MONTHLY

EPIC!

AN EXCLUSIVE CURRENT AFFAIRS MAGAZINE FOR

PRELIMS + MAINS

PREPARATION

MAY 2020

COVER LETTER

Dear Aspirants,

Since our inception, we have focused on our passionate pursuit of simplifying the preparations of Civil Services Examination. Through our various initiatives, we have successfully crafted success stories of our students. One of the challenges aspirants face is to comprehensively connect the analytical and factual aspect of current affairs. In order to address this concern, we are proud to introduce our monthly current affairs magazine – EPIC.

The magazine aims to integrate the analytical issues related to mains along with the factual information required for prelims to comprehensively cover current affairs of every month. The magazine consists of two sections

1. **Mains Articles** - This section will cover comprehensive analysis of important issues of the month.

> a. The articles will be sourced from editorials appearing in three different newspapers i.e. The Hindu, Indian Express and the Live Mint.
>
> b. The articles will include important and relevant issues from Yojana, Kurukshetra, EPW and Down to Earth.
>
> c. Every issue will have relevant examples, data, graphs and case studies which will add value to your mains examination.

2. **Factly Articles** – This section will cover the factual information purely from preliminary examination point of view.

Therefore, this magazine provides a 'one-stop centre' to cover current affairs for the preparation of Civil Services examination. It will not just save precious time of aspirants but also provide value addition to their preparation.

Study Smart. Be EPIC!

Happy Learning!

Your Sincerely,

Editorial Team

ForumIAS

We would love to hear feedback and suggestions on the magazine. Please share them on feedback@forumias.academy.

In case, you find any discrepancy in the content, you can point it out to us. Please intimate us by sending a mail over at feedback@forumias.academy.

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Context: The world is experiencing an unprecedent situation fighting the health emergency caused due to Covid-19. There has been a major economic downturn throughout the world due to the lockdown, travel restrictions, disruption of regional and global supply chain and contraction of both supply and demand. In order to address this issue, the government announced an economic package of worth Rs 20 Lakh crore under the Aatma Nirbhar Bharat Abhiyan (Self-reliant India Mission).

What is Aatma Nirbhar Bharat Mission? In order to achieve self-sufficiency, a two pronged approach has been formulated:

- Immediate revival of the economy through easing liquidity and using direct cash transfers for the poor. This is aimed to absorb the economic stress caused due to the lockdown
- Medium and long-term reforms in crucial sectors of Indian economy like agriculture, defence etc to meet the domestic requirement and make them globally competitive.

While targeting the first objective, the Prime Minister announced a financial stimulus package of 20 lakh crores. The economic package will focus on land, labour, liquidity and laws. The second objective of reforms would focus on local manufacturing, local markets and local supply-chains- thus propagating the vision of *'vocal for local'*. The entire mission would be based on 5 pillars (mentioned in the infographic). As part of economic relief package to address the economic stress due to the lockdown, the government announced 1.7 lakh crore relief package under the umbrella scheme of Pradhan Mantri Garib Kalyan Yojana

Need for Atmanirbhar Bharat:

1. **International Dependence**: Globalisation has led to an economic interdependence which has created many regional and global supply chains. These chains have been disrupted during the pandemic and exposed India's dependence. For Example:

Sectors	Dependence
Electronics	88% of mobile accessories assembled in India are sourced from China
Pharmaceuticals	India imports 250 billion rupees worth of API for its pharmaceutical industries. According to the Trade Promotion Council of India (TCPI), India imports 70% of its API requirements from China.
Medical Devices	60% of medical devices including testing kits, ventilators are imported
Sunrise sectors	Solar panels, electric vehicle components are dependent on Chinese exports
Resilient sectors	Even India's world famous textile has imported dependency for yarn.

2. **Self-sufficiency**: Atma-nirbhar in the present context doesn't imply a move towards protectionism. It is also not move towards swadeshi or adopting the policy of import substitution. In a globalised world, self-sufficiency means:
   a. Improving the efficiency of the economy by reforming the various factors of production.
   b. Improving the ease of doing business, unleashing entrepreneurial skills while maximizing demographic dividend.
   c. Specialisation of production based on domestic and international demands.
   d. Become competitive in international markets to attain 5 Trillion-dollar economy by 2025.
   e. Attaining strategic autonomy in foreign policy by reducing dependence on defence(Russia/USA), food supply (PL-480 issue with USA), essential medicines (testing kits and lifesaving drugs) etc.
   f. Emphasis on the cultural principals of *Vasudhev Kutumbkam* (world is one family).

3. **Maximize globalisation**: LPG reforms have helped India reducing poverty from 49% in 1992 to 27% in 2015(Tendulkar committee report), therefore India cannot isolate from the global supply chain to become independent. We have to focus on reducing our trade deficits, promoting make in India while becoming the manufacturing hub of the world.

Protectionism is not possible in India considering that the country has always maintained a trade deficit due to its dependence on imports, even in sectors that earn a lot from exports.
Foreign trade (in ₹ trillion)
— Imports — Exports ▮ Trade deficit
Source: Database on the Indian Economy, Reserve Bank of India

4. **Consumption-oriented Domestic Market**: India (1.37bn) is set to surpass China (1.43bn) in terms of population by 2027, this demographic boom will increase domestic demand. India can cater to this demand through locally produced goods and supplement a consumption driven economy.

5. **Compassionate Capitalism principle**: This is not a rejection of globalisation, but a call for a new form of globalisation which moves from profit-driven to people-centric and takes into account the needs of laborers, vulnerable sections and the have nots.

6. **Address Premature De-Industrialization**: India shifted directly from agriculture (contributes 16% to GDP) to service (54% to GDP) based economy bypassing the industrial sector (30% to GDP). The crisis provides the opportunity to rectify this economic anomaly by reviving manufacturing.

Need for economic relief in these sectors:

Tranche 1 : Focus on MSMEs

SALARIED WORKERS AND TAXPAYERS:
reduction of TDS by 25%, Provident Fund (PF) payments have been reduced from 12% to 10% for 3 months.

MSME:
* ₹3 lakh crore worth of collateral free loan schemes for businesses, especially micro, small and medium enterprises.
* A ₹50,000 crore equity infusion through an MSME fund of funds with a corpus of ₹10,000 crore.
No global tenders will be allowed for government procurement up to ₹200 crore.
* Use of e-market linkage and Fintech to enhance transaction based lending.
* The definition of an MSME is being expanded
* Change in definition of MSMEs from investment criteria to turnover based classification.

NBFC:
A special liquidity scheme worth 30,000 crore for funding NBFCs

DISCOMS:
Loans will be given against State guarantees to discharge liabilities of Discoms to Generation companies

REAL ESTATE:
Extention of Timelines and liability of the companies.

1. **Salaried workers**: According to CMIE, the unemployment rate in India has risen to 27.11% due to the lockdown.
2. **Consumption based economy**: With reduction in exports and investments in the last few years, the main say of the economy (i.e. consumption driven growth) has been negatively impacted. Therefore, there is a need to infuse liquidity to restart the economy.
3. **MSMEs**: The sector employs more than 73 million people in more than 31 million units spread across the country. According to a 2018 report by the International Finance Corporation, the formal banking system supplies less than one-third (or about Rs 11 lakh crore) of the credit demand of MSME. The reason being the high ratio of bad loans. As the economic activities comes to a halt, MSMEs are grappling with problems like cash flow, low liquidity and lack of workforce. According to a recent survey, only 7% of MSME have the capacity to remain solvent beyond 3 months using the existing cash flow.
4. **DISCOM**: The power distribution companies (Discoms) are facing mounting losses, huge liquidity challenges and high AT&C losses operating in low plant load factors. According to data from PRAAPTI portal, the Discoms owe Rs 92,602 crore to the generation companies as of February, 2020. The CII estimates, the lockdown could result in total demand compression of up to 36 billion units of electricity, implying a net revenue loss of around Rs 30,000 crores at the Discom level
5. **Real Estate sectors**: As per KPMG report, the real estate industry will witness an estimated job loss of around 30% during the lockdown. This is compounded by already mounting NPAs and a situation of reverse migration (resulting in non-availability of labour.)

Probable impacts of financial interventions:

1. These measures will breathe life into 45 lakh unit through equity and debt support, help them restart work, safeguard job and grow big. The change in definition would move the incentives from dwarfs to infants (Economic Survey 2019)
2. The capital infusion in NBFCs will improve confidence in the financial sector, help institutions raise funds in debt market and reduce risk aversion of banks.
3. Liquidity infusion to the business through cuts in PF/EPF and TDS/TCS would easy liquidity pressures, they would also give more money to employees which would enhance demand in the market.
4. Majority Discoms are state run Enterprises, therefore, the financial support would address the cash flow problem, assist in paying the power generation and transmission companies

Need for government intervention for Migrants and Farmers

1. **Informal sector**: Migrants workers comprise of daily wage workers, street vendors, construction workers etc. Their livelihood depends upon daily income. In the present situation, migrants workers are worst affected due to lack of work, income, effective government support (due to exclusion from schemes), debt trap, restrictions on mobility back home and social exclusion (due to fear of Covid-19). The state is obligated under Article 43 and 47, to help the citizen with nutrition and livelihood support.

2. **Rising unemployment**: With the ongoing reverse migration, from urban to rural, there is a need to provide a source of livelihood to the migrants.

3. **Food security**: India ranked 76th in 113 countries as per The Global Food Security Index (GFSI). Article 38 of the constitution, defines India as a welfare state. The effect on livelihood has directly impacted the lives of the informal sector. The lockdown has aggravated the already nutritionally critical demography. [14.8% population malnourished (FAO report), 38% of children stunted and 21% wasted, 48% women Anaemic].

4. **Sustaining and reviving business**: According to FICCI up to 53% of businesses have specified a certain amount of impact of shutdowns caused due to COVID-19. More than 45% households across the nation have reported an income drop as compared to the previous year. The RBI Governor estimates that India's GDP growth will remain negative in FY21. The fiscal intervention in farm sector via NABARD and manufacturing sector through MUDRA loans is an attempt to revive business.

Tranche 2 : Focus on Migrants and Farmers

FOOD SECURITY FOR MIGRANTS:

additional food grain at the rate of 5 kg per migrant labourer and 1 kg Chana per family per month for two months shall be provided free of cost Migrant not covered under NFSA will also be provided assistance.

ONE NATION ONE RATION CARD:

which enables access to PDS from any fair price shop will be operationalised by March 2021

AFFORDABLE HOUSING:

A Scheme for Affordable Rental Housing Complexes to be launched for Migrant Workers and Urban Poor.

2% INTEREST SUBVENTION

for Shishu MUDRA loanees

USING CAMPA FUNDS

Using CAMPA funds to create employment through afforestation

NABARD

A re-finance support of Rs 30,000 crore will be provided by NABARD, to meet crop loan requirements of Rural Cooperative Banks and RRBs.

Probable Impact of the intervention:

1. Migrants: About 8 crore migrants who require food grains assistance are expected to benefit from the food supply entitlements.
2. About 67-crore beneficiaries under the PDS are expected to be covered by August and another 13-crore by March next year.
3. The proposal to convert government-funded housing in the cities into Affordable Rental Housing Complexes under the PPP mode through concessionaire, is aimed to provided houses at affordable rent to stop the reverse migration.
4. Funds at concessional rates from NABARD is expected to benefit 2.5 crore big farmers and nearly 3 crore small and marginal farmers
5. 50 lakh street vendors are expected to benefit from the infusion of working capital. This would revive employment during the phased lifting of the lockdown.

Need for reforms in agriculture and allied sector:

1. **Essential Commodities Act 1955:** The Essential commodities act was introduced to provide protection to the consumers against irrational spikes in prices of essential goods. However, this licences and quota system has disincentivised private and foreign investments, negatively affected the creation of regional value chains and acted against

Tranche 3 : Focus on agricultre and allied sector

ESSENTIAL COMMODITIES ACT: amend the Essential Commodities Act to deregulate cereals, pulses, onions and potatoes.

CONTRACT FARMING: under the Contract Act of 1872 to enable farmers to directly engage with processors, aggregators etc

MICRO FOOD ENTERPRISES Scheme to help 2 lakh MFEs who need technical upgradation to attain FSSAI food standards, build brands and marketing.

OPERATION GREENS to be extended to all fruits and vegetables

ANIMAL HUSBANDRY Infrastructure Development Fund: to support private investment in Dairy Processing, value addition and cattle feed infrastructure.

ALLIED SECTORS: Improved Beekeeping initiatives, Herbal cultivation and revamped Animal disease control program to supplement income to the farmers

the interest of farmers. The economic survey 2020 has recommended the repealing of this anachronistic act.

2. **Agricultural Produce Market Committee (APMC) act**: This act was introduced to protect the farmers from selling their produce in distress to the local middleman/moneylenders. The impact of the act has resulted in cartelisation of traders, undue burden of taxes (mandi tax and commissions) on farmers and limited competition. The mandi also have infrastructural deficit, lack grading and quality control, and has led to multiplication of commission agents.

3. **Food processing industries**: The sector faces challenges of broken supply chains, cold storage infrastructure, branding, technical upgradations etc. The lockdown has affected both the supply side (wastage of raw product, transportation hurdles etc) and demand side (lowering urban demand, exports) of the business.

4. **Operation Green**: Modelled on the basis of operation flood, the scheme was introduce to address the boom and bust cycle of TOP (tomato, onion and potato) crops. The scheme focused on cluster development, value forecasting methods, and developing farm gate infrastructure. Other horticultural crops also face similar issues like wastage, lack of storage, price crash etc. Hence there is a felt need to extend the scheme to all crops.

5. **Allied agricultural and Dairy sector**: These sectors contribute 40% of farmers income. The lockdown has aggravated the issues like wastage, lack of credit, access to food processing facilities, reduction in domestic/international demand. With the peak rabi season, there was a need to revive and diversify allied agriculture sector.

Probable Impact of the intervention:

1. Funds worth 1 lakh crore to FPOs and start-ups can improve the farm gate infrastructure and assist cluster development models.
2. Credit facilities through PM Matsya Sampada Yojana is expected to increase fish production by 70 lakh tonnes over 5 years.
3. Vaccination drive and targeted incentives for animal Husbandry infrastructure would supplement farm income and realise the vision of doubling farmers income by 2022.
4. Marketing reforms would dismantle government monopoly and provide choice for the farmers to sell produce at a preferred price.

Need for reforms in core industries:

1. **Coal sector**: Coal address 55% of the country's energy needs. Despite having 320 Billion tonnes of coal, India imports coal for its thermal and industrial purposes. There is a felt need to deregulate the sector to invite domestic and foreign capital in exploration, extraction and usage through ease of doing business.
2. **Defence sector**: India imports around 65% of its defence equipment. This dependency is caused due to inefficient ordinance factories, minimal presence of private sector and lack of research and development. We can reduce our dependence by regulating the sector with robust production and procurement policies.
3. **Social infrastructure**: In order to achieve 5 Trillion-dollar economy, Niti Aayog estimates requirement of 100 trillion Rs of investment in infrastructure (physical and social). Given

the fiscal limitation, there is a need to incentivise private and foreign funding, make appropriate changes to the governance model to supplement the government initiatives.

4. **Atomic and Space sector**: These technologically intensive sector need private participation so that technological spin offs can add value to domestic industries.

Probable Impact of the intervention:

1.Composite licenses will improve ease of doing business, liberalisation of coal sector will attract private players. Value addition of coal through coal gasification and liquefaction can improve coal resource utilisation. Coal bed methane extraction from CIL mines will improve natural gas generation.

2. Ban on import of certain types of weapon system will help Make in India program and localised defence production. Separate budgets would incentives private players to make long term investment via Make in India. Project management units would assist in faster decision making and time bound procurements.

3. **Civil Aviation**: Efficient air space management would lead to optimum utilisation of air space, and hence reduction of time and fuel consumption. PPP model for investment for aviation will help in making world class airports. India will become global hub for maintenance, repair and overhaul.

4. **Power sector**: Tariff reforms are aimed to move towards rights based approach for consumers (which include access, affordability of power, penalisation of power cuts). It would also lead to reduction of cross subsidies and move toward open access system.

5. **Infrastructure**: Viability gap funding would support long term projects which are economically justified but not financially viable.

6. **Atomic sector privatisation**: PPP mode would lead to sharing of resources like common labs, transfer of technology etc. This would create synergy between technology entrepreneurs and research facilities

Need for the reforms in health and education:

1. **Unemployment**: ILO report states 400 million employees in informal sector are at risk of being pushed back to poverty. With an expected growth rate of 1.2% (UN report) there is a need for government support to make the informal sector employees self-reliant and unleash virtuous cycle of economic growth

2. **Health**: India spends on 1.5% of its GDP on health sector. The pandemic has exposed these short falls especially with respect to availability of testing kits, ventilators, PPE kits etc. National Health Policy mandates an increase upto 2.5% of the GDP by 2025.

3. **Education**: Lockdown has had impact on the education medium, exam schedules and learning methodology in absence of physical school. The

Tranche 4 : Focus on core industries

COAL SECTOR: Introducing private commercial mining in the coal sector and liberalising government monopoly

DEFENCE PRODUCTION: Indigenization of imported spares through separate budget provisioning for domestic capital procurement, corporatizing the ordinance factory. * FDI limit in defence manufacturing under automatic route will be hiked from 49% to 74%. * Corporatisation of Ordnance factory board.

CIVIL AVIATION: Easing restriction in Indian airspace to assist flying civilian aircrafts.

POWER DISTRIBUTION SECTOR: Privatisation of Power distribution companies in the union territories (UT

MINING SECTOR: introduction of a seamless composite exploration cum mining regime under which 500 mining blocks would be auctioned.

SOCIAL-INFRASTRUCTURE PROJECTS: Boosting private sector investment in Social Infrastructure through increased Viability Gap Funding Scheme of upto 30% for each project.

SPACE SECTOR: Privatisation will be introduced for future projects such as planetary exploration and outer space travel.

ATOMIC ENERGY: Link India's robust start-up ecosystem to the nuclear sector with the setting up of Technology Development cum Incubation Centres through PPP model.

penetration of internet has mandated reforms in education sector keeping in mind the accessibility, availability and affordability of digital education.

4. **Distress companies**: There has been concern regarding default of loans by MSMEs due to the lack of business activities. Such companies might get insolvent and enter the IBC resolution process.

Probable Impact of the intervention:

1.   MNREGA intervention would provide employment opportunities, boost demand in rural markets and kick start economic revival.

2.   Integration of digital health labs would assist in better policy interventions in future. The concept of One Health can be realised using the National institutional platform. National digital health mission would integrate the health sector of the centre, states and private sector.

3.   **Education sector**: Technological driven education intervention via DTH, internet platforms will help democratise education in the long term.

Critical Analysis of the ANBM

1.   **Philosophical**:

a.   **Idea**: The idea of self-sufficiency in present globalised world cannot be one of overt protectionism. India had suffered "pre mature deindustrialisation" due to the license-quote-permit raj of the 70s.

b.   **Atmanirbharta**: Self-sufficiency in essential items like PPE kits, testing kits etc can only be achieved by following a policy of import substitution. This would discourage foreign investors and affect the ease of doing business.

2.   **Political**:

a.   **Misplaced objectives**: The economic distress caused by the pandemic, required immediate fiscal response to spur economic growth. However, the entire mission address some of the long pending structure reforms like APMC, MSME, ECA amendment to enable market-oriented economics.

b.   **Centre state fiscal relationship**: States are better placed to address the economic concerns of various demography. Given their precarious financial condition (due to revenue loss from petroleum, alcohol sale and GST shortfalls), the mission fails to invoke the spirit of fiscal federalism by not providing states the desired fiscal support.

c.   **Sector vs demography**: The structural reforms in sectors like mining, aviation, space and atomic energy cater to a small section of business in the economy. The mission fails the address the

HOW GLOBAL CORONAVIRUS STIMULUS PACKAGES COMPARE
(% of GDP)

Japan	21.10%
US	13
Sweden	12
Germany	10.7
India	**10**
France	9.3
Spain	7.3
Italy	5.7
UK	5
China	3.8
South Korea	2.2

Source: Statista, News reports
*Data for select countries as on May 10, 2020

immediate demands of agriculture and MSME which employs the maximum population.

d.   **Comparison to other countries**: The economic relief is not proportionate the population of our country (see infograph). Also, the economic relief package of $3 trillion (Rs 225 lakh crore) announced by the United States are

Left sidebar (Tranche 5: Focus on health and education):

MGNREGA:
an additional Rs 40,000 crore for MNREGA to help generate nearly 300 crore person days

HEALTH – RURAL AND URBAN:
setting up infectious disease hospital blocks in all districts.
* Integrated public health labs will also be set up in the districts.
* National Institutional Platform for health will be established by ICMR
* National Digital Health Blueprint will also be implemented.

EDUCATION– TECHNOLOGY DRIVEN ONLINE EDUCATION SYSTEMS:
Easing restriction in Indian airspace to assist flying civilian aircrafts.

POWER DISTRIBUTION SECTOR:
PM eVIDYA , Manodarpan (mental health) New National Curriculum and Pedagogical framework ,National Foundational Literacy and Numeracy Mission

BUSINESSES:
Minimum threshold to initiate insolvency proceedings raised , Fresh initiation of insolvency proceedings suspended up to one year.

DECRIMINALIZATION OF COMPANIES ACT:
Decriminalisation of Companies Act violations involving minor technical and procedural defaults (CSR, board reports etc).

PUBLIC SECTOR ENTERPRISES:
Division of public sectors based on strategic significance.

purely fiscal government spending and doesn't include monetary policy of the Federal Reserve (US central bank).

3. **Economic**:

   a. **Misguided calculations**: The mission includes the earlier fiscal package of PM Garib Kalyan Yojana (worth 1.7 lakh crore) as well as all RBI monetary measures (easy money policy, LTRO measures). According to leading economists and firms, the actual fiscal cost is not 10% of GDP. This is because the relief package has more of credit guarantee and liquidity support (around 75%) and actual government spending is expected to be 0.8 to 1.2 % of GDP. Further, it is not clear that this expenditure is over and above the Budgeted expenditure or will it be funded by expenditure cuts in the budget of FY21.

   b. **Fiscal vs Monetary stimulus**: Economists have argued that the economic crisis warranted Keynesian policy of direct government stimulus to raise demand. However, the mission focuses on supply side measures like easy credit policy, finance for infrastructure projects, loan for specific sectors, incentives for private participation etc. This may not be fruitful, as entrepreneurs would not invest in business in the absence of demand and negative business sentiments.

   c. **Push towards Swadeshi**: In order to support domestic manufacturing, government will have to raise custom duty on cheap imports from manufacturing hubs like China and south east Asia. This would lead protectionist policy globally and affect export based economic growth.

   d. **Neglect of service sector**: The tourism industry (20 million people employed) and automobile sector (1.3 million employed) finds no mention in the relief package. This affects employments, investments and exports thus affecting the overall growth of service sector-based economy.

   e. **Mobilisation of resources**: The mission envisages to mobilise resources through PPP-mode and foreign investments, which would be difficult in present times where the business sentiments are already low.

   f. **Misplaced MSME-credit reforms**: The key focus of the first tranche of the package is to address the problem of liquidity being faced by MSMEs due to the lockdown. However, the critics have argued that the 100 per cent sovereign guarantee for uncollateralised, automatic MSME loans will encourage both banks and borrowers to never return the money and to become defaulters. It may further discourage banks from willingly lending to these MSMEs in the future.

Way Forward

ANBA is a start in the right direction. But in order to make India truly self-sufficient, India should carry out the unfinished agenda with the following reforms:

- Civil service reform, to shift from good governance to ethical governance.
- Government reform in lines with the idea of minimum government and maximum governance.
- Financial reform with an aim to sustainably raise credit to GDP ratio from 50 per cent to 100 per cent.
- Urban reform in order to create 100 engines of growth in the form of smart cities.
- Education reform to create employment generators rather employment seekers.
- Skill reform and Labour reform to encash our demographic dividend and make in "*Sarvashrestha Bharat*"

1. Internal Migration: Contemporary Patterns, Critical Issues

Context: The economic and social distress caused due to the lockdown has led to reverse migration whereby lakhs of migrants moving back to their villages.

Migration is the voluntary or involuntary movement of people from one place to another.

Trend and Pattern of Migration in India:

According to the Census 2011 migration data: Over 45.58 crore Indians were found to be migrants as against 31.45 crore during 2001 Census. UP, Bihar, Rajasthan and MP had the highest 'outmigration'. Maharashtra, Delhi and Gujarat had the largest 'in-migration'.

STATES WITH THE HIGHEST NUMBER OF MIGRANTS'11

Maharashtra 5.73 cr
Uttar Pradesh 5.91 cr
West Bengal 3.33 cr
Tamil Nadu 3.13 cr
Andhra Pradesh 3.32 cr

Causes of Migration in India:

1. *Urbanization*: An increase in the demand for labour in urban areas and better wages increase migration

2. *Marriage*: Marriage is an important social factor for migration. As observed by Census 2011, 49.35% people (predominantly females) migrated for marriage.

3. *Employment*:
   - The prime reason for migration from rural to urban areas and urban to urban areas is search of better employment in industries, trade, transport and services. As per 2011 Census, 10.22% people migrated for work/employment.

Push-factors Countries of origin	Migrants	Pull-factors Countries of destination
⇒ Population growth, young age structure ⇒ Inadequate educational institutions, medicare and social security	**Demographic factors and social infrastructure**	⇒ Stable population, population decline, demographic ageing ⇒ Welfare state benefits, educational institutions, medicare, social security
⇒ Unemployment, low wages ⇒ Poverty, low consumption and living standard	**Economic factors**	⇒ Labour demand, high wages ⇒ Welfare, high consumption and living standard
⇒ Dictatorships, shadow democracy, bad governance, political upheaval ⇒ Conflict, (civil) war, terrorism, human rights violation, oppression of minorities	**Political factors**	⇒ Democracy, rule of law, pluralism, political stability ⇒ Peace, security, protection of human and civil rights, protection of minorities
⇒ Ecologic disaster, desertification, lack of natural resources, water shortage, soil erosion, lack of environmental policy	**Ecological factors**	⇒ Better environment, environmental policy, protection of natural resources and environmental protection
⇒ Decisions of the family or the clan ⇒ Information flows, media,	**Migrant flows and migrant stocks**	⇒ Diaspora, ethnic community ⇒ Information flows, media, transferred picture of

   - People seasonally migrate for employment in different areas and different industries. For example, significant numbers of people from drought-prone regions—e.g. from areas of Andhra Pradesh, Karnataka, and Maharashtra—migrate seasonally to work in brickmaking, construction, tile factories, and agricultural work.

4. *Education*: Due to lack of educational facilities in rural areas, people migrate to the urban areas for better academic opportunities. In 2011 census, about 1.77% people migrated for education.

5. *Environmental and disaster induced factors*:
   - There are migrants who are forced to move from rural to urban areas as a result of an environmental disaster that might have destroyed their homes and farms.

- There can also be forced displacement due to reasons such as developmental projects. According to a Lok Sabha Report, 2013 around 50 million people have been displaced in the name of development projects over 50 years in India

Impact on Internal Migration:

Opportunities and benefits:

- *Labour Demand and Supply*: Internal migration fills gaps in demand for and supply of labour; and efficiently allocates skilled and unskilled labour; cheap labour
- *Remittances*: It provides remittances to households in the areas of origin; increases consumer expenditure and investment in health, education and assets formation
- *Return Migration*: When a migrant return to its place of origin, he/she brings knowledge, skills and innovation (these are known as social remittances)
- *Skill Development*: Migration is an informal process of skill development. It enhances knowledge and skills of migrants through exposure and interaction with the outside world.
- *Culture:* Migration leads to intermixing of people from different cultures which brings up a composite culture among the people.

According to Global Migration Report, India had the largest number of migrants living abroad (17.5 million). The highest number of Indians abroad are living in the United Arab Emirates which comprises about one-fourth of all Indians abroad. The UAE is followed by Saudi Arabia, the US, Kuwait, Oman, Qatar, Nepal, UK, Singapore and Bahrain.

Impact on source areas:

- **Demographic**: The proportion of old, children and females increase due to out- migration in source region.
- **Economic**: Remittances play an important role in bringing financial resources to the migrant households and to the source areas
- **Labour**: Rural out-migration may cause a tightening of the labour market in some circumstances. For example: rural out migration has led to dearth of agricultural workers in many areas.
  - *Feminization of agriculture*: According to the Economic Survey 2017-18, with growing rural to urban migration by men, there has been 'feminisation' of agriculture sector i.e. an increase in participation of women as cultivators, labourers and entrepreneurs

Impact on Destination Area

- **Labour**: Migrant labour provides comparatively cheap labour to the rural and urban sectors in the destination areas.
- **Urban Infrastructure**: Large scale movement of people from rural to urban areas causes overcrowding in cities and puts heavy pressure on urban infrastructure. Improper urban planning coupled with large influx of poor migrants lead to development of slums lacking basic infrastructural facilities such as safe drinking water, electricity, sewage, housing, security, hospital etc.
- **Demographic**: In-migration also leads to demographic changes with large young male population dominating the age-sex composition.

Impact of Reverse Migration (Urban to Rural) during Covid-19 Pandemic:
On Rural areas: *Redistribution of coronavirus cases in rural areas; Rise in disguised unemployment in agricultural sector during the peak rabi season.*
On Urban areas: *Labour shortage, Rise in cost of labour*

Challenges faced by migrant workers:

1. *Employment in informal economy*: Migrants dominate the urban informal economy which is marked by high poverty and vulnerabilities. The common issues they face are non-payment of wages, physical abuse, accidents and even death at work.
2. *Issue of Identification documents*: Proving their identity is one of the core issues faced by poor migrant labourers at destination areas. The basic problem of establishing identity results in a loss of access to entitlements and social services
3. *Housing*: Lack of affordable housing in Indian cities force migrants to live in slums.
4. *Financial Access*: Migrant workers have limited access to formal financial services and remain unbanked
5. *Education of children*: UNESCO's 2019 Global Education Monitoring Report (GEM Report) shows that children left behind by migrating parents and seasonal migrants face fewer educational opportunities overall.
6. *Social exclusion*: There is often hostility of urban governments, as well as citizens, towards the urban poor, especially migrants to the cities.
7. *Political exclusion*: Migrant workers are deprived of many opportunities to exercise their political rights. A 2011 study pointed out that 22% of seasonal migrant workers in India did not possess voter IDs or have their names in the voter list.

Steps Taken:

- *The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979:* It seeks to prevent the exploitation of inter-state migrant workmen by contractors and to ensure fair and decent conditions of employment.
- *Enhancing livelihood opportunities for rural population:* The government from time-to-time has taken various initiatives to combat farmers' distress and enhance livelihood opportunities in rural areas. Examples: Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Mahatma Gandhi National Rural Employment Guarantee Act, Attracting and Retaining of Youth in Agriculture (ARYA).
- *Affordable rental housing*: The central government, in May 2020, announced to create affordable rental housing for the urban poor and migrants. The scheme will be launched under the Pradhan Mantri Awas Yojana (PMAY). The existing government housing which lie vacant will be converted into rental units.
- *Infrastructure development in rural areas*:
  - **RURBAN Mission**: It seeks to stimulate local economic development, enhance basic services, and create well planned Rurban clusters (cluster villages). One of the main objectives is to reduce the rural-urban divide-viz: economic, technological and those related to facilities and service
  - **PURA (Providing Urban Amenities to Rural Areas):** It seeks to tackle the problem of migration of people from rural to urban areas for employment. It seeks to develop technology in villages, provide better connectivity, enhance livelihood opportunities etc.

Way Forward:

1. *Policy*: There is an urgent need to develop a coherent legal and policy framework on migration. Policy can have two dimensions: (i) reducing distress-induced migration and (ii) address conditions of work, terms of employment and access to necessities.
2. *Development of backward areas*: Development strategies in backward rural areas should be strengthened to provide sustainable livelihood opportunities, food security and access to

credit. Further, focus should be given on improving rural infrastructure- health, education and connectivity.

3. ***Entitlements at work:*** A concerted national strategy that ensures access to entitlements and basic work conditions is necessary to address the plight of migrant workers. Access to legal aid, grievance redressal should be ensured.

4. ***Housing and basic Services***: The government should ensure affordable housing and focus on introducing social-physical infrastructures in working-class settlements to improve their liveability.

General Studies Paper II

1. India's Malnutrition Challenge: Our National Shame

Context: In the context of recently released Global Nutrition Report 2020, we shall analyze the status of nutrition in India.

Malnutrition: It refers to deficiencies, excesses or imbalances in a person's intake of nutrients. It includes both under and over nutrition.

Malnutrition manifests itself in the form of: **Stunting**– low height for age; **Wasting**– low weight compared to height; **Underweight**– low weight for age.

Global Nutrition Report: It is an assessment of the state of global nutrition conceived following the first Nutrition for Growth Initiative Summit (N4G) in 2013. It is a multi-stakeholder initiative, consisting of a Stakeholder Group, Independent Expert Group and Report Secretariat.

Coexistence of wasting, stunting and overweight in India: According to Global Nutrition Report, 2020, India is among the 88 countries that are likely to miss global nutrition targets by 2025.

Indicator	Present Status in India	Global Nutrition Target-2025
Stunting	37.9% of children under 5 years are stunted	Reduce Stunting by 40% in children under 5
Wasting	20.8% are wasted	Reduce and maintain childhood wasting to less than 5%
Overweight	21.6% of women and 17.8% of men overweight	Not Applicable for adults (ensure no increase in childhood overweight)
Anaemia among woman (19-49yrs)	One in two women anaemic	Reduce prevalence of anaemia by 50%
Underweight	58.1% for boys and 50.1% in girls	30% reduction in low-birth weight

Why addressing Malnutrition is important for India?

1. *Constitutional Obligation*: Article 21 and 47 of the Constitution obliges the Government of India to take appropriate measures to ensure a dignified life with adequate nutrition for all its citizens.
2. *Sustainable Development Goal*: India needs to fulfil its international commitments under SDGs. SDG 2 aims to 'End hunger, achieve food security and improved nutrition and promote sustainable agriculture"
3. *Addressing Health Risks*: Health risks are associated with both under and overnutrition.
    a. *Under-nutrition*: According to a report by National Institute of Nutrition, malnutrition was the predominant risk factor for death in children younger than five in every state of India in 2017.
    b. *Over-nutrition*: Obesity causes non-communicable disease such as hypertension, cardiovascular diseases, diabetes and can lead to disability and premature death. According to India State Level Disease Burden Report, in 2016, deaths due to non-communicable disease increased from 37.9% to 61.8% between 1990 and 2016.
4. *Economic loss*: According a 2019 Lancet study, 17.3% of India's productive years of life (disability-adjusted life years or DALYs) were lost in 2018 due to malnutrition-caused ill-health, disability or early death. Further, a World bank estimate indicates that reducing stunting can raise India's GDP by 4-11%

5. **Poor Learning Outcomes**: Malnutrition lead children to have problems with concentration and memory and can even impair their cognitive development. This in turn results in poor learning outcomes among children.

6. **Women Empowerment**: Addressing women malnutrition is important for woman empowerment. Healthy women can generate income, ensure their families' nutrition, and have healthy children, thus ensuring overall socio-economic development.

Factors contributing to Malnutrition in India

Nutritional Factors:

1. **Hidden Hunger**: It is a type of under-nutrition caused by micronutrient deficiency. It occurs due to eating food that is cheap and filling but deficient in essential vitamins and micronutrients such as zinc, calcium, iron, zinc, vitamins etc. According to UNICEF's report, 'Adolescents, Diets and Nutrition: Growing Well in a Changing World' 80% adolescents in India suffer from "hidden hunger"

2. **Cereal-based Diet:** dominate dietary habits in India especially rice and wheat consumption. For example, the proportion of coarse cereals to total cereals (jowar, bajra, rye etc.) consumed declined from 35% to 5% in rural areas and 17% to 3% in urban areas between 1961 and 2011. The large decline in coarse cereal consumption rich in iron content without replacement by iron-rich foods has led to increasing iron deficiency and anemia.

3. **Excess Calorie intake**: According to a Lancet study, Indians consume between 200 and 300 Kcal every day from junk food and other sources deemed harmful.

Non-Nutritional Factors:

1. **Poverty and underemployment/unemployment**: 21.9% of the population being poor in India (Tendulkar report), restricts their access to nutritious food like fruits, vegetables, milk, etc.

2. **Social status and nutrition accessibility:** An underweight child in India are more likely to belong to a disadvantaged community. For example, a study by National Institute of Nutrition (NIN) in 2017 found that 32-33% of scheduled caste/tribe boys under five years of age are underweight, compared to 21% in the general population.

3. **Causes of Malnutrition among women**: Gender bias, lack of reproductive rights, illiteracy are major contributing factors in malnutrition among women. According to NFHS 4 (2015-16), 25% of women of reproductive age in India are undernourished. Undernourishment in mothers leads to malnourished babies thus perpetuating intergenerational malnutrition.

4. **Water, Sanitation and Hygiene (WASH):** Poor sanitary conditions caused by open-defecation and other issues leads to the incidence of diarrheal diseases which make children susceptible to stunting.

Key Steps taken by government to address Malnutrition

Initiative	Details
Integrated Child Development Scheme (ICDS)	Launched in 1975, it is an early childhood development program, aimed at addressing malnutrition, health and development needs of children (0-6yrs), pregnant and nursing mothers.
Mid-day meal scheme (MDM)	It provides a meal to school children with an aim to enhance enrollment, attendance and improve nutritional status
National Food Security Act, 2013	Under the Act, 75% rural and 50% of the urban population entitled to 5 kg of food grains: rice, wheat and millets at Rs3, Rs2 and Rs1/kg respectively.
Zero Hunger Program, 2017	It envisages organizations of farming system for nutrition, setting up genetic gardens for biofortified plants and initiation of 'Zero Hunger' training
National Nutrition Mission or POSHAN Abhiyan	It strives to reduce the level of stunting (by 2% a year), undernutrition (by 2% a year), anaemia (3% a year) and low birth weight babies (by 2% a year).

Food Fortification	FSSAI is focusing on food fortification of wheat flour, rice, oil, milk and salt. They are added with key vitamins and minerals to improve their nutritional content.
Eat right Movement	It was launched by Food Safety and Standards Authority of India (FSSAI) in 2018. It is built on two broad pillars of 'Eat Healthy' and 'Eat Safe'.
Anaemia Mukt Bharat	It aims to reduce prevalence of anaemia by 3% per year among children, adolescents and women (15–49 years), between the year 2018 and 2022.

Challenges in reducing Malnutrition in India

1. **Narrow Food Security Approach**: National Food Security Act does not address the issue of malnutrition and nutritional deficiency adequately and focus primarily on distribution of rice and wheat.

2. **Challenges with data**: There is a lack of credible data on a year-year basis. For example, there has been a 10-year gap between NFHS 3 and NFHS 4.

3. **Fiscal Constraints**:
   a. The allocation of funds for nutrition schemes in India is quite high in absolute terms. For example, in 2017-18, the total allocation for nutrition schemes was Rs. 2,98,316 crores. However, given the scale of undernutrition, the current allocation is grossly inadequate.
   b. Further, following the recommendations of the Fourteenth Finance Commission the central government has significantly reduced its assistance for State Plans and its outlays for Centrally Sponsored Schemes. This has impacted states' capacity to implement nutritional schemes.

Covid-19 and malnutrition challenge: According to the Global Nutrition Report 3020, the Covid-19 pandemic has exposed the vulnerability and weaknesses of fragile food system. Governments across the world have reduced social services, such as school nutrition programmes which has led to food and nutrition shortages among the already marginalised and vulnerable.

4. **Underutilization of funds**: Ineffective spending on nutritional program is a major concern. For instance, as of March 2019, the states only Rs. 5.69 billion of the Rs. 31.42 billion funds released to the states under the POSHAN Abhiyaan. States like Karnataka and Goa had zero utilization of funds.

5. **Socio-Cultural challenges**: A major challenge in implementing nutritional programs is socio-cultural factors such as caste. For example, Hausla Poshan Yojana (a plan to provide nutritious food to pregnant women and malnourished children in Uttar Pradesh) failed to even start because some women beneficiaries allegedly refused to consume the food prepared by Anganwadi workers belonging to the SC community.

6. **Lack of nutritional and health awareness**: Lack of awareness, ignorance of healthy diets, unhealthy feeding and caring practices, are major challenges in reducing malnutrition.

7. **Scheme Implementation**: Leakages and corruption in PDS and nutritional schemes, poor monitoring of schemes and lack of accountability is a major challenge in solving the malnutrition crisis in India.

Nutrition and Inequity: The Global Nutrition Report 2020, has highlighted that unequal nutrition outcomes arise out of deeper inequities which are result of unjust systems and processes. These systems and processes hinder attainment of healthy diets, healthy environments, adequate healthcare and consequently and healthy and decent life.

Way Forward:

1. **Policy Changes**: Policy changes should have a four-fold approach-
   - Turn policy focus from cereals to nutri-cereals, pulses, oilseeds, milk, poultry and fish
   - Include pulses and edible oil under the public distribution system and National Food Security Act

- Encourage food fortification; and
- Raise protein and micro-nutrient content in MDM and ICDS foods.
- DBT: Shanta Kumar committee estimated that a switch to DBT would reduce the food subsidy bill of the government by more than Rs 30,000 crore.

International Best Practice: Brazil– Fome Zero (Zero hunger) strategy:

Brazil had started the Zero Hunger strategy in 2003Under this strategy various initiatives such as food banks, cash transfer to poor families, national school feeding program etc. have been taken.

2. *Converging Nutrition and Health*:
   - There should be integration of nutrition services with health service delivery. Innovative approach like SNEHA (Synergistic Nutrition Education and Health Action) could be adopted.
   - It is important to include nutrition-related health products like therapeutic foods and innovative technological solutions like digital nutrition counselling especially to harder-to-reach communities.
3. **Adequate Investment to improve nutrition outcomes**: There should be an increase in domestic financing to respond to the needs of communities most affected by malnutrition.
4. **Addressing Overnutrition**:
   - Innovative policy interventions like 'Fat Tax' (Kerala) can be deliberated upon to reduce intake of high calorie drinks and foods.
   - Consumer awareness through "Jan Andolan" regarding consequences of unhealthy diet practices must be made more visible through effective mobilization of communities, celebrities, media and NGO's.
5. **Improving access to water and sanitation facilities**: Access to sanitation (via Swachh Bharat mission) and hygiene including menstrual hygiene should be strengthened.

Innovative Strategies adopted by different states:

- *Uttar Pradesh:* The state introduced an Information, Education and Communication (IEC) activity. Under it, officials installed a wall art with messages of nutrition, early care for the mother and the child and WASH, in crowded public areas such as railway stations.
- *Uttarakhand*: The state introduced an initiative under which one can adopt a Severe Acute Malnutrition (SAM)Child
- *Odisha*: The state institutionalized community-level monitoring of services under ICDS by introducing Jaanch Committee & Mothers Committee at the village level

2. Article 29 and Article 30: Protection and Not Appeasement

Why in the news?
- A campaign against Article 30 on Twitter demanded that Article 30 must be amended so as to grant all sections of society equal rights for running educational institutions.
- The Supreme Court recently held that the National Eligibility cum Entrance Test (NEET) for medical and dental courses does not violate the rights of aided or unaided minority institutions under Article 30 of the Constitution.
- The Supreme Court while upholding the validity of West Bengal Madrasah Service Commission Act 2008, reiterated that regulation of minority institutions in matter of appointment of teachers, is permissible if it is intended to ensure excellence in minority institutions, without interfering with its minority status.

Article 29: Protection of Interests of Minorities: Any section of citizen have a right to protect and conserve their distinct language, script or culture. Also, citizen shall not be discriminated for admission into any educational institutions maintained or aided by the State on grounds of religion, race, caste or language.

Article 30: Right of Minorities to Establish and Administer Educational Institutions: All minorities shall have the right to establish and administer educational institutions of their choice and the State shall not discriminate against any educational institution managed by a minority in granting aid.

Need for Cultural and Educational Rights

- *Sense of security for minorities*: In order to allay any fears of the minority communities, Articles 29 and Article 30 were provided as protection against cultural hegemony of the dominant groups.
- *Preserve cohesiveness and unity*: India is a dynamic constitutional democracy with a feature of accommodating pluralism in thought and language so as to preserve cohesiveness and unity in diversity.
- *Achieving Secularism in true sense*: Protection of rights of the religious as well as the ethnic minorities have been the backbone of the principle of equality and secular values of our country.
- *Collective Rights of minorities*: Both these Articles protect and guarantee certain collective rights for the minorities to help them preserve their language, religion and culture and promote multiculturalism.

Who is a minority?

- The Constitution of India defines minorities on the basis of religion and language. Though the word "minority" has not been defined in the Constitution.
- The National Commission for Minority Educational Institutions Act, 2004 defines "minority" as those notified by the Central Government.
  - As per notification of the Government of India, there are 6 notified religious minority communities - Muslim, Sikh, Christian, Buddhist, Parsis and Jain.
  - No linguistic minority has been notified by the central government till date. Thus linguistic minorities are outside the purview of NCMEI.

*The United nations defines a minority as **a group numerically inferior to the rest of the population of a State and is in a non-dominant position***

What are Minority Educational Institutions (MEI)?

- The National Commission for Minority Educational Institutions (NCMEI) Act defines MEI as a college or an educational institution established and administered by a minority or minorities.
- **Eligibility criteria**:
  - Educational institutions are established and are administered by the minority community.
  - If it is run by a trust/registered society, the majority of members must be from the minority community.
  - It has been established for the benefit of the minority community.
- Once conferred a status of minority educational institution, there is no need for its renewal periodically.

Judicial Interpretations related to Article 29 and Article 30.

- *Scope of Article 29*: According to the Supreme Court, the scope of Article 29 is not necessarily restricted to minorities. This is because of the use of words 'any section of citizens' that include minorities as well as majority.

- ***Right to Conserve Language***: The Supreme Court has held that the right to conserve the language includes the right to agitate for the protection of the language. Hence, political speeches or promises made in context of conservation of language of a section does not tantamount to corrupt practice under the Representation of the People Act, 1951.
- ***Right to Establish and Administer Educational Institutions***: In the case of Azeez Basha v. Union of India case, the Supreme Court held that if an educational institution is not established by the minority community then they have no right to administer it. An educational institution created by an Act of Parliament cannot be granted minority status.
- ***Admission Procedure in Minority Educational Institutions***: In St. Stephen's College v. University of Delhi, the Supreme Court held that the college is not bound to follow the university circulars as it will deprive the college of their minority character. The court decided the two categories for the selection process:
  - ***Category I*** – 50% of the seats reserved for the minority community.
  - ***Category II*** – remaining 50% are selected on the basis of merit.

TMA Pai vs State of Karnataka 2002 case.
- The Supreme Court held that the fundamental right granted under the Article 30 (1) was neither absolute nor above the law.
- Following principles were laid down:
  - Any regulation framed in the national interest must apply to all educational institutions whether run by majority or minority.
  - Government cannot destroy the minority character of the institutions.
  - Regulations made to ensure the welfare of students and teachers to provide a proper academic atmosphere does not infringe the right granted under Article 30 (1).

The Supreme Court held that "An unaided minority institution may have its own procedure and method of admission as well as selection of students, but such a procedure must be fair and transparent, and should be on the basis of merit."

In 2016, the central government amended the Medical Council of India Act and made it compulsory for all colleges offering medical or dentistry courses to use NEET for admissions. This was challenged in the apex court on the basis that this violated their constitutional right to run and administer educational institutions. The Supreme Court (in Christian Medical College vs Union of India- 2020) asserted that NEET does not violate the rights of aided or unaided minority institutions under Article 30 of the Constitution.

Role of National Commission for Minority Educational Institution
- The National Commission for Minority Educational Institution has the original jurisdiction to determine the minority status of any educational institution as held by the Hon'ble Supreme Court of India.
- A power of cancellation was also vested in the National Commission for Minority Educational Institutions (NCMEI) to cancel a certificate granted either by an authority or the NCMEI.

Whether Jamia Milia is a minority institution?
- On 22nd February 2011 National Commission for Minority Educational Institution (NCMEI) declared Jamia Milia Islamia a religious minority institution and that the university will have the benefit of being a minority institution under article 29 and article 30 of the Constitution.
- On 5th March 2018, an affidavit was filed by the incumbent Government in the Delhi High Court regarding the minority status of Jamia Millia Islamia where they cited the case of Azeez Basha v. Union of India to justify their stand, in which the apex court held that the university incorporated under the act of parliament cannot be claimed as a minority institution.

Regulating Minority Educational Institutions:
- A petition was filed challenging the validity of the West Bengal Madrasah Service Commission Act, 2008 which constituted a commission to appoint teachers in Madrasas, recognised as minority institution.
- The Supreme Court while upholding the validity of West Bengal Madrasah Service Commission Act 2008, reiterated that regulation of minority institutions in matter of appointment of teachers, is permissible if it is intended to ensure excellence in minority institutions, without interfering with its minority status.
- The court referred to the TMA Pai Foundation case.

Relationship between Article 29 and Article 30.
- The Supreme Court has consistently held that the right to establish and administer an educational institution under Article 30(1) is not confined only to purposes specified under Article 29(1).
- Though an educational institution may serve as a means for conserving script, language and culture as mentioned in Article 29(1), but Article 30(1) enables the religious and linguistic minority to establish an institution which may have no concern with the object of conserving its script, language or culture.
- The width of Article 30(1) cannot be cut down by imposing into it the consideration on which Article 29(1) is based.

Conclusion:
- It is settled in case of St. Xavier's College v State of Gujarat that Articles 29(1) and 30(1) deal with distinct matters and may be considered supplementing each other so far as certain cultural rights of minorities are concerned.
- Every educational institution irrespective of the community to which it belongs is a 'melting pot' in our national life. It is essential therefore, that there should be a proper mix of students of different communities in all educational institutions.

3. India – Nepal: An Indian Road, A Nepali Map, A Colonial Treaty

Context: India and Nepal headed for a diplomatic showdown due to a longstanding border dispute.

The Issue:
- India's latest diplomatic row with Nepal erupted on May 8 when New Delhi announced the inauguration of a Himalayan road link that passes through the disputed area of Kalapani.
- Under pressure from the opposition, civil society and the press, the Government of Nepal led by Prime Minister KP Sharma Oli issued a new political map of the country, showing Kalapani, *Lipulekh* andz within its borders.
- India has argued that the road is completely in its territory but Nepal says at least 17km of the new road "passes through Nepali territory," arguing that the road crosses over to the east bank of the *Mahakali River*.
- The heart of the dispute lies in differing cartographic interpretations about the headwaters of the *Mahakali River*. Nepal argues *Limpiyadhura* is the location of the headwaters; India regards a smaller stream flowing down from *Lipulekh* as the river's headwaters.

- Nepal considers **The Sugauli Treaty** as the "mother of all documents", according to which the *Mahakali* is the boundary river between the two countries, and any future demarcations will be based on the treaty.
- The dispute's origins lay in the November 2019 when MHA of India released a new political map, showing Kalapani within India. The new edition of the Indian political map was a result of Indian government's abrogation of Articles 370 and 35A of the Indian Constitution.

India AND Nepal – Areas of Cooperation

Strategic Relations

- **The India - Nepal Treaty of Peace and Friendship** of 1950 forms the bedrock of the special relations. Under this Treaty, the Nepalese citizens avail facilities and opportunities at par with Indian citizens. Nearly 6 million Nepali citizens live and work in India.
- India and Nepal have several bilateral institutional dialogue mechanisms, including the India-Nepal Joint Commission co-chaired by External Affairs Minister of India and Foreign Minister of Nepal.
- **The Nepal-India Eminent Persons' Group (EPG)** is revisiting all bilateral agreements to submit a comprehensive report to both governments on how to reset bilateral relations.
- Nepal and India engage on many multilateral forums like SAARC, BIMSTEC, and BBIN etc.

Trade and Economic

- India is Nepal's largest trade partner and the largest source of foreign investments, besides providing transit for almost the entire third country trade of Nepal.
- India accounts for over two-third of Nepal's merchandise trade, about one-third of trade in services, 46% of foreign direct investments, almost 100% of petroleum supplies.

Defence Cooperation

- Bilateral defence cooperation includes assistance to Nepalese Army in its modernization through provision of equipment and training.
- The Gorkha Regiments of the Indian Army are raised partly by recruitment from hill districts of Nepal.
- Since 1950, India and Nepal have been awarding Army Chiefs of each other with the honorary rank of General in recognition of mutual harmonious relationship between two Armies.

Cultural Cooperation

- Nepal and India, both share common Hindu and Buddhist heritage.
- India and Nepal have signed three sister-city agreements for twinning of Kathmandu-Varanasi, *Lumbini-Bodhgaya* and *Janakpur-Ayodhya*.
- Direct bus service between Janakpur and *Ayodhya* under *Ramayan* Circuit under Swadesh Darshan Scheme was launched.

India's Development Assistance to Nepal

- Development assistance in the areas of health, water resources, education and rural & community development. Development of infrastructure through upgradation of roads in the Terai areas; development of cross-border rail links.
- Establishment of Integrated Check Posts at various border roads like Raxaul-Birgunj, SunauliBhairhawa, Jogbani-Biratnagar, and Nepalgunj Road.
- Four lines of credit to the Government of Nepal for US$ 100 millions, US$ 250 millions, US$ 550 millions and US$ 750 millions for infrastructure development and post-earthquake reconstruction projects.

Water Resources and Energy Cooperation

- A three–tier mechanism to discuss all bilateral issues relating to water resources and hydropower.

- A 900 megawatts hydropower project Arun III has been launched recently.
- An Agreement on "Electric Power Trade, Cross-border Transmission Interconnection and Grid Connectivity" was signed between India and Nepal in 2014.
- A Joint Technical Team (JTT) has been formed for preparation of long-term integrated transmission plan covering projects up to 2035.

Challenges

- *Peace and friendship treaty*: The India-Nepal treaty of 1950 obligates Nepal to inform India and seek its consent for the purchases of military hardware from third countries. Nepal wants to change this provision as it has been criticized by the Nepali political elite as an unequal one.
- *Border issues*: Nepal and India must resolve contentious issues relating to the border, including the two major areas of dispute at Susta and Kalapani (India–China-Nepal tri-junction).
  - There is a need for construction, restoration, and repair of boundary pillars, and the clearance of no man's land on both sides.
- *Internal Security*: There is an open border between India and Nepal which leads to illegal migration and human trafficking. Indo-Nepal border is used as launch pad by Maoist, terrorist and drug traffickers.
- *Trade*: Nepal's trade deficit with India has surged in recent years with continuously rising imports and sluggish exports. Indo-Nepal trade continues to remain massively in India's favour.
- *Nepal's new constitution*: Promulgated in 2015, it gave extensive political privileges to the ruling hill tribes and discriminated against the people living in plains including Madhesi. India has objected to these discriminatory provisions and requested Nepal to rectify them.
- *India's Big Brotherly attitude*: There is a widespread perception in Nepal that India does not respect the country's sovereignty and that it often intervenes in Nepal's domestic affairs. Nepal accused India of imposing an economic blockade including blockade of gas supply, fuel etc. on them to put pressure to make certain amendments in their constitution.
- *Nepal's growing proximity to China*: Nepal's attempt to balance the overwhelming presence of India next door by reaching out to China is resented by India as such actions heighten India's security concerns.
- *Lack of professionalism*: political engagement between India and Nepal look like family interactions and interest-oriented personal networking, producing emotional and idiosyncratic responses rather than rational policy choices.

Way forward

- Mutual respect is a key in bilateral relations. Thus, India needs to respect Nepal's sovereignty; and refrain from meddling in the internal political affairs of Nepal. India should take into account the longstanding people-to-people ties and cultural connect between the two nations.
- Both the countries are affected due to the misuse of open border by internal and external forces, the responsibility of border management and regulation depends on both.
- India should commit itself to complete infrastructure projects without delay.
- Our engagement with Nepal tends to be episodic and crisis-driven, and not backed by the human and material resources that our neighbour deserves.

4. Federalism during Disaster

Context: COVID-19 pandemic has tested the letter and spirit of cooperative federalism in India.

Federalism: derived from the word "foedus" signifies the a contract between the federal authority and the states. The contract is the constitution which spells out the details and the contours of the relation. It is offered as an institutional solution to the problems associated with scale and diversity

Idea of cooperative federalism: The idea of Cooperative federalism in India is that Centre and states share a horizontal rather than vertical relationship. Which requires them to cooperate in the larger public interest. It is an important tool to enable states' participation in the formulation and implementation of national policies. The states are financially dependent on the centre while the centre is dependent on the states for effective implementation of the national policies. This gives both parties enough bargaining power to device their independence at the same time cooperate for common goal.

Cooperative Federalism during Covid-19

- *Disaster management act and Epidemic act*: Though the Constitution of India is silent on the subject 'disaster', the legal basis of the DM Act, is Entry 23 of the Concurrent List which enlists "social security and social insurance". The centre invoked the disaster management act of 2005 to impose the lockdown. The State governments exercised powers under the Epidemic Diseases Act of 1897 to issue further directions. This made the lockdown a successful exercise in containing the initial spread of the virus.
- *Finances*: Through the atma Nirbhar bharat abhiyan, the fiscal deficit limits of the states were relaxed. This gave the states an unconditional extension to borrow upto 3.5% of GSDP. This helped the states to effectively mobilize resource to support the health infrastructure.
- *Public health*: The 'public health and sanitation' is a specific field of legislation in the State List. States like Kerala invoked this provision to pass ordinance, providing power to the local authorities to enforce public health guidelines. The centre has helped in providing testing kits approved by ICMR to the states to ramp up testing.

Issues with federal structure during Covid-19

Financial Issues

- *Inadequate Fiscal resource*: States sacrificed their fiscal powers in the promise of 'economic efficiency' and 'tax buoyancy' in constitutionally accepting GST. However, with the economic slowdown preceding the lockdown, the centre failed to transfer the compensation to the states (due to shortfall in revenues of the states).
- *Before Aatma Nirbhar package*: The states FRBM Act did not allow states to borrow from the market over a certain limit. With constitutional limits of the states of borrowing from the market, many states suffered financial stress in even maintaining the public health infrastructure.

HOW STATES GET THE RESOURCES

State non-tax revenue **8%**
State own tax revenue **46%**

Sources of states' own tax revenue (% share)
State GST **39.9**
VAT (mainly fuel) **21.5**
Excise (mainly liquor) **11.9**
Property & capital transactions **11.2**
Tax on vehicles **5.7**
Others **9.8**

Grants **20%**
Share in central taxes **26%**

Based on data for FY18 to FY 20;
Source: India Ratings & Research

- *Liquor ban*: Excise duty on alcohol and VAT on fuel are the biggest revenues for many states. The unilateral ban by centre for the sale of liquour during lockdown, aggravated the financial crunch of states.
- With low demand for petroleum products, electricity, and absence of business activity, states were forced to raise funds through "special corona cess' on alcohol'. Ex- Delhi

- **PM-CARES fund**: The centre declared that corporate donations to PM-CARES fund can avail CSR exemptions, however similar exceptions were not extended to Chief Ministers Relief fund. This directly disincentivized donations to any Chief Minister's Relief Fund; diverted potential State revenues to PM-CARES; and made the States dependent upon the Centre.
- **Aatma Nirbhar Bharat package**: The centre imposed various condition to borrowing by the states. These include providing infrastructural support to one nation one ration card, reforms in the areas of ease of doing business, power distribution, and urban local bodies. This is against the letter and spirit of cooperative federalism. This also discriminates against those states which don't have fiscal or economic capacity to support these reforms.
- **State and Centre with respect to health facilities**: With limited current capacities, states were asked to speed up their spending on health infrastructure such as PPE kits, testing devices, quarantine centres etc. In the absence of fiscal support, the limited powers to borrow, the states response to the pandemic was affected.

Administrative issues:

- **Central Guidelines**: The Central Government, irrespective of any law in force (including over-riding powers) can issue any directions to any authority anywhere in India to facilitate or assist in the disaster management using section 35 and 6(2) of the DM Act. These guidelines were issued without consultation of the states.
- **Problem in Dividing zones by Centre**: Some States/UTs like Kerela objected to the classification of areas/districts as red or orange zones. This was done unilaterally by the centre despite the fact the Disaster management act mandates legislative consultation with the states.
- **Absence of National Plan**: The Act envisages the creation of a 'National Plan' under Section 11, as well as issuance of binding guidelines by the Centre to States under Section 6(2). There was no national plan to tackle the pandemic.
- **Interstate border sealed**: Several states sealed their borders and stopped the interstate movement of migrants. The responsibility of migrants was tossed between centre and states. The repeated changing of orders regarding inter-State movement has left the fate of hundreds of thousands of migrant workers to hands of district administrations with inadequate resources. Delhi High Court asked Haryana to remove special restrictions on its borders imposed during the nationwide COVID-19 lockdown.
- **Migrant Crisis returning home**: Failure of the centre – state coordination to provide migrants with transportation forced them to travel to their villages on foot. Even after resumption of rail and interstate bus services, there was lack of consensus on the fares and the liability of the ticket costs.
- **More Decentralization**: States and especially the local governments are well suited to respond and contain the spread of any epidemic. The present top down, one size fits all approach during the initial stages of the lockdown, exposed the centralizing tendency of federal structure in India.

Kerala Model

Kerala has performed better than other states and proved that states can tackle the pandemic with right approach. The success of Kerala is due to:

- **Past Experience**: It was the empowered local bodies and strengthened healthcare institutions which lead the successful battle against Nipah virus in 2018.
- **Decentralized power**: Acclaimed for its investment in human resources, it was among very few states which decentralized power to Panchayat's and other local bodies.

- **Strengthening PHCs**: Health institutions were placed under direct administration of local bodies. This led to strengthening of Primary Health Care centers (PHCs) which are first point of contact for citizens, especially in unseen situations.
- **Funding**: Also, Flexible Development and Maintenance Funds are devolved to Panchayat's, even when State suffers from chronic fiscal stress.

Way Forward

- *Collaborative federalism over coercive federalism*: The centre and states should act like one team to achieve the goal of cooperative federalism. Effective use of Inter State Council can help in better coordination.
- *Role of Judiciary*: Judiciary should act in the right spirit so that no one's fundamental rights are taken away. For example- Supreme Court orders the Centre and States to immediately provide transport, food and shelter free of cost to stranded migrant workers.
- *Financial support*: The government should release GST compensation timely and should allow states to borrow more under FRBM Act. For example- The Government raised states' borrowing limits for FY21 to 5% of GSDP from 3% now is a welcome move. It will allow states to borrow an additional Rs 4.28 lakh crore this year.
- *Model central law*: Since health is state subject and there are multiple laws to deal with epidemic or pandemic, model central law is needed to provide broad framework to states.
- *More autonomy to states*: During pandemic, states are the implementing bodies of measures on ground. Centre should give more autonomy to states in demarcating areas such as deciding zones, opening which areas etc.

5. Bio-Weapons: Disarmament Diplomacy for this Clear and Present Danger

Context: U.S. advocacy group and a Texas company filed a $ 20 trillion lawsuit against the Chinese government and Director of the Wuhan Institute of Virology (WIV) for the alleged creation and the release of the novel coronavirus that had been prepared and stockpiled as a biological weapon.

What are Biological Weapons or Germ Warfare?

- WHO defines biological weapons as microorganisms like virus, bacteria, fungi, or other toxins that are produced and released deliberately to cause disease and death in humans, animals or plants.
- Biological agents, like anthrax, botulinum toxin and plague can pose a difficult public health challenge causing large numbers of deaths in a short amount of time while being difficult to contain.

COVID-19:

- The scientific understanding of the outbreak of COVID-19 suggests that it might have originated in bats.
- However, some countries are raising suspicious that the pandemic might have begun from the Wuhan lab in China after the researchers were probably able to figure out how bat coronaviruses could mutate to attack humans.

Historic use of Biological Weapons:

Biological weapons
Biological toxins were historically employed in warfare until their use was banned.

12th century
Romans poison water wells with decomposing bodies

18th century
British use smallpox in North America

No combat use since WWI

1500–1200 BC
Hittites forces spread tularemia bacterial disease

14th century
Mongols use plague-infected corpses

World War I
Germany uses anthrax, glanders, cholera and the plague

World War II
Only used in lab experiments on prisoners

Research and stockpiling continue

1925
Geneva Protocol prohibits use

1975
Biological Weapons Convention bans use, development & production

Sources: Al Jazeera, UNODA | Icons: Vanessa Choi, Ben Davis, BomSymbols - The Noun Project

- Biological warfare was used in the past as a legitimate source of national power (see infographics). However, mode of warfare was stopped after 1975 convention.

Efforts for tackling Biological warfare:

- *The Biological and Toxin Weapons Convention (BTWC) or Biological Weapons Convention (BWC) 1972*:
  o It was the first multilateral disarmament treaty banning the production of an entire category of weapons. It effectively prohibits the development, production, acquisition, transfer, stockpiling and use of biological and toxin weapons. It is a key element in the international community's efforts to address the proliferation of weapons of mass destruction.
  o India has ratified the BWC.
- *Australia Group*:
  o It was established in 1985 after the use of chemical weapons by Iraq in 1984.
  o It is an informal arrangement which aims to allow exporting or transhipping countries to minimise the risk of assisting chemical and biological weapon (CBW) proliferation.
  o India joined the Group on 19 January 2018.
- *For India*:
  o *Specialized body*: National Disaster Response Force (NDRF) is a specialized force constituted under MHA to deal with chemical, biological, radiological and nuclear (CBRN) attacks.
  o NDMA has issued guidelines on Management of Biological Disasters:
  o *Legislative Framework*: The policies, programmes and action plans need to be supported by appropriate legal instruments for effective management of biological disasters.
  o *Prevention of Biological Disasters*: Prevention and preparedness shall focus on the assessment of biothreats, medical and public health consequences, medical countermeasures and long-term strategies for mitigation.
  o The important components of prevention and preparedness would include an epidemiological intelligence gathering mechanism to deter a BW/BT attack
    - a robust surveillance system that can detect early warning signs
    - decipher the epidemiological clues to determine whether it is an intentional attack
    - capacity building for surveillance, laboratories, and hospital systems that can support outbreak detection, investigation and management.
  o A multi-sectoral approach to be adopted involving different ministries.
  o *Preparedness and Capacity Development*: An important aspect of medical preparedness in Biological Disaster Management includes the integration of both government and private sectors.

Problems in International Conventions:

  o Weak Verification and compliance issues: The Biological Weapons Convention bans the use of biological weapons. However, due to a weak verification and compliance procedure, there is no credible way to trace the development of biological weapons in any country.

Way Forward

- Ahead of the ninth Review Conference of the Convention in 2021, India reiterated its call for putting in place a comprehensive and legally binding protocol having a non-

discriminatory verification mechanism to strengthen norms to deal with biological weapons.
- The work of the Biological Weapons Convention will become difficult to sustain if the following does not occur:
    o Sufficient and sustained funding by states parties to include payments now in arrears
    o Strong leadership and a successful December MSP that reaffirms the importance of the treaty to the international community and that also develops an inter-sessional work program
    o A vision for developing the role of the BWC as part of a larger interconnected global security architecture.
- There is a need of strict verification and legal mechanism to inspect any biotechnology and pharmaceutical industry site like in the Chemical Weapon Convention.
- Better coordination between countries: Countries should work together and share credible intelligence. The early detection and preventive measures could save lot of lives.

6. Constitutional Crisis in Maharashtra

Context: Mr. Uddhav Thackeray became the Chief Minister of a coalition government in Maharashtra without being a member of the legislative assembly or legislative council. The postponement of MLC elections by Election commission due to Covid-19 could have led to a constitutional crisis in Maharashtra.

Background: Tussle between Governor and state government

- **Mandate of Constitution**: Article 164(4) of the Constitution states that any minister or CM has to be a member of any house of legislature or need to become one within 6 months.
- **Two options**: To become member of Maharashtra Legislative Council or get nominated by the Governor to the legislative council.
    o **Polls postponed**: Indefinite postponement of the MLC election by ECI
    o **Nomination**: The MVA coalition government's cabinet sent a recommendation to the Governor to nominate the CM to the MLC.

Discretion: The Governor used his discretion to ignore the recommendation of the cabinet. This could have led to a Constitutional crisis.

What are the main issues in the constitutional crisis in Maharashtra?
There are three main issues which could have led to the constitutional crisis. These are:
1. **Indefinite Postponement of election**: ECI used its power under Art 324 to indefinitely postpone the elections due to the pandemic.
    - Unlike the Rajya Sabha/Legislative Council elections which can be postponed indefinitely, the EC can postpone elections to the Lok Sabha and State Legislative Assemblies for a period of only six months, the constitutionally defined limit between two sessions of the House/Assembly.
    - *For a further period of extension*:
    - The first option is a provision to Article 172(1) whereby during a state of Emergency, an election can be postponed for one year but the maximum period is only 6 months after Emergency is lifted. (a state of Emergency can be declared only if there is a threat to the security and sovereignty of the nation, not if there is an epidemic or a pandemic)
    - The second option is to declare President's rule in the State. But its limits have been repeatedly defined by the Supreme Court.

Case study of South Korea:
COVID-19 pandemic could last for two years. Postponing elections for such a long time would be against the spirit of democracy and federalism. South Korea just conducted its national election with 44 million voters in the midst of the pandemic. It prepared a fool proof plan of disinfecting polling centres, and mandating that voters practice physical distancing, wear gloves and masks and use hand sanitiser etc.

2. *Governor not following the aid and advice for nomination*:
   - The parliamentary convention requires that the Governor is supposed to act on the advice of the Council of Ministers. The decision of the Cabinet is binding on him.
   - Nomination power: Under Article 171(5), Governor can nominate those "persons with special knowledge or practical experience in respect of such matters as the following, namely: literature, science, art, co-operative movement and social service".
   - In the present case, the Governor chose to ignore the recommendation and act as per his discretion, which is against the various verdicts of the judiciary.

In Biman Chandra Bose vs Dr H C Mukherjee (1952) *the Calcutta High Court held that the Governor cannot use his discretion in nominating members to the Council.*
He has to go by the aid and advice of the Council of Ministers.

3. *Legal issues of CM of Maharashtra having to be nominated to the Legislative Council on one of its two vacancies*:
   - *Section 151A of the Representation of the People Act, 1951*: It mandates the Election Commission to fill the casual vacancies in the Houses of Parliament and State Legislatures through bye elections within six months from the date of occurrence of the vacancy.
     (*Casual Vacancy*: When the seat of a member of any house becomes vacant or when his or her election is declared void, the constituency from where the member was elected can vote for another person to fill up the vacancy).
   - *It doesn't apply if*:
     o The remainder of the term of a member in relation to a vacancy is less than one year.
     o The Election Commission in consultation with the Central Government certifies that it is difficult to hold the by-election within the said period.
   - During the crisis, there were two vacancies in Council whose terms were to end on June 6, 2020.
     Thus, this could not be a reason for the Governor to refuse nomination because the bar is in respect of a bye-election to fill a vacancy and not nomination.

4. *CM can subvert Article 164 by reappointment*: In an earlier case of 1995, Congress leader Tej Parkash Singh, who was then not a member of the Assembly of Punjab was appointed a minister in September 1995. In March 1996, before he could get elected within six months, the minister resigned but was subsequently appointed again as minister during the term of the same legislature. The Supreme Court in *S.R. Chaudhuri v. State of Punjab and Ors* (August 17, 2001) pronounced such act as undemocratic and unconstitutional.
   - *Criteria for nomination by Governor under Article 171*:
     o *There are 5 criteria mentioned in the Constitution*: literature, science, art, co-operative movement and social service.
     o *Where does Maharashtra CM Uddhav Thackeray stand as per the above criteria*? Maharashtra's CM can be said to have a stronger claim in this regard

as he is an ace wildlife photographer. The Allahabad High Court in Har Sharan Varma vs Chandra Bhan Gupta And Ors pronounced that even politics can be seen as social service.

Way Forward

- A mantra for the governor while using discretionary powers: a choice dictated by reason, actuated by good faith and tempered by caution.
- The political impasse was averted through the Prime Minister's intervention and the ECI's prompt action as polls to nine legislative council seats in Maharashtra were held. The possible political crisis was largely a result of the COVID-19 pandemic situation prevalent. Henceforth, the ECI could adopt targeted measures like proxy voting under a well-established legal framework, postal voting, and mobile ballot boxes to fulfil its mandate of 'No Voter Left Behind'.

7. Pre-retirement judgements and post-retirement jobs

Context: Former CJI Ranjan Gogoi takes oath as Rajya Sabha MP during the Budget Session of Parliament.

Background: Former CJI Ranjan Gogoi retired from the SC in November 2019 and presided over important cases such as Ayodhya and Rafale where all the decisions went in favour of the government. This gave rise to the impression that his nomination was a reward for these 'favours'.

Why independence is required for judiciary?

- *Impartial judgement*: It guarantees that judges are free to decide honestly and impartially, in accordance with the law and evidence, without concern or fear of interference, control, or improper influence from anyone.
- *Rule of law*: The judiciary ensures that Executive must act under the law and not by its own decree or fiat.
- *Protector of Constitution*: Judiciary serves as a safeguard for the rights and privileges provided by a constitution and prevents executive and legislative encroachment upon those rights.
- *Securing Justice*: To provide for a system which secures to its citizens adequate procedure for the redress of their grievances against the State.

Similar Incidents:

- **Chief Justice Subba Rao** resigned from the SC to contest elections for President in April 1967.
- **P. Sathasivam**: He was the CJI from 2013 to 2014 and on retirement was appointed as the Governor of Kerala in 2014.
- Supreme Court Crisis: Four senior most judges revolted against CJI Dipak Misra.

How Independence of Judiciary is maintained by Constitution?

Article 124(7) of Indian Constitution states that No person who has held office as a Judge of the Supreme Court shall plead or act in any court or before any authority within the territory of India.

Some other provisions include:

Fixed Conditions	Judges remain in office until they reach the retirement age 65 for Supreme Court judges and 62 for high court judges. Their salaries are charged on the Consolidated Fund of India in case of Supreme Court judges.

Security of Tenure	These judges do not hold their offices at the "pleasure" of the President. They can only be impeached by a supermajority of both houses of Parliament "on the ground of proved misbehaviour or incapacity" (Article 124(4)).
Separation of Power	Article 50 says it is the duty of the State to take steps to separate the judiciary from the executive.
Contempt Power	Both the Supreme Court and the High Court have the power to punish any person for their contempt (Article 129 and 215).
Others powers	The supreme court is the guardian of the constitution and has the power of Judicial Review. Parliament can only add to the powers and jurisdiction of the Supreme Court but cannot curtail them.

Vidhi Center for Legal Policy
70 of the last 100 judges who retired from the Supreme Court until 2016 took up post-retirement jobs.
56% of all the appointments studied were made because the law required it, implying a structural problem.

Issues regarding retirement plans of judges
- **Issue of constitutional propriety**: In the absence of defined constitutional post retirement roles. The government could reward judges who decide cases in its favor. There is a need of committed judiciary.
- **Conflict of interest and quid pro quo**: The Constitution provides that a retired SC judge cannot "plead or act in any court or before any authority within the territory of India" but not in posts of president, governor, MP. An absolute ban on post retirement role was rejected by B.R Ambedkar, he felt that the judiciary decides cases in which the government has no interest. This reasoning no longer holds today because the government is one of the largest litigants in the courts.
- **Judges for life**: The USA federal court judges remain judges for life since there is no retirement age. However, this principle gives absolute freedom and is against the principle of checks and balances.
- **Perception**: Justice should not just be done but also seen to be done. If a judge accepts even constitutional post as a post-retirement job, it leads to the public perception questioning judicial integrity.
- **Structural problem**: It is required by the law to appoint retired judges in tribunals, commissions etc.

Role Model:
In 1970, Mohammad Hidayatullah was hearing his last judgement as CJI of the highly political privy purses case.
He publicly rejected any post retirement jobs.
Several years after his retirement, Hidayatullah accepted the post of Vice President of India under the Janata government.

Suggestions to uphold independence of judiciary and Way Forward:
- **Law Commission in its 14th report in 1958**: It noted that retired Supreme Court judges used to engage in two kinds of work after retirement: Chamber practice (giving judicial advice and arbitrage) and hold constitutional/statutory posts. The Law Commission strongly recommended banning post-retirement government employment for Supreme Court judges because the government was a large litigant in the courts.
- **Lack of clarity**: Post-retirement conduct of judges should be regulated. It is submitted that either the Constitution be amended so as to enable retired Judges of the Supreme Court

to either act or plead or the statutes requiring appointment of retired judges be amended to make them conform to Art. 124(7).
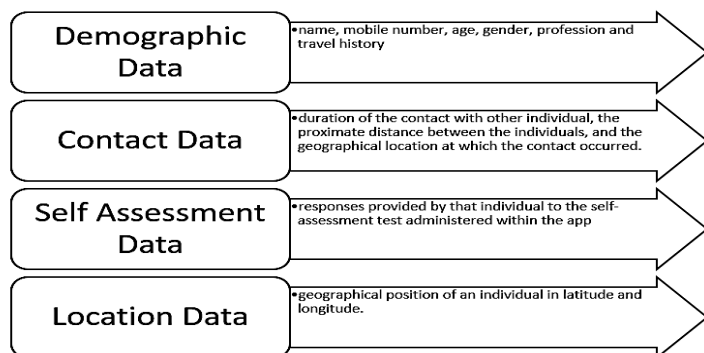
- *Compensation to Judges by giving them their last drawn salary as pension*: In this way, temptations can be reduced to go for post-retirement jobs.
- *Increasing the retirement age*: To undo the damage caused by post-retirement jobs. The parliament should consider increasing the retirement age of the judges so as that the judges can utilize their productive years.
- *Cooling Off period*: Several appointments to administrative bodies require a cooling-off period for individuals so as to eliminate the possibility or suspicion of a conflict of interest. This should be extended to judiciary as well.
- A pool of retired judges are ready to take up post-retirement jobs. In this scenario, "Caesar's wife must be above suspicion" should be for Judiciary.

8. Aarogya Setu: The Many Conflicts of a Life-saver App

Context: Advocacy group Internet Freedom Foundation (IFF) has approached the Standing Committee on Information Technology, against mandatory use of Arogya Setu app on privacy concerns.

Arogya Setu App
- o It is a Bluetooth based Covid-19 contact tracing mobile application.
- o *Developed by*: National Informatics Centre under the Ministry of Electronics & Information Technology.

Demographic Data	•name, mobile number, age, gender, profession and travel history
Contact Data	•duration of the contact with other individual, the proximate distance between the individuals, and the geographical location at which the contact occurred.
Self Assessment Data	•responses provided by that individual to the self-assessment test administered within the app
Location Data	•geographical position of an individual in latitude and longitude.

Features of Aargoya Setu

Need for Arogya Setu: In the absence of any medication/cure of covid-19, the WHO has prescribed social distancing as a norm to curtail the spread of the virus. Various governments and fintech companies have created social distancing application to warn people and caution their mobility.

Features of Aargoya Setu:
1. *Easy contact tracing*: Manual contact tracing is a strenuous task and can be flawed. App based contact tracing is more accurate and effective.
2. *Data collection*: The Arogya Setu app collects data on people who are high risk of being infected, or who have been in contact to infected individuals and their geographical location. This data is crucial for demarcating containment zones and formulate appropriate health responses.
3. *Updates User*: Arogya Setu app updates the user in case he/she has crossed paths with the positive COVID-19 case within 6-feet proximity thus helping the person to take necessary actions. Until 12th May, the app has alerted around 1.4 lakh users for being in the proximity to infected persons and helped generate information about 697 potential hotspots in the country

4. *Awareness Generation*: The Arogya Setu app plays a determining role in awareness generation on Covid-19 by providing information on social distancing, do's and don'ts regarding Covid-19.

5. *Risk assessment*: The app helps an individual assessing risk of being infected by coronavirus through Self-Assessment Test.

Contact Tracing apps of different countries
TraceTogether: Singapore | close contact detector: China | COVIDSafe: Australia | StopCovid: France | HaMagen: Israel

Concerns over Arogya Setu App

- *Breach of Right to privacy*:
  - According to critics, the app violates the requirements of the right to privacy test outlined by the Supreme Court of India in its judgement in KS Puttaswamy v Union of India (2017).
  - The government has made the use of app mandatory for many sections of citizens such as central government employees, flight passengers without any legislative authorization.
  - Further, the government's use of penalties in case of non-usage of the app has considered arbitrary and unconstitutional.

    Note: Right to Privacy is a fundamental right under Article 21 of the Indian Constitution.

- *Concerns over Mass surveillance*: Critics have raised concerns that the app may be used for mass surveillance as the application constantly accesses location data and Bluetooth data.

- *Purpose Limitation*: Indian government has not clearly stated the app's purpose, functioning, and the nature of the use of the sensitive personal data.

- *Lack of Transparency*: The app only provides vague Terms of Service (TOS) and Privacy Policy. It does not provide technical specifications, general FAQs. Until recently, it also did not provide source code which meant it could not be audited for security flaws by independent coders and researchers.

- *Concerns over Hacking*: Activists have also raised concerns over hacking of the app and consequent misuse of personal data of millions of Indians by miscreants.

- *Data Protection*: Given that India lacks a comprehensive data protection law, critics have raised concerns over protection of personal information and safeguards in case of misuse of data.

Proportionality and legitimacy Test in Right to Privacy : To satisfy the proportionality standard adopted in Puttaswamy judgement, the use of any privacy infringing technology must satisfy five criteria.:
- it must have a legislative basis.
- it must pursue a legitimate aim.
- it should be a rational method to achieve the intended aim.
- there must not be any less restrictive alternatives which can also achieve the intended aim.
- the benefits must outweigh the harm caused to the right holder.

Checks and Balances Provided by the government: The government has laid down the following guidelines for sharing of data collected by the Aarogya Setu app with government agencies as well as third parties:

- *Data sharing*: National Informatics Centre (NIC) can share response data with the Health Ministry, Health Departments of states/UTs/local governments, National and State Disaster Management Authorities and other ministries and government departments only for formulating or implementing health response.

o **Third Party**: Data can be shared to a third party only for health-related purpose. Further, data can be shared with universities for research purpose.
- **Form of data**: The data can be shared only in de-identified form i.e. except for demographic data, the response data should have any information to identify the individual personally.
- **Maintaining Data sharing Register**: The NIC must maintain a list of the agencies with which data has been shared.
- **Retention of Data**: An entity with which data has been shared cannot retain the data beyond 180 days from the day it was collected.

Bug Bounty Program: It seeks to partner with security researchers and Indian developer community to test the security effectiveness of Aargoya Setu and enhance its security and build user's trust.

Steps to be taken:
- **Making use of app voluntary**: The usage of the app should be made voluntary and there should not be any use of penalties in case of non-usage of the app, as the right to be left alone is a part of right to privacy.
- **Ensuring transparency**: The government should publish the application's specifications with respect to Bluetooth, cryptography. The recent decision to make the source code of the app public is a step-in right direction.
- **Avoid Centralization**: The government should ensure that the personal data is not used after the Covid-19 pandemic and thus ensure nothing is centralized in the server. Example: The EU has issued guidelines stating that contact tracing apps should preserve user privacy and should not be used after contact tracing becomes no longer necessary.
- **Release Privacy impact assessment**: The government should release privacy impact assessment like Australia to deal with rising privacy concerns over the app.
- **Declaration of Purpose**: The government should release a manifesto stating all the processes, deployments, plans and justifications for the app. Singapore's clarity on its TraceTogether app can be followed as a best practice. The Singapore government has assured citizens that the contact tracing data will be used only for disease control and will not be shared with law enforcement agencies.

Conclusion: Usage of mobile applications for contact tracing during Covid-19 pandemic has become a popular idea across nations. However, the government must take necessary steps to ensure right to privacy and data protection.

9. Rajya Sabha: Peter the Sober or a Secondary Chamber

Context: Emergence of debate on utility of Rajya Sabha in Indian Parliamentary system

Origin of Rajya Sabha:
The origin of the second Chamber dates to the Montague-Chelmsford Report of 1918. The Government of India Act, 1919 provided for the creation of a 'Council of State' as a second chamber. The constitution later incorporated the bicameral system of Lok Sabha and Rajya Sabha.

Reasons why a bicameral system was envisaged in the constitution
The Union Constitution Committee under the Chairmanship of Shri Jawaharlal Nehru advocated for establishment of a bicameral legislature. The main rationale put forward were as follows:
- India is a diverse country and a single directly elected House was considered inadequate to meet the challenges before free India.
- Upper House would ensure **voice of unrepresented sections** of the States.

- Rajya Sabha being a ***permanent deliberative chamber*** would be useful when Lok Sabha is dissolved.
- It will ***check hasty, and ill-considered legislations*** passed by the Lower House.
- It will give ***relief to the lower house*** which is burdened by over-increasing volume of legislation

Relevance of Rajya Sabha:
1. **A legislative body**: Since 1952 till 1999 688 Government Bills were introduced in the Rajya Sabha which includes Prevention of Corruption, slum Areas (improvement and Clearance), the Bonded Labour System (abolition) Bill etc.
2. **A Revising Chamber**: It ensures an effective system of checks and balances to hasty legislations from lower house. Rajya Sabha has revised/stalled bills such as Income-tax (Amendment) Bill of 1961, Land acquisition amendment act 2014 and the National Honour Bill, 1971.
3. **As a chamber of the states**: As a federal Chamber, Rajya Sabha has been assigned certain exclusive powers.
   - Article 249 empowers the Rajya Sabha to legislate any matter in the State List in the national interest.
   - Article 312 empowers Rajya Sabha to create an All India Service through a special resolution
4. **As a scrutinizing chamber**: The Rajya Sabha plays an important role as a scrutinizing chamber by assessing the performance of the executive for ventilating public grievances. For instance, through the device of question hour, important matters of public interest are raised.
5. **Free from Populist approach**: As Rajya Sabha is an indirectly elected house, the members are not directly responsible to the constituency. Thus, the members need not apply populist approach.
6. **Inclusive Chamber**: the electoral composition of and the nature of elections to the Rajya Sabha ensures that diverse voices are well represented making the House an inclusive chamber.
7. **Chamber of Accountability**: Rajya Sabha is important to ensure executive accountability. Out of 24 Department-related Parliamentary Standing Committee in the Parliament, 8 are functioning under the direction and control of the Chairman, Rajya Sabha.

Did you know?
For the period 1978-2018, the Rajya Sabha spends 40 per cent of its functional time on deliberating issues of public importance, 32 per cent on ensuring accountability of the executive and 28 per cent in making laws

Issues associated with Rajya Sabha:
1. *Quality of members* : Critics have opined that over the years the quality of members of Rajya Sabha have seen a decline, with the membership being largely dominated by party fund-raisers, people who couldn't win general elections, crony capitalists, journalists, retired CEOs and civil servants.
2. *Frequent disruptions*: Disruptions in the Rajya Sabha sessions have been criticized time and again.
   - Rajya Sabha till 1997 had a productivity of 100% and above and the past 23 years have shown a disturbing trend of rising disruptions.
     - 2005-2014 – Productivity fell to 76%

- 2015-2019 – Productivity fell to 61%

3. **Affects good governance**: The question hour functioned only for 40% during 2014-2018. The time lost indicates a lost opportunity to hold the government accountable for its actions and thus, affects good governance.

4. **Reduced significance**: The Rajya Sabha has limited legislative powers with respect to the money bills and budget. Further, several important bills, such as the Aadhar Bill was introduced as a money bill. This has reduced significance of the Rajya Sabha as a validating chamber.

5. **Representation of states**: Since seats in Rajya Sabha are allotted based on population of the state, the number of representatives varies largely between states. Example: Uttar Pradesh has 31 members while Tripura has only 1. Therefore, RS is not truly a chamber of equal states.

6. **Quality of Debates RS vs LS**: The quality of debates in Rajya Sabha is not much different than that of Lok Sabha as the members of both houses follow the party lines.

Reforms Needed:

1. **Number of Sittings**: Due to disruptions and decline in productivity in RS, the National Commission to Review the Working of the Constitution (2002) in its report had recommended that the minimum number of days for sittings of the Rajya Sabha should be fixed at 100 days.

2. **Rules of Business**: Needs amendment to include legal implication for disruption and ways to ensure self-discipline on the part of the members to maximize compliance with the Rules of the Business.

3. **Ensuring participation**: Norms should be followed for enabling equitable and wider participation of members in the debates.

4. **Membership of the house**: It should be ensured that members with the right background and abilities are elected/nominated to the Rajya Sabha to enrich debates are sent to the House. India can learn from UK where The House of Lords Act, 1999 led to the introduction of the Appointments Commission in 2000. The Commission makes recommendations for the appointment of non-party-political members to the House of Lords.

5. **Representation of states**: Allocation of seats in Rajya Sabha should be irrespective of state population like that in USA. The USA has 50 states and the Senate has 100 members- 2 from each state.

6. **Infrastructure support**: Adequate infrastructure support should be provided to the members to enable informed contribution to the debates in the House.

7. **Attendance of members**: The presence of members in the house proceedings and in the meetings of the Department Related Standing Committees and other Committees of the House should be ensured.

8. **Technology Adoption**: Technology adoption (like e-Vidhan) should be promoted for improving the functioning of the members and for more lively conduct of the proceedings of the House.

Conclusion: It is important to reform the Rajya Sabha to make it strong and effective. An effective Upper House will ensure voice to the under-represented and uphold the federal-democratic structure of India.

10. Atal Pension Yojana: A Journey of Five Years

Context: The flagship social security scheme Atal Pension Yojana (APY) has completed five years of successful implementation.

Social security

It is defined as any programme of social safety that provides individuals with a degree of income security when faced with the events of old age, disability, unemployment, survivorship etc.
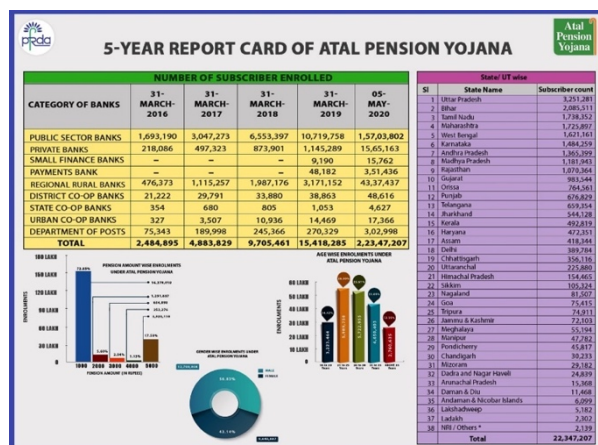
Need for social security in India:

- **Constitutional basis**: It has been mentioned in Directive Principles and concurrent list.
    - Article 41 wants the State to make effective provisions for securing the right to work, to education and to public assistance in case of unemployment, old age, sickness and disablement.
    - Article 43 of the Constitution places on the State the responsibility to provide Social Security to the citizens of this country.
    - It has been mentioned in Concurrent list such as Social Security and insurance, employment and unemployment.
- **Economic basis**: 85%of our population are employed in the informal economy, i.e they are not covered under any social security system by law. Therefore, it is the responsibility of the state to provide required social security to ameliorate risk associated with post retirement life.

What is Atal Pension Yojana?

History	Launched in 2015, it replaced the Swavalamban Yojana-NPS Lite.
Motto	Life is all about happiness regardless of the age
Objective	Delivering old age income security particularly to the workers in the unorganised sector and Government providing guarantee of minimum pension after 60 years of age
Conditions	APY can be subscribed by any Indian citizen in the age group of 18-40 years having a bank account.
Benefits of Atal Pension Yojana	Provides a minimum guaranteed pension ranging from Rs 1000-Rs 5000 on attaining 60 years of age. The amount of pension is guaranteed for lifetime to the spouse on death of the subscriber. In the event of death of both the subscriber and the spouse, the entire pension corpus is paid to the nominee.
Administered by	Pension Fund Regulatory and Development Authority (PFRDA)

Performance of scheme:

- **Enrolments**: The journey of APY over these five years has been phenomenal and as on May 2020, the total enrolment under the scheme stood at 2,23,54,028.
- **Addressing the challenges of aging problem**: The Indian demography is under transition, and by 2050 close to 20% of the population would be above 60 years of age. Therefore, provision of pension reduces economic dependency, provides social dignity and financial empowerment to the ageing section of our society.

- *Inclusive for women*: The sex ratio of age group (beyond 60 years) is tilted towards the female. With the male to female subscription of 57:43, the scheme caters to the need of women.
- *Flexible provision*: The scheme provides the flexibility to the spouse of the deceased beneficiary to either continue to reap the benefits or exit. This provision enhances social security to the dependents.
- To help workers save money for their old age while they are working and guarantees returns post retirement

Case study – Bangladesh
- People save each week a committed amount, say, 250 taka, in a scheme in Bangladesh. They do this for 10 years.
- At the end of 10 years, the bank match with the amount they have saved.
- They can now take the entire corpus out or put it back as a fixed deposit and earn the same interest for as long as they want.
- "It is a very popular scheme and the poor love it for its simplicity," said Mohammad Yunus of Bangladesh.
- Do the poor get a bad deal? Nope, the product gives a compounded average return of 12.6% for a 10-year deposit.

Reforming the scheme:
- *Conditional support by central government*: The scheme has an arbitrary sunset clause of co-contribution by Central Government of 50% of the total prescribed contribution by a worker, for those who joined APY before 31.12.2015. This should be extended indefinitely to improve coverage.
- *Voluntary Exit*: The scheme is silent on the return of benefits in case of voluntary exit.
- *Switching of schemes*: There is no provisions for the beneficiary to transfer the premium paid to any other scheme run by the government in the future.
- *Increasing the net*: Even after 5 years of the scheme, only 5% of the eligible beneficiaries have been covered so far. The age group could be opened further for making it a universal scheme.
- *Increasing government share*: For particularly vulnerable sections, the share of government could be increased further.
- *More portability*: In Andhra Pradesh, Volunteers are planned to visit the houses of beneficiaries to hand over pensions under the YSR Pension Kanuka Scheme who can't come due to lockdown. Similar approach could be used in APY in future.

11. One Nation One Ration Card – A Delayed Endeavour

Context: The Finance Minister announced that the entire nation will be covered under "one Nation one ration scheme" by March 2021 as part of Aatma-Nirbhar Bharat Abhiyan package.

1996– World Food Summit stated that food security was achieved when all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meets the dietary needs

What is the idea of food security in India and how has it changed over period of time?
The idea of food security traditionally has been the ability to avail, access food at affordable price.
- *Availability*: of food means, the presence of food stocks (through production or import) to fulfil the demand of food grains

- **Affordability**: implies that citizens have enough money to buy the desired food items
- **Accessibility**: means the food is within the reach of every person.

Techonological innovation and agricultural application through the green revolution has enabled India to be food secure. This food was later distributed through various programs like the PDS, TPDS, Mid day meal scheme etc. However, according to FAO, India is home to 14.8% of the population as undernourished. This has changed the policy makers to move away from food security to nutritional security. Presently the government through its Atma Nirbhar Bharat Mission is focusing on livelihood security.

The aspect of food and nutritional security is presently operationalized through the National Food Security Act (NFSA), 2013.

NFSA *performance since inception*:

- Under the National Food Security Act, 2013, about 81 crore persons are entitled to buy subsidized food grain from their designated Fair Price Shops (FPS) of the Targeted Public Distribution System (TPDS):
- Currently, about 23 crore ration cards have been issued to nearly 80 crore beneficiaries of NFSA in all states and UTs.
- In the present system, a ration cardholder can buy food grains only from an FPS that has been assigned to one's locality in which the person

Timeline of Events

	Timeline	Details
Public Distribution System	1940s	Launched as general entitlement scheme
Green revolution	Late 1960s	Self sufficiency in food grains- Macro level food security
Targeted Public Distribution System	1997	PDS was revamped to target poor households
People's Union for Civil Liberties (PUCL) *vs.* Union of India	2001	Ongoing case in Supreme Court contending that "right to food" is a fundamental right
National Food Security Act	2013	
Swaraj Abhiyan vs. Union of India	2016	Sc observed the right to food a constitutional right and not merely a statutory right.

lives. However, this system doesn't guarantee a complete coverage since many rural families have members working in urban areas and undertake regular migration for livelihood purposes. Therefore, there is a felt need for 'One Nation, One Ration Card' system to ensure universal accessibility of food.

What is One Nation One Ration Scheme?

- **Objective**: to introduce nation-wide portability of ration card holders under National Food Security Act, 2013 (NFSA) which will enable them to lift their entitlement food grains from any Fair Price Shop in the country without the need to obtain a new ration card.
- It achieves this by integrating the existing PDS systems/portals of States/UTs with the Central systems/portals, etc.
- **Working**: The new system, based on a technological solution, will identify a beneficiary through biometric authentication on electronic Point of Sale (e-PoS) devices installed at the FPSs.

Advantages of One Nation One Ration:

- **Availability of food to poor by Portability**: Ration card portability is aimed at providing intra-state as well as inter-state portability of ration cards.
- **No need for new ration cards**: It will enable migrant workers to buy food grains from any FPS by using their existing/same ration card.
- **Achieving Social Justice**: The migrants, women and tribal are the most vulnerable section of society. Migration affects their food intake and makes them susceptible to

undernutrition. ONORC would improve the demographic attributes of the most vulnerable.

- **Ensuring self-sustainability for the Migrants**: With lockdown, all the economic activities are affected. The migrants are without work which is one of the important reasons for their movement. This could provide food security to them so they don't have to rely on others in time of crisis.

Intra-state usage: In April 2020, 1.05 crore people used their ration cards at a different ration shop within their own district while almost 6.5 lakh used their cards in a different district within their own state

Challenges to One Nation One Ration:
- **The fiscal implications**: ON-ORC will affect how the financial burden is shared between states.
- **The larger issues of federalism and inter-state coordination**: Many states are not convinced about a "one size fits all" regime because they have customized the PDS through higher subsidies, higher entitlement limits and supply of additional items. For example- Tamil Nadu implements a universal PDS in which every household is entitled.
- **Very low inter-state usage of the scheme**: From 60 crore people covered under the scheme, only about 200 interstate migrants are making transactions per month since the lockdown began.
- **Most States suspended biometric authentication at ration shops due to fear of Corona**: The scheme works with biometric authentication using electronic point of sale machines.
- **Lack of awareness**: Migrants don't have the correct information about the scheme.
- **Exclusion error**: Still a large part of the deserving population is out of the scheme. Linking all ration cards with Aadhar is a cumbersome process. In March 2020, Biometric identifier Aadhaar was issued to over 90 per cent of the population 'as' informed in Parliament.
- **Updating labour migration patterns**: Getting the current location of the migrant worker to avoid duplication is a big challenge. There is a lack of information on internal migration.
- **The technology aspect**: ON-ORC requires a complex technology backbone that brings over 750 million beneficiaries, 5,33,000 ration shops and 54 million tonnes of food-grain annually on a single platform.

According to food ministry data, 4.37 lakh (nearly 82%) of the 5.35 lakh fair price shops have e-PoS devices but still 18 % don't have. (As of November, 2019)

Way Forward
- Fix strict timelines for digitization of PDS and Aadhaar seeding of PDS database.
- The government should explore ways to compensate the FPS dealers through a model with a fixed and a variable component for their commission.
- Respective state governments should assess the data on intrastate portability transactions and optimize the locations of FPS.
- The government should setup a national council for ON-ORC which should meet regularly, have specific decision-making authority and should operate in a problem-solving mode based on consensus building.
- There should be setting up of a PDS network (PDSN) which should incorporate principles such as inclusion, privacy, security, transparency, and accountability.

12. CTBT-An Unequal Treaty

Context: Recently the US accused China of conducting low-level nuclear test blasts in violation of the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

Nuclear Proliferation: It is defined as the spread of nuclear weapons, nuclear weapons technology, or fissile material to countries that do not already possess them. There are two types of Nuclear Proliferation:
