excess workforce in the midst of the COVID 19 migration.
- **Developing manufacturing base-** India has been keen to attract companies that want to shift from China by developing large pools of land and considering other incentives.
  - India must use this as an opportunity to **attract MNCs and investment** in the manufacturing sector.
  - As per India Inc, this move will **boost competition among states** for reforms.

- **Increase production to full capacity-** Currently, some provisions under the Factories Act, require the units running on power to **compulsorily register**, if they employ 10 workers. This restricts them from employing more workers and thus limiting their production capacity.
  o Increase in working hours helps to overcome shortage of manpower, which is going to hit all sectors, especially the manufacturing sector.

Issues

- **Against workers right:** This move will lead to **dilution of worker rights** and pave the way for **exploitation of workers** in an already stressed environment.
  o Such an approach can spark resentment leading to increased **worker agitation and activism**.
- **Against International Law:** Governments are mandated to consult labour unions on changes to labour laws as per International Labour Organisation (ILO) framework.
  o **10 central trade unions lodged a complaint** with the ILO as they see these moves in gross violation of Right to Freedom of Association [ILO Convention 87], Rights to Collective Bargaining [ILO Convention 98] and also the internationally accepted norm of eight hour working day.
  o On this ILO has expressed "**deep concern" over the labour law amendments,** and has appealed to Prime Minister to intervene and give a clear message to states on international commitments.
  o **Article 253 gives the parliament the special power to legislate** and pass laws in order to implement international agreements.
- **Limited impact of labour law reforms-** There is limited evidence that relaxing labour laws alone will increase employment. E.g. labour reforms in Special Economic Zones has not resulted in a significant rise in employment.
  o A study by the **VV Giri National Labour Institute**, on four states i.e. Rajasthan, Uttar Pradesh, Andhra Pradesh and Madhya Pradesh, found that 'amendments in labour laws neither succeeded in attracting big investments, boost to industrialisation or job creation'.
  o Further, India ranks 58th in **WEF's Global Competitiveness Index** against China which ranks 62nd in the same. Thus, lack of competitive labour markets is not the main factor driving India's poor competitiveness and there is little evidence that relaxing labour laws alone will attract overseas investment, especially from the companies that are looking to leave China.
- **Shallow scope of reforms**- These reforms focus on labor and not employment. The actual problems of industry are related primarily to the provisions for lay-offs, retrenchment and closure and the administrative implementation of labour laws. Thus, a wholesale removal of so many labour laws may not be the panacea for job crisis.

Way Forward

- **To promote an enabling business environment**, the overall interests of Labour like wages, employment, social security, working environment, health and safety etc. should be duly addressed.
- **To improve employment**, government should consider reforms such as developing apprentices' ecosystem and rural employment ecosystem around MGNREGS, rather than merely invoking labour law reforms.
- The government should focus on creating a **comprehensive integrated legal framework** for labour (as envisaged in the idea of 4 labour codes.)
  o There should have uniform definitions of key terms like 'industry', 'worker', 'employee', as currently most laws have different definitions which result in long drawn disputes and confusion.

3.6. IMPACT OF ENERGY EFFICIENCY MEASURES FOR THE YEAR 2018-19 REPORT

Why in news?

Bureau of Energy Efficiency released the Report titled "Impact of energy efficiency measures for the year 2018-19".

More about report

- **Bureau of Energy Efficiency (BEE)** conducted an annual study comparing the actual energy consumption in 2018-19 with the estimated energy consumption had the current energy efficiency measures not been undertaken i.e. counterfactual.

- The **overall objective of the study** is to **assess the impact of all the energy efficiency schemes/ programmes** in India in terms of total energy saved and reduction in the amount of CO2 emissions in 2018-19.

Bureau of Energy Efficiency (BEE)
- BEE is a **statutory body** under Ministry of Power, setup under the provisions of the Energy Conservation Act, 2001.
- Its **mission** is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the **primary objective of reducing energy intensity of the Indian economy.**
  - Energy Intensity is measured by the quantity of energy required per unit output or activity (or GDP).
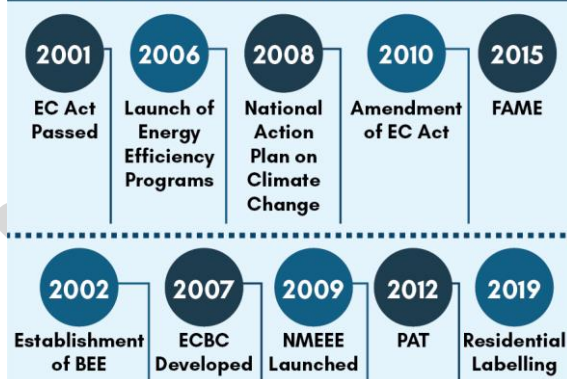
India's Energy Efficiency (EE) Measures- A Background

- Realising the importance of energy efficiency in promoting low carbon transformation, India had launched the **Energy Conservation Act in 2001**.
- It had further directed its policies by setting up the **Bureau of Energy Efficiency (BEE)** and then initiating the **National Mission for Enhanced Energy Efficiency (NMEEE)**.
- Along with BEE, there are other organizations at national level that are also supporting in energy efficiency by launching its own set of schemes. These schemes are **spanning across major energy consuming sectors** in India such as Industry, Commercial, Residential, etc., along with cross cutting mechanisms for realization of energy savings.
- Currently India is running several Energy Efficiency schemes/Programmes. These include

CHRONOGRAPH OF EE POLICIES AND PROGRAMS IN INDIA

2001 - EC Act Passed
2006 - Launch of Energy Efficiency Programs
2008 - National Action Plan on Climate Change
2010 - Amendment of EC Act
2015 - FAME
2002 - Establishment of BEE
2007 - ECBC Developed
2009 - NMEEE Launched
2012 - PAT
2019 - Residential Labelling

Large Industry	Perform, Achieve and Trade (PAT) Scheme
Industry- MSME	BEE SME Program, GEF – World Bank – BEE Programme
Domestic- Lighting & appliances	Standards & Labeling (S&L), UJALA
Domestic- Buildings	Eco Niwas Samhita, Residential Labeling
Commercial Buildings	ECBC– Commercial Building, BEE – Star Rating Programme, Building Energy Efficiency Programme (BEEP)
Agriculture- Appliances (Star Rated Pumps)	Agriculture Demand Side Management Programme (AgDSM)- (Star Rated Pumps)
Transport- Road Transport	Corporate Average Fuel Economy (CAFE), Faster Adoption & Manufacturing of Electric Vehicles (FAME)
Municipality- Lighting & Appliances	Municipal Demand Side Management Programme (MuDSM) - (SLNP and MEEP)

Why focus on Energy Efficiency?

- **High growth and energy demand prospects:** Sustained high economic growth rates over the last two decades, growing population, and rising aspirations of a growing middle class is **driving the demand for energy resources** in India. However India's energy sector is still **dominated by fossil fuels** such as coal and oil. Moreover, India **imports around 80% of its crude oil** needs. **This necessitates saving the energy for two prime reasons-**
  - **Import dependence can increase the vulnerability** of the country's economy to global geopolitical and economic risks, apart from adversely affecting the trade balance.
  - **Inequity in access:** Rising costs of accessing resources, shrinking geological availability, the risk of material exhaustion, uncertainty with regard to long-term abundance and distributional challenges along with associated uneven and unfair access to natural resources will all pose hurdles in meeting the rising energy demand.

Energy Consumption Scenario in India
- With a total energy consumption of 553.9 Million Tonnes of Oil Equivalent (Mtoe) in 2017-18, India stood the **third largest energy consumer** in the world after United States of America and China.
- **India also ranks highest in terms of growth rate of energy consumption** in the world.
- India's energy consumption is expected to grow fastest among global economies and account for 11% of global energy demand by 2040.

- **Cost Benefit:** for example, the rise in India's electricity requirement (demand plus transmission and distribution losses) In the medium term till 2026-27 would require investment in capacity additions of more than USD 304 billion. **Energy efficiency costs less than the cost of meeting electricity demand with new power plants.**
- **India's Climate commitments:** India's **Nationally Determined Contribution (NDC)** targets to **lower the emissions intensity of GDP by 33-35 per cent** by 2030 from 2005 levels.
  - **India is marching on the path of energy transition**, shifting away from fossil fuels and focusing on decentralized energy resources. **Energy Efficiency will be central to this transition process** as it helps to make the transition faster and more economical.
- A focus on energy efficiency is also **necessary to reduce the heavy pollution**- especially air pollution- caused due to industry and transport sector. E.g. transition to BS-VI vehicles directly from BS-IV vehicles.
- Energy efficiency is one of the **important foundations for various government projects** such as NAPCC (8 Missions), Smart City Projects, AMRUT, DDUGJY, SAUBHAGYA, National Smart Grid Mission, KUSUM etc. which seek to reduce the pollution, enhance the total energy consumption in a sustainable and efficient manner.

Overall, **Energy efficiency remains one of the most cost-effective measures** because it not only **conserves energy at end-use**, but also **saves on the cost of the energy produced**. Concerns regarding energy affordability, accessibility, availability, and security, as well as environmental considerations, have only amplified the interest in the energy efficiency potential of all sectors.

Impact of various Energy Efficiency Interventions in India

- Adoption of energy efficiency schemes/ programmes have led to **overall electricity savings to the tune of 9.39%** of the net electricity consumption.
- PAT scheme contributed to 57.72% of the total energy savings, while S&L and UJALA accounted for 36.26% of the total energy saving from all major interventions carried out during the FY18-19.
- Overall, various energy efficiency measures have translated into **savings worth INR 89,000 crores (approximately)** and contributed in **reducing 151.74 Million Tonnes of CO2 emission.**

SECTOR WISE ENERGY SAVINGS

Industries have the highest share (49.18% in the total energy savings, while domestic sector has the maximum share (67%) in electrical energy savings.

Energy Sabing (Mtoe, % Share)
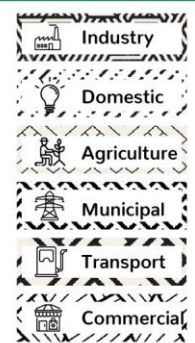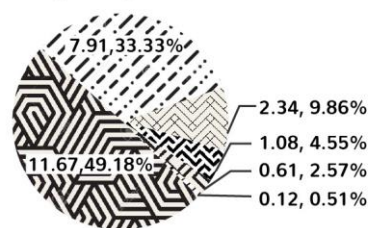
Impact of various EE measures on the Energy Consumption of the country

Total Energy Savings vis-a-vis Total Energy Consumption

Conclusion

- Current schemes/programs are largely successful in achieving significant energy savings across various sectors viz. Industry, building (domestic and commercial), municipal, agriculture, and transport. However, the **future landscape would be driven by disruptive technologies and economic mega-trends** such as smart cities, e-mobility etc. which are changing the dynamics of energy sector.
- The BEE has developed a National Strategy Plan - **Unlocking National Energy Efficiency Potential (UNNATEE).** Activities to operationalize it would not only focus on available technology to make improvements but would also include relatively new technologies such as E-mobility, fuel cell vehicles (FCVs), integration of renewables & storage, net zero buildings, etc. for decarbonizing various sectors of the economy.

UNlocking NATional Energy Efficiency potential (UNNATEE)
- It is a national strategy document for **accelerating energy efficiency in India**. It describes a plain framework and implementation strategy to establish a clear linkage between energy supply-demand scenarios and energy efficiency opportunities. It does so by **clearly delineating the energy efficiency targets for the respective demand sectors** upto the state levels.

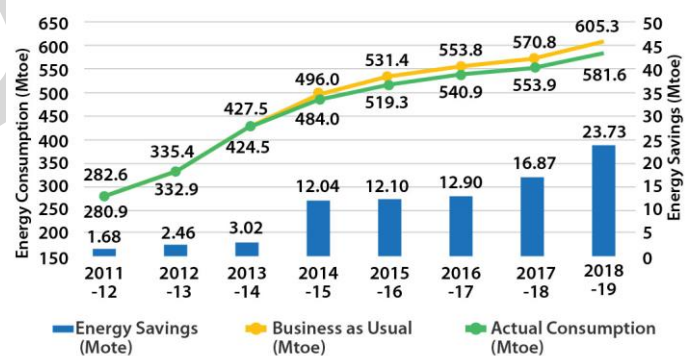- **Favourable Regulations -** through an overarching energy efficiency policy, which includes targets, incentives and penalties.
  - o **Agriculture-** Inclusion of agro projects under the National Clean Energy Fund
  - o **Buildings-** Introduction of incentives for purchasing energy efficient houses.
  - o **Industry-** Increasing the scope of the PAT programme.
  - o **Transport-** Roll out of the proposed FAME-II scheme.
- **Institutional Framework -** through strong enforcement mechanism at state levels, which would lend further strength to the national and local level program.
  - o **Agriculture-** A single window system for export of products and services will improve the competitiveness of sector R&D.
  - o **Buildings-** A reporting framework for where the states are required to update their progress in implementation of Energy Conservation Building Code in their state.
  - o **Industry-** Creation of an energy management cell.
- **Availability of Finance -** in the form of a revolving fund, risk guarantee, On-bill financing, Energy Savings Insurance, Energy Conservation Bonds.
- Other important components include **use of technology**, **stakeholder engagement, data collection via setting up of a Nodal Agency and setting State wise targets.**

3.7. ENERGY TRANSITION INDEX REPORT

Why in news?

Recently, the World Economic Forum released the **Energy Transition Index 2020**.

About Energy Transition Index (ETI)

- The **ETI** is a fact-based ranking intended to enable policy-makers and businesses to plot the course for a successful energy transition.
  - o It is a composite score of 40 indicators which benchmarks 115 countries on the **speed and direction of their energy transition** and identifying opportunities for improvement.
- An **effective energy transition** is a timely transition towards a more inclusive, sustainable, affordable and secure energy system that provides solutions to global energy-related challenges, while creating value for business and society, without compromising the balance of the energy triangle.

Fostering Effective Energy Transition Initiative
- It aims to accelerate the speed of the global energy transition by promoting the adoption of effective policies, corporate decisions and public-private collaboration for the transition to a secure, sustainable, affordable and inclusive future energy system.
- It offers a platform to establish a common understanding among all stakeholder groups on the end-state of the energy transition, necessary imperatives, market and policy enablers, and the resulting human impact.

ENERGY TRANSITION INDEX FRAMEWORK

- **ETI** is a part of the **World Economic Forum's Fostering Effective Energy Transition Initiative.**
  - o It is a continuation of the annual energy system benchmarking series, previously published as the **Energy Architecture Performance Index** (EAPI) series from 2013 to 2017.
- The ETI framework consists of two parts i.e. the **current energy system performance** and the **enabling environment for the energy transition.** (Refer the infographics).

Challenges due to COVID-19
- The erosion of almost a third of global energy demand
- Unprecedented oil price volatilities and subsequent geopolitical implications
- Delayed or stalled investments and projects
- Uncertainties over the employment prospects of millions of energies-sector workers.

Key findings of the ETI 2020

- **ETI 2020 Rankings-** Sweden (1), Switzerland (2), Finland (3), India (74), China (78).
- A majority of countries have made **varying degrees of progress o**n the three dimensions of the energy triangle:
  o However, the lack of consistent progress in many countries, highlights the challenges in navigating the complexity of the energy transition.
- The **gaps** between the top performers and the rest have been steadily decreasing, mainly due to rising levels of political commitment and improving access to capital for investment in emerging economies.
  o This highlights the need for transformative and breakthrough solutions to unlock the next wave of substantial gains for advanced economies.

3.8. SUGAR INDUSTRY IN INDIA

Why in news?

Recently, a NITI Aayog task force on sugarcane and sugar industry submitted its report to the government.

More on news

- This task force was constituted on the sugar industry to find a long-term solution to the problems faced by the sector so as to rationalise their dependence on states' assistance
- Its mandate included recommendations on crop diversification to reduce adverse impact on ground water and aligning sugar industry with global markets.

Significance of Sugar Industry in India

- **Important agro-based industry** that impacts rural livelihood of about **50 million sugarcane farmers** and around **5 lakh workers** directly employed in sugar mills.
  o Employment is also generated in various ancillary activities relating to transport, trade servicing of machinery and supply of agriculture inputs.
- **Global sugar space:** The sugar industry plays a leading role in global market with India being world's second largest producer after Brazil, producing nearly15 and 25 per cent of global sugar and sugarcane respectively.
- **Linkage with other industry:** Sugar industry is involved to make avail of sugar complexes by manufacturing sugar, bio-electricity, bio-ethanol, bio-manure and chemical.

Growth of Sugar industry in India

- A major step to liberate the sugar sector from controls was taken in **1998** when the **licensing requirement for new sugar mills was abolished.**
- Delicensing caused the installed capacity in the sugar sector to grow at almost 7% annually between 1998-99 to 2011-12 compared to 3.3% annually between 1990-91 to 1997-98.
- Delicensing also contributed significantly to a structural transformation in the sugar industry. Till 1997-98, sugar cooperatives dominated the sugar industry but by 2011-12 this changed significantly with the **private sector contributing the largest share of total installed capacity.**
- Although delicensing removed some regulations in the sugar sector, other regulations (i.e. pricing policy, compulsory jute packaging etc.) persisted. The drivers for regulations were:
  o the highly perishable nature of sugarcane;
  o the small land holdings of sugarcane farmers; and
  o the need to keep the price of sugar at reasonably affordable levels while making it available through the Public Distribution System (PDS).

Issue faced by Sugar Industry in India

Issues due to regulations

- **Cane reservation area and bonding:** Every designated mill is obligated to purchase from cane farmers within the cane reservation area, and conversely, farmers are bound to sell to the mill. This ensures a minimum supply of cane to a mill, while committing the mill to procure at a minimum price.
  o However, this arrangement reduces the bargaining power of the farmer. He is forced to sell to a mill even if there are cane arrears (occurs when sugar mill owners delay payment to farmers for the sugarcane supplied).

- Mills, on their part, lose flexibility in augmenting cane supplies, especially when there is a shortfall in sugarcane production in the cane reservation area. Mills are also restricted to the quality of cane that is supplied by farmers in the area.
- **Minimum distance criterion:** Under the Sugarcane Control Order, the central government has prescribed a minimum radial distance of 15 km between any two sugar mills. This regulation is expected to ensure a minimum availability of cane for all mills.
    - However, this criterion often causes distortion in the market. The virtual monopoly over a large area can give the mills power over farmers, especially where landholdings are smaller. In addition to restricting competition, the regulation inhibits entry and further investment by entrepreneurs**.**
- **Issue with sugarcane pricing (FRP and SAP):** Dual sugarcane pricing distorts sugarcane and sugar economy and leads to cane price arrears.
    - Sugar mills are required to pay the FRP/SAP to sugarcane farmers irrespective of market prices.
    - Sugar mills claim they are finding it difficult to pay FRP of sugarcane as the average production cost of sugar is higher against the minimum selling price of sugar and due to which they are bearing loses.
- **Trade policy for sugar:** The government had set controls on both exports and imports. These controls are imposed after considering the domestic availability, demand and price of sugarcane.
    - As a result, India's trade in the world trade of sugar is small. Even though India contributes 17% to global sugar production (second largest producer in the world), its share in exports is only 4%.

> **Sugarcane pricing in India**
> The pricing of sugarcane is governed by the statutory provisions of the Sugarcane (Control) Order, 1966 issued under the Essential Commodities Act (ECA), 1955.
> **Fair and Remunerative Price (FRP)**
> - It is the cane price announced by the Central Government on the basis of the **recommendations of the Commission for Agricultural Costs and Prices (CACP)** after consulting the State Governments and associations of sugar industry.
> - FRP is minimum price **paid by mills to farmers**.
> - It replaced the erstwhile Statutory Minimum Price.
>   - Under the FRP system, the farmers are not required to wait till the end of the season or for any announcement of the profits by sugar mills or the Government.
> - It assures margins on account of profit and risk to farmers, irrespective of the fact whether sugar mills generate profit or not and is not dependent on the performance of any individual sugar mill.
> - It is based on the following **parameters**-
>   - Cost of production of sugarcane
>   - Return to the growers from alternative crops and the general trend of prices of agricultural commodities
>   - Availability of sugar to consumers at a fair price
>   - Price at which sugar produced from sugarcane is sold by sugar producers
>   - Recovery of sugar from sugarcane
>   - The realization made from sale of by-products viz. molasses, bagasse and press mud or their imputed value
>   - Reasonable margins for the growers of sugarcane on account of risk and profits
> - In order to ensure that higher sugar recoveries are adequately rewarded and considering variations amongst sugar mills, the FRP is linked to a basic recovery rate of sugar, with a premium payable to farmers for higher recoveries of sugar from sugarcane.
>
> **State Advised Price (SAP)**- Citing differences in cost of production, productivity levels and also as a result of pressure from farmers' groups, some states declare state specific sugarcane prices called State Advised Prices (SAP), usually higher than the FRP.
>
> **Sugar pricing Policy**
> - Price of sugar are market driven & depends on demand & supply of sugar. However, with a view to protect the interests of farmers, concept of **Minimum Selling Price (MSP) of sugar** has been introduced so that industry may get atleast the minimum cost of production of sugar, so as to enable them to clear cane price dues of farmers.
> - MSP of sugar has been fixed **taking into account the components of Fair & Remunerative Price (FRP) of sugarcane and minimum conversion cost of the most efficient mills**.

- This has been at the cost of considerable instability for the sugar cane industry and its production.
- **Regulations relating to by-products:** Certain restrictions have been placed on by-products of sugarcane such as molasses and bagasse.
    - State governments fix quotas for different end uses of molasses and restrict their movement, particularly across state boundaries.
    - Mills are also restricted from selling power generated from bagasse to other states. Such restrictions impede the revenue realization from cogeneration and reduce economic efficiency.

- **Compulsory sugar packing in jute only:** Under Jute Packaging Material (JPM) Act, 1987, 20% of the sugar shall be mandatorily packed in diversified jute bags. The sugar industry estimates that this leads to an increase in cost by about 40 paise per kg of sugar besides adversely impacting quality.

Other issues

- **High production cost of sugar-** The production cost for sugar was Rs 3,580/quintal in 2017-18, compared with the international price of Rs 2,080/quintal. This increased cost of production subsequently increases FRP.
  o The **reasons behind this** include high sugar cane cost, uneconomic production process, inefficient technology and high taxes exercised by the state and the central governments.
  o India has the largest area under sugar cane cultivation in the world but the yield per hectare is extremely low and is even lower in North India than in South India. This increase the cost of production and subsequently FRP.
  o **Average rate of sugar recovery** from the sugar cane is less than 10 per cent which is much lower than other sugar producing areas like Java, Hawaii and Australia, up to 14 per cent.
- **Seasonal nature of industry -** The sugar industry has a seasonal character and the crushing season normally varies between 4 and 7 months in a year leaving the mill and the workers idle for almost half of the year.
- **Inefficiency of sugar mill:** Most of the factories in the private sector were set up five- to six decades ago. The cost of production of such units is unduly high owing to less 'mechanical efficiency
- **Demand-Supply Mismatch** due to emergence of alternative sweeteners replacing sugar, slowdown in the pace of demand growth while continuous increase in overall production.

Some recent steps taken by the government

- **Changes in levy of duty-** The import duty was increased from 50% to 100%, along with the removal of the 20% export duty.
- **Duty Free Import Authorisation Scheme-** under which exporters are allowed to import sugar at zero duty within three years.
- **Export allowed-** The government allowed export of two million tonnes of sugar until the end of the 2017-18 marketing year, in order to clear surplus stocks and improve cash flow to millers for making payment to sugarcane farmers.
- **Stock holding limit on sugar mills**- by the Central Government since June, 2018 indicating the mill-wise quantity of white/ refined sugar prescribed for domestic sale/despatch for that particular month.
  o Government has fixed the **maximum monthly sugar sale quota** and **minimum ex-mill sugar sale price** under this.
- **Building of buffer sugar stock of 30 lakh tonnes-** in order to cut the large inventory with sugar mills and help contain a slide in the prices of the sweetener and boost the mills' margins.
- **Other subsidies-** The government also provided production subsidy, transport subsidy and 50 lakh tons export quotas.
- **Ethanol Blending Program-** The Central Government notified the mandatory 10% ethanol blending with petrol across the country.
  o **New Bio-fuel Policy in 2018** allows sugar mills/distilleries to make ethanol from cane juice, molasses, foodgrains, potato etc. It also envisages an indicative target of 20% blending of ethanol in petrol and 5% blending of bio-diesel in diesel by 2030.

Suggestions of NITI Aayog of Task Force

- **Increased Minimum Selling Price-** The government can consider a one-time increase in minimum selling price (MSP) for sugar to Rs 33/kg (from Rs 31) to unburden mills.
  o It would help sugar mills to cover the cost of production, including interest, maintenance costs, etc.
  o Further, the MSP for sugar should be reviewed after six months of the notification to enhance it.
- **Imposition of Sugar cess-** of Rs 50/quintal (excluding exports) for three years.
  o It could mobilise around Rs 4,500 crore, which would help provide bridge funding or act as a comfort for banks providing soft loans to mills for improving technologies or paying to farmers.
- **Nudging farmers away from sugar cropping-** The government can consider capping of farmer's land use for sugarcane at 85% of total holding.
  o Further, a **cash incentive** of Rs 6,000/hectare could be given for farmers shifting to alternative crops from sugarcane.

- **Support to farmers-** Introduce **Revenue sharing formula** with a **price stabilisation fund** to protect farmers from receiving prices below fair and remunerative price (FRP).
  - o Earlier, C Rangarajan Committee had recommended that there should be a sharing of the revenues/value created in sugarcane value chain between farmers and millers in equitable manner.

3.9. DRAFT NATIONAL FISHERIES POLICY 2020

Why in news?

Recently the **Department of Fisheries** released the **Draft National Fisheries Policy (NFP) 2020**.

Need for policy

- Fisheries sector has been facing constraints which have had led to stagnation in growth. **Constraints include:**
  - o **Limited scope for expansion** due to overcapacities in territorial waters, weak regulation, inefficient management and prevalence of traditional fishing practices.
  - o **Inadequate infrastructure** especially fishing harbours, landing centers, cold chain and distribution systems, poor processing and value addition, wastage, traceability and certification, non-availability of skilled manpower, etc.
  - o **In inland capture fisheries**, seasonal nature of fishing operations, depleted stocks in natural waters, issues related with tenure and lease rights, use of obsolete technology for harvesting coupled with low capital infusion are some of the significant limiting factors.
  - o **Disease, absence of species diversification** and genetic improvement, poor brood and seed are species specific constraints.
  - o **Other issues include:** high input cost, lack of access to institutional credit, credit guarantee and insurance, environmental sustainability etc.
- Hence, National Fisheries Policy seeks to **consolidate the sectoral gains and ensure sustainable growth** through policy support in order to enable and accelerate fisheries development.
  - o It will serve as an **overarching policy framework** which will provide guidance to States and UTs in developing state specific policies and legislations having both regulatory and developmental features to be implemented through short, medium and long term plans.

Key Features of the draft Policy:

- **Fisheries Management Plan (FMPs):** The Centre will formulate FMPs for scientific management and regulation of marine fisheries resources of the country in consultation with the concerned State by adopting Ecosystem Approach to Fisheries (EAF).

Fisheries sector in India
- Fisheries are an **important source of food, nutrition, employment** and income in India.
  - o The sector provides livelihoods to about 16 million fishers and fish farmers at the primary level and almost twice the number along the value chain.
  - o The sector accounts for about **6.58 per cent share of Agricultural GDP**.
- The marine **exports stand at about 5% of total exports of India** and constitute 19.23 % of Agri-exports (2017-18).
- In the recent years, the fish production in India has **registered an average annual growth rate of more than 7%.**
- India is **second largest producer** in fishery sector.
- There are two benches of fishery sector **namely Inland Fisheries and Marine Fisheries**. The total fish production has nearly **65% contribution from the inland sector** and rest form marine fishing.
- **Fisheries being a State subject**, the States play a pivotal role in fisheries governance.
  - o While Inland Fisheries are fully managed by State Governments, Marine Fisheries are a shared responsibility between the Central and Coastal State/UT Governments.
  - o Coastal States/UTs are responsible for development, management and regulation of fisheries in the sea waters inside the 12 nautical mile (22 km) territorial limit.
  - o Centre is responsible for the development, management and regulation of fisheries in the EEZ waters beyond 12 nautical miles and up to 200 nautical miles.

- **Integrated Fisheries Development Plan (IFDP):** The government will prepare and implement IFDP for Islands to enhance the share in their economy.
- **Fisheries Spatial Plans (FSP):** The State governments will prepare FSP based on guidelines prepared by the central government for data management, analysis, modeling and decision making, after taking cognizance of Coastal Regulation Zone (CRZ) rules.
- **Legislation:** The center will also enact a comprehensive legislation ("**National Marine Fisheries (Regulation and Management) Bill, 2019"**) for holistic resource utilization in EEZ.

- **Database:** Government will implement a '**National Fisheries Data Acquisition Plan'**, involving Central and State Governments, and other stake holders to collect and report field data about various fisheries resources.
- **National Fisheries Development Council**: It will be established to provide overall guidance for the implementation of the Policy, review its objectives and progress.
- **National Marine Fisheries Authority**: It will have the powers to ensure sustainable fishing, **implementing fisheries management plan**, capacity building etc.
- **Private investment:** A robust system of public private partnership will be developed where the private sector, industry, farmers, communities, government, research institutes and civil societies are part of it.
- **Cluster approach for development of aquaculture:** based on production strengths of various geographical regions in order to enable focused and coordinated development of market and export oriented higher value species.
- **Welfare & Gender equity:** Gender equity as well as mainstreaming will be made integral part across fisheries and aquaculture value chain for socio-economic well-being of women.
- **Contract Farming:** States will encourage and strengthen, if permissible, Contract farming and Collaborative farming in fisheries sector by processors and fishers/fish farmers on agreed terms for their mutual benefits.
- **Various interventions in different sector include:**
  - **Fisheries Management:**
    - ✓ In '**Areas Beyond National Jurisdiction' (ABNJ)** where there is considerable scope to harvest fishery resources in the high seas, the Government will promote harnessing the fishery resources.
    - ✓ **Foreign fishing vessels will not be allowed** to fish or undertake fishing related activities in India's sovereign waters.
  - **Mariculture:**
    - ✓ Genetically Modified (GM) species shall not be allowed for mariculture activity.
    - ✓ Within the identified mariculture zones, the government shall designate certain areas as **mariculture technology parks.**
  - **Inland Fisheries:**
    - ✓ Population of native species in the rivers will be enhanced through **seed ranching of native stock by developing dedicated seed production units** in the vicinity.
    - ✓ State/ UTs may declare **certain water bodies as "Reserves for fish"** to conserve important fish species in a suitable wetland.
    - ✓ Introduction of **suitable high value species** to boost culture fisheries in cold waters in association with advanced countries e.g. Salmon, Sturgeon, Brown Trout etc.
  - **Freshwater Aquaculture:** Efforts will be made by States to enhance fish production and productivity through application of technology and formation of **Farmers Producer Organizations (FPOs)** to cater small pond holder's needs.
  - **Brackish Water Aquaculture:** In order to ensure that the fish produced from waste water aquaculture is safe for consumption, appropriate regulatory, management and precautionary measures will be put in place in coordination with relevant agencies.

Objectives of the draft policy
- Optimally harness the capture and culture fisheries potential
- A robust management and regulatory framework
- Promote Inland fisheries and aquaculture through standardized SoPs
- Strengthen and modernize value chain
- Market, trade and export of globally competitive fish benchmarked with global standards.
- Access to institutional credit
- Ensure food and nutritional security

3.10. RICE EXPORT PROMOTION FORUM

Why in news?

Recently, government set up **Rice Export Promotion Forum (REPF)** under the aegis of the **Agricultural and Processed Foods Export Promotion Development Authority (APEDA)**.

About REPF

- Its objective is to identify, document particulars and reach out to stakeholders across the **entire production/ supply chain of export of rice** for increasing these exports significantly to the global market.

o It will monitor, identify and anticipate developments pertaining to rice production and exports and **recommend necessary policy measures**.

o It will be in touch with **rice producers, exporters and other relevant stakeholders and** hear their problems, and facilitate, support and provide solutions to them.

- It will **comprise representatives** from the rice industry, exporters, officials from APEDA, Commerce Ministry, Agriculture Ministry and Directors of Agriculture from major rice producing states such as West Bengal, Uttar Pradesh, Punjab, Haryana etc.

Need for a dedicated forum

- **Rice is the largest commodity in India's agri-export basket**: Rice shipments stood at $7.77 billion in 2018-19, with basmati exports at $4.72 billion and non-basmati at $3.05 billion.
- **Overcome rice exporters' challenges:** Major challenges that affect the sector's global competitiveness and need involvement of various stakeholders for their effective resolution are-
  o Rise in minimum support price (MSP) irrespective of the international prices.
  o Compliance with international standards regarding pesticide residue etc.
  o Restriction on exports in case of domestic price rise.
  o Logistic issues such as improper warehouse management and transport facilities etc.
- **Capitalizing on global demand of India's Rice varieties**: This can be achieved via educating stakeholders at all levels in fields such as marketing, technological developments in rice production etc.
- **Exploring new markets and establishing the Indian brand**: To tap the potential of Indian rice in major rice consuming zones of the world, long term promotional plans need to be designed and carried out.
- **Lack of awareness**: Updated information and knowledge in context to the export procedures/ certification needs focused approach.

About APEDA

- APEDA was established under **the Agricultural and Processed Food Products Export Development Authority Act, 1985.**
- It is under **Ministry of Commerce and Industry**.
- It is mandated with the **responsibility of export promotion and development of products** such as Fruits, Vegetables, Meat, Poultry, Dairy Products, Floriculture, Alcoholic and Non-Alcoholic Beverages etc.
  o Under '**Agriculture Export Promotion Scheme of APEDA**', APEDA provides financial assistance to the registered exporters under sub-components of the Scheme - Market Development, Infrastructure Development, Quality Development and Transport Assistance.
- APEDA has also been entrusted with the responsibility **to monitor the import of sugar as well.**

Rice production in India

- India is the **second largest producer of rice in the world** and has been the **largest exporter** of rice after the shipments of the non-basmati were allowed from 2011.
- Major share of rice is cultivated during **Kharif season** while a small share of rice is grown in rabi /summer season with assured irrigation.
- **India's rice production has grown** from around 96 million tonnes in 2010-11 to 117.47 million tonnes in 2019-20 (22% increase), per Second Advance Estimates.

Direct seeding of rice (DSR)

- **Punjab and Haryana could face a shortage of labourers** to undertake transplantation of paddy in upcoming kharif season.
  o This now has **encouraged them to adopt DSR** in place of conventional transplanting.

About DSR

- DSR refers to process of establishing a rice crop from seeds sown in field rather than by transplanting seedlings from nursery.
  o In transplanting, farmers prepare nurseries where paddy seeds are first sown and raised into young plants. These seedlings are then uprooted and replanted 25-35 days later in main field **with standing water**.
    ✓ It ensures a uniform plant stand and gives rice crop a head start over emerging weeds.
- In DSR, water is replaced by real chemical herbicides.
  o In transplanting, **standing water acts as herbicide** and prevents growth of weeds by denying them oxygen in submerged stage.
- **Advantage of DSR:** saving irrigation water, labour, energy, time, reduces emission of greenhouse-gases, etc.
- **Disadvantage of DSR:** high weed infestation, evolution of weedy rice, increase in soil borne pathogens (nematodes), nutrient disorders, exposure to birds and rats incidence, rice blast, brown leaf spot etc.

4. SECURITY

4.1. BORDER INFRASTRUCTURE AND SHEKATKAR COMMITTEE RECOMMENDATIONS

Why in news?

Recently, Government accepted and implemented three important recommendations of Shekatkar Committee relating to border Infrastructure.

About recommendations

Three recommendations were related to **speeding up road construction,** leading to **socio economic development in border areas.** They were:

- **Outsourcing road construction work** beyond optimal capacity of Border Roads Organisation (BRO). **Engineering Procurement Contract (EPC) mode is made mandatory** for execution of all works **costing more than Rs 100 crore.**
  - o In EPC mode, private player is paid to lay roads and it has no role in road's ownership, toll collection or maintenance (it is taken care of by government).
- Introduction of **modern construction plants, equipment and machinery** by delegating **enhanced procurement powers** from Rs 7.5 crore to Rs 100 crore **to BRO, for domestic and foreign procurements.**
  - o BRO has recently inducted **advanced equipment** (E.g. Hot-Mix Plant, remote operated hydraulic Rock Drills etc.) and **new technology** like Geo-Textiles etc.
  - o Field officers were given **enhanced financial and administrative powers,** for faster financial closure of works.
- **Land acquisition and all statutory clearances** like forest and environmental clearance are made **part of approval of Detailed Project Report**. Work can be awarded only after at least 90% of statutory clearances have been obtained.

Need for Border infrastructure

- **Imperative to National security:** India's border is vulnerable to political instability, cultural radicalism and patronage of terrorism arising from the neighbouring countries.
- **Matching Neighbouring countries' Infrastructure** along the border like that of China's**.** It laid roads, railway line, and communication network, including fibre optics along the border.
- **For developmental needs and well-being of people living in border areas** to integrate them with hinterland, create a positive perception of care and encourage people to stay in border areas, leading to safe and secure borders.
- **Tactical and strategic mobility** is impeded by lack of Infrastructure resulting in predictability of operations. Also, a **better all-weather infrastructure** is needed for employment of heavy artillery and long-range vectors.
- **For facilitation of legitimate trade and travel** along with supervision to control smuggling, trafficking, crime, terrorism and illegal migration can increase.

> **About Border Road Organisation (BRO)**
> - BRO started operations in **1960** as a leading road construction agency **under the Ministry of Defence** with primary role of **providing road connectivity in border areas.**
> - It executes road construction and maintenance works **along the Northern and Western frontiers.**
> - BRO has also **constructed roads in friendly foreign countries** like Bhutan, Myanmar, Afghanistan etc.

Limitation in developing border infrastructure

- **Poor implementation:** In 2017, CAG pointed out that of the **73 roads allotted** in border areas, only 22 roads were completed by March 2016. Similar was the case with **14 strategic railway lines**.
- **Lack of monitoring** resulting in **defective construction of roads** including faulty design, poor riding conditions, inadequate drainage facilities etc.
- **Multiple authorities managing the border:** India has Army, Indo-Tibetan Border Police, Border Security Force and Assam Rifles for border management, unlike China which has one command for its security forces managing border, indicating cohesiveness.
- **Lack of unity of command:** Management becomes slightly inefficient because in some places the **Ministry of Home Affairs** (MHA) is responsible and in other places the **Ministry of Defence** (MoD) is responsible.

- **Staff deficiency and lack of modern equipments:** BRO is battling staff deficiency, lacks skilled workforce, too much dependence on local contractors.
- **Lack of adequate allocation of funds** for infrastructure, even pointed out by army.

Steps taken

- **Border Area Development Programme (BADP):** Main objective of the BADP is to meet the special developmental needs and well-being of the people living in areas situated near the International Boundary (IB).
- **Border Infrastructure and Management (BIM)** which includes 60 projects like construction of roads, schools, primary health centers, helipads, promotion of border tourism etc.

- **Completion of Indo-China Border roads:** Of 61 roads planned in 1st phase, 36 have been constructed.
- **Expediting forest clearances:** For taking up border infrastructure works, Government accorded **General approval under Forest (Conservation) Act, 1980**.
- Creation of **National Highways & Infrastructure Development Corporation Limited (NHIDCL):** NHIDCL took over several projects from BRO to address delay in execution.
- **Leveraging the power of technology** for **mobilisation and ordinance supply chain** (including equipment, weapons) and **Surveillance & communication.** E.g. Comprehensive Integrated Border Management System (CIBMS) etc.

Way forward

- **Public private partnership (PPP):** This will save government resources, allow best practices, innovation, knowledge without threatening the country's security and sovereignty.
- **Better coordination** within services, and between services involving armed forces, ministries and other stakeholders responsible to provide border infrastructure services.
- **In Country Collaboration:** will include participation of all country stakeholders which will comprise of forces at district borders, community policing, citizen residing in border areas etc.
- **Transformation of BRO** with changes in organisational structures, construction practices.
- **Capacity building** of defence forces to maintain own safety, minimise liability, and ensure that the forces understand and fulfil their mission of national security.

4.2. INDIAN ARMY PROPOSES TOUR OF DUTY

Why in news?

Indian Army has proposed to allow common citizens to join its ranks as officers and soldiers for a three-year short service billed as 'Tour of Duty'.

About the proposal

- 'Tour of Duty' (ToD) is short, **voluntary internship programme of three-year** for youths.
- It is for youths who "**do not want to make defence services their permanent vocation**, but still want to experience the thrill and adventure of military professionalism".
- Proposal suggests several measures to incentivise this scheme like a **tax-free income for three years** and a **token lumpsum at the end of three years**, preference in public sector jobs and post-graduate courses etc.
- However, there will be **no severance packages** (retirement benefits) e.g. Pension, Gratuity, Leave encashment etc. for ToD officers.

Benefits of ToD proposal

- ToD will help **channelize the youth energy** into positive utilisation of their potential. Also, rigorous military training and habits inculcated will lead to **healthy citizenry**.
  - Proposal also cites **resurgence of nationalism and patriotism** in the country.
- The **cost of a three-year service per officer will be a fraction** of the cost incurred on Short Service Commission (SSC) officers. The **expected significant reduction** in pay and pensions could free up funds for **Army's modernisation.**
- It is also suggested as a way to **address unemployment**, by providing 3-year internship for youth. As **individual's earnings is tax-free** for three-year period, it helps to save and increase disposable income.
- Proposal says that nation and the corporates are likely to benefit from a **trained, disciplined confident, diligent and committed men and women** who have completed the ToD. Proposal states that as per an initial survey, certain **corporates (eg, Mahindra Group) would favour individuals** who have been trained by the military at 26 or 27 years of age after ToD.

Concerns about ToD proposal

- There is question on **combat skills, experience and preparedness** of these recruit in war, hence most likely ToDs will be deployed in non-operational tasks.
- **Short Service Commission** is already in **place for recruitment for short services** and National Cadet Corps (NCC) to give military experience, hence it is seen as **duplication of efforts.**
- From the very beginning, a ToD officer knows the end date of his service, hence his **productivity might hamper** as he would remain uncertain about his future thereafter.
- It is seen as **army turning into a training institute** to produce great talent which would not be utilised by army because by the time he is with full potential, it would be his time to complete three-year tenure.
- ToD officers will be experienced, disciplined, well-organized and possess leadership qualities but very **few of them would have skill sets required by open market**. Corporate sector will hire strictly as per the **skill set required**, so, employment after 3 years is not certain.

Way forward

- An **attractive short-term scheme**, which strikes a balance between the standards of training and operational requirements of the armed forces and needs of the individual, is the **most cost-effective method of managing military budgets.**
- It should be done **without diluting the ethos, morals and value system** of armed forces. As proposal suggests, it should be **done on trial basis with limited vacancies**, to be expanded further, if found successful.

4.3. INTEGRATED BATTLE GROUPS

Why in news?

Recently, Indian Army has postponed the official launch of its new integrated battle groups (IBGs) because of the ongoing Covid-19 pandemic.

About Integrated Battle Group

- IBGs are brigade-sized, agile, self-sufficient combat formations, which can swiftly launch strikes against adversary in case of hostilities.
  - They will be able to mobilize within **12-48 hours based on the location**.
  - The integrated units for the border will be **all-encompassing, with artillery, armoured, combat engineers and signal units.**
  - Currently, during hostilities a brigade has to wait to be augmented by different types of units which increase the time to mobilize.
- The IBGs are to perform both **offensive roles**, involving cross-border operations, **and defensive roles** to withstand an enemy attack**.**
- Each IBG would be **tailor-mad**e based on **Threat, Terrain and Task** and resources will be allotted based on the three Ts. They need to be **light** so **they will be low on logistics.**

- o The composition of every IBG would differ on the basis of the terrain where it is located — an IBG operating in a desert needs to be constituted differently from one operating in the mountains.
- Each IBG will be **headed by a Major General** and comprise around 5,000 troops**.**
- IBG will help in effectively implementing the **Cold Start doctrine**.
  - o Cold Start' doctrine of the Indian Armed Forces **envisages swift deployment of troops on the western border within** days if a situation of a full-blown war arises.
  - o This doctrine aims to allow **Indian forces to conduct sustained attacks while preventing** a nuclear retaliation from Pakistan.

5. ENVIRONMENT

5.1. LOCUST ATTACK

Why in news?

Recently, Swarms of desert locusts invaded vast swathes of land in various Indian states which entered via Pakistan's Sindh province

More on news

- Union government issued a warning to 12 states including **Rajasthan, Punjab, Haryana and Madhya Pradesh, Gujarat and Maharashtra** regarding the locust attack.
- The current attack is said to be the **worst desert locust attack in 26 years**.
- **United Nations (UN)** has also warned that armies of locusts swarming across continents pose a "severe risk" to India's agriculture this year.

Desert Locusts

- They belong to the family of **grasshoppers** and have life span of 90 days.
- **Four species of locusts are found in India**: **Desert locust** (Schistocerca gregaria), **Migratory locust** (Locusta migratoria**), Bombay Locust** (Nomadacris succincta) and **Tree locust** (Anacridium sp.).
  o Desert locusts are usually restricted to the semi-arid and arid deserts of Africa, the Near East and South-West Asia that receive less than 200 mm of rain annually.
- They lay **eggs in damp soil** in the bare ground, which is rarely found in areas with dense vegetation.
- Desert locusts **are "biphasic" animals**, meaning they can take on two entirely different forms.
  o In their **"solitary" form**, they are drab brown in colour and relatively harmless to crops.
  o Under certain conditions (such as optimum moisture and vegetation), the insects can switch into a "**gregarious form**" and start forming swarms – turning electric yellow and displaying swarming behavior.
- **A swarm may contain 40 to 80 million adults** in one square km, and these can fly at 16-19 km an hour, depending on the wind, and cover up to 150 km in a day.
- They are **omnivorous** and one adult desert locust can eat roughly its own weight or about 2 gm of fresh food everyday.
- In all there are **three breeding seasons** for locusts -Winter breeding [November to December], Spring breeding [January to June] and Summer breeding [July to October]. **India** has only one locust breeding season and that **is Summer breeding**.

Reasons for recent locust attacks:

- **Favourable weather conditions:** Most of the attacks by locust swarms in India since 1993 have been localised to Rajasthan.
  o But this time, favourable weather conditions have facilitated locusts' travel from Rajasthan to Gujarat, Madhya Pradesh, Uttar Pradesh and even Maharashtra.

Forecast March-June 2020

- **Indian Ocean Dipole:** The desert locusts usually breed in the areas in the countries along the eastern coast of Africa in a region known as the **Horn of Africa.**
  o Rising temperatures due to global warming amplified the Indian Ocean dipole and made the western Indian Ocean particularly warm.
  o Heavy rain triggers the growth of vegetation in arid areas where desert locusts can then grow and breed.
- **Cyclones:** The cyclonic storms Mekunu and Luban that struck Oman and Yemen respectively transformed the empty desert tracts into large lakes providing damp soils where the locust swarms breed.
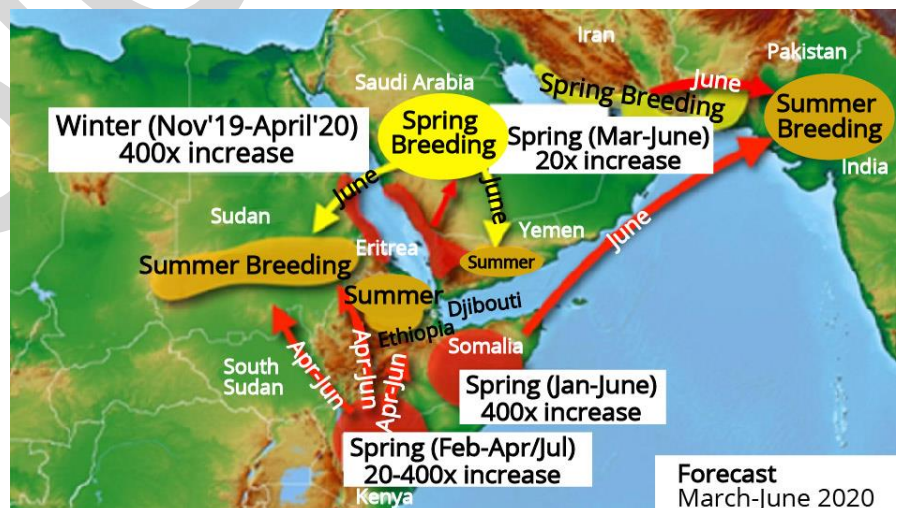
- **Wind Movement:** Locusts generally follow the wind, and are known to be passive flyers.
  - The low-pressure area created by **Cyclone Amphan** in the Bay of Bengal strengthened the westerly winds which aided the movement of the locusts into South Asia.
- **Westerlies:** The westerlies also brought with them several bouts of rainfall over north and western India which also helped the insects reproduce.

Effects of locust attacks

- **Crop damage:** The desert locust attack has wiped out crops spread over 5,00,000 hectares in Rajasthan. It poses a serious threat to India's food security in the recent future.
  - One square km swarm can eat food in a day upto food equivalent for 35,000 people.
- **Allergies:** Locust swarms often create allergens that aggravate allergies.
- **Harmful pesticides:** The Locust Warning Organisation (LWO) sprayed **Malathion 96** and **Chlorpyrifos**, both organophosphate pesticides, to control the locust swarms across states.
  - Both are extremely toxic and high level of exposure to the pesticides may cause nausea, dizziness and even death. They can also impact soil fertility by altering the ecological balance.
- **Air travel:** Generally locusts are found at lower levels and therefore pose a threat to aircraft especially in the critical landing and takeoff phase of the flight.
- **Effect on trees:** Locusts also destroy the forest and urban vegetation areas if they are unable to find the crops to feed.

> **Steps taken by India**
> - **Locust Warning Organisation (LWO)**, under **Ministry of Agriculture & Farmers Welfare**, is responsible for monitoring, survey and control of Desert Locust in Scheduled Desert Areas mainly in the States of Rajasthan and Gujarat.
> - The Indian government has established **several Locust Circle Offices and temporary camps** to control and monitor the attack.
> - **200 Locust Circle Offices have been set up** to conduct survey & control operations in coordination with District Administration and agriculture field machinery of affected States.
> - The country is **procuring pesticide sprayers from the UK** and has deployed fire brigades, tractors and other vehicles for spraying insecticides.
> - The Centre has **compensated** some of the farmers who suffered **losses from the National Disaster Response Force (NDRF) Fund**.
> - **Hindustan Insecticides Limited** is now in process of production and supply of 25 MT Malathion for supply to locust control programme to Iran under Government to Government arrangement.
> - **Drones are used** to spray pesticides on tall trees and inaccessible places for effective control of locusts.
> - **Regular coordination with South-West Asian countries** like Afghanistan, Iran and Pakistan where locust attacks are common.

Way Forward

- **Use of bio-pesticides:** These are safe ways of controlling them without affecting the health of humans and soil quality.
  - **Aerial spraying** of fertilizers and pesticides is the most potent method of fighting the locusts and helicopters need to be used to cover large areas to control.
  - There are some evidences that **loud noises can effectively divert locusts**. This can be used in areas of food crops to divert the locusts.
- **Cooperation from East African countries to South Asia** including Middle East and Pakistan with India to comprehensively control the growth and spread of locusts.
- **Active role of organisations:**
  - **United Nations Environment Programme's role** is to disseminate the latest science on emerging climate trends to inform cross-sectorial policies and ensure resilience is built in the relevant sectors.
  - **World Meteorological Organization's role** is to forecast the more immediate weather changes that may exacerbate the locusts' attacks.
  - **World Health Organization's role** is to classify potential risks of different chemical agents to enable governments to invest in the safest one.
- **Food and Agriculture Organisation** has also laid out a standard operating procedure to deal with locust menace:
  - Sand areas that have green vegetations are to be monitored constantly to see if locust are present.
  - Desert areas receiving rainfall are to be surveyed for live locus or their eggs
  - Recommended pesticides are to be used to stop their breeding

o Special attention is to be paid in areas where day temperature ranges between 20 degree celsius and 38 degree Celsius.

5.2. SUPER YEAR FOR BIODIVERSITY

Why in news?

The year 2020 is the "**Super Year For Biodiversity**", as the **Strategic Plan for Biodiversity** with 20 global **Aichi targets adopted in 2010 ends in 2020**.

About Strategic Plan for Biodiversity 2011-2020 (SPB 2011-2020)

- SPB 2011-2020 was adopted by the parties to the CBD, during the tenth meeting of the Conference of the Parties **(COP10)** in 2010 in **Nagoya, Japan**, with the purpose of inspiring **broad-based action in support of biodiversity** over the next decade by all countries and stakeholders.
- The Strategic Plan is comprised of a shared vision, a mission and **20 targets organized under 5 strategic goals,** collectively known as the **Aichi Biodiversity Targets (ABTs)**.
  o **Vision**: Living in Harmony with Nature where by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.
  o **Mission**: To take effective and urgent action to halt the loss of biodiversity in order to ensure that **by 2020 ecosystems are resilient and continue to provide essential services**, thereby securing the planet's variety of life, and contributing to human well-being, and **poverty eradication.**
- To implement the SPB 2011-2020, Parties to CBD agreed to:
  o Update their **national biodiversity strategies and action plans (NBSAPs)** in line with the SPB 2011-2020.
  o Develop **national targets** (taking into account national priorities and capacities) using the Strategic Plan and ABTs as a flexible framework, and **integrate these national targets into the updated NBSAPs**.
  o Adopt the updated NBSAPs as a **policy instrument** for the integration of biodiversity into national development, accounting and planning processes.
  o **Report on progress** achieved towards implementation of the Strategic Plan and Aichi Biodiversity Targets through **National Reports**.
- Presently, the negotiations to develop the post-2020 global biodiversity framework are ongoing.

Convention on Biological Diversity (CBD)
- The CBD is an **international multilateral treaty** which was opened for signature in 1992 at the United Nations Conference on Environment and Development (**the Rio "Earth Summit"**).
- It has 3 main **objectives**:
  o The conservation of biological diversity.
  o The sustainable use of the components of biological diversity.
  o The fair and equitable sharing of the benefits arising out of the utilization of genetic resources.
- The CBD has **196 parties** and **India is one of them.**
- CBD has following supplementary agreements-
  o **The Nagoya Protocol on Access and Benefit-sharing**: It aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.
  o **The Cartagena Protocol on Biosafety**: It aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity and human health.
  o **The Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety:** It aims to contribute to the conservation and sustainable use of biodiversity by providing international rules and procedures in the field of liability and redress relating to LMOs.
- **India has signed and ratified all 3** of these protocols.

Related News
In a virtual celebration of the **International Day for Biological Diversity 2020**, Ministry of Environment, Forest and Climate Change **launched five key initiatives** towards conservation of biodiversity:
- **Biodiversity Samrakshan Internship Programme** to engage postgraduate students to support the projects of National Biodiversity Authority.
- **UNEP Campaign on Illegal Trafficking of Endangered Species** launched by the **Wildlife Crime Control Bureau**, with UNEP to address environmental challenges related to illegal trafficking.
- A Webinar Series on '**Biodiversity Conservation and Biological Diversity Act, 2002'.**
- **WWF Model Conference of Parties (MCoP)** that engages the younger generation in conversations around impact of humanity's footprint on biodiversity
- **An awareness campaign supported by WWF**.

India's efforts towards SPB 2011-2020

- India prepared its **first National Biodiversity Action Plan (NBAP) entitled "National Policy and Macro Level Action Strategy on Biodiversity" in 1999** which was revised and updated into **NBAP, 2008** to bring the biodiversity agenda in alignment with the National Environment Policy (NEP), 2006.
- The NBAP, 2008 was updated with **Addendum 2014 to NBAP, 2008** in order to integrate it with the SPB 2011-20.
  - o Accordingly, India developed **12 National Biodiversity Targets (NBTs)** which cover all the 20 ABTs.
  - o For overseeing and monitoring the implementation of these targets, agencies were identified on the basis of their mandate, domain areas and geographical coverage in the country.
  - o Indicators and monitoring framework were also developed for each NBT.
- According to India's **6th National Report**, India is on track to achieve 9 out of its 12 NBTs and exceed 1 of them (NBT 6), but is moving towards 2 of the targets (NBT 4 and 12) at an insufficient rate.
- **Progress so far:**
  - o **Increased area under biodiversity conservation**: The number of Protected Areas under Wildlife Protection Act in the country has increased from a total of 771 in 2018 to 870 in 2019.
  - o **Operationalising the Nagoya Protocol on access and benefit sharing (ABS)**: After publishing the first internationally recognized certificate of compliance (IRCC) under the Nagoya Protocol in India has since then published 997 IRCCs on the ABS Clearing House (highest among all parties).
  - o **Developing an extensive policy and legislative framework:** to achieve its NBTs.
    - ✓ **Major policies**- National Forest Policy, 1988, National Environment Policy, 2006 National Policy on Marine Fisheries (NPMF), 2017, National Intellectual Property Right Policy, 2016 etc.
    - ✓ **Major acts-** Biological Diversity Act, 2002, Indian Forest Act, 1927, Environment Protection Act, 1986, Wetlands (Conservation and Management) Rules, 2017, Wildlife Protection Act, 1972 etc.
  - o **Implementation of Biological Diversity Act, 2002:** About 2 lakh Biodiversity Management Committees (BMCs) at local levels have been constituted as of 2019 and 7567 Peoples Biodiversity Registers (PBRs) have been prepared as of 2019**.**
    - ✓ PBRs document local biological resources and associated traditional knowledge (TK).

CBD strategic goal	Aichi Target		
Address underlying causes	1 Improve awareness of biodiversity		
	2 Mainstream biodiversity		
	3 Reform incentives		
	4 Implement plans for sustainability		
Reduce pressures and promote sustainable use	5 Reduce habitat loss and degradation		
	6 Fish sustainably		
	7 Make farming and forestry sustainable		
	8 Reduce pollution		
	9 Tackle invasive species		
	10 Minimise climate change impacts		
Safeguard ecosystems, species and genes	11 Protect and manage critical sites		
	12 Prevent extinctions		
	13 Maintain genetic diversity		
Enhance benefits from biodiversity and ecosystems	14 Safeguard ecosystem services		
	15 Restore degraded forest		
	16 Implement access and benefit sharing		
Enhance implementation through planning, knowledge management and capacity building	17 Implement NBSAPs		
	18 Protect traditional knowledge		
	19 Share biodiversity knowledge		
	20 Increase conservation finance		

The Access and Benefit-sharing Clearing-House (ABS Clearing-House)

- It is a **platform for exchanging information on ABS** established by Article 14 of the Nagoya Protocol.
- It is a key tool for facilitating the implementation of the Protocol, by **enhancing legal certainty and transparency** on procedures for access and benefit-sharing, and for **monitoring** the utilization of genetic resources along the value chain, including through the **internationally recognized certificate of compliance**.

Challenges faced by India in its efforts

- **Low awareness regarding government programmes**: especially among tribal communities due to issues such as language barrier.
- **Forest Fires**: About 21.40% of forest cover in India is prone to fires as per a report by the Forest Survey of India (FSI). They cause long term damage through loss of biodiversity, ozone layer depletion, loss of habitat for wildlife and soil erosion etc.
- **Threat of Invasive alien species:** They can change the community structure and species composition of native ecosystems directly by out-competing indigenous species for resources and indirectly through changes in nutrient cycling, ecosystem function and ecological relationships between native species.
- **Poor capacity building at local level**: Institutions of local governance, such as Biodiversity Management Committees (BMCs) created under Biological Diversity Act, 2002, are often ill equipped to take informed decisions regarding biodiversity related issues.
- **Data collection**: India lacks human and technical resources that are needed to compile and analyze data for implementation and monitoring of NBSAP.

Way Forward

- **Creation of toolkits in local dialects:** for building capacities of traditional communities for equipping them with skills to negotiate with users seeking access of traditional knowledge and enabling them to undertake best practices regarding conversation.
- **Additional funding, resources and technical support**: for initiatives such as MoEFCC scheme "**Forest Fire Prevention and Management"** that provides supports to states to tackle forest fires.
- **Intensive and sustained training and capacity building:** of institutions of local governance such as Municipal and Panchayat bodies and BMCs.

The 12 National Biodiversity targets of India are:

1. By 2020, a significant proportion of the country's population, especially the youth, is aware of the values of biodiversity and the steps they can take to conserve and use it sustainably (**Aichi Target 1**).

2. By 2020, values of biodiversity are integrated into national and state planning processes, development programmes and poverty alleviation strategies (**Aichi Target 2**).

3. Strategies for reducing the rate of degradation, fragmentation and loss of all natural habitats are finalized and actions put in place by 2020 for environmental amelioration and human well-being (**Aichi Target 5 &15**).

4. By 2020, invasive alien species and pathways are identified and strategies to manage them developed so that populations of prioritized invasive alien species are managed (**Aichi Target 9**).

5. By 2020, measures are adopted for sustainable management of agriculture, forestry and fisheries (**Aichi Target 6, 7, 8**).

6. Ecologically representative areas under terrestrial and inland water, and also coastal and marine zones, especially those of particular importance for species, biodiversity and ecosystem services, are conserved effectively and equitably, based on protected area designation and management and other area-based conservation measures and are integrated into the wider landscapes and seascapes, covering over 20% of the geographic area of the country, by 2020 (**Aichi Target 10,11, 12**).

7. By 2020, genetic diversity of cultivated plants, farm livestock, and their wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity (**Aichi Target 13**).

8. By 2020, ecosystem services, especially those relating to water, human health, livelihoods and well-being, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections (**Aichi Target 14,**).

9. By 2015, Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization as per the Nagoya Protocol are operational, consistent with national legislation (**Aichi Target 16**).

10. By 2020, an effective, participatory and updated national biodiversity action plan is made operational at different levels of governance (**Aichi Target 3, 4,17**).

11. By 2020, national initiatives using communities' traditional knowledge relating to biodiversity are strengthened, with the view to protecting this knowledge in accordance with national legislation and international obligations (**Aichi Target 18**).

12. By 2020, opportunities to increase the availability of financial, human and technical resources to facilitate effective implementation of the **Strategic Plan for Biodiversity 2011-2020** and the national targets are identified and the Strategy for Resource Mobilization is adopted (**Aichi Target 19, 20**).

- **Developing a nationally coordinated system of Invasive alien species management**: which brings together domain experts such as botanists, foresters, wildlife biologists, researchers, engineers, ecologists, hydrologists, and communication experts to make areas and species-specific strategies.
- **Creating a central database for tracking NBTs**: through additional financial, technical and human resources.

5.3. UN DECADE ON ECOSYSTEM RESTORATION

Why in news?

The United Nations General Assembly (UNGA) proclaimed **2021–2030** as the **Decade on Ecosystem Restoration**.

About UN Decade on Ecosystem Restoration

- The UN Decade on Ecosystem Restoration aims to **massively scale up the restoration of degraded and destroyed ecosystems** as a proven measure to fight the climate crisis and enhance food security, water supply and biodiversity.
- It seeks to:
  - **Showcase successful government-led and private initiatives** to halt ecosystem degradation and restore degraded ecosystems.
  - **Enhance knowledge exchange** to implement restoration at scale.
  - **Connect initiatives** working in the same landscape, region, or topic, to increase efficiency and impact.
  - **Create links between ecosystem restoration and businesses** interested in sustainable production and impact investment.
  - **Bring a wider spectrum of actors on board**, especially from non-traditional sectors, by demonstrating the importance of environmental and socio-economic benefits of ecosystem restoration.

> **International Decades**
> - The United Nations (UN) **designates specific days, weeks, years and decades** as occasions to **mark particular events or topics** in order to promote, through awareness and action, the objectives of the Organization.
> - **Some decades ending in 2020 are**-
>   - United Nations Decade on Biodiversity
>   - Decade of Action for Road Safety
>   - United Nations Decade for Deserts and the Fight against Desertification.

- **Ecosystems addressed** include forests, grasslands, croplands, wetlands, savannahs, inland water, coastal and marine ecosystems, and even urban environments.
- On land, restoration of **at least 350 million hectares of degraded landscapes by 2030** is targeted.
  - A target for coasts and oceans has yet to be set.
- This endeavour builds on regional efforts such as:
  - **Initiative 20×20 in Latin America** that aims to restore 20 million hectares of degraded land by 2020,
  - **AFR100 African Forest Landscape Restoration Initiative** that aims to bring 100 million hectares of degraded land under restoration by 2030.
- **UN Environment and the Food and Agriculture Organization (FAO)** will lead the implementation.

What is Ecosystem Restoration (ER)?

- It is the **process of assisting the recovery of an ecosystem** that has been degraded, damaged or destroyed.
  - An ecosystem is a functional unit of nature, where living organisms interact among themselves and also with the surrounding physical environment.
- **Restoration activities** may be designed to replicate a pre-disturbance ecosystem or to create a new ecosystem where it had not previously occurred.
  - It involves practices such as restoring vegetation, planting native trees, clearing invasive species, regenerative (perennial) agriculture, agroforestry etc.
- The concept has gained importance due to the **unprecedented pace of degradation** of world's landscapes and ecosystems because of over-exploitation of natural resources.
- **Benefits associated with Ecosystem Restoration includes:**
  - **Socio-Economic Benefits**
    - ✓ **Poverty Alleviation**: Restoring 350 million hectares of degraded landscapes by 2030 can present a boost to rural economies **worth US$9 trillion** in ecosystem services.
    - ✓ **Food security**: Healthy soils can store more nutrients and produce higher quality plants.
    - ✓ **Enhanced tourism**: through revival of natural landscapes.
    - ✓ It can prevent **conflict and migration** triggered by environmental degradation.
  - **Ecological Benefits**
    - ✓ **Climate change mitigation**: Restoration could also remove **13 to 26 gigatons of greenhouse gases** from the atmosphere through healthy ecosystems such as forests, mangroves and peatlands.
    - ✓ **Biodiversity Conservation:** Protecting and restoring ecosystems can help save the 1 million animal and plant species currently threatened with extinction.

✓ **Reviving coastal and marine biodiversity hotspots on Earth**: These ecosystems also provide storm protection, fisheries and carbon storage.
- o **Fulfilling international commitments**: ER can help achieve targets under agreements such as 2030 Agenda for Sustainable Development, the Paris Climate Agreement, Aichi Biodiversity Targets etc.

Why there is a need for ecosystem restoration?

- **Terrestrial Ecosystems:**
  - o **Declining Forest Cover**: World's forest area decreased from 31.6% of global land area in 1990 to 30.6% in 2015 and around **70 million hectares of forests has been lost since 2000**. This has led to reduction in carbon sink and loss of habitat for a wide variety of species.
  - o **Declining land fertility**: About **20 per cent of the planet's land area has seen a decline in productivity** with fertility losses linked to erosion, soil depletion and pollution. This affects vegetative cover of forests, croplands, grasslands and rangelands.
  - o **Economic impact of Land degradation:** Land degradation across the world causes loss of biodiversity and ecosystem services worth more than **10 per cent of annual global gross domestic product**.
- **Aquatic Ecosystems:**
  - o **Decrease in wetland areas**: Around 70 per cent of wetlands have been lost over the last century, leading to localized biodiversity losses and acute water shortages.
  - o **Impact on oceans and coasts:** Climate change and human activities such as over-fishing, pollution, damaging coastal development, degradation of the seabed etc. have severely impacted marine ecosystems. It has led to-
    - ✓ **Decline in Sea grasses** on which dugongs and other marine animals depend.
    - ✓ **Rise in Dead zones** around major river deltas which affect fishing industry.
    - ✓ **Coral reefs are projected to decline** by a further 70 to 90 per cent at a temperature increase of 1.5 degrees Celsius, with larger losses at 2 degrees Celsius.
  - o **High Carbon emissions:** Between 20 and 50 percent of global **blue carbon ecosystems** (blue carbon is the carbon captured by the world's ocean and coastal ecosystems) have already been converted or degraded.
    - ✓ Their loss and degradation cause higher CO2 emissions as compared to terrestrial deforestation because of their high carbon stocks per hectare.

Challenges associated with ecosystem restoration

- **High initial financial Investment**: It will take around $ 800 billion to restore 350 million hectares of land.
- **Time taking process**: ER needs continuous and long-term efforts to generate desired results.
- **Lack of coordination**: Usually ecosystems do not confer to geographical boundaries and thus international coordination is a necessity for restoration efforts.
- **Poor understanding of ecosystem characteristics:** ER without conducting proper research and study of specific ecosystems can have undesirable results and cause further degradation.
- **Impact on economic activities**: ER involves conscious efforts to limit economic activities involved in over exploitation of natural resources.

Way forward

- **Restoring terrestrial ecosystems through afforestation**: It should follow certain principles such as:
  - o Planting trees on former forest land rather than converting other natural ecosystems such as grasslands, peatlands or wetlands to forest.
  - o Planting native tree species that are well adapted to the local climate and soil.
  - o Involving local community and consulting experts in the field of ER.
- **Fostering political will:** to provide momentum for ER at the global, regional, national and local levels.
- **Encouraging global scientific research**: to develop and promote good practices in ER.
- **Mainstreaming ecosystem restoration into policies and plans:** to address current national development priorities and challenges due to the degradation of marine and terrestrial ecosystems, biodiversity loss and climate change vulnerability.
- **Raising financial resources:** by dispersing funds for ER through existing funding mechanisms of international agreements or establishing separate funds.
- **Priority to conserving and preventing further degradation of ecosystems**: ER must be viewed as complementary to these efforts.
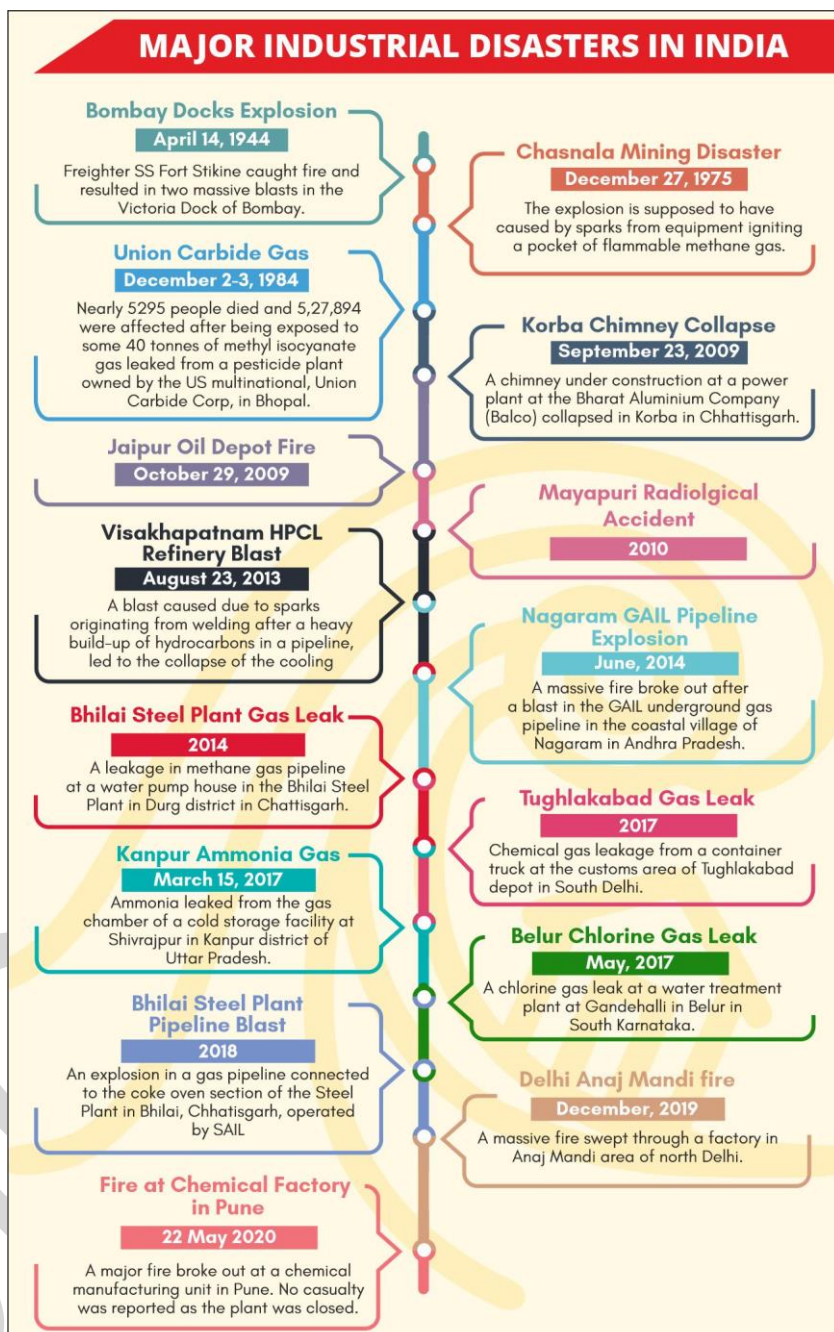
5.4. GAS LEAK AT VIZAG

Why in news?

Styrene gas leaked from Vishakhapatnam based LG Polymers India Pvt Ltd. factory causing multiple deaths. This brought again the issue of Industrial disasters in the country.

Industrial Disasters- A background

- Industrial disasters are **large scale industrial accidents**, large scale environmental pollution, and product injury cases that have the potential for killing, injuring or otherwise affecting large numbers of people and natural environment.
- The ever-growing mechanisation, electrification, chemicalisation and sophistication have made industrial jobs more and more complex and intricate leading to increased dangers to human life in industries through accidents and injuries.
- India has continued to witness a series of industrial disasters especially during the last 3 and a half decades after the Bhopal gas tragedy. **(refer infographic)**
- According to the Labour and Employment Ministry, in three years (2014-2016), 3,562 workers lost their lives while 51,124 were injured in accidents that occurred in factories.

Legal Provisions related to Industrial Disasters

MAJOR INDUSTRIAL DISASTERS IN INDIA

Bombay Docks Explosion
April 14, 1944
Freighter SS Fort Stikine caught fire and resulted in two massive blasts in the Victoria Dock of Bombay.

Chasnala Mining Disaster
December 27, 1975
The explosion is supposed to have caused by sparks from equipment igniting a pocket of flammable methane gas.

Union Carbide Gas
December 2-3, 1984
Nearly 5295 people died and 5,27,894 were affected after being exposed to some 40 tonnes of methyl isocyanate gas leaked from a pesticide plant owned by the US multinational, Union Carbide Corp, in Bhopal.

Korba Chimney Collapse
September 23, 2009
A chimney under construction at a power plant at the Bharat Aluminium Company (Balco) collapsed in Korba in Chhattisgarh.

Jaipur Oil Depot Fire
October 29, 2009

Mayapuri Radiolgical Accident
2010

Visakhapatnam HPCL Refinery Blast
August 23, 2013
A blast caused due to sparks originating from welding after a heavy build-up of hydrocarbons in a pipeline, led to the collapse of the cooling

Nagaram GAIL Pipeline Explosion
June, 2014
A massive fire broke out after a blast in the GAIL underground gas pipeline in the coastal village of Nagaram in Andhra Pradesh.

Bhilai Steel Plant Gas Leak
2014
A leakage in methane gas pipeline at a water pump house in the Bhilai Steel Plant in Durg district in Chattisgarh.

Tughlakabad Gas Leak
2017
Chemical gas leakage from a container truck at the customs area of Tughlakabad depot in South Delhi.

Kanpur Ammonia Gas
March 15, 2017
Ammonia leaked from the gas chamber of a cold storage facility at Shivrajpur in Kanpur district of Uttar Pradesh.

Belur Chlorine Gas Leak
May, 2017
A chlorine gas leak at a water treatment plant at Gandehalli in Belur in South Karnataka.

Bhilai Steel Plant Pipeline Blast
2018
An explosion in a gas pipeline connected to the coke oven section of the Steel Plant in Bhilai, Chhatisgarh, operated by SAIL

Delhi Anaj Mandi fire
December, 2019
A massive fire swept through a factory in Anaj Mandi area of north Delhi.

Fire at Chemical Factory in Pune
22 May 2020
A major fire broke out at a chemical manufacturing unit in Pune. No casualty was reported as the plant was closed.

Environment (Protection) Rules, 1986	• Set **discharge and product standards** – source standards for restricting pollution; product standards for manufactured goods and ambient air and water standards – for regulating quality of life and environmental protection.
Hazardous Waste (Management Handling and Transboundary Movement) Rules, 1989	• Industry required to **identify major accident hazards**, take preventive measures, and submit a report to the designated authorities.
Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989	• **Importer must furnish complete product safety information** to the competent authority and must transport imported chemicals in accordance with the rules.
Chemical Accidents (Emergency, Planning, Preparedness and Response) Rules, 1996	• Centre is required to constitute a **central crisis group** for management of chemical accidents; set up quick response mechanism termed as the **crisis alert system**. Each state is required to set up a crisis group and report on its work.
Factories Amendment Act, 1987	• **Extended Risk scope:** 1987 Amendment Act extends the scope of risk from hazardous industries. The narrowly defined scope covering only workers and the premises of the factory was **extended to the general public in the vicinity of the factory**.

Public Liability Insurance Act, 1991	• Imposes a **no-fault liability on the owner of hazardous substance** and requires the **owner to compensate victims** of accident irrespective of any neglect or default. For this, the owner is required to take out an insurance policy covering potential liability from any accident.
National Green Tribunal (NGT)	• NGT was set up by an Act of Parliament in 2010. The Act provides for the **"principle of no fault liability"**, which means that the company can be held liable even if it had done everything in its power to prevent the accident.

Judicial Pronouncements w.r.t setting the liability in case of Industrial Disasters
- **Doctrine of Absolute Liability:** This concept evolved in India after the case of **M.C Mehta vs Union of India (1986),** famously known as **Oleum Gas Leak case**.
  - According to this doctrine as defined by the Supreme Court, the **enterprise owes an absolute and non-delegable duty** to the community to ensure that no harm results to anyone on account of hazardous or inherently dangerous nature of the activity which it has undertaken.
- **The rule of strict liability:** Till the MC Mehta case, India also followed the concept of 'strict liability'. Under the "strict liability principle", a party is not liable and need not pay compensation if a hazardous substance escapes his premises by accident or by an "act of God'" among other circumstances.

Related news
- Earlier, NGT has invoked the principle of **Strict Liability** to impose a fine on the LG Polymers India for Vizag Gas leak which was being termed to be in contravention of the principle of **Absolute Liability**. NGT later held that LG Polymers India has absolute liability for the loss of life caused by a gas leak at its factory in Visakhapatnam.

Reasons for Industrial Disasters

India has some unique problems and despite the legal provisions, disasters and accident continued to happen in the industrial premises. Apart from natural reasons such as earthquake or a cyclone, major reasons for this can be following-

On Part of Industry

- A lot of chemical manufacturing is in the **small and medium sectors**, whose ability to invest in industrial and environmental safety as well as occupational health is limited. Several **manufacturing plants are ageing** and reluctant to invest in capital either to revamp or scrap/rebuild.
- There is also an **increasing tendency to skip long-term training and skill development** by resorting to casual labour in the operational area. It's mostly **non-skilled contract workers** who are made to work in hazardous areas.
  - These contract workers are **not given adequate personal protection equipment (PPE)** and health and safety support
- **Low Level of awareness of safe machinery**, **unsafe practices** such as quarrying leading to roof collapse in coal mines and working without masks in areas prone to poisonous gas leakage cause fatalities.

What is styrene? How toxic is it?
- Styrene is an **organic compound** used in the manufacture of polymers/plastic/resins. It is manufactured in petrochemical refineries. It is a **likely carcinogenic substance**.
- It is actually a **colourless liquid, and not a gas**. **It can react with oxygen in the air to mutate into styrene dioxide which is more lethal.**
- Styrene exists as a single molecule, but is unstable and has a **high propensity for autopolymerisation**, meaning it tries to combine with itself to make long chains, especially at temperatures over 65°C. This process is exothermic and can become uncontrollable. For these reasons, **styrene is always stored at relatively low temperatures** (between 15°C and 20°C).
- According to India's Manufacture, Storage and Import of Hazardous Chemical Rules 1989, **styrene is classified as a 'hazardous and toxic chemical'.**
- **Acute (short-term) exposure** to styrene in humans results in mucous membrane and eye irritation and gastrointestinal effects.
- **Chronic (long-term) exposure** results in impacts on the central nervous system (CNS), leading to headaches, fatigue. If the amount of styrene goes beyond 800 ppm, then the person exposed to it can go into a coma.

- The **poor management systems** and even poorer reporting systems aid to the problem. Many accidents and deaths go unreported.

On part of Government

- **Labour falls in the concurrent list**, so the Centre frames the laws while the states have the responsibility of implementing them. But the **multiplicity of legislations** and **changing regulations from state to state** often pose compliance problems.

- **Relaxation of Industrial Regulations:** Industrial regulations are viewed as a barrier to ease of doing business in India. This means that sometimes provisions related to industrial safety are not accorded higher priority.
- **The inability of states to strengthen their labour bureaus and environment protection units** caused unsafe factories to mushroom to meet the growing demand for industrialization. As per the Central Pollution Control Board, the number of hazardous industries in the country increased threefold from the early 1990s to around 36,000 in 2010.
- **Failure to stop encroachment: Urban populations have encroached** on spaces that were originally demarcated for industry, including the buffer (and green) zones.

Way Forward

National Disaster Management Plan-2019 suggests the following steps to prevent the Chemical (Industrial) Disaster.

- **Understanding the risk: It involves strengthening** Information Systems, Monitoring, Research which include
  - o **Zoning/ Mapping of industrial zones** on basis of hazard potential and effective disaster management for worst case scenarios.

> **NDMA Guideline on Chemical Disasters (Industrial) 2007**
> - These guidelines call for a proactive, participatory, multi-disciplinary and multi-sectoral approach at various levels for chemical disaster preparedness and response.
> - The guidelines have been prepared to provide the directions to ministries, departments and state authorities for the preparation of their detailed disaster management plans.
> - The Guideline, through the seven chapters, discusses various aspects including existing gaps in the management of chemical accidents, regulatory framework, preparedness, transportation of hazardous chemicals etc.

  - o **Studies on vulnerabilities and capacities** covering social, physical, economic, ecological, gender, social inclusion and equity aspects.
  - o Provide technical support and guidance for comprehensive **Hazard Risk Vulnerability and Capacity Assessment (HRVCA).**
- **Inter-Agency Coordination**
  - o **Preparation and implementation of Disaster Management (DM) plans** and ensure the functioning of agencies with DM tasks.
  - o **Warnings, Information, Data Dissemination:** Effective coordination and seamless communication among central and state agencies to ensure quick, clear, effective dissemination of warnings, information, and data.
- **Investing in Disaster Risk Reduction (DRR) – Structural Measures**
  - o Shelters, evacuation, and support facilities
  - o Multiple routes for reliable access and escape
  - o Decontamination facilities
- **Investing in DRR – Non-Structural Measures**
  - o Formulate/ strengthen rules, norms, and laws such as factories rules consistent with that of ensuring greater safety in hazardous industries and to reduce likelihood of disasters.
  - o **Review land use norms** for the siting of hazardous industries to ensure greater safety and to ensure buffer zones without human settlements in close proximity of hazardous industries
  - o **Empower factory inspectorates** to take legal actions for noncompliance of Manufacture Storage and Import of Hazardous Chemicals (MSIHC) Rules.
  - o **Review rules to grant compensation** to chemical accident victims to improve them in favour of victims.

Further, in order to avoid repetition of Vizag gas leak, recently the National Disaster Management Authority (NDMA) has issued guidelines for restarting manufacturing industries after COVID lockdown. Guidelines relate to storage of raw materials, manufacturing processes, storage and guidelines for workers. It also calls for inspection of all equipment as per the safety protocol. Such directives must be strictly adhered to all the times and government must take strict action against the defaulters.

5.5. STATE OF THE WORLD'S FORESTS REPORT 2020

Why in news?

Recently, **United Nations Environment Programme (UNEP) and Food and Agriculture Organization (FAO)** has jointly released a report titled The State of the World's Forests (SOFO) 2020.

About the report

- It examines the contributions of forests, and of the people who use and manage them, to the conservation and sustainable use of biodiversity.
  - It assesses **progress to date in meeting global targets and goals** relating to forest biodiversity.
  - It describes the **effectiveness of policies, actions and approaches for conservation and sustainable development** alike, illustrated by case studies of innovative practices and win-win solutions.
- This issue of SOFO draws on the results of **FAO's Global Forest Resources Assessment 2020 (FRA 2020).**
  - FRA 2020 examined the status and trends of more than 60 variables related to the extent, characteristics, condition, management and uses of forest across 236 countries and areas over the period 1990–2020.

Key Findings of the Report

- **Contribution of forest:** Forests provide habitats for 80% of amphibian species, 75% of bird species and 68% of mammal species. About 60% of all vascular plants are found in tropical forests.
  - Forests provide more than **86 million green jobs and support the livelihoods** of an estimated 880 million people worldwide, most of them women.
  - Forests **supply water, mitigate climate change and provide habitats for many pollinators**, that are essential for sustainable food production.
- **Area covered by forests:** Forests cover **31% of the global land area**.
  - More than half of the world's forests are found in only 5 countries - **Brazil, Canada, China, Russia and US.**
- **Deforestation and forest degradation:** It continues to take place at alarming rates, which contributes significantly to the ongoing loss of biodiversity.

Food and Agriculture Organization (FAO)

- It is a **specialized agency of the United Nations** that leads international efforts to defeat hunger.
- Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.
- It was established in 1945 and has around 194 Member countries.
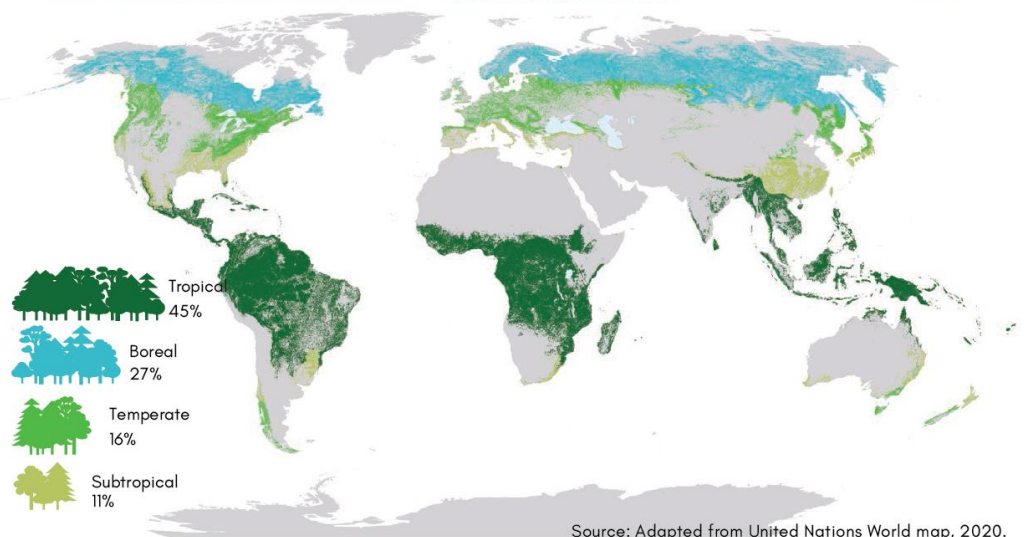- It is headquartered in **Rome, Italy**.

UNEP

- It is the **leading global environmental authority** that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system.
- Headquarter: **Nairobi, Kenya.**

Some findings in FRA 2020

- **Forest regeneration:** Area of naturally regenerating forests decreased since 1990, but area of planted forests increased.
  - Asia had highest net gain of forest area while Africa had largest annual rate of net forest loss.
- **Protected areas:** 18% of forest worldwide is in protected areas.
  - 25% of forests worldwide are Primary forests i.e. forests with no clearly visible indications of human activities.
  - South America has the highest share of forests in protected areas, at 31%.
  - About 10% of the world's forests is allocated for biodiversity conservation
- **Forest fire:** Fire is a prevalent forest disturbance in the tropics. Fire burned about 4 percent of the total forest area in tropics.
- **Decrease in Carbon Stock**: The total carbon stock in forests has decreased from 668 gigatonnes in 1990 to 662 gigatonnes in 2020.

PROPORTION AND DISTRIBUTION OF **GLOBAL FOREST AREA** BY CLIMATIC DOMAIN, **2020**

Tropical 45%
Boreal 27%
Temperate 16%
Subtropical 11%

Source: Adapted from United Nations World map, 2020.

- o Between 2015 and 2020, **the rate of deforestation had decreased** as compared in the 1990s.
  - ✓ The **net loss of forest area decreased** from 7.8 million hectares per year in the 1990s to 4.7 million hectares per year during 2010–2020.
  - o More than 100 million hectares of forests are adversely **affected by forest fires, pests, diseases, invasive species drought and adverse weather events.**
  - o **Agricultural expansion continues to be the main driver** of deforestation and forest fragmentation and the associated loss of forest biodiversity.
  - o Areas with dense human populations and intense agricultural land use like **India are less intact in terms of their biodiversity.**
- **Key goals, targets and indicators relevant to forest restoration:** Current negative trends in biodiversity and ecosystems will undermine progress towards the Sustainable Development Goals (SDGs).
  - o **United Nations Strategic Plan for Forests:** The world is not on track to meet this target for Forests to increase forest area by 3% worldwide by 2030.
- **Conservation of species**: Progress on preventing the extinction of known threatened species and improving their conservation status has been slow.
  - o **Forest-Specialist index** has fell by 53% between 1970 and 2014 which highlights the increased risk of species becoming vulnerable to extinction.
    - ✓ Index is developed by **World Wildlife Fund** which tracks the average change in abundance of thousands of vertebrate populations from around the world
- **Health risks:** Forests also pose health risks due to forest-associated diseases that include **malaria, Chagas disease leishmaniasis, Lyme disease, HIV and Ebola**.
  - o The majority of new infectious diseases affecting humans including SARS-CoV2 virus that caused the current COVID-19 pandemic, are zoonotic and their emergence may be linked to habitat loss due to forest area change and the expansion of human populations into forest areas, which both increase human exposure to wildlife.

Suggestions by report

- There is a **need to transform our food systems** to halt deforestation and the loss of biodiversity.
  - o **Embracing healthier diets and reducing food waste** are all actions that urgently need to be scaled up.
- There is need for **effective governance; integrated policies for interrelated issues; land-tenure security; respect for the rights and knowledge of local communities** and indigenous peoples; and enhanced capacity for monitoring of biodiversity outcomes.
- Ensuring positive outcomes for both biodiversity and people requires a **realistic balance between conservation goals and demands for resources that support livelihoods.**
  - o Countries must move away from the current situation where the **demand for food results in inappropriate agricultural practices that drive large-scale conversion of forests** to agricultural production and the loss of forest-related biodiversity.

5.6. INDIA'S FIRST DOLPHIN OBSERVATORY

Why in news?

The Bihar government is setting up India's first observatory for the **Gangetic dolphins** in Bhagalpur district.

More about news

- The observatory is constructed at **Vikramshila Gangetic Dolphin Sanctuary (VGDS).**
  - o Observatory will aim to **promote eco-tourism.**
  - o There would be no adverse impact on the river's ecology as the observatory is being constructed on a **Sultanganj-Aguwani Ghat bridge** over the Ganga.
- **About Gangaetic dolphin**
  - o IUCN Status: **Endangered**
  - o They **prefer deep waters, in and around the confluence of rivers.** They can **only live in freshwater** and are essentially blind**.**
  - o They are reliable indicator of the health of the entire river ecosystem.
  - o It is also **National Aquatic Animal of India.**

- o It can be found in the **Ganges-Brahmaputra-Meghna** and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh.
  - ✓ In India, it covers seven states namely, **Assam, Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Jharkhand and West Bengal**.
- o **Major threats to dolphins in I**ndia include overfishing in the habitat, pollution, infrastructure etc.
- o Gangetic dolphins are one among the 21 species identified under the centrally sponsored scheme, "**Development of Wildlife Habitat**".
  - ✓ **Conservation Action Plan for the Gangetic Dolphin (2010-2020),** which has identified threats to Gangetic dolphins and impact of river traffic, irrigation canals and depletion of prey-base on dolphin populations.

Other dolphins found in India
- **Indus River Dolphin**
  - o IUCN Status: **Endangered**
  - o They can only be found in the **lower parts of the Indus River in Pakistan and in River Beas**, a tributary of the Indus River in Punjab, India.
  - o They have adapted to life in the muddy river and are functionally blind.
  - o The dolphin is the **state aquatic animal of Punjab**.
- **Irrawaddy Dolphin (Snubfin dolphin)**
  - o IUCN Status: **Endangered**
  - o Besides the Irrawaddy River, it is also found in India's **Ganges, Chilka Lake and Southeast Asia's Mekong River.**
  - o They prefers to live in estuaries and brackish water near coasts.
- **Indian Ocean humpback dolphin**
  - o IUCN Status: **Endangered**
  - o They prefer the shallow, near shore waters of countries in the Indian Ocean, ideally with a freshwater input.
  - o They can be found not far from shore in the coastal waters of **South Africa in the south, northwards around the coast of East Africa, throughout the Middle East, and the west coast of India.**

5.7. CYCLONE MANAGEMENT IN INDIA

Why in news?

Recently, Cyclone 'Amphan' wreaked havoc in the eastern coastal states - West Bengal and Odisha – of India.

More on news

- The storm is only the **second super cyclone to form in the Bay of Bengal** since 1999.
  - o According to Indian Meteorological Department (IMD), tropical cyclone with **wind speed more than 222 km/hr** is a super cyclone (highest in Classification).
- The rapid intensification of Amphan is an indication of warming of Bay of Bengal which registered maximum surface temperatures of 32-34°C. This is a **consequence of anthropogenic global warming.**

What are Tropical Cyclones?
- They are **violent storms that originate over oceans in tropical areas** and move over to coastal areas bringing about large scale destruction caused by violent winds, very heavy rainfall and storm surges.
  - o They are low pressure weather systems in which winds equal or exceed speeds of 62kmph.
  - o Winds circulate around in anti-clockwise direction in the Northern Hemisphere and in clockwise direction in the Southern Hemisphere.
- Tropical cyclones striking India **generally originate in the eastern side of India**.
  - o **Bay of Bengal is more prone to cyclone** than Arabian Sea because it **gets high sea surface temperature, low vertical shear winds and has enough moisture** in middle layers of its atmosphere.
  - o The frequency of cyclones in this region is **bi-modal**, i.e., Cyclones occur in the months of **May–June** and **October–November**.

Conditions for Cyclone Formation (Cyclogenesis)
- A **warm sea surface (temperature in excess of 26° –27° C)** and associated warming extending up to a depth of 60m with abundant water vapour.
- **High relative humidity** in the atmosphere up to a height of about 5,000 metres.
- **Atmospheric instability** that encourages the formation of cumulus clouds.
- **Low vertical wind between the lower and higher levels of the atmosphere** that do not allow the heat generated and released by the clouds to get transported from the area.
- The presence of **cyclonic vorticity** (rate of rotation of air) that initiates and favours rotation of the air cyclonically.
- **Location over the ocean,** at least 4–5° latitude away from the equator.

Need for Cyclone Management in India

- **Proneness to cyclones:** India has a coastline of 7,516 km, of which 5,700 km are prone to cyclones of various degrees.
    o About 8% of the Country's area and one-third of its population live in 13 coastal states and UTs who are, thus vulnerable to cyclone related disasters.
- **Loss due to cyclones:** Loss of lives, livelihood opportunities, damage to public and private property and severe damage to infrastructure are the resultant consequences, which can disrupt the process of development.
- **Climate change**: Climate change and the resultant sea-level rise is also likely to exacerbate the seriousness of this problem in the coming decades.

Cyclone Management in India

- **Institutional Framework in India**
    o **National Disaster Management Authority (NDMA):** It is apex body for disaster management, headed by the Prime Minister. It has responsibility of formulating **National Guidelines for Management of Cyclones**.
    o **India Metereological Department (IMD):** It is the nodal agency for **providing cyclone warning services and communicate cyclone warnings** from IMD to communities and important officials in affected areas.
- **National Guidelines for the Management of Cyclones:** These guidelines have been evolved due to paradigm shift from earlier rescue and relief centric approach to holistic approach. They demarcate structural and non-structural measures for cyclone management.
    o **Non – Structural Measures**
        ✓ **Early Warning Systems:** It consists of Automatic Weather Stations, Doppler radars, High Wind Speed Recorders, Ocean buoys, Unmanned Aerial Vehicles etc. They provide critical information for tracking and forecasting intensity of cyclones.
        ✓ **Communication and Dissemination Systems:** They are a pre-requisite for the proper functioning of cyclone warning. It consists of **cellular telephone network, Disaster Warning System (DWS) terminals,** etc.
        ✓ **Management of Coastal Zones:** A holistic approach to Coastal Zone Management (CZM), like proper planning of the coastal areas for locating communities and infrastructure in safer areas, protecting and restoring natural bio-shields etc., can minimise loss of life and damage to property to a considerable extent.
            > **Mangrove forests and shelterbelts** constitute Bio-shields in coastal areas and provide ecological security. Their preservation is to be done by effective implementation of **Coastal Regulation Zone (CRZ) Rules.**
        ✓ **Awareness Generation:** Awareness encompasses a wide range of modes of sensitising communities, neighbourhoods and various functionaries from the local to the national level.
    o **Structural Measures**
        ✓ An important aspect of cyclone risk reduction is to ensure availability of a**dequate numbers of shelters, community centres/school buildings, places of worship**, etc., which can be utilised for moving people from vulnerable areas to safety.
        ✓ There is a need to **provide at least one all-weather link road** for each village that is accessible during cyclone or flooding periods.
        ✓ **Construction of 'saline embankments'** is carried out to protect habitation, agriculture crop and important installations along the coast.
    o **National Cyclone Risk Mitigation Project (NCRMP):** Government has drawn up NCRMP to be implemented with World Bank assistance of $300 million.
        ✓ Its objective is to **strengthen the structural and non-structural cyclone mitigation efforts and reduce the risk and vulnerability of the coastal districts** which are prone to cyclones.
        ✓ NCRMP consists of the following **four components**
            > **Component A**: Improvement of early warning dissemination system of cyclone warnings.
            > **Component B**: Cyclone risk mitigation investment like construction of cyclone shelters.
            > **Component C**: Technical assistance for hazard risk management and capacity building.
            > **Component D**: Project management and institutional support.

- o **Disaster Risk Management and Capacity Development**
  - ✓ Establishment of a **comprehensive Cyclone Disaster Management Information System** covering all phases of disaster management is highly essential to provide online services to the states.
  - ✓ **Community Based Disaster Management (CBDM)** which is an approach to building the capacity of communities to assess their vulnerability to both human induced and natural hazards and develop strategies and resources necessary to prevent and/or mitigate the impact.

5.8. CLIMATE ADAPTATION AND RESILIENCE FOR SOUTH ASIA (CARE) PROJECT

Why in news?

The World Bank Board of Executive Directors approved a $39.5 million CARE Project **to bolster climate action in South Asia.**

Need for the project in South Asia

- South Asia is highly vulnerable to socio-economic **impacts of climate-related hazards.**
- Between 1990 and 2019, more than 1,000 climate-induced disasters in South Asia **affected 1.7 billion people and caused more than $127 billion in damages.**
  - o The World Bank estimates that climate change could drive 62 million people in South Asia into extreme poverty.

About Climate Adaptation and Resilience for South Asia (CARE) Project

- The Project will **build resilience to climate threats and disasters** by sharing regional data and knowledge.
  - o It will help in **developing regional standards and guidelines** for infrastructure, and promoting climate-resilient policies and investments.
- The project will help **develop a public platform to inform climate planning and investments**, and fund technology to support resilience in South Asia.
  - o It will fund a public domain platform known as **Regional Resilience Data and Analytics Service**, with information about weather hazards, climate variability, and sector-specific data to help policymakers assess climate risks.
- It will also **assess climate impacts** in districts across Bangladesh, Nepal, and Pakistan to support agriculture, livestock, water, and transport.

International Development Association (IDA)

- IDA is the **part of the World Bank** that helps the world's poorest countries.
- It aims to **reduce poverty by providing loans (called "credits") and grants** for programs that boost economic growth, reduce inequalities, and improve people's living conditions.
- IDA provides significant levels of debt relief through the **Heavily Indebted Poor Countries (HIPC) Initiative** and the **Multilateral Debt Relief Initiative (MDRI).**

Program for Asia Resilience to Climate Change (PARCC)

- It is a trust fund supported by the **United Kingdom's Department for International Development** and **administered by the World Bank**.
- It was launched in 2018 to strengthen disaster and climate resilience in **Afghanistan, Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, Pakistan, and Sri Lanka.**

Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)

- It is an intergovernmental institution **for the generation and application of early warning information**.
- RIMES evolved from the efforts of countries in Africa and Asia, in **the aftermath of the 2004 Indian Ocean tsunami.**
- RIMES **builds capacity of its Member States** in the end-to-end early warning of tsunami and hydro-meteorological hazards.
- It operates from its regional early warning center located at the campus of the **Asian Institute of Technology in Thailand**.
- **India is a founding member** and currently chairs RIMES Council.

Asian Disaster Preparedness Center (ADPC)

- It is an **intergovernmental organization that works to build the resilience of people and institutions to disasters** and climate change impacts in Asia and the Pacific.
- **Established**: 1986, **Headquarter**: Bangkok, Thailand.
- It provides comprehensive technical services to countries in the region to support sustainable solutions for risk reduction and climate resilience.
- ADPC is governed by its nine founding member countries: **Bangladesh, Cambodia, China, India, Nepal, Pakistan, the Philippines, Sri Lanka, and Thailand**.

- The $39.5 million CARE project includes a $36 million grant from the **International Development Association** and **$3.5 million** from the **Program for Asia Resilience to Climate Change.**
- CARE will work with two regional organizations, the **Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)** and **the Asian Disaster Preparedness Center (ADPC).**

6. SOCIAL ISSUES

6.1. COVID 19 AND MENTAL HEALTH

Why in news?

Widespread psychological distress has been recorded in various COVID-19 affected countries affecting overall mental health of the people.

More on news

- According to a survey conducted by the Indian Psychiatry Society, within a week of the start of the lockdown, the **number of reported cases of mental illness in India had risen by 20%.**
- Further, it has been estimated that in the weeks and months ahead, India will suffer from a massive mental health crisis.

How is COVID exacerbating the problem of mental illness?

An **estimated population of 150 million people are at risk of developing mental illness** that includes first responders and frontline healthcare workers, COVID patients and survivors, children and adolescents, women, elderly, people with pre-existing mental health issues, unorganised sector workers, migrants and differently abled people. The psychological and emotional distress among this population is being caused by:

> **Mental Health**
> - WHO defines mental health as a **state of mental well-being** in which people cope well with the many stresses of life, can realize their own potential, can function productively and fruitfully, and are able to contribute to their communities.
> - According to an estimate by the World Health Organization (WHO), **mental illness makes about 15% of the total disease conditions around the world.**
> - A report by the Indian Council of Medical Research shows that **one of out every seven individuals** in India suffers from a mental health concern ranging from depression, anxiety to severe conditions such as schizophrenia. As a result, WHO has labelled India as the **world's 'most depressing country'.**

- **Government policies:** Policies of social distancing, quarantines, travel restrictions, and cancellations of schools and large gatherings has sparked perpetual fear, panic, anxiety, confusion, anger and depression. People are afraid of infection, dying, and losing family members.
- **Economic factors:** The pandemic has severely hit the business cycles and economy. People mainly in the unorganised sector are under constant fear of losing their businesses, jobs, or savings which has spiked the frustration, anxiety, distress level amongst them.
- **Social factors:**
  o **Stigma** against health care workers, people who tested positive, elderly and people with existing health conditions.
  o **Children and adolescents** are exacerbated by family stress, social isolation, with some facing increased abuse, disrupted education and uncertainty about their futures.
  o **Women:** As per a survey recorded by UN, 66% of Indian women reported being stressed due to additional duties of caregiving such as home-schooling and taking care of older relatives along with increased cases of violence towards them.
  o **Elderly** and **people with pre-existing health conditions** are currently extremely worried about being infected with the virus and not having access to appropriate care.
- **Role of media:** With repeated media images of severely ill people, dead bodies and coffins, frequent misinformation and rumours about the virus, people are developing knowledge that they may not have the opportunity to say goodbye to dying loved ones and may not be able to hold funerals for them.
- **Limited access to mental health care services:**
  o India's formal mental health system, has a limited number of specialists; 9,000 psychiatrists for 1.3 billion people. This access has now been **further diminished due to COVID-19** as it has disrupted services throughout the country adversely affecting persons with pre-existing mental health issues.
  o **Mental health and psychosocial support delivered at the community level have also been critically impacted.** For instance, groups, associations and community-based initiatives that used to bring people together regularly (e.g., senior citizens clubs, youth groups etc.) offering social support, meaning and a sense of belonging — have not been able to meet for several months.

- **Shortage of frontline workers: Police and healthcare workers are** faced with extreme workloads, difficult decisions, risks of becoming infected and spreading infection to families and communities, and witnessing deaths of patients.

Implications

- **Psycho-Social impacts:**
  - To deal with the stressors, **people may resort to different negative ways of coping**, including use of alcohol, drugs, tobacco or spending more time on potentially addictive behaviours such as online gaming.
  - **Increased risks of discrimination and violence** related to gender, children and caste. These will be magnified by unemployment, malnourishment and poverty.
  - Increase in chronic stress, depression, alcohol dependence, and self-harm; leading to an **overall rise in morbidity, suicides and the number of disability-adjusted life years** linked to mental health.
    - ✓ For e.g. The 2008 financial crisis recorded an extra 10,000 suicides across the US, Canada and Europe, mainly due to the economic hardships post-recession.

> **Initiative taken for mental health during COVID 19**
> - **WHO Department of Mental Health and Substance Use has issued guidelines** as a series of messages that can be used in communications to support mental and psychosocial well-being in different target groups during the outbreak.
> - MoHFW also issued Guidelines "**Minding our minds during the COVID-19**" to deal with mental health issues.
>   - **Do not follow sensational news or social media posts** which may impact your mental state. Do not spread or share any unverified news or information further.
>   - **Feeling lonely or sad is also quite common. Stay connected with others**. Communication can help you to connect with family and friends.
>   - **Distract yourself from negative emotions** by listening to music, reading, watching an entertaining programme on television
>   - **Avoid tobacco, alcohol and other drugs**. Use of tobacco or alcohol or other drugs to cope with emotions or boredom can worsen physical, mental health and reduce immunity.
> - **Manodarpan, an initiative by Ministry of Human Resource Development as part of Atma Nirbhar Bharat Abhiyan,** to provide psychological support and counselling to students, teachers and families for mental health and emotional well-being.

- **Economic impacts:** Short-term costs include hospital expenses while long-term costs include the lost income that could have been earned by the person, tax that the government lost from that income, among other things.
- **Impact on brain health:** Social isolation, reduced physical activity and reduced intellectual stimulation may affect brain health development **in young children and adolescents and cognitive decline and dementia in the older population.**

Way forward

- **Sustaining and strengthening mental health services** and programmes must be a priority to address current and future mental health needs and help prevent a rise in mental ill health in the future. Taking note of the situation, the Indian government has introduced helpline numbers for people who might face mental distress due to the ongoing situation in the country.
- **De-stigmatization:** Some early COVID-19 survivors turned to social media to share their experiences in order to build confidence amongst others. There is an opportunity to train Indians who have now recovered, and to turn them into COVID-19 champions – equipping them to serve for people who are now feared to be positive or are under suspicion.
- **Awareness generation:** Large public engagement campaign to increase help-seeking supported by state governments, and endorsed by influential people. Mainstream media and social media giants can be roped in to create and spread awareness.
- **Community-based interventions** to reduce the pressure on the overworked primary and secondary mental health task force. Community-based interventions such as **Atmiyata's community-based volunteers** in Maharashtra and Gujarat, **SCARF's mental health mobile vans** in Tamil Nadu, and VISHRAM in vidarbha, that used community health workers for the first line of treatment (depression fell by 22% and prevalence of suicidal thoughts fell by 51%), can be scaled.
- **Policy interventions:**
  - **Implementing the Mental Healthcare Act, 2017**, (MHCA) that promises mental health care to all and **introduce a suicide prevention policy.** Many countries, including China, have been able to significantly reduce suicides after they implemented a suicide prevention policy.

- India can appoint a **minister with a Cabinet rank as head of mental health and well-being,** and create an **emergency task force of public health experts** in creating and executing evidence-based interventions.
- **Investing in mental health**: According to estimates, Rs 93,000 crore will be needed to implement MHCA, 2017. This could come from the PM Cares Fund, corporate social responsibility initiatives, private equity, and perhaps, a new national lottery.
- **Digitally-mediated therapy and telepsychiatry** should be scaled up. For eg- NIMHANS runs a successful telepsychiatry intervention in Karnataka. Mental health startups and innovations that tap technologies like artificial intelligence, machine learning and chatbots must be promoted for increasing awareness and access of services.
- **Building resilience amongst adolescents and young children:** A systemic approach is needed to build the demand for mental wellbeing, just as we broadly introduced sports into schools in the late 1990s. For this, Rashtriya Kishor Swasthya Karyakram (National Adolescent Health) programme has been reconfigured to include outreach by counsellors, facility-based counselling, social and behavioural change.

6.2. E-LEARNING

Why in news

The lockdown due to COVID outbreak has altered the traditional teaching-learning mechanisms with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms.

More on news

- By the end of March 2020, over 180 countries had closed down schools, affecting over 1.26 billion learners (as per UNESCO). **India comprises over 320 million of these learners.**
- **Educational institutions in India** are using digital technologies to record video lectures of teachers, provide notes and content related to the courses to students through email, WhatsApp, etc., facilitate teacher-student interaction through platforms such as Zoom, WebEx etc.

Challenges with e-learning

- **Digital Divide:** According to the Indicators of Household Social Consumption on Education in India report, **less than 15% of rural Indian households have Internet connection** (as opposed to 42% urban Indian households). Those with no access to the internet are still excluded from quality learning. Further, **classes at times get disturbed due to connectivity issues.**
  - As per NSSO data, **only 4.4% of rural households and 23.4% of urban households have computer/laptop.** Thus 75% of students are using smartphones to watch online classes. Teachers are apprehensive about students using smartphones because of distracting apps.
- **Difficult for parents to adjust** to the online system. Parents complain of increased screen time for children, aren't comfortable with technology themselves and increased pressure from the added household work due to the absence of domestic help adds to their problem.
- **Gender divide:** Increased domestic responsibilities especially for girls is impairing the atmosphere of learning. According to a recent UN report, **only 29% of all internet users are female,** which indicates that transitions to digital learning may compound the gender gap in education.
  - India already ranks **112th in WEF's Gender Gap Index's educational attainment component.**

> **Advantage of e-learning**
> - **Flexibility to plan schedule.**
> - **Ease of Access**.
> - **More Affordable** as online programs are cheaper when compared to the ones held in a traditional campus.
> - **Solve teacher scarcity**.
> - **Environmentally friendly** as it consumes less energy and emits fewer CO2 emissions than traditional university courses. In addition, as E-Learning is a paperless learning method.
>
> **Disadvantage of e-learning**
> - **Feedback is limited:** In traditional classrooms, teachers can give students immediate face-to-face feedback. E-Learning, on the other hand, still tends to struggle with student feedback.
> - **Social Isolation:** Many of the students and teachers who inevitably spend much of their time online can start experiencing signs of social isolation, due to the lack of human communication in their lives.
> - **Requires strong self-motivation.**
> - **Lack of communicational skill development:** Due to the lack of face-to-face communication between peers, students and teachers in an online setting, the students might find that they are unable to work effectively in a team setting.
> - **Cheating:** Cheating prevention during online assessments is complicated.

- **Lack of vernacular content**: Most of the content and existing lectures on internet are in English. In India, the Ministry of HRD data shows that there are **only 17% English medium schools.**
- **Creating new inequality:** Only a handful of private schools, universities and IITs could adopt online teaching methods. Their low-income private and government counterparts, on the other hand, have completely shut down for not having access to e-learning solutions.
- **Difficulties for teachers:**
  - Without adequate training, many teachers are **not comfortable with using technology.**
  - Also, with reduced interaction, it is **difficult for teachers to develop a rapport with the children** for effective teaching.
  - Teachers are also under tremendous pressure due to **interference by overenthusiastic parents.**
- **Lack of institutions' autonomy:** Existing rules have constrained Indian education institutions to take advantage. Till now, the **UGC has licensed only seven universities to offer online courses.**
- **Conducting large-scale, high-stakes examinations** will be more complicated. Most board and entrance examinations have been either postponed or suspended, causing disruptions in the academic calendar.

Way forward

A **multi-pronged strategy is necessary** to manage the crisis in the short term and build a **resilient Indian education system** in the long term.

Immediate/short term measures

- **Ensuring continuity of learning** in government schools and universities. Open-source digital learning solutions and Learning Management Software should be adopted so teachers can conduct teaching online. The DIKSHA platform, with reach across all states in India, can be further strengthened to ensure accessibility of learning to the students.
- **Deployment of ed-tech applications** which takes into account the low internet bandwidth and patchy connections. The applications can focus on offline content which can be reviewed without a stable internet connection by the learners in the remote corners of India.
- **Improve content in regional language.** The existing EdTech solutions can prioritize the translation of key modules into regional dialects and deliver educational content with the help of grassroots organizations.
- **Leveraging community owned tablets and smart devices** for education can also aid learners. Also, the services of Bharatnet and Wi-Fi Choupal (wifi hotspots) can be used to access the educational modules by the students in remote villages.
- **Establishing quality assurance mechanisms and quality benchmark** for online learning as well as e-learning platforms. Many e-learning players offer multiple courses on the same subjects with different levels of certifications, methodology and assessment parameters. So, the quality of courses may differ across different e-learning platforms.

> **Government initiatives**
> - **Platforms supported by MHRD, NCERT, and the department of technical education** to enable online education in India such as e-PG Pathshala (e-content), SWAYAM (online courses for teachers), and National Educational Alliance for Technology (using technology for better learning outcomes in Higher Education)
> - National Project on Technology Enhanced Learning (NPTEL), National Knowledge Network, (NKN), and National Academic Depository (NAD) to increase connectivity with institutions, and accessibility to content.
> - **'Pradhan Mantri e-VIDYA'** initiative for digital education under which top 100 universities of the country will be allowed to start online courses by 30 May without UGC license.
> - Under a **one nation - one digital platform initiative**, E-content and QR coded textbooks would be provided for all grades.
> - One earmarked **TV channel** for every class from 1st to 12th - for students who do not have access to internet. Radio, community radio and podcasts would be extensively used for the same.
> - **Special e-content** would be developed for visually and hearing impaired.
>
> **Other Initiatives:**
> - **Sankalp, a free learning app** for Hindi medium Government school students in Classes IX to XII has been developed by Avanti, a social-educational enterprise.
> - **ThinkZone, a startup from Odisha, has partnered with a local radio channel** to broadcast activity-based learning modules for students aged three to 10.

Long term measures

- **Inclusive learning solutions** need to be developed. With a rapid increase of mobile internet users in India, which is expected to reach 85% households by 2024, technology is enabling ubiquitous access and personalization of education even in the remotest parts of the country. This can change the schooling system and increase the effectiveness of learning and teaching,
- **Reducing the Gender Divide** by leveraging the digital solutions to enrol out of school girls. Targeted Information and Education campaigns, curated content borrowing from behavioural science and interactive media can be used to incentivize girls to re-join the education journey.
- **Strategies to prepare the higher education sector** for the evolving demand–supply trends across the globe— particularly those related to the global mobility of students and faculty and improving the quality of and demand for higher studies in India. Measures are required to mitigate the long-term effects of the pandemic on job offers, internship programs, and research projects.
- **Courses on Indian traditional knowledge** systems in the fields of yoga, Indian medicines, architecture, agriculture etc. should be integrated with the mainstream university education to promote scientific innovations, values, and to develop sustainable solutions.

6.3. GLOBAL NUTRITION REPORT 2020 (GNR)

Why in news?

According to the Global Nutrition Report 2020, India is among 88 countries that are likely to miss global nutrition targets by 2025.

Key findings of the report

- **Inequity in Global Nutrition**: Report reveals strong evidence for the presence of nutrition inequities in health systems, food systems and financing, and inequalities in all forms of malnutrition.
  - o **Reasons for inequity:** Social injustice, Unfairness/sub-optimal access to life chances (education, health etc.), Political exclusion and Imbalances in Power (less representation to marginalised sections).
- **Inequalities in Global Burden of Malnutrition:** Among children under 5 years of age, 149.0 million are stunted, 49.5 million are wasted and 40.1 million are overweight.
  - o There exists a **double burden of malnutrition** characterised by coexistence of undernutrition alongside overweight or obesity.
  - o The largest disparities in **stunting** were observed in **Nigeria, Indonesia and India**.
  - o **No country is on course to meet 2025 global nutrition targets** including four diet-related non-communicable disease indicators in adults: salt intake, raised blood pressure, diabetes and obesity.
- **Financing for nutrition:** Current levels of nutrition financing are no longer increasing, and remain far below the levels required to deliver on global targets.
  - o There is a **growing funding gap for addressing malnutrition** related to overweight and non-communicable diseases in poorer countries.

About Global Nutrition Report 2020
- It is a multi-stakeholder initiative that **assesses progress in meeting 2025 Global Nutrition Targets established by World Health Assembly (WHA).**
- The report aims to inspire governments, civil society and private stakeholders to act to end malnutrition in all its forms.
- It also plays the important role of helping hold stakeholders to account on the commitments they have made towards tackling malnutrition.

Global Nutrition Targets
- In 2012, the World Health Assembly Resolution endorsed a Comprehensive implementation plan on maternal, infant and young child nutrition.
- It specified a **set of six global nutrition targets that by 2025 aim to:**
  - o achieve a 40% reduction in the number of children under-5 who are **stunted** (low height for age);
  - o achieve a 50% reduction of **anaemia** in women of reproductive age;
  - o achieve a 30% reduction in **low birth weight**;
  - o ensure that there is no increase in childhood **overweight**;
  - o increase the rate of **exclusive breastfeeding** in the first 6 months up to at least 50%;
  - o reduce and maintain childhood **wasting** (low weight for height) to less than 5%.

India specific findings

- **Global Nutrition Targets:** India will miss targets for all four nutritional indicators i.e. target on **stunting, anaemia, overweight & exclusive breastfeeding.**
- **Stunted and wasted:** In India **37.9% of children under 5 years are stunted and 20.8% are wasted**, compared to the Asia average of 22.7% and 9.4% respectively.
  - Inequalities are evident for stunting, with stunting prevalence being 10.1% higher in rural vs urban areas.
- **Underweight:** Between 2000 and 2016, rates of underweight (low weight for age) have decreased from 66.0% to 58.1% for boys and 54.2% to 50.1% in girls.
  - However, this is still high compared to the average of 35.6% for boys and 31.8% for girls in Asia.
- **Overweight:** As of 2015, the national prevalence of under-five overweight is 2.4%, which has increased slightly from 1.9% in 2006.
- **Adult nutrition:** India's adult population face a malnutrition burden.
  - 51.4% of women of reproductive age have anaemia
  - 9.1% of adult men have diabetes, compared to 8.3% of women.
  - 5.1% of women and 2.7% of men have obesity.

Recommendations of GNR 2020

- Countries should commit to and invest in the **routine collection of equity sensitive nutrition data.**
- Governments need to **create strong regulatory and policy frameworks**, and fiscal instruments, to support healthier diets.
  - **Essential nutrition services should be part of the standard package** of available healthcare services, universally available to all.
- The **number of qualified nutrition professionals should be increased** to enhance the delivery of quality nutrition care.
- **Nutrition-care financing should be scaled up and sustained**, for all people to achieve and maintain the healthiest diet and life possible.

7. SCIENCE AND TECHNOLOGY

7.1. BLOCKCHAIN BILL OF RIGHTS

Why in news?

World Economic Forum Global Blockchain Council launched Presidio Principles: the foundational values for a decentralized future which is also called as **Blockchain Bill of Rights.**

Blockchain technology
- Blockchain is a **series of data linked together**. Every single transaction is linked to the chain using cryptographic principles in batches, making blocks.
- The blocks are connected to each other and have unique identifier codes (called hashes) that connect them to the previous and the subsequent blocks.
- This forms a blockchain, usually in the form of a continuous ledger of transactions.

About Blockchain Bill of Rights

- It aims to **establish a global baseline for developers, corporates and governments** building blockchain applications.
- It will help in creating "the foundational values for a decentralized future" which will help unlock the potential of a technology that is poised to massively transform multiple sectors.
- It contains sixteen principles which **aim to protect users and preserve the values of the technology** so that all can benefit.
- **16 principles have been set out in four categories**. *(refer infographics)*

Need for the principles

- **Risks to users:** Blockchain's properties as a foundational technology make the considerations on data protection particularly important, given the harm and follow-on effects that can come from potential breaches.
- **Potential for transformational change can be undermined:** Those with sophisticated knowledge may have the opportunity to exploit their advantages – whether to intentionally harm consumers or to suppress the market through anti-competitive actions.
- **Widening existing gaps:** Despite talk of the potential for financial inclusion, if not designed carefully, blockchain can lead to the further exclusion and exploitation of vulnerable populations.
- **Social Impact:** The WEF believes that greater blockchain adoption will lead to opportunities to

TRANSPARENCY & ACCESSIBILITY

The Right to information about the system.

A participant should have access to information that would enable them to:

1. Understand how a service is operated, including potential risks of the service, availability of source code, and the rules and standards upon which it is based
2. Understand the potential risks and benefits of a service's use of blockchain technology.
3. Understand system performance expectations and where the responsibility for service delivery lies.
4. Understand the rights and obligations of different participants in the system.

AGENCY & INTEROPERABILITY

The right to participants to own and manage their data.

A participant should be able to:

5. Create, manage, and independently store cryptographic keys.
6. Manage consent of data stored in third-party systems.
7. Port data between interoperable systems or parts of a system.
8. Revoke consent for future data collection system.
9. Have access to information sufficient to facilitate system interoperability

PRIVACY & SECURITY

The right to data protection.

A participant should be able to:

10. Assess if their data is at risk through appropriate disclosure procedures, which may include, but are not limited to, an examination of audit results, certifications, or source code.
11. Have their data protected in accordance with internationally recognized technical security standards.
12. Limited data collection to that which is necessary and data use to the purpose for which it was provided.
13. Verify-through third-party or self-created tools-that operations have been completed and confirmed in accordance with the system's rules.

ACCOUNTABILITY & GOVERNANCE

The right for participants to understand available recourse.

A participant should be able to:

14. Access information needed to: (a) understand the system's governance and rules and (b) pursue effective recourse mechanisms.
15. Opt-out of using applications that don't treat data in accordance with internationally recognized governance and data protection standards.
16. Rectify demonstrably false, inaccurate, or incomplete data when necessary.

have a social impact on the world at large in 2020. Hence, it is necessary to provide a safe platform with defined rights for the users.

- **Financial sector:** Most of the banks and financial institutions are exploring blockchain technology such as Central Banks Digital Currency project, which brought together 45 central banks to explore parameters for the successful deployment of a CBDC. These rights will help in alleviating the effects of frauds.

(For more details on Blockchain refer Vision Current Affairs for the month of January)

7.2. SECURITY ISSUES WITH AAROGYA SETU APP

Why in news?

Recently, some experts have raised **privacy and security concerns** with the Aarogya Setu app launched by the Government of India.

Concerns with app

- **Security issues-** Recently, some individuals and groups on social media claimed that they were able to access information about people who were infected by coronavirus, among other data points, including people in sensitive offices like the PMO or Parliament.
  - o The **privacy policy of the app is silent** on as to what security practices are being followed and what level of encryption is being used.
- **Violates constitution-** As per the Supreme Court, privacy is a fundamental right, and it can only be deprived in accordance with procedure established by the law.
  - o There is no act passed by the parliament, which authorises making this app mandatory
- **Lack of accountability-** The app has a clause, which limits the government's liability, in case of any unauthorised access or modification to the information provided by the user.
  - o This means that there is no liability for the government even if the personal information of users is leaked.
  - o The aggrieved person has only recourse in the form of judiciary, if such an act takes place.

> **Proposed Personal Data Protection Bill, 2019**
> - Recently, introduced in the Parliament, it seeks to provide for **protection of personal data** of individuals, create a **framework for processing** such personal data, and establishes a **Data Protection Authority** for the purpose.
> - It governs the processing of personal data by **both government and companies** incorporated in India.
> - It provides the users with **certain rights** with respect to their personal data, such as its processing, seeking correction, completion or erasure of their data, seeking transfer of data to other fiduciaries, and restricting continuing disclosure of their personal data, if it is no longer necessary or if consent is withdrawn.

- **Legally unjustified -** By limiting the government's liability, the app goes against the **Information Technology Act** and the proposed **Personal Data Protection Bill**.
  - o The reasons for this is that the app service provider would fall under the **definition of an intermediary** and is obligated to ensure the security of the data collected and is liable for loss of it under the intermediary guidelines.

Government Response

- Given the outbreak of COVID-19 in the country, need of **social distancing** and **contact tracing** were the utmost priorities of the government.
  - o Making a detailed policy, thinking through the nuances and translating intention to policy takes time, which was not available at the time of launching of the app.
- Later, the Ministry of Electronics and IT (MeitY) has notified Aarogya Setu Data Access and Knowledge Sharing Protocol, 2020.

Aarogya Setu Data Access and Knowledge Sharing Protocol, 2020

- **Implementation of the Protocol:** MeitY is designated as the agency responsible for the implementation of this Protocol and its developer, the National Informatics Centre shall, under this Protocol be responsible for collection, processing and managing response data collected by the Aarogya Setu mobile application.
- **Collection and processing of response data:** Any response data and the purpose for which it is collected by NIC shall be clearly specified in the Privacy Policy of the Aarogya Setu mobile application.
  - o NIC shall collect only such response data as is necessary and proportionate to formulate or implement appropriate health responses.
  - o NIC shall process any data collected by it in a fair, transparent and non-discriminatory manner.

- o Demographic **data will be retained for as long as Protocol remains in force** or if **individual requests that it be deleted, for a maximum of 30 day**s from such request, whichever is earlier**.
- **Sharing of response data:** Data can be shared with other government agencies and third parties as long as it is for critical health purposes.
  - o Any entity with whom response data has been shared shall use such data strictly for the purpose for which it is shared.
  - o In any circumstance, such **data shall not ordinarily be retained beyond 180 days** from the date on which it was accessed, after which such data shall be permanently deleted.
- **Response data may be made available for research purposes** to Indian universities and research institutions/ research entities registered in India by NIC.
  - o Recently, Government has made the Aarogya Setu app open source, which means developers will be able to inspect the source code of the app and modify for changes. The process of supporting the open-source development will be managed by NIC
- **Any violation of these directions may lead to penalties** as per Disaster Management Act, 2005 and other legal provisions as may be applicable.
- **The Empowered Group shall review this Protocol** after a period of 6 months from the date of this notification or may do so, at such earlier time as it deems fit.

Way Forward

- The government should keep refining both the product and the policy, with the understanding of the pandemic and the privacy dangers posed by such an app.
- The government can take a cue from countries like **South Korea** and **Singapore**, who have enacted privacy laws that have specific conditions for contact tracing apps developed to track the spread of the pandemic. E.g. In South Korea's **Personal Information Protection Act** (PIPA), individuals also have the Right to be Forgotten, among other data ownership rights.

7.3. PRIVATE SECTOR IN SPACE ACTIVITIES

Why in News?

Government, **under Aatma Nirbhar Bharat Abhiyaan (Self-Reliant India Mission)**, announced role for **private sector in India's space programme**, including in satellites, launches and space-based services.

More on news

Following announcements were made under Aatma Nirbhar Bharat Abhiyaan (Self-Reliant India Mission)

Related News
• Recently, Indian Space Research Organisation **(ISRO) identified set of 17 technologies** and invited researchers to **develop these locally** at lower costs for its **Gaganyaan mission.**   o These included food and medicine for astronauts during space voyages, spacesuit, inflatable habitats and anti-radiation and thermal protection technologies etc.

- **Level playing field provided to private companies** in satellites, launches and space-based services.
- **Predictable policy** and **regulatory environment** to private players.
- **Private sector** will be allowed **to use ISRO facilities** and other relevant assets **to improve their capacities.**
  - o Recently, ISRO **opened up its facilities for private players**, which includes helping a consortium of companies to build **polar satellite launch vehicle.**
- Future projects for **planetary exploration, outer space travel** etc. shall also be **open for private sector.**
- There will be **liberal geo-spatial data policy** for providing remote-sensing data to tech-entrepreneurs.

Benefits of private sector in space activities

- **Increasing Demand for satellites with need to launch** 18-20 satellites every year. With existing ISRO manpower, it is difficult and private sector can play role here meeting global requirements too.
- **Getting latest innovations and trends:** Collaboration with private players is vital for **capacity building**, getting **cutting-edge technology, latest innovations** etc.
- **Freeing up resources:** A large chunk of ISRO's manpower is involved in manufacturing and launch vehicles, so active involvement of the private sector would allow ISRO to **devote more time to core research, deep-space missions** etc.
- **Reducing dependence on taxpayer's money:** Privatizing activities in space sector will allow economic contribution from private sector and will reduce dependence on funds from government.

- **Job creation:** Creation of new jobs in high-skilled-labour market in **private space industry**.
- **Securing our space capabilities** by distributing them across different satellites and spacecraft, so that business continuity is unaffected even if an adversary manages to disable one or more satellites. This becomes increasingly important with concept of **Space warfare.**
- **Meeting India-centric needs:** Private-sector help is needed to cater rapidly changing technological scenarios and to contribute to digitalization.

Way forward

- **Creating a separate Space Commerce body:** that is independent of ISRO, for space-related activities or a dedicated road map within ISRO for commercial space in India.

Concerns associated with private sector participation
- Security and strategic concerns as critical and sensitive information may fall into the wrong hands.   - It is a highly risky business involving negative returns and failures. Very few companies may have the appetite to bear the cost of such for failures.

- **Promoting startups** as they have potential of leapfrogging product/service offerings out of India and are scalable globally.
- **ISRO providing mentorship** allowing private sector to leverage technical expertise built by ISRO in an appropriate manner.
- **Enactment of space legislations:** To define **regulatory, legal and procedural regimes** with transparent timelines for pursuing space activities by private space industry.
    - **Draft Space Activities Bill, 2017** was proposed to **promote and regulate space activities** of India. It talked about **participation of private sector agencies in space activities** in India under guidance and authorization of Department of Space.
- **Establishing Think-tank** constituting **distinguished experts in space field**. It will provide key insights on space programme management, dual-use of technologies, space law, international space agreements, etc.

Steps in this direction
Steps by ISRO: - ISRO has set up a **Space Technology Park in Bengaluru** where range of facilities has been set up for use by industry.   - In 2018, ISRO had signed a contract with three industries **to build 27 satellites in three years.**   **New Space India Limited** was founded in 2019, by **Department of Space to bridge gap between ISRO and private sector** and facilitate transfer of ISRO technologies to industry.

- **Setting up industry-academia linkups** for creating systemic changes in establishing a leading research environment.

8. CULTURE

8.1. WORLD WAR 2

Why in news?

US, Europe and Russia celebrated **May 8 (May 9** in Russia) **as Victory Day** to mark **75th anniversary of end of Second World War in Europe.**

About Second World War

- It was **total war** and **most destructive war** that world has observed till date.
- **Primary combatants**
  - o **Axis nations -** Germany, Italy, Japan
  - o **Allied nations -** Great Britain (and its Commonwealth nations), France, Soviet Union and United States.

Causes of Second World War

- **Versailles Treaty** which was considered humiliating and caused resentment in Germany.
- **Failure of the League of Nations** to uphold concept of 'Collective Security'.
- **Global economic crisis** - spurred by **Great Depression** in America, as it led to rise of Hitler and other Fascist powers.
- **Hitler's Role**
  - o He **attacked Poland** on all fronts, rather than just capturing the Polish Corridor and Danzig. This is considered **most immediate cause** of war.
  - o Hitler wanted to destroy Russia and use its territory as 'Living Space for Germans' and his propaganda capitalized on anger among Germans who approved of Hitler's action.
- **Role of Appeasers: Policy of Appeasement** by UK and France raised Hitler's prestige at home.

Impact of World War- II on World

- **Destruction-** More than **40 million people were killed** and many people uprooted from their homes. **Holocaust** and **Nuclear bombs** dropped on Hiroshima and Nagasaki remain worst memories of mankind.
- **United Nations** was established in 1945 for **maintenance of world peace**, protection of rights of individuals and for socio-economic development across the world.
- **Universal Declaration of Human Rights (UDHR),** a milestone document in the history of human rights. Drafted in the backdrop of Holocaust and destruction caused by World War 2, this set a **common standard of achievements** for all peoples and all nations.
- **Shift in Balance of Power: European domination** of world **ended** and balance of power shifted in favor of USSR and US.
- **Start of Cold war:** World was divided into **two blocs**- Western and Eastern blocs. Rivalry between two superpowers was characterized by use of **espionage, political subversion and proxy wars.**
- **Non-Aligned Movement (NAM) and Third World Concept emerged which** meant to **be non-Aligned** to any of two super powers.
- **Decolonization:** War led to **rise of nationalism** in colonies in Asia and Africa and emergence of many new nation states from 1950s.

8.2. PURANDARA DASA

Why in news?

Karnataka government will commence field research at **Keshavapura in Karnataka** to solve the mystery regarding the **birth place of Purandara Dasa**.

More on news

- Till now, it was believed that Purandara Dasa was born in **Purandaragarh near Pune**, Maharashtra.
- However, an expert committee constituted by Karnataka Government reported that there is enough evidence to suggest **Keshavapura as his birth place** and recommended further research.

About Purandara Dasa

- **Purandara Dasa (1484- 1564)** was a **saint, poet and singer** during the Vijayanagara empire.
- He was the disciple of **Vyasatirtha**, Rajaguru of Vijayanagara empire**.**
- Prior to his **initiation to Haridasa tradition** (music and literary tradition followed by Vaishnavaits)**,** Purandara Dasa was a rich merchant and was called **Srinivasa Nayaka**.
- He is regarded as the **'Pitamaha' of Carnatic music.** His **systemized method of teaching Carnatic music** is followed till present day.

- He introduced the raga "**Maya malava gowla**" as the **basic scale for music instruction**.
- Under the **pen name** '**Purandara Vittala'**, he has written around **4.75 lakh devotional** songs in simple **Kannada,** known as **kirtanas** touching th**e local issues and traditions of South India.**
- **Swami Haridas,** teacher of the foremost **Hindustani musician Tansen,** was a disciple of Purandara Dasa.

8.3. GEOGRAPHICAL INDICATION (GI) TAG

Why in news?

Recently, GI tags were awarded to multiple products.

About GI tag

- **GI Tag** is a sign used on products that have a **specific geographical origin** and possess qualities or a reputation that are due to that origin.
  - o These are regulated under **Geographical Indications of Goods (Registration and Protection) Act,1999** and given by **Controller General of Patents, Designs and Trade Marks** who is Registrar of Geographical Indications.
  - o GI is covered under **Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement**.

Products to which GI tags were granted

- **Kashmir Saffron**
  - o It is cultivated in **Karewas (highlands) of Jammu & Kashmir.**
  - o It is only saffron in world grown at an altitude of 1,600 m to 1,800 m.
  - o In ancient Sanskrit literature, saffron is referred to as **'bahukam'.**
  - o **Characteristics:** Longer and thicker stigmas, natural deep-red colour, high aroma, bitter flavour, chemical-free processing, and high quantity of crocin (colouring strength), safranal (flavour) and picrocrocin (bitterness).
  - o **Three types include**: Guchhi, Lachha and Mongra Saffron.
  - o **Iran is the largest producer** of saffron and **India comes second.**
- **Kovilpatti kadalai mittai (Tamil Nadu):**
  - o It is a **candy made of peanuts** held together with glistening syrup, and topped with wisps of grated coconut dyed pink, green and yellow.
  - o It is made using **all natural ingredients** such as the traditional and special 'vellam' (jaggery) and groundnuts and water from the **river Thamirabarani** is used in the production, which enhances the taste naturally.
- **Chak-Hao (black rice of Manipur):**
  - o It is a **scented glutinous rice** which has been in cultivation in Manipur over centuries, is characterised by its special aroma.
  - o Chak-Hao has also been used by **traditional medical practitioners** as part of traditional medicine.
  - o This rice takes the **longest cooking time of 40-45 minutes** due to the presence of a fibrous bran layer and higher crude fibre content.
- **Gorakhpur terracotta:**
  - o It is a centuries-old traditional art form, where the potters make various animal figures like, horses, elephants, camel, goat, ox, etc. with hand-applied ornamentation.
  - o The **entire work is done with bare hands** and artisans use **natural colour**, which stays fast for a long time. There are more than 1,000 varieties of terracotta work designed by the local craftsmen.
- **Sohrai Khovar painting**
  - o **It** is a **traditional and ritualistic mural art** being practised by local tribal women in the area of Hazaribagh district of **Jharkhand**.
  - o It is done during local harvest and marriage seasons using local, naturally available soils of different colours.
- **Telia Rumal of Telangana**
  - o **It** involves intricate handmade work with cotton loom displaying a variety of designs and motifs in three particular colours — red, black and white.

9. ETHICS

9.1. SOCIAL MEDIA PLATFORMS AS ARBITERS OF TRUTH

Why in News?

Recently, twitter 'fact-checked' US President Donald Trump's tweets and labelled one as 'glorifying violence'. However, Trump has called Twitter **"an editor with a viewpoint".** This has precipitated a debate on the role and responsibility of social media platforms as **'Arbiters of Truth'.**

What does 'Arbiter of Truth' mean?

Arbiter in absolute sense of the word means a person with power to decide upon a dispute or provide a judgement in case of a disagreement. By extension, 'Arbiter of truth' is an entity which decides upon 'what is the truth' in case of conflicting facts or discourses.

But, truth in itself is not always absolute. Truth has an element of subjectivity attached to it which varies with context, societies, and value systems among other things.

In the current era of post-truth, where truth is constantly subjected to manipulation and misinterpretation, a natural need arises for an impartial, accountable and omnipresent 'Arbiter of truth'.

What are the reasons due to which social media is de facto assuming the role of arbiters of truth?

- **Engagement platform:** Social media platforms are currently the largest creators of engagement. Also, they are the ones who control the platform by tools like pre-filtering, screening and exercising editorial control. As a result, they are becoming a natural choice for this.
  - Also, Social media platforms have been acting as **an enabler of governance**. For instance, platforms like twitter are used by various Ministries as a direct channel of communication with people.
- **Very large reach:** India has 574 million active Internet users as of 2019 out of which 330 million people are on some kind of social media site like Facebook, YouTube and it is expected to reach 448 million by 2023.

> **Legal Framework as Arbiters of Truth for Social Media platforms**
> - **Section 79 of IT Act, 2000:** intermediaries are not liable for illegal 3rd party content and there is no specific requirement to censor content.
> - Supreme Court in **Shreya Singhal case (2015)** advocated that legal liability on social media platforms arises only when they fail to act for a specific takedown notice by any court or any competent executive authority.
> - The **user-platform relationship is governed by contracts** that give platforms a right to choose and power in deciding what they will permit.

- **Used as source of information:** Apart from connecting people across their social networks, social media is also increasingly being utilized to share and consume variety of information, both formal and informal. Many a times, social media platforms are themselves sources of information.
- **Regulating Misuse of social media:** Regulation of content on social media necessitates the platform to arbitrate on content in order to check misuse. Such arbitration is essential to check following issues:
  - **Offensive content:** There have been several instances hate speech, racist comments and other content which is offensive to communities in general or societies in particular.
  - **Illegal content:** Social media platforms are used to transmit information which is otherwise illegal. For example, information on sex-selective abortions, radicalization of youth among others.
  - **Fake news:** The issue of fake news has been increasing exponentially. For instance, Check4Spam, a non-profit entity that verifies posts on social media, said the number of messages it received to check veracity increased more than 20% from last year.

Challenges associated with Social media assuming the role of 'Arbiters of truth'
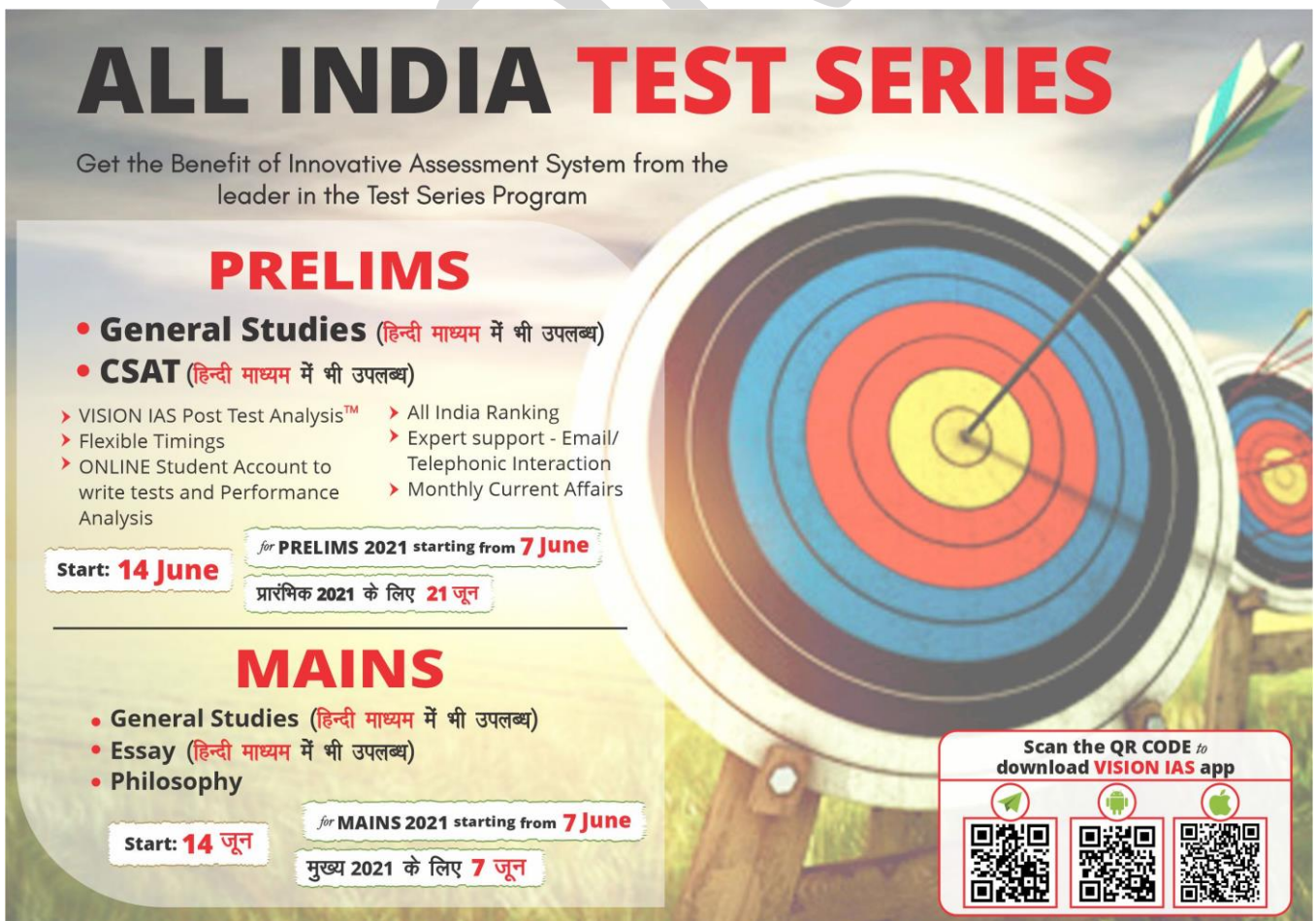
- **Reluctance by social media entitles:** Majority of Social media platforms are commercial entities who have very little economic incentive in being 'Arbiters of truth'. For example, **Mark Zuckerberg** has made a statement that '**Social media sites should not play arbiters of truth'.**
- **Perceived partisan censorship:** Regulation by an extra-legal private entity poses a risk of perceived interest or ideology-based censorship of one line of thoughts and opinions. These entities are often subject to political pressures with each claiming to be a victim of some kind of bias.

- **Absence of accountability:** Any arbitrary action of regulation which is not accountable to people indirectly becomes authoritative in nature. For example- recently Twitter suspended the account of Amul temporarily for promoting Made in India products instead of Chinese.
- **Empowering Artificial Intelligence over Human wisdom:** When something is said or posted on social media, the context is important. It becomes difficult to ensure that Artificial Intelligence takes into account the context along with the content.
  - o **Large volume of content** is shared on social media on a real time basis which makes it difficult or impractical for external decision making to make every decision.

What can be done: Way Forward

- **German model:** A German law requires platforms with over 2 million users in Germany to receive user complaints and takedown manifestly illegal content. The law fines companies not for failing to remove content, but for not having robust grievance redressal mechanisms.
- **Need of an independent oversight body:** Cambridge Analytica scandal shows that social media platforms can wield considerable influence on public opinion and electoral outcomes. Moreover, these platforms remain vulnerable to government pressure. So, an independent oversight body is needed along with a transparent framework in terms of responsibilities and rights of users, intermediaries, and government.
- **Adopting Digital Socialism:** It is a commons-based solution embodying principles of self-governance, self-wisdom, decentralisation, and federation to transform social media from a profit-seeking enterprise into a global democratic commons. Example- **Mastodon** which is a blockchain technology based social media platform and involves wider choice of servers and policies to choose from.
- **Information cells have been created** by platforms like 'Coronavirus Information Centre' by Facebook. This mechanism can be emulated for other areas of information as well leading to creation of more authentic sources of information.

After considering the two extremes of **taking no action at all** on one hand and **full regulation** on another, we could settle for the **Aristotelian Golden Mean** providing a desirable middle path.

10. NEWS IN SHORT

10.1. DIAMER-BASHA DAM

- China and Pakistan signed an accord to construct this Dam in **Gilgit-Baltistan region.**
- It is to be constructed on the **River Indus** with a capacity of 4,500 MW.
- India had objected to the construction of the dam repeatedly as it falls into the Indian territory of **northern Gilgit-Baltistan region**. Also, it can cause water shortage in Ladakh.

10.2. UNITED NATIONS RELIEF AND WORKS AGENCY (UNRWA)

- India has given USD 2 million in aid to UNRWA working for the welfare of Palestinian refugees, amidst the coronavirus crisis.
- UNRWA was **created in December 1949 by the UN.**
- UNRWA **provides shelter, basic food supplies, medical aid, education, and work opportunities for Palestine refugees** in its five fields of operations: Jordan, Lebanon, Syria, Gaza Strip and West Bank including East of Jerusalem.

10.3. PROVISIONING OF LOANS

- The Reserve Bank of India (RBI) has recently provided clarification on '**special provisioning' of loans** which are under moratorium.
- RBI had stipulated in April that lending institutions shall make **10% provisioning** (5 percent phased over two quarters) on loans that are overdue but not yet Non-performing Assets (NPAs) and where moratorium has been approved.
- **Under loan provisioning**, banks have to set aside earning or provide funds to a prescribed percentage of their bad assets.
  - o Provisioning norms are prescribed by the RBI as per asset classification. For example- The normal provisioning of NPA is 15% for secured loans and 25% of unsecured loans.
    - ✓ This means if a ₹100-crore loan becomes an NPA or sub-standard, at least ₹15 crore has to set aside by the bank from its earnings as provision.
- RBI has now clarified that **provisioning should be considered only for loans categorised as Special Mention Accounts-2 (SMA-2)** at the start of moratorium period.
  - o Special Mention Account (SMA) is an account which is **exhibiting signs of incipient stress** resulting in the borrower defaulting in timely servicing of her debt obligations, though the account has not yet been classified as NPA.

- o According to an estimate, total SMA-2 loans were around ₹0.96 lakh crore in end September 2019.

Asset Classification as per RBI
- **SMA-0:** Principal or interest payment not overdue for more than 30 days but account showing signs of incipient stress
- **SMA-1**: Principal or interest payment overdue between 31-60 days
- **SMA-2**: Principal or interest payment overdue between 61-90 days
- **NPA**: Principal or interest payment overdue for a period of more than 90 days (or two crop seasons for short duration crops and one crop season for long duration crops).
- **Substandard Assets**: Asset that has remained NPA for a period less than or equal to 12 months.
- **Doubtful Assets**: Asset that has remained in the sub-standard category for a period of 12 months.
- **Loss Assets:** An asset where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly.

10.4. CHAMPIONS PORTAL

- CHAMPIONS (Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength) portal was recently launched by **Ministry of Micro, Small and Medium Enterprises**.
- It is a technology driven **Control Room-Cum-Management Information System** in which a network of control rooms is created in a Hub & Spoke Model.
- It utilizes modern ICT tools to assist Indian MSMEs march into big league as National and Global champions through grievance redressal and handholding.
- In addition to ICT tools including telephone, internet and video conference, the system is enabled by **Artificial Intelligence**, Data Analytics and Machine Learning.
- It is fully integrated with **Centralized Public Grievance Redress and Monitoring System (CPGRAMS)** and MSME Ministry's own other web based mechanisms.

10.5. FOR THE FIRST TIME, INDIA HAS MORE RURAL NET USERS THAN URBAN

- According to the '**Digital in India' report** by Internet & Mobile Association of India (a not-for-profit industry body), as of November 2019, rural India had 10% more **active internet users** than urban India.

- o **Active internet users** are those who use internet at least once a month.
- With **504 million active internet users** (aged 5 years or above), **India has the second-largest internet user market** behind China.
- **Internet penetration** in India is 40%. (88% for the US and 61% for China).
  - o **Internet Penetration** rate is percentage of total population that uses Internet.
- **Increase in female internet users** (26 million) was more than that of male internet users.
- **With cheaper smartphones** & **reduction in data plans**, 4G has become preferred choice of Internet connectivity.
- Digital Services have assumed great importance for India with the Government actively promoting a vision of **$1 trillion digital economy**.

Gender Distribution (as %)

	All India	Urban	Rural
Male	65	60	69
Female	35	40	31
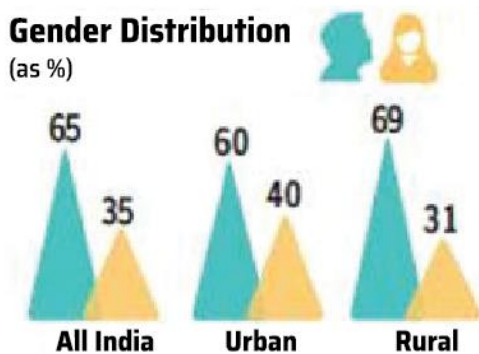
10.6. UNIFIED MOBILE APPLICATION FOR NEW-AGE GOVERNANCE (UMANG)

- UMANG was launched in 2017 **to bring major government services on a single mobile app**, with a larger goal **to make government accessible on mobile phone** of citizens.
- About **660 services from 127 departments & 25 states** and about 180 utility bill payment services **are live on it**.
- **Recently, Ministry of Electronics and Information Technology** has brought **7 services of India Meteorological Department** on UMANG app.
- **Services include:** Current weather, weather warnings, tourism forecast etc.

10.7. INDUSTRY STATUS TO SPORTS

- Mizoram became the **first state** to grant industry status to sports.
- It is expected to **increase investments in sports,** generating employment and increasing value.

10.8. AMERY ICE SHELF (AIS)

- As per **National Centre for Polar and Ocean Research (NCPOR),** there would be a **24 % increase in expansion of AIS boundaries in Antarctica by 2021.**

- AIS is one of the **largest glacier drainage basins** in world, located on **east coast of Antarctica.** AIS dynamics and mass balance help in understanding changes in global climate scenario.
- **NCPOR,** under the Ministry of Earth Sciences, is located in Goa and is India's premier R&D institution responsible for research activities **in polar and Southern Ocean realms.**

10.9. SAMPLE REGISTRATION SYSTEM (SRS) BULLETIN RELEASED

- SRS is a **demographic survey** for providing reliable **annual estimates** of IMR, birth rate, death rate and other fertility and mortality indicators at the national and sub-national levels.
- It was initiated on a pilot basis in 1964-65, and became **fully operational during 1969-70.**
- SRS is conducted by **Office of the Registrar General and Census Commissioner** under **Ministry of Home Affairs**

Key highlights

- **IMR** declined to 32 in 2018 from 129 in 1971.
  - o Madhya Pradesh has highest IMR at 48 and Nagaland lowest at 4.
  - o In last 10 years, IMR declined by about 35% in rural areas and about 32% in urban areas.
  - o **IMR** is number of **deaths** under one year of age occurring **for 1000** live births in a given year.
- **Birth rate (BR)**: declined from 36.9 in 1971 to 20.0 in 2018.
  - o Bihar has the **highest BR** at 26.2 and Andaman and Nicobar Islands has lowest BR of 11.2.
  - o Rural-urban differential has also narrowed. However, birth rate has continued to be higher in rural areas.
  - o **BR** is number of live births per 1000 of population per year.
- **Death rate (DR)**: Declined to 6.2 in 2018 from 14.9 in 1971.
  - o **Chhattisgarh has highest death rate at 8** and Delhi has a rate of 3.3.
  - o DR Number of deaths per 1000 people per year.

10.10. UNDER-5 MORTALITY RATE (U5MR) HALVED FROM 2000 TO 2017

- **Findings** were part of **India State-Level Disease Burden Initiative (ISDBI)** and have **first comprehensive estimates of district-level trends of child mortality** in India from 2000.
  - o ISDBI is collaboration between Indian Council of Medical Research (ICMR), Public Health Foundation of India (PHFI), Institute for Health Metrics and Evaluation (IHME), and experts

and stakeholders from about 100 institutions across India.

- **Key highlights:**
  - o U5MR and neonatal mortality rate (NMR) have dropped substantially since 2000. However, **Inequality** between districts on these indicators has **increased.** For e.g. U5MR ranges from 8 to 88 per 1000 live births in 723 districts.
  - o **U5MR** has **dropped by 49% since 2000.**
    - ✓ **68% of under-5 deaths are attributable to child and maternal malnutrition.**
    - ✓ **Leading causes of under-5 deaths**: lower respiratory infections, preterm birth, diarrhoeal diseases, and birth asphyxia and trauma.
    - ✓ Highest number of under-5 deaths in 2017 was in Uttar Pradesh followed by Bihar.
  - o **NMR dropped by 38%** since 2000.
    - ✓ **83% of neonatal deaths are** attributable **to low birth weight and shorter gestation.**
  - o Study mentioned **issues that individual states face** and suggested to have an **area-specific plan** to reduce child deaths.

	2000	2017
Under-5 deaths	2.24m	1.04m
Under-five mortality rate	Probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births.	
Neonatal deaths	1.02m	0.57m
Neonatal mortality rate	Probability of dying during the first 28 days of life, expressed per 1,000 live births	

10.11. "LOST AT HOME" REPORT PUBLISHED BY UN CHILDREN'S FUND (UNICEF)

- Report looks at the risks and challenges internally displaced children face, and the urgent actions needed to protect them.

Key Highlights

- **Drivers of displacement: Conflict** and **violence** are key causes of internal displacement for children and their families. Discrimination, denial of rights to specific groups, statelessness and Climate change-induced disasters are some other factors.
- **In India**, total number of new internal displacements in 2019 stood at around 5 million – with majority due to disasters.
- **Impact on children**
  - o **It often breaks families apart** and forces children to move on their own.

- o Internally displaced children are particularly **vulnerable to abuse, violence and exploitation.**
- o It often **disrupts education** by interrupting children's learning, depriving them of opportunity.
- o It **poses challenges to accessing essential services** such as safe housing, water and sanitation etc.
- It calls for strategic investments and a united effort by governments, civil society, companies, humanitarian actors and children themselves to address the child-specific drivers of displacement.

10.12. 600 UNIVERSITIES, 25,000 COLLEGES ARE NOT ACCREDITED IN INDIA

- **Accreditation survey** was conducted by **National Assessment and Accreditation Council** (**NAAC**). Some findings are:
  - o 26% of institutions didn't apply for accreditation as they lack permanent faculty and 5.5% for not having a permanent head of the institution.
  - o 22 % of higher education institutions (HEI) didn't participate due to poor grades.
- NAAC is **autonomous body** established under **Ministry of Human Resource Development**.
  - o It conducts **assessment and accreditation** of HEI such as colleges, universities or other recognised institutions to derive an understanding of the 'Quality Status' of the institution.
- In 2017, **Revised Assessment and Accreditation Framework** was introduced to make accreditation **ICT enabled, objective, transparent, scalable and robust**.

Benefits of Accreditation
- Institution to know its strengths, weaknesses, and opportunities through an informed review process
- Identification of internal areas of planning and resource allocation
- Collegiality on the campus
- Funding agencies look for objective data for performance funding
- Institutions to initiate innovative and modern methods of pedagogy
- New sense of direction and identity for institutions
- The society looks for reliable information on quality education offered
- Employers look for reliable information on the quality of education offered to the prospective recruits
- Intra and inter-institutional interactions

10.13. NATIONAL MIGRANT INFORMATION SYSTEM (NMIS)

- NMIS is a **central online repository on Migrant Workers** to facilitate their **seamless movement across States.**

- It would help in speedy inter-State communication/co-ordination.
- It has additional advantages like contact tracing, which may be useful in overall COVID-19 response.
- Developed by: National Disaster Management Authority

10.14. SURAKSHA STORE INITIATIVE

- It has been launched by Department of Consumer Affairs (under Ministry of Consumer Affairs, Food and Public Distribution).
- It is a public private initiative to create a safe and secure environment for consumers and shop owners at Kirana Stores.
- Objective of project is to educate Kirana store owners across country about COVID-19 safety guidelines and protocols required to be followed while running their businesses.
- Protocols were decided by Food Safety and Standards Authority of India and Ministry of Home Affairs.

10.15. GOAL (GOING ONLINE AS LEADERS) PROGRAMME

- It is joint initiative of Facebook India with Ministry of Tribal affairs to provide mentorship to tribal youth through digital mode.
- Programme intends to upskill and empower 5,000 tribal youths in current phase to harness full potential of digital platforms to learn new ways of doing business, explore and connect with domestic and international markets.

10.16. KHUDOL (GIFT) INITIATIVE IN MANIPUR

- It is a crowdfunded initiative of Ya_All, an Imphal-based NGO that had created India's first transgender football team.
- It entails ensuring food, health and hygiene of LGBTQI+ community, people living with HIV, daily-wage earners, children and adolescents.
- United Nations Secretary-General's Envoy on Youth has listed Khudol among top 10 global initiatives for an inclusive fight against the COVID-19 pandemic.

10.17. DEFENCE TESTING INFRASTRUCTURE SCHEME

- Recently defence minister approved the launch of Defence Testing Infrastructure Scheme (DTIS) with an outlay of Rs 400 crore for creating testing infrastructure for defence and aerospace manufacturing.
  - o Setting up of Defence Testing Infrastructure will provide easy access and meet the testing needs of the domestic defence industry.

- The objective is to promote indigenous Defence Production, with special focus on participation of MSMEs and Start Ups.
  - o The indigenous defence production will consequently reduce imports of military equipment and help make the country self-reliant.
- The projects under the scheme will be provided with up to 75% government funding in the form of 'Grant-in-Aid'; the remaining 25% of the cost will be borne by the Special Purpose Vehicles (SPV), whose constituents will be Indian private entities and State Governments.
  - o Central Government assistance for setting up DTIs will be in the form of Grant-in-Aid and will be limited to sum total of Rs 400 Cr.
  - o SPVs will be constituted by private entities only (Industry, Industry association, R&D/Academic institution etc) and registered under the Companies Act, 2013
- The SPV shall be responsible for obtaining statutory clearances required for testing of weapons and ammunition.
  - o SPV shall also operate and maintain all assets under the scheme in a self-sustainable manner by collecting user charges.
- While majority of test facilities are expected to come up in the two Defence Industrial Corridors (DICs), one in Tamil Nadu and the other in Uttar Pradesh), the scheme is not limited to setting up test facilities in the DICs only.
- The DTIS guidelines specify the establishment of testing facilities for drones and Unmanned Aerial Vehicles (UAVs), radar, electronics/telecom equipment, rubber testing, noise and shock testing, specialised driving tracks, ship motion testing, ballistics and blast testing, and environmental test facilities.

10.18. OPERATION SAMUDRA SETU (SEA BRIDGE)

- It has been launched by Indian Navy as a part of national effort to repatriate Indian citizens from overseas.
- As part of Phase-1, Indian Naval Ships Jalashwa and Magar are presently enroute to Maldives to commence evacuation operations from 8 May 2020.

10.19. VANDE BHARAT MISSION

- It is India's largest repatriation operation to bring home Indian nationals stranded abroad due to COVID-19 lockdown.
- People are brought back in flights by Air India and also by Indian Navy (from Sri Lanka and Maldives)

- More than 1.5 lakhs Indians stranded across world have been brought back.

10.20. EARTH'S MAGNETIC FIELD BETWEEN AFRICA AND SOUTH AMERICA IS WEAKENING

- **Recently,** European Space Agency (ESA) scientists have warned that the earth's geomagnetic field is weakening in some areas area between Africa and South America.
  - ESA has termed the phenomenon of this change of geomagnetic field or the surface magnetic field as **'South Atlantic Anomaly'.**
- The area of the South Atlantic Anomaly is characterized by a **significant reduction in the strength of Earth's magnetic field compared with areas at similar geographic latitudes**
  - The data gathered by the European Space Agency's satellites reveals that the area of the anomaly dropped in strength by over 8 per cent between 1970 and 2020.
- Though the reasons for this are still not clear, a possible explanation could be a **shift in Earth's magnetic field,** whereby North Pole and South Pole switch places as field reverses.
  - This reversal **last happened 7.8 lakh years ago,** with scientists believing that a shift is long overdue. These reversals **usually happen at an interval of 250,000 years.**
- If a reversal takes place, the consequences could be significant and could cause **major issues for telecommunications and satellite systems. Certain mobile phones and satellites may stop working.**
- Earth's magnetic field, which exists due to metal and liquid outer core about 3,000 km below the surface, creates electric currents that generate and change our electromagnetic fields.
  - The surface magnetic field, which spans around tens and thousands of kilometers away from the earth, protects us from cosmic radiations as well as it aids the communication of satellites and spacecraft.

10.21. NEW SIMULATION CODE HELPS STUDY ELECTRIC FIELD STRUCTURE IN EARTH'S MAGNETOSPHERE

- Indian Institute of Geomagnetism, an autonomous institution of the Department of Science and Technology has developed a simulation code capable of **studying electric field structures** in earth's **magnetosphere**.
  - **It will help** advance the knowledge of **plasma waves** that are useful **in planning future space missions.**

- It can also lead **to precisely controlled fusion laboratory experiments** for energy needs of humanity. Controlled fusions use magnetic fields to confine a high-temperature plasma of deuterium and tritium.

Earth's magnetosphere

- It is a region surrounding Earth **where the dominant magnetic field is of Earth** rather than of interplanetary space.
- It is formed by **interaction of solar wind**s [which carries with it a solar magnetic field, called an **Interplanetary Magnetic Field**] with **Earth's magnetic field**.
- Earth's **magnetosphere contains plasma** and plasma processes have the ability to hamper the working of a number of satellites that have been placed in orbit in the magnetospheric region.
  - Plasma is **a hot ionized gas** consisting of approximately equal numbers of positively charged ions and negatively charged electrons. **Plasma is the fourth state of matter**.
- Almost **99% of matter** in the universe is in the form of plasma.
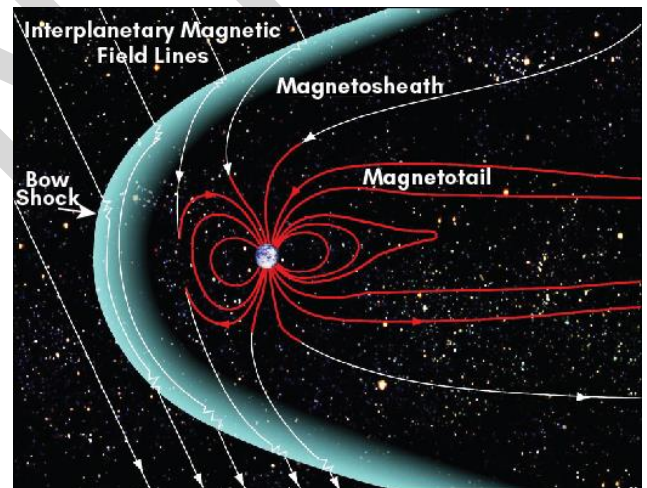
10.22. VENUSIAN ATMOSPHERE ROTATES FASTER THAN THE PLANET ITSELF

- Venus takes 243 Earth days to rotate once around its axis. Despite this very slow rotation, **Venus's atmosphere rotates westward 60 times faster** than its planetary rotation. This phenomenon, called **superrotation**, was first discovered in the 1960s.
- Venus atmosphere is thick and full of **clouds of sulfuric acid.** Its atmosphere heats so much making it **hottest planet in solar system**.
- Sun heats planet's dayside, creating **atmospheric tidal waves** due to temperature difference with nightside. These thermal tides push atmosphere around planet, making it rotate quickly.

10.23. ARTEMIS ACCORDS'' FOR RESPONSIBLE SPACE EXPLORATION

- Artemis Accord are a **series of bilateral agreements between NASA and its international partners** that want to cooperate on **Artemis program**
  - Artemis is NASA's moon mission under which it will land the first woman and the next man on Moon by 2024.
- It has been established to **create common set of principles** to govern the civil exploration and use of outer space at times when numerous countries and private sector players conducting missions and operations in **cislunar space** (space between earth and moon).
- The **agreement includes various norms** such as transparency, peaceful exploration, Interoperability of systems, Registration of Space Objects, Orbital Debris & Spacecraft Disposal etc.
- Accord is **based on the Outer Space Treaty of 1967** that was created to ensure fairness and peaceful relationships at a time when humans were first exploring the final frontier.
- France, Japan, Australia and Canada have already shown their support. **India has not clarified its stand yet.**

10.24. NATIONAL BIOMEDICAL RESOURCE INDIGENIZATION CONSORTIUM (NBRIC)

- Recently, National Biomedical Resource Indigenization Consortium (NBRIC) was **constituted by the Department of Biotechnology,** Ministry of Science and Technology**,** as a **Public Private Partnership** to drive indigenous innovation focused on **developing reagents, diagnostics, vaccines and therapeutics for COVID19.**
- It is **hosted and led by the Centre for Cellular and Molecular Platforms**
- NBRIC aims to be a nation-wide **collaborative platform** for **convergence of research, product resources and services towards developing reagents, diagnostics, vaccines, and therapeutics** across India.
- NBRIC is a '**Make in India' initiative** for Biomedical research and innovative products, towards **promoting import substitution and exports.**

Objectives

- **Identify providers/manufacturing enterprises** of crucial bio-medical resources
- **Assess their current capabilities, capacities and requirements**
- Support them by **creating an enabling environment** and **connecting with policy makers**

and other stakeholders from public and private sectors
- Be the **gateway for funding** from **the Department f Biotechnology** , **Biotechnology Industry Research Assistance Council** (BIRAC) and **Department of Science & Technology** for development or scaling

10.25. PROJECT CARD

- Recently, **Niti Aayog and the Department of Biotechnology** have launched the Consortium for Affordable & Rapid Diagnostics **(CARD)**.
- It aims to ramp up **production of COVID-19 testing kits** in India to **expand diagnosis** as well as boost exports
  - The plan involves bringing scientists and laboratories in touch with private firms to produce millions of testing kits, including around 10 million rapid antibody tests that offer quick results.
- Under the project, all the obstacles to scale up production of testing kits will be addressed; **regulatory processes will be streamlined and fast-tracked to ensure kits are ready for the market.**
  - Procurement procedures will be simplified.
- **Project is launched as India is facing quality issues with Chinese-made antibody testing kits,** used for disease surveillance and to find out how many people have developed immunity to a disease**.**

10.26. GOVERNMENT RESPONSE STRINGENCY INDEX

- It is **created by Oxford University** showing how strict a country's measures were in imposing lockdown, and at what stage of the spread it enforced these.
- It is composite measure based on **nine response indicators** including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 =strictest response).
- According to it, **India had one of the strongest lockdown measures** in the world. India called its strict lockdown at a **much earlier point on its case and death curves**.

10.27. COBAS 6800 TESTING MACHINE

- It is a **fully automated, high end machine** for performing real time Polymerase Chain Reaction (PCR) testing for COVID-19.
- Machine **minimizes chance of contamination** as well as **risk of infection** since it can be **operated remotely** with limited human intervention.
- COBAS 6800 can **also detect other pathogens** like Viral Hepatitis B & C, HIV, MTb (both rifampicin and isoniazide resistance), Papilloma, Chlamydia, Neiserreia etc.

10.28. OPERATION WARP SPEED

- It is a public-private partnership, launched by U.S., **to facilitate and accelerate development of COVID-19 vaccines, therapeutics, and diagnostics.**
- It is currently focusing on 14 vaccine candidates that were judged to be most promising from an initial list of over 100.

10.29. AFRICAN SWINE FEVER (ASF)

- ASF has killed more than 2900 pigs in Assam.
- It is a highly **contagious haemorrhagic viral disease** of domestic and wild pigs caused by DNA virus of **Asfarviridae** family.
- **Transmission and spread:** direct contact with infected pigs; indirect contact, through ingestion of contaminated material; biological vectors (soft ticks).
- It was first detected in Kenya in 1921 and had **never been reported in India before**.
- There is **no approved vaccine** against ASF. ASF is **not a risk to human health**.

10.30. NATIONAL PAYMENT CORPORATION OF INDIA (NPCI) LAUNCHES PAI

- Pai is an **artificial intelligence (AI) based chatbot**, to create awareness around NPCI's products like FASTag, RuPay, UPI, AePS on a real time basis.
  - It was developed by Bengaluru based startup CoRover Private Limited
- NPCI is umbrella organisation for **operating retail payments and settlement systems** in India.
  - It is an initiative of RBI and Indian Banks' Association under Payment and Settlement Systems Act, 2007.

10.31. NATIONAL ARTIFICIAL INTELLIGENCE PORTAL (WWW.AI.GOV.IN)

- It will work as **one stop digital platform for AI related developments in India**, sharing of resources such as articles, startups, investment funds in AI, resources, companies and educational institutions related to AI in India.
- **National e-Governance Division** of Ministry of Electronics and IT a**nd NASSCOM will jointly run this portal.**

10.32. EVENTBOT MOBILE BANKING TROJAN

- Recently, **The Indian Computer Emergency Response Team (CERT-In) issued an advisory** warning to people **against a trojan** called EventBot

- **The EventBot is a mobile Banking Trojan and information stealer** that specifically targets the financial apps on the phone and the financial data of its victim.
  - A Trojan horse or Trojan is a **type of malware that is often disguised as legitimate software.**

10.33. GARUD (GOVERNMENT AUTHORISATION FOR RELIEF USING DRONES) PORTAL

- It was launched by **Directorate General of Civil Aviation** (DGCA) for **providing fast track conditional exemptions to government agencies** for COVID-19 related drone operations.
- DGCA, under **Ministry of Civil Aviation** is **regulatory body in the field of Civil Aviation,** primarily dealing with safety issues.

10.34. RHT14 AND RHT18

- These are **two alternative dwarfing genes in wheat**, associated with **better seedling vigour and longer coleoptiles** (sheath protecting young shoot tip).
- **Wheat lines with these genes** can **reduce crop residue burning** and can allow **deeper sowing of wheat seeds** to avail **advantage of residual moisture** in soil under dry environments.
- **Developed by:** Agharkar Research Institute, an autonomous institute of Department of Science and Technology

10.35. THRISSUR POORAMA

- Recently, Thrissur Pooram was held without grand celebrations due to corona pandemic.
- Thrissur Pooram is one of the **biggest temple festivals of Kerala** and has a tradition of more than 200 years.
- This is a post-harvest festival. It is celebrated in the Malayalam month Of Medom (April-May) in Thrissur.
- This event was **started by Sakthan Thampuran, the erstwhile ruler of Kochi.**
- Festival related events take place at the Vadakkumnathan temple, Thrissur.

10.36. FLORENCE NIGHTINGALE

- 200th birth anniversary of Florence Nightingale, founder of modern nursing was celebrated on May 12.
- Florence Nightingale (1820-1910) also known as **"The Lady with the Lamp"** was a British nurse, social reformer and statistician best known as the founder of modern nursing.

- She established **St. Thomas' Hospital, London and the Nightingale Training School for Nurses in 1860**.
- She is **credited with being the first healthcare professional to use data** to show that infections control improves health outcomes.
  - Through her career she stressed on practice of handwashing that is relevant as ever today.
- She was instrumental in **setting up training for midwives and nurses in workhouse infirmaries**. She was **the first woman to be awarded the Order of Merit (1907)**.
- The **International Nurses Day** is observed annually on **May 12** commemorating her birth and celebrates the important role of nurses in health care.
- **World Health Organization (WHO)** has **designated 2020 as the "International Year of the Nurse and the Midwife,"** in honor of the 200th anniversary of Florence Nightingale's birth.

10.37. IRAN'S NEW CURRENCY

- **Iran**'s parliament has passed a bill to change the monetary unit from 'Rial' to the popularly used 'toman'.
- Each toman will be worth 10,000 Rials under the new system.

11. GOVERNMENT SCHEMES IN NEWS

11.1. ATAL PENSION YOJANA

Why in News?

Recently, Atal Pension Yojana (APY) has completed 5 years of successful implementation

Objectives	Feature

• To provide old age income security **particularly to the workers in the** unorganised sector.
• **Addressing the challenges of rapidly increasing aging population of India.**
	• **Eligibility for APY:** APY can be **subscribed by any Indian citizen** in the age group of 18-40 years having a bank account.
	  o **Minimum period of contribution** by the subscriber under APY would be **20 years** or more
	• **Guaranteed pension:** It provides a **minimum guaranteed pension ranging from Rs 1000 to Rs 5000** on attaining 60 years of age.
	  o Amount of pension is guaranteed for lifetime to spouse on death of the subscriber. In the event of death of both the subscriber and the spouse, entire pension corpus is paid to the nominee.
	• **Government contribution:** Central Government co-contributed **50% of the subscriber's contribution or Rs 1000 per annum (whichever is lower)** to each eligible subscriber account, for a **period of 5 years**, i.e., from 2015-16 to 2019-20, who join the NPS before 31st December, 2015.
	  o Beneficiary should not be member of any statutory social security scheme nor income tax payers
	• **Administered by:** PFRDA (Pension Fund Regulatory Authority) through National Pension System architecture.
	• **Tax Benefits:** APY subscribers would **enjoy tax benefits on their own contributions** as well as their employer's contribution.

11.2. PRIME MINISTER'S EMPLOYMENT GENERATION PROGRAMME (PMEGP)

Why in news?

Recently, **Ministry of Micro, Small and Medium Enterprises (MSME)** has done away with the role of District Level Task Force Committee (DLTFC), headed by the District Collectors and eased procedures to help fund enterprises under Prime Minister's Employment Generation Programme (PMEGP).

Objectives	Eligibility	Key Features
• **To generate** continuous and sustainable employment opportunities in **Rural and Urban areas of the country.** • **To provide continuous and sustainable employment to a large segment of traditional and prospective artisans, rural and urban unemployed youth in the country through setting up of** micro enterprises**.** • **To facilitate participation of financial institutions for higher** credit flow to micro sector.	• Any individual, above 18 years of age. • At least **VIII standard pass for projects costing above Rs.10 lakh** in the manufacturing sector and above **Rs. 5 lakh** in the business / service sector. • **Existing Units** (under any scheme of Government of India or State Government) and the units that have already availed Government Subsidy under any other scheme of Government of India or State Government **are not eligible.** • Institutions Registered under **Societies Registration Act- 1860.** • Production based Co-operative Societies • **SHG and Charitable Trusts**	• The Scheme is implemented through by **Khadi and Village Industries Commission (KVIC) at national level.** At state level, State Khadi & V.I. Boards(KVIB) and State District Industries Centres(DICs) in Rural areas and through DICs only in Urban areas in ratio of **30:30:40** between KVIC / KVIB / DIC respectively. • **The subsidy provided** for the project varies from **25% for general and 35% for special category in rural area**s and **15% for general and 25% for general category in urban areas**. • The Bank will sanction 90% of the project cost in case of General Category of beneficiary and 95% in case of special category. • **Neither collateral nor any third party guarantee is insisted here**. Any assets created from the bank loan should be hypothecated to Bank. • Government subsidy under the scheme is **routed by KVIC** through the identified Banks for eventual distribution to the beneficiaries/entrepreneurs in their Bank accounts. • **Negative list of activities that cannot use the scheme: Industry related to** cultivation, sericulture, horticulture, floriculture, rural transport, manufacture of Polythene carry bags etc.

12. APPENDIX: ATMANIRBHAR BHARAT

Background

Before Atmanirbhar Bharat Abhiyan was announced, Central Government had taken several measures to keep the economy afloat such as allocation of Pradhan Mantri Garib Kalyan Package. Also, RBI had taken various measures to ease the liquidity situation. Measures by both RBI and Government are accounted in the 20 lakh crore package.

For detailed coverage of PMGKY and RBI measures, please refer to VisionIAS March and April Current Affairs magazine.

Here we will look at various **sector-wise measures** announced as part of Atmanirbhar Bharat.

12.1. MEASURES TAKEN FOR HEALTH AND EDUCATION IN THE PACKAGE

Overview

Health and education play a critical role in human development. In the light of this, the package has taken several measures to minimize the damage and simultaneously initiate efforts for capacity building.

Reforms and Enablers announced for the Health Sector

Steps taken so far for COVID-19 containment
• Covid-19 Emergency Response and Health System Preparedness Package **of** Rs. 15 000 crore **for state governments and Union Territories. The money to be used to develop Covid-19 hospitals, buying personal protective equipment, setting up of laboratories, procurement of essential medical supplies, medicines and consumables for Covid-19 patients.**
• Leveraging Information Technology**: Rolling out of e-Sanjeevani Tele Consultation Services, capacity building through Virtual learning modules namely iGOT platform and Arogya Setu app for self-assessment and contact tracing.**
• Amendment to Epidemic Diseases Act **to protect Health Workers from public harassment.**
o **According to the amendment,** violence against health personnel is a cognizable and non-bailable offence **(It can cause the perpetrator up to 7 years in jail). Additionally, it has provisions to provide compensation for injury to healthcare service personnel or for causing damage or loss to the property.**
• **Ensuring adequate provision for** Personal Protective Equipment (PPE).
o **According to Government data** domestic manufacturers of PPE have risen from zero to more than 300 **and they have already supplied** 51 lakh PPEs, **87 lakh N 95 masks and 11.08 crore Hydroxychloroquine (HCQ) tablets.**
Other Health Reforms and Initiatives announced in this package
• Increased investments in Public Health**: Public Expenditure on Health will be increased including investments in grass root health institutions. For example, ramping up investment in Health and Wellness Centres in both rural and urban areas.**
• Preparing India for any future pandemics:
o Maintaining Infectious Diseases Hospital Blocks **in all districts of the country.**
o **Strengthening of** lab network and surveillance **by creating Integrated Public Health Labs in all districts along with block level Labs and Public Health Unit to manage pandemics.**
o **Encouraging projects like** National Institutional Platform for One health **by ICMR.**
o **Implementation of** National Digital Health Blueprint **for fulfilling National Digital Health Mission.**

Reforms and Enablers announced for Education System

Online Education systems operating during COVID-19
• 12 new SWAYAM PRABHA DTH channels **to be added (in addition to 3 channels that were already earmarked for school education) to support and reach those who do not have access to the internet.**
• **Government has also** tied-up with private DTH operators like Tata Sky, Airtel **etc. to air educational video content in order to enhance the reach among students.**
• DIKSHA platform **has had over** 61 crore hits **since 24th March.**
o **DIKSHA is envisaged as National Digital Infrastructure for Teachers. DIKSHA portal aids teachers to learn and train themselves. It helps teachers to create training content, profile, in-class resources, assessment aids, news and announcement and connect with teacher community.**
• 200 new textbooks **have been added to** e-Paathshaala.
o E-Paathshaala is a portal/app **developed by NCERT. It** hosts educational resources **including textbooks, audio, video, periodicals, and a variety of other print and non-print materials** for teachers, students, parents, researchers and educators.

Future plan for Technology Driven Education with Equity
- o PM eVIDYA: **A programme for multi-mode access to digital/online education is to be launched. Its constituents will be:**
    - ✓ DIKSHA portal for school education in states/UTs**: Digital content and QR coded Energized Textbooks for all grades (enabling the idea of** one nation, one digital platform).
    - ✓ One earmarked TV channel per class **from 1 to 12 (one class, one channel).**
    - ✓ **Encouraging extensive use of devices like** Radio, Community radio and Podcasts.
    - ✓ Special e-content **to be generated for** visual and hearing impaired students.
    - ✓ Top 100 universities **in the country will be permitted to automatically** start their online courses **by 30th May, 2020.**
- o Manodarpan**: It is an initiative for psychosocial support of teachers, students and their families with regard to their** mental health and emotional wellbeing **in these times.**
- o New National Curriculum and Pedagogical framework for school, early childhood and teachers **will be launched which will integrate the educational standards with global and 21st century skill requirements.**
- o National Foundational Literacy and Numeracy Mission **will be launched by December 2020 for ensuring that every child attains Learning levels and outcomes in grade 5 by 2025.**

12.2. MEASURES ANNOUNCED FOR MIGRANTS AND URBAN POOR

Overview

The Economic Package tries to ameliorate the hardships faced by poor in general and migrants in particular. This will be effected through measures like credit lines, direct benefit transfers among others. Major announcements are as follows-

One Nation One Ration Card Initiative	• **It aims at** creating technology systems **which will be used for** enabling Migrants **to access Public Distribution System (Ration) from** any Fair Price Shop in India **using the same ration card.**
	• More about the scheme:
	  o **The scheme is a** part of the PM's Technology Driven System Reforms.
	  o **It will have** 67 crore beneficiaries in 23 states **covering 83% of PDS population by August, 2020. Intra-State portability has already been introduced in 20 States.**
	  o **According to the scheme, all States/UTs will complete full Fair Price Shop automation (**100% National portability) by March, 2021.

Affordable Rental Housing Complexes (ARHC)	• It will be launched under the **Pradhan Mantri Awas Yojana (PMAY)** by converting government funded housing in the cities into ARHC **under PPP mode** through concession based arrangements. • It will help migrant workers and urban poor to live in cities by paying reasonable rents at these government complexes. • For this, government will incentivise manufacturing units, industries, institution associations central and state government agencies to develop and operate ARHC.
Special Credit Facility for Street Vendors (Allocation: Rs. 5,000 crore)	• The scheme aims to check the adverse impact on the livelihoods of the street vendors due to COVID-19 and facilitating easy access to formal credit for street vendors. • It will directly support nearly 50 lakh street vendors. • Under the scheme, initial working capital will be up to Rs. 10,000 and digital repayments of loans will be incentivized through monetary rewards.
Free Food grain Supply to Migrants for 2 months	• The aim is to **provide food grain assistance (5 kg of grains per person** and 1 kg Chana per family per month**) to migrants** who are not covered in any of the existing schemes such as NFSA or State schemes. • About **8 crore migrants are expected to benefit** from this scheme.
Measures in relation to Self-help groups (SHGs)	• **12,000 SHGs have produced 3 crore masks** and 1.20 lakh litres of sanitizers. This has given additional employment opportunity to the urban poor. • **Disbursal of Revolving Fund (RF)** to SHGs was on-boarded on **PAiSA Portal** on a pilot basis in Gujarat and is now being rolled out across all the States. o **Portal for Affordable Credit and Interest Subvention Access (PAiSA)**: It is a centralized electronic platform for processing interest subvention on bank loans to beneficiaries under Deendayal Antyodaya Yojana. • **7,200 new Self Help Groups of urban poor** have been formed since the outbreak.

Increase in allocation for MGNREGS	• Under the scheme, an **additional 40 thousand crore rupees** will be allocated for employment generation in the rural parts of the country that will help to generate nearly 300 crore person days to provide relief to the migrant workers. • It can also lead to creation of **large number of durable and livelihood assets** including water conservation assets which will indirectly boost the rural economy. • **Provision of MGNREGS support to returning Migrants (EXPENDITURE: Rs. 10,000 crore)** o Almost **40-50% more persons were enrolled** this year compared to May last year. Also, average wage rate has been raised to Rs. 202 from Rs. 182 in last FY.
State Disaster Response Fund	• Government of India has permitted State Governments to utilise State Disaster Response Fund (SDRF) for **setting up shelter for migrants and providing them food and water** etc.

12.3. MEASURES ANNOUNCED FOR RURAL DEVELOPMENT, AGRICULTURE AND ALLIED SECTORS

Overview

The package aims to mitigate the challenges faced by farmers through measures like direct assistance, opening credit lines etc. But simultaneously it also initiates structural reforms such as infrastructure development, encouraging Micro Food Enterprises etc. to make the sector more robust and resilient.

12.3.1. STEPS TAKEN SO FAR

Sector	Measures announced
Fiscal Support to farmers	• During the lockdown fiscal support was provided to farmers through **Minimum Support Price (MSP)**, Pradhan Mantri Kisan Samman Nidhi (**PM KISAN)** fund Transfer and **PM Fasal Bima Yojana.**
Liquidity Support to Farmers & Rural Economy	• NABARD has **provided refinancing worth Rs. 29,500 crore** to Cooperative Banks & Regional Rural Banks in March 2020. • **Support of Rs. 4,200 crore** will be provided under **Rural Infrastructure Development Fund (RIDF)** to States during March 2020 in order to build rural infrastructure. o Government of India created the RIDF in NABARD in 1995-96, with an initial corpus of Rs. 2,000 crore. The fund was created to finance activities that come under **Agriculture and related sector**, **Social sector** and **rural connectivity.**
Direct Support to Farmers & Rural Economy	• Provision of **3 months loan moratorium** given by Government. • **Interest Subvention and Prompt Repayment Incentive** on crop loans, due from 1st March had been extended to 31st May, 2020. o Under the scheme, banks were asked to provide an Interest Subvention of 2% and a Prompt Repayment Incentive of 3% on crop loans up to 3 lakhs. • About **25 lakh new Kisan Credit Cards (KCC)** have been sanctioned with a collective loan limit of Rs. 25,000 crore.

Animal Husbandry Sector	• Demand of Milk **reduced by 20-25%** which indirectly created a **supply glut.** For instance, 560 Lakh litre per day (LLPD) was procured by cooperatives against daily sale of 360 LLPD.
	 • To overcome this issue:
	    o A total **111 Crore Litres extra were procured** during the crises ensuring a payment of Rs 4100 Cr. to the producers.
	    o A new scheme has been launched to provide **interest subvention at 2% per annum** to **dairy cooperatives** for 2020-21

Fisheries Sector	• **Extension in validity** of various registrations and import permits. • **Increasing flexibility** in accessing **quarantine** facilities and providing time relaxation for additional procedural checks due to COVID-19.

12.3.2. SIGNIFICANT MEASURES ANNOUNCED IN THE PACKAGE

Measures to increase formal credit	
Emergency Working Capital for farmers through NABARD	• The primary aim of this scheme is to provide **adequate financial resources to Small and Marginal Farmers.** • Regional Rural Banks (RRBs) and Rural Cooperative banks are the main source of credit for them. To enable these institutions, **NABARD will extend additional refinance support of Rs. 30,000 crore** for meeting crop loan requirement of Rural Co-op Banks & RRBs.

	• The scheme will **benefit around 3 crore farmers**, mostly small and marginal in post-harvest rabi and current kharif crops.
Concessional credit through Kisan Credit Cards (Allocation: Rs. 2 lakh crore)	• It aims to **provide farmers access to institutional credit** at concessional interest rate. • **Special drive** will be undertaken to provide this **credit to PM-KISAN beneficiaries** through Kisan Credit Cards. • The **scheme will cover 2.5 crore farmers** including **fishermen and animal husbandry farmers**
Infrastructure, logistics and capacity building measures	
Agri Infrastructure Fund for farm-gate infrastructure (Allocation: Rs. 1 lakh crore)	• The fund would emphasize on development of **farm-gate & aggregation point infrastructure** and also affordable and financially viable **Post Harvest Management infrastructure.** • **Prevalent issues in agricultural infrastructure:** o Lack of adequate **cold chain & Post Harvest Management infrastructure** in the vicinity of farm-gate causing gaps in value chains. o Focus has been on short term crop loans while **investment in long term agriculture** infrastructure has often **not been enough.** o Currently, a farmer needs to travel 12 kms to reach the nearest mandi and more than 50 kms in NE India while according to the recommendations by National Farmers Commission, availability of markets should be within a 5 km radius. • **How creation of this fund could address above issues?** o Increased **investment** in the sector may result in creation of **shorter supply chains.** o In a shorter **supply chain**, logistics **costs dramatically come down**, providing a direct benefit to the investing farmer. Secondly, the supply chain becomes **more transparent and leaner**, thus minimising leakages and other associated risks. **What is farm-gate infrastructure?** It refers to infrastructure which is **accessed by the primary producers** of agricultural commodities e.g. temporary storage facility. In this case, it benefits Primary Agricultural Cooperative Societies, Farmers Producer Organisations and Agriculture entrepreneurs among others.
Scheme for Formalisation of Micro Food Enterprises (MFE) (allocation: Rs. 10,000 crore)	• The Scheme aims to **help almost 2 lakh MFEs** who are facing **multiple issues** like limited access to capital, lean workforce, vulnerability to sudden market changes, low-risk appetite and high dependency on supply chains. • **Other issues faced by MFEs:** o Unorganised MFEs units **need technical upgradation** to attain FSSAI food standards, build brands and market their products. o With the COVID-19 crisis, consumers have now become even more conscious of food quality and food safety. • **How the scheme aims to overcome these challenges?** o It will result in **improved health and safety standards**, better integration with retail markets, improved incomes for MFEs. o It will also help in reaching **untapped export markets.** o Such units would indirectly promote **vocal for local with global outreach** with a **cluster-based approach.** Produce such as Makhana in Bihar, Mango in UP, Kesar in J&K etc. will get support for the domestic and global market. **About MFEs** • MFEs refer to food based organizations which lie in the micro category of MSME definition. For example, Farmer Producer Organisations, Self Help Groups and Cooperatives. • It is seen that as high as **70-80 percent of the start-ups/FPO's succumb** market distortions during the first two years of their existence.
From 'TOP' to TOTAL (Allocation: Rs. 500 crores)	• **Operation Greens** which was earlier limited to **Tomatoes, Onion and Potatoes (TOP)** will be expanded to **All fruits and vegetables (TOTAL).** o Operation Greens is a project which aims to **stabilise the supply of TOP crops in India**, as well as to ensure their availability around the country, year-round **without price volatility.** • **Scheme will have following features:** o **50% subsidy on transportation** from surplus to deficient markets. o **50% subsidy on storage**, including cold storages. o The scheme will be implemented as a **pilot for 6 months**, post that it will be expanded and extended.

	• **Expectations from the scheme:**
	  o **Rekindle the disrupted supply chains** and as a result address the dormancy of the agricultural markets post COVID-19.
	  o **Preventing distress sale** and reduction of price of perishable fruits and vegetables at the farm level.
	  o In the long term, it may lead to **better price realisation** to farmers, **reduced wastages** and **increased affordability of products** for consumers.

Pradhan Mantri Matsya Sampada Yojana (PMMSY) (Allocation: Rs. 20,000 crore)	• The scheme aims to **bring about Blue Revolution** through sustainable and responsible development of fisheries sector in India.
	  o **Rs 11,000 Crore** has been allocated for activities in **Marine, Inland fisheries and Aquaculture** whereas **Rs. 9000 Crore** for **Infrastructure** - Fishing Harbours, Cold chain etc.
	• **Objectives of PMMSY:**
	  o **Enhancing fish production** from 137.58 lakh metric tons (2018-19) to **220 lakh metric tons by 2024-25.**
	  o Sustained average annual **growth of about 9%** in fish production.
	  o An **increase in the contribution of GVA** of fisheries sector to the Agriculture GVA from 7.28% in 2018-19 to **about 9% by 2024-25.**
	  o **Double export earnings** to about Rs. 1,00,000 crore by 2024-25.
	  o **Enhancing productivity in aquaculture** from the present national average of 3 tonnes to **about 5 tonnes per hectare.**
	  o **Reduction of post-harvest losses** from the reported 20-25% **to about 10%.**
	  o Enhancement of the **domestic fish consumption** from about 5-6 kg **to about 12 kg per capita.**
	  o **Generate about 55 lakhs direct and indirect employment** opportunities in the fisheries sector along the supply and value chain.
	  o **Intended Beneficiaries of the scheme**: Fishers, Fish farmers, Fish workers, Fish vendors, SCs/STs/Women/Differently abled persons, Fisheries cooperatives/Federations, FFPOs, Fisheries Development corporations, Self Help Groups (SHGs)/Joint Liability Groups (JLGs) and Individual Entrepreneurs.
	• **Implementation strategy of the scheme:**
	  o The PMMSY will be implemented as an **umbrella scheme** with two separate Components namely **(a) Central Sector Scheme** (CS) and **(b) Centrally Sponsored Scheme (CSS).**
	  o **'Cluster or area-based approach'** would be followed with requisite forward and backward linkages and end to end solutions.
	  o Thrust will be given for **infusing new and emerging technologies** like Re-circulatory Aquaculture Systems, Biofloc, etc. to enhance production and productivity, quality, productive utilization of waste lands and water for Aquaculture.
	  o Activities like Mariculture, Seaweed cultivation and Ornamental Fisheries having potential to **generate huge employment** will be promoted.
	  o Focused attention would be given for **fisheries development in Jammu and Kashmir, Ladakh, Islands, Northeast, and Aspirational Districts** through area specific development plans.
	  o **Collectivization of fishers and fish farmers** through Fish Farmer Producer Organizations (FFPOs) to increase bargaining power of fishers and fish farmers.
	  o **Insurance coverage for fishing vessels** has been **introduced for the first time**. Annual Livelihood support for fishers during ban/lean period would be provided.
	  o **Private sector participation**, development of entrepreneurship, business models, promotion of ease of doing business, innovations and innovative project activities including start-ups, incubators etc. in fisheries sector.

Governance and Administrative Reforms	

Amendments to Essential Commodities Act, 1955 (ECA, 1955)	• The Government will amend ECA with primary aim to **enable better price realisation for farmers and attract investment in agriculture.**
	• Following amendments have been approved by the Union Cabinet-
	  o Agriculture food stuffs including **cereals, edible oils, oilseeds, pulses, onions and potato** to be removed from ambit of EC Act and thus deregulated.
	  o **Stock limits will not be imposed on these commodities** except in case of national calamity or famine or an extraordinary surge in prices. However, these limits will not apply to processors or value chain participant or any exporter subject to the export demand.

Agriculture Marketing Reforms	• **Current Scenario:** As of now, farmers are **bound to sell their agricultural produce only to Licensees in APMCs** as per the APMC Act. This creates **hindrances in free flow** of Agricultural Produce and Fragmentation of Markets and Supply Chain and consequently **less price realization for farmers.**
	• A Central law will be formulated to provide – ○ Adequate choices to farmer to sell produce at attractive price; ○ Barrier free Inter-State Trade; ○ Framework for e-trading of agriculture produce. • Indirectly, the law will also provide a **legal framework** for facilitation of **contract farming.**
Agriculture Produce Price and Quality Assurance	• A **facilitative legal framework** is to be created to enable farmers for engaging with processors, aggregators, large retailers, exporters etc. in a fair and transparent manner. • **Risk mitigation** for farmers, **assured returns and quality standardisation** are envisaged to be an integral part of the framework. • **Need for this such a framework:** Generally, farmers **don't have an enforceable standard mechanism** to ensure predictability in the prices of commodities before sowing. ○ **Private sector investment** in provision of inputs and contribution of their scientific knowhow in the agriculture sector is **hindered** due to absence of a clear framework.

12.3.3 OTHER INITIATIVES ANNOUNCED IN THE PACKAGE

National Animal Disease Control Programme	• **It was launched for** Foot and Mouth Disease (FMD) **and** Brucellosis. • **More about the Programme:** ○ **It ensures** 100% vaccination of cattle, buffalo, sheep, goat and pig population **(total 53 crore animals) for aforesaid diseases.** ○ **Till date, about** 1.5 crore cows & buffaloes **have been vaccinated and tagged.**
Animal Husbandry Infrastructure Development Fund	• The fund aims to **support private investment** in **Dairy Processing**, **agricultural value addition** and **cattle feed infrastructure**. • Under the scheme, incentives will also be given for **establishing plants for export of niche products** within the animal husbandry sector.
Beekeeping initiatives	• Beekeeping is a livelihood supporting activity for rural areas. It **increases yield & quality of crops** through **pollination** and also **provides honey** and other beehive products like wax. • To support beekeeping **government aims to launch** a scheme with following objectives: ○ **Infrastructure development** related to Integrated Beekeeping Development Centres, Collection, Marketing and Storage Centres, Post-Harvest & value Addition facilities etc. ○ **Implementation of production standards** and developing a corresponding traceability system. ○ Capacity building of the sector with **special thrust on women farmers.** • This scheme may lead to **increase in income for almost 2 lakh beekeepers** and **provision of quality honey** to consumers.
Promotion of Herbal Cultivation	• Government envisages to cover 10,00,000 hectares of land under Herbal cultivation in next two years with outlay of Rs. 4000 crore. • Other steps for promoting herbal cultivation: ○ **National Medicinal Plants Board (NMPB)** has supported **2.25 lac hectare area** under cultivation of medicinal plants. ○ NMPB will bring 800 hectares area under herbal cultivation by developing a **corridor of medicinal plants along the banks of Ganga.** ○ NMPB also aims at creation of a **network of regional Mandis for Medicinal Plants.**

12.4. INDUSTRIAL SECTORAL REFORMS ANNOUNCED IN THE PACKAGE

Overview

Policy and structural Reforms have been announced For Fast-Track Investments and upgrading infrastructure to boost growth and create jobs in the country.

Sectors	Measures Taken

Coal	• **Introduction of Commercial Mining in Coal Sector**
	  o The objective is to **reduce the import of substitutable coal** and **increase self-reliance in production of coal.**
	  o This objective can be achieved by **introducing competition**, **bringing transparency** and **increasing private sector participation**. To achieve these, government has envisaged following reforms:
	    ✓ Changing **partnership pattern** with private sector to **revenue sharing mechanism** from the regime of fixed Rupee/tonne.
	      > Earlier, only captive consumers with end use ownership could bid for a coal block. Post these reforms, **any party can bid for a coal block and sell in the open market.**
	    ✓ **Entry Norms** for the sector will be **liberalized** and nearly 50 blocks will be offered immediately to all participants. Also, there will be **no eligibility conditions for new entrants**, only an upfront payment with a ceiling.
	    ✓ Opening of an **Exploration-cum-production regime for partially explored blocks:**
	      > Earlier only auction of fully explored coal blocks was permitted, post reforms even **partially explored blocks will be auctioned.**
	      > **Private sector participation in exploration** has also been allowed.
	• **Diversified Opportunities in Coal Sector (Investment: Rs. 50,000 crore)**
	  o **Coal Gasification/Liquefaction will be incentivised** through rebate in revenue share.
	    ▪ This will result in **significantly lower environment impact** as gasified and liquefied coals are cleaner fuels compared to coal and will also assist India in **switching to a gas based economy.**
	  o **Investment of Rs. 50,000 crore in Infrastructure development** to achieve the enhanced Coal India Limited (CIL)'s **target of 1 billion tonnes coal production by 2023-24** in a sustainable manner.
	• **Liberalization of Coal Sector**
	  o **Coal Bed Methane (CBM) extraction rights** will be **auctioned from Coal India Limited's (CIL)** coal mines.
	  o Ease of doing business measures, such as Mining Plan simplification, will be taken. e.g. to allow for automatic 40% increase in annual production.
	• **Concessions in commercial terms** given to CIL's consumers
	  o **Reserve price in auctions for non-power consumers has been reduced**, credit terms have been eased, and lifting period has been enhanced.
	    ✓ The **reserve price** is the lowest **price** at which a seller is willing to sell an item. If at the close of **auction**, the bidders have not met the **reserve price**, the seller is not obligated to sell.

Mineral	• **Enhancing Private Investments** in the Mineral Sector by:
	  o Introduction of a **seamless composite exploration-cum-mining-cum-production regime.**
	  o **500 new mining blocks** would be offered through an open and transparent auction process.
	  o Introduction of a **new mechanism for joint auction of Bauxite and Coal** mineral blocks to enhance competitiveness of Aluminium Industry. This will help aluminium industry in reduction of electricity costs.
	• Other Policy Reforms:
	  o **Removal of distinction between captive and non-captive mines** to allow transfer of mining leases and sale of surplus unused minerals. This will lead to improved efficiency in both mining and production.
	  o Ministry of Mines is in the process of developing a **new Mineral Index** for different minerals.
	  o **Rationalisation of stamp duty** payable at the time of award of mining leases.

Civil Aviation	• **Efficient Airspace Management**
	  o The primary aim of this reform is to **Reduce Flying cost.**
	  o Currently, only **60% of the Indian airspace is freely available. Now, restrictions on utilisation of the Indian Air Space will be eased** so that civilian passenger flying becomes more efficient and affordable.
	  o Possible benefits from the reform:
	    ✓ It will bring about a **total benefit of about Rs 1000 crores per year** for the aviation sector.
	    ✓ It will lead to **optimal utilization of airspace,** reduction in fuel use, reduction in time etc. along with Positive environmental impact.
	• **Airports**
	  o The reform aims at creating **more World class Airports in India** through PPP mode.

	- Following efforts have been taken in this regard: ✓ AAI has awarded bidding of 3 airports out of 6 for **Operation and Maintenance on Public Private Partnership (PPP) basis.** ✓ **Six more airports** have been identified for 2nd and 3rd round of bidding process each. **Maintenance, Repair and Overhaul (MRO)** - India aims to become a **global hub for Aircraft MRO operations.** - To enable this, **tax regime for MRO ecosystem** in India has been **rationalized** and also **convergence between defence sector and the civil MROs will be established to create economies of scale.** **Potential benefits** accruing from this: ✓ **Aircraft component repairs and airframe maintenance industry** is to increase from Rs 800 crores to Rs 2000 crores in next three years, thus increasing business in the sector. ✓ **Major engine manufacturers in the world** would be encouraged to set up engine repair facilities in India. ✓ **Maintenance cost** for both domestic and foreign airlines will **come down substantially.**
Housing	**Extension of Registration and Completion Date of Real Estate Projects under RERA** - The primary objective of this measure is to **de stress real estate developers** and **ensure timely completion of projects**, keeping the ultimate consumer in mind. - To ensure this, the Ministry of Housing and Urban Affairs will advise States/UTs and their Regulatory Authorities to the following effect: ✓ Treating COVID-19 as an **event of Force Majeure** by Real Estate Regulatory Authority (RERA). ✓ Issuance of **fresh 'Project Registration Certificates'** should automatically be done with **revised timelines**. ✓ Provide **Extension of timelines** for various statuary compliances under RERA concurrently. <blockquote>Force majeure is a **common clause in contracts that essentially frees both parties** from liability or obligation when an extraordinary event or circumstance beyond the control of the parties, such as a war, strike, riot, crime or epidemic occurs.</blockquote> **Boost to housing sector in middle income group** - Government will **extend the Credit Linked Subsidy Scheme (CLSS) up to March 2021**. **Potential benefits of the scheme**: - Close to **2.5 lakhs middle income families will benefit** from the scheme during 2020-21. - This will lead to an **investment of over Rs. 70,000 Crores** in housing, indirectly help in **job creation** and stimulate demand for steel, cement, transport and other construction materials. <blockquote> **Credit Linked Subsidy Scheme (CLSS)** is a component of PMAY under which, not only economically weaker sections, but also middle-income groups can avail of home loans at reduced EMIs. - CLSS for Middle Income Group (Annual Income: Rs. 6–18 lakhs) was operationalized from May 2017. - Scheme has benefitted almost 3.3 lakh middle class families till date. </blockquote>
DISCOMs	**Liquidity Infusion for Power Distribution Companies (DISCOMs) (Allocation: Rs. 90,000 crore)** - This infusion will be done by Power Finance Corporation/Rural Electrification Corporation. **Issues faced by DISCOMS:** ✓ DISCOMs are **facing unprecedented cash flow problem** accentuated by demand reduction and as a result revenue of DISCOMs have plummeted. ✓ **DISCOM payables to Power Generation and Transmission Companies is** currently approximately **Rs. 94,000 crore.** **Other features of the scheme:** ✓ **Loans under the scheme** are to be **given against State guarantees** for exclusive purpose of discharging liabilities of DISCOMs to Power Generation and Transmission Companies. ✓ **Central Public Sector Generation Companies shall give rebate** to DISCOMs which shall be passed on to the final consumers (industries). ✓ **Reforms proposed**: A **digital payments facility** by DISCOMs for consumers, liquidation of outstanding dues of State Governments and a Plan to reduce financial and operational losses. **Policy Reforms Recommended for Power Distribution Companies (DISCOMs)** **Tariff Policy** laying out the following reforms will be released: ✓ **Protecting Consumer Rights** by stating of Standards of Service and associated penalties for DISCOMs. ✓ **Promoting Industry** by progressive reduction in cross subsidization of commercial and residential supply and time bound grant of open access to the grid.

		✓ **Ensuring sustainability of the sector** by ensuring that there are minimal Regulatory Assets, timely payment to Power Generating Companies and installation of Smart prepaid meters.
		o **Privatization of Distribution in Union Territories (UTs)**
		    ✓ This will lead to **better service for consumers** and improvement in **operational and financial efficiency** of Distribution.
		    ✓ Also, this could provide a **model for emulation by other Utilities** across the country.

Banking		• **Special Liquidity Scheme for NBFCs/HFCs/MFIs (Allocation: Rs. 30,000 crore)**
		o Under this scheme **investment will be made in both primary and secondary market transactions** in investment grade debt paper of Non-banking Financial Corporations (NBFCs)/Housing Finance Corporations (HFCs)/Micro-finance Institutions (MFIs).
		o This will provide **liquidity support for NBFCs/HFC/MFIs** and mutual funds and create confidence in the market.
		o **Securities** generated under the scheme will be **fully guaranteed** by Government of India.
		• **Partial Credit Guarantee Scheme (PCGS) 2.0 for NBFCs (Allocation: Rs. 45,000 crore)**
		o The government had **launched the PCGS** for public sector banks (PSBs) (**in 2019**) to purchase high-rated pooled assets from financially sound NBFCs and HFCs.
		o **Need for PCGS 2.0**: NBFCs, HFCs and MFIs with **low credit rating require liquidity** to do fresh lending to MSMEs and individuals.
		o **Operational details of PCGS 2.0:**
		    ✓ The existing **PCGS scheme is to be extended** to **cover borrowings** such as primary issuance of Bonds/ Commercial Papers (liability side of balance sheets) of such entities.
		    ✓ **The first 20% of loss** on default will be **borne by the Guarantor** i.e. Government of India.
		    ✓ **AA rated commercial paper and below** including unrated commercial paper will be eligible for investment (which is especially relevant for many MFIs).

12.4.2. POLICY REFORMS ANNOUNCED FOR OTHER SECTORS

Social Infrastructure	• Boosting private sector investment **in Social Infrastructure through revamped Viability Gap Funding (VGF) Scheme.** • **Under it government will** enhance the quantum of VGF to upto 30% **each by Centre and State/Statutory Bodies of the Total Project Cost.** • **Projects to be proposed under the scheme will be by Central Ministries, State Government and Statutory entities**

Defence Production	• **Enhancing Self Reliance in Defence Production**
	o 'Make in India' could be used for increasing Self Reliance in Defence Production in following ways:
	    ✓ By **notifying a list of weapons/platforms to be banned for import**, with pre-planned year wise timelines.
	    ✓ Focussing on **indigenisation of spare parts** which are imported.
	    ✓ **Separate budget** provisioning for domestic capital procurement.
	    ✓ Improvement in **autonomy, accountability and efficiency in Ordnance Supplies** has been envisaged by Corporatisation of Ordnance Factory Board.
	• Other Policy Reforms
	o **Foreign Direct Investment (FDI) limit** in the defence manufacturing sub-sectors under automatic route has been **raised from 49% to 74%.**
	o Time bound defence procurement process and faster decision making will be ushered in by:
	    ✓ Setting up of a **Project Management Unit (PMU)** to support contract management.
	    ✓ More realistic setting of **General Staff Qualitative Requirements (GSQRs)** for weapons/platforms.
	    ✓ **Overhauling of Trial and Testing procedures** to make them more robust.

Space Activities	• **Boosting private sector participation** in Space activities by: o Provide **level playing field** for private companies in satellites services, launches and other space based services. o Provide a **predictable policy and regulatory environment** to private players. o **Allow Private sector players to use ISRO facilities** and relevant assets to improve their capacities. o **Open Future projects** for planetary exploration, outer space travel etc. to private sector. o Provide a **liberal geo-spatial data policy** for providing remote sensing data to tech entrepreneurs.

Atomic Energy	- Establishing a research reactor in PPP mode for **production of medical isotopes** in order to promote welfare of humanity through affordable treatment for cancer and other diseases. - Establishing facilities in PPP mode to use **irradiation technology** for food preservation to compliment agricultural reforms and assist farmers. - Link India's robust start-up ecosystem to nuclear sector - '**Technology Development cum Incubation Centres'** will be set up for fostering synergy between research facilities and tech entrepreneurs emerging from new start-up ecosystem.

12.5. MEASURES ANNOUNCED FOR BUSINESSES IN GENERAL (INCLUDING MSMES)

Overview

The package tries to increase liquidity among businesses by measures like collateral free loans and simultaneously pushes for long overdue economic reforms like increasing the Ease of doing business.

12.5.1. SIGNIFICANT MEASURES ANNOUNCED

Collateral free Automatic Loans for Businesses, including MSMEs (allocation: Rs. 3 lakh crore)	**Businesses/MSMEs have been badly hit due to COVID 19. As a result, businesses need** additional funding to meet operational liabilities **built up, buy raw material and restart business.** **To provide** working capital to these businesses**,** Emergency Credit Line **has been created for Businesses/MSMEs from banks and NBFCs up to 20% of entire outstanding credit as on 29.2.2020.** 100% credit guarantee cover **will be provided to Banks and NBFCs on both principal amount and interest payable.** **The scheme is estimated to** aid in resumption of almost 45 lakh units.
Measures relating to Employee's Provident Fund (EPF)	
EPF Support for Business & Workers for 3 more months	- Under **Pradhan Mantri Garib Kalyan Package (PMGKP)** payment of 12% of employer and 12% employee contributions has been made into EPF accounts of eligible establishments. This was provided for salary months of March, April and May 2020. - The measure increases this support by another 3 months to salary months of June, July and August 2020. - This is estimated to provide liquidity relief of Rs. 2,500 crore to about 3.67 lakh establishments and for 72.22 lakh employees.
EPF contribution reduced for Business & Workers for 3 months (allocation: Rs. 6,750 crore)	- The primary aim of the scheme is to **provide Liquidity Support to businesses and workers** who are **not eligible for EPF support under PMGKP** and its extension. **Under it:** - Statutory PF contribution of both employer and employee will be reduced to 10% each from existing 12% each for all establishments covered by EPFO for June, July and August 2020. - CPSEs and State PSUs will however continue to contribute 12% as employer contribution. **Potential benefits:** - It will lead to **increased take home salary** to employees and also to give relief to employers in payment of Provident Fund dues, consequently, lead to increased liquidity. - This is estimated to provide liquidity of Rs 6750 Crore to about 6**.5 lakh establishments** covered under EPFO and about **4.3 crore employees** working under them.

12.5.2. REFORMS AND ENABLERS ANNOUNCED FOR EASE OF DOING BUSINESS

Sub-sector	Specific reforms and Enablers
Reforming Governance	- Sustained measures taken have resulted in steady improvement in India's position in the **World Bank's Ease of Doing Business Report (from 142 in 2014 to 63 in 2019).** - These measures include streamlining of processes such as **granting of permits and clearance**, **self-certification** and **third party certification** among others.

	• Also, Improvement in **India's rankings in 'starting a business'** and **'insolvency resolution'** have contributed to the overall improvement in its ranking.
	• Government is working in mission mode towards the **next phase of Ease of Doing Business**.
	○ It includes **easy registration of property**, **faster disposal of commercial disputes** and a **simpler tax regime**.
Corporate Law measures	• As part of decriminalization of Company Law defaults in 2018, **16 compoundable offences such as** shortcomings in CSR reporting, inadequacies in board report, filing defaults, delay in holding Annual General Meeting (AGM) **have been decriminalised.**
	• Adoption of an Integrated Web based Incorporation Form namely **Simplified Proforma for Incorporating Company Electronically Plus (SPICe+)** which extends 10 services of different Ministries and one State Government service through a single form.
	• A **Databank of Independent Directors** has been launched along with **rationalization of provisions regarding Related Party Transactions (RPTs).**
Insolvency and Bankruptcy Code (IBC) related measures	• Minimum **threshold to initiate insolvency proceedings has been raised** to Rs. 1 crore (from Rs. 1 lakh, which indirectly insulates MSMEs). • **Special insolvency resolution framework** for MSMEs under Section 240A of the Code to be notified soon. • Accounting the distress created by COVID-19, **fresh initiation of insolvency proceedings** up to one year **has been suspended** depending upon the pandemic situation. • Central Government has been empowered to **exclude COVID-19 related debt from the definition of "default"** under the Code for the purpose of triggering insolvency proceedings.	**Performance of IBC up till this point** • In the 221 resolved cases, **44% recovery has been achieved** since inception of IBC, 2016. • **About 13,566 cases involving a total amount of Rs. 5.01 lakh crores have been withdrawn** before admission under provisions of IBC as of Feb 2020. This indicates how IBC has been encouraging settlements.
Other measures	• **Direct listing of securities** by Indian public companies has been made permissible in **foreign jurisdictions.**
	• **Private companies** which list **Non-convertible Debentures (NCDs)** on stock exchanges will **not be regarded as listed companies.** This will indirectly ease the compliance issues faced by private firms when classified as listed companies.
	○ NCDs are a **debt instrument** with a **fixed tenure** and people who invest in these receive **regular interest at a certain rate.**
	• Including the **provisions of Part IXA (Producer Companies)** of Companies Act, 1956 in Companies Act, 2013.
	○ This will **allow primary producers to organise themselves** to gain a maximum profit from the market oriented economy.
	• **Penalties have been lowered** with regard to all defaults for Small Companies, One person Companies, Producer Companies and Start Ups.

12.6. MEASURES ANNOUNCED EXCLUSIVELY FOR MSME SECTOR

Overview

The MSME sector has been **disproportionately affected by the pandemic due to its informal nature**. In the light of this, various measures have been taken **to increase liquidity** and provide **long term reforms** like revised definition of MSMEs.

12.6.1. SIGNIFICANT MEASURES ANNOUNCED

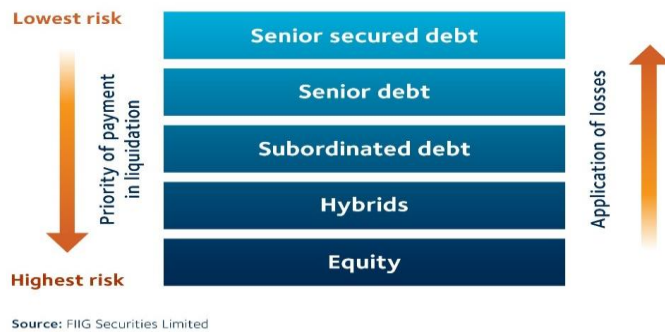|	
Subordinate Debt for Stressed MSMEs (Allocation: Rs. 20,000 crore)	• **This scheme aims to support to stressed** MSMEs which have Non-Performing Assets (NPAs). • **Under the scheme,** promoters of MSMEs will be given debt from banks**, which will be infused into the MSMEs as equity.** • **The government will facilitate Rs 20,000 crore of subordinate debt to MSMEs. For this purpose, it will provide** Rs 4,000 crore to the Credit Guarantee Fund Trust for Micro and Small Enterprises**, which will provide partial credit guarantee support to banks providing credit under the scheme.** • **Close to** two lakh MSMEs **are likely to benefit from this scheme.**

|		
	About CGTMSE Government of India launched **Credit Guarantee Scheme (CGS)** to strengthen credit delivery system and facilitate flow of credit to the MSE sector. To **operationalize this scheme**, Government of India and SIDBI set up the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE).	
	What is Subordinate debt? Capital distribution of any entity can be broadly divided in 5 categories as shown in the image. In the case of liquidation of the entity, subordinated debt is the loan that's paid after all other corporate debts and loans are repaid. **Lowest risk** Senior secured debt Senior debt Subordinated debt Hybrids Equity **Highest risk** Priority of payment in liquidation	Application of losses Source: FIIG Securities Limited	

Equity infusion for MSMEs through Fund of Funds (Allocation: Rs. 50,000 crore)	• The scheme aims to create a **fund of funds** with a **corpus of Rs. 10,000 crore** for long-term equity infusion in MSMEs.
	• **Operational Mechanism:**
	  o The Fund of Funds will be operated through **a Mother Fund and few daughter funds.**
	  o This fund structure will help **leverage Rs. 50,000 crore of funds** at daughter funds level.
	• The scheme will help to **expand MSME size as well as capacity and** it may also encourage MSMEs to **get listed on Stock Exchanges.**
		Daughter Fund 1
		Mother Fund
		Daughter Fund 3 Daughter Fund 2
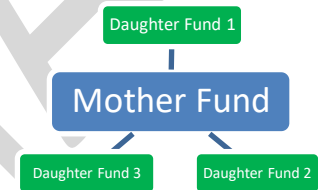
Revised Definition of MSMEs	• **Need for change in definition:** There has been a long-pending demand for revisions **as** low threshold in MSME definition have **created a fear among MSMEs of graduating out of the benefits** given to the sector and hence killing the urge to grow.
	• **Changes announced in the definition**:
	  o Introduction of **additional criteria of turnover.**
	  o **Distinction** between **manufacturing and service** sector to be **eliminated.**	

Change in the definition of MSME

Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	**Micro**	**Small**	**Medium**
Mfg. Enterprises	Investment<Rs. 25 lac	Investment<Rs. 5 cr.	Investment <Rs. 10 cr.
Services Enterprise	Investment<Rs. 10 lac	Investment< Rs. 2 cr.	Investment<Rs. 5 cr.

Revised MSME Classification			
Composite Criteria : Investment And Annual Turnover			
Classification	**Micro**	**Small**	**Medium**
Manufacturing & Services	Investment< Rs. 1 cr. and Turnover < Rs.5 cr.	Investment< Rs. 10 cr. and Turnover < Rs.50 cr.	Investment< Rs.50 cr. and Turnover < Rs. 250 Cr.

Global tenders to be disallowed up to Rs. 200 crores	• The idea behind this move is to **protect Indian MSMEs from foreign competition**. o This will be a step towards Self Reliant India and will directly support Make in India initiative and will also help MSMEs to increase their business in the long term and help them grow.
Relief to Contractors	• **Extension of up to 6 months** (without costs to contractor) by all Central Agencies (like Railways, Ministry of Road Transport & Highways and Central PWD).

	• **Coverage under the package**: Construction works, goods and services contracts, obligations like completion of work, intermediate milestones etc.
Use of Fintech	• **Use of Fintech is being encouraged** to enhance transaction based lending using the data generated by the e-marketplace. ○ Fintech refers to computer programs and other technology used to support or enable banking and financial services.
E-market linkage	• **E-market linkage for MSMEs** to be promoted to act as a replacement for trade fairs and exhibitions.
Interest Subvention for MUDRA-Shishu Loans	• The scheme addresses the **issue of Small businesses under MUDRA** which have been disrupted and whose **capacity to pay their EMIs has been depleted.** ○ The current portfolio of **MUDRA-Shishu loans is approximately Rs 1.62 Lakh crore** (Maximum loan amount of being Rs. 50,000). • To address this, Government of India will provide **Interest subvention of 2% for prompt payees** of loans for a period of 12 months.

12.7. GENERAL POLICY REFORMS ANNOUNCED AS PART OF THE ECONOMIC PACKAGE

12.7.1. SIGNIFICANT MEASURES ANNOUNCED

Support provided to State Governments
- **Centre has extended fiscal support to states in the form of devolution of taxes, revenue deficit grants, advance release of SDRF and amount released from Health Ministry for direct anti COVID-19 activities.**
- Increase in borrowing limits: **The borrowing limits of state governments will be** increased to 5% **of Gross State Domestic Product (GSDP)** from 3% **(prescribed in Fiscal Responsibility and Budget Management (FRBM) Act) for the year 2020-21.**
  - **This is estimated to give states** extra resources of Rs 4.28 lakh crore**.**
  - **There will be** unconditional increase of up to 3.5% of GSDP **followed by 0.25% increase linked to reforms on -** universalisation of 'One Nation One Ration card', Ease of Doing Business, power distribution and Urban Local Body revenues**.**
  - **Further, there will be an increase of 0.5% if three out of four reforms are achieved.**

> **Requirements of Conditional transfer**
> - **One nation one ration card:** Aadhaar seeding of all ration cards and installation of Point-of-sale machine in all fair price shops.
> - **Ease of Doing Business (EoDB):** District-level assessment of EoDB as per DPIIT norms, automatic renewal of State industrial and commercial licenses to businesses and making inspections randomized with prior notice and full transparency.
> - **Power Sector:** Reduce Aggregate Technical & Commercial (ATC) losses, Reduce Average Cost of Supply (ACS)-Average Revenue Realized (ARR) gap and provide power subsidy to farmers through DBT.
> - **Urban local bodies:** Notification of property tax floor rates in consonance with circle property rates and notification of water and sewerage charges.

Taxation measures announced to ease the liquidity situation
- Tax Deducted at Source (TDS)/ Tax Collected at Source (TCS) rate reduction
  - **This measure aims to** increase liquidity (estimated at Rs. 50,000 crore) **by indirectly increasing the in-hand income.**
  - Implementation methodology:
    - ✓ **The rates of TDS (for non-salaried specified payments made to residents) and rates of TCS (for the specified receipts) shall be** reduced by 25% of the existing rates.
    - ✓ **This reduction shall be** applicable for the remaining part of the FY 2020-21 i.e. upto **31st March, 2021.**
- Other Direct Tax Measures
  - All pending refunds to charitable trusts and non-corporate businesses **professions including proprietorship, partnership, LLP and Cooperatives shall be issued immediately.**
  - **Due date of all income-tax return for FY 2019-20 were also extended.**
  - Period of **Vivad se Vishwas Scheme** for making payment without additional amount over and above the stipulated tax will b**e** extended **to 31st December, 2020.**

> **TDS vs. TCS**
> - **TDS** refers to **deduction of tax by the payer.** E.g. Employer cutting a certain amount as TDS before making salary payment and then paying it to the Income Tax (IT) department. TDS deductions are made on payments including salary, rent, brokerage, professional fees, commission, interest etc. and are applicable on payments above a specified limit.
> - On the other hand, **TCS** refers to the **tax collected by payee** or receiver. E.g. A jeweller selling jewellery would collect TCS and pay it to the IT department. It is applicable on sale of certain goods (barring those used for manufacturing or production).

12.7.2. OTHER POLICY MEASURES

Public Sector Enterprise Policy for a New, Self-reliant India	• **Need for a** new coherent policy **was felt where** all sectors are open to the private sector **while public sector enterprises (**PSEs) will play an important role only in limited and defined areas.
	• **Accordingly, government will announce a new policy whereby:**
	  ○ List of strategic sectors **requiring presence of PSEs in public interest will be notified.**
	  ○ In strategic sectors, at least one PSE will remain **in the public sector, but private sector will also be allowed.**
	  ○ In other sectors, PSEs will be privatized **based on considerations like appropriate timing, feasibility etc.**
	  ○ **To minimize wasteful administrative costs,** number of enterprises in strategic sectors will ordinarily be only one to four**. Additional enterprises will be privatized/merged/brought under other holding companies.**

Policy Reforms to fast track Investment	• **Fast track Investment Clearance** will be provided to projects through **Empowered Group of Secretaries (EGoS).** ○ Prime Minister has created **11 empowered groups as quick response teams** to tackle coronavirus outbreak. • Creation of **Project Development Cell in each Ministry** to prepare investible projects, coordinate with investors and also with Central/State Governments. • **Ranking of States on Investment Attractiveness**, thus creating healthy competition for new investments. • **Incentive schemes for Promotion of New Champion Sectors** will be launched in sectors such as Solar PV manufacturing, advanced cell battery storage etc.

Upgradation of Industrial Infrastructure	• A scheme will be **implemented in States** (through Challenge mode) to effect **Industrial Cluster Upgradation of common infrastructure** facilities including connectivity.
	• Increasing availability of **Industrial Land/ Land Bank** for promoting new investments.
	• **Making information** relevant to industries **available** on the **Industrial Information System (IIS)** along with accurate GIS mapping.
	  ○ 3376 industrial parks/estates/SEZs in 5 lakh hectares mapped on Industrial Information System (IIS).
	  ○ All industrial parks will be ranked in 2020-21.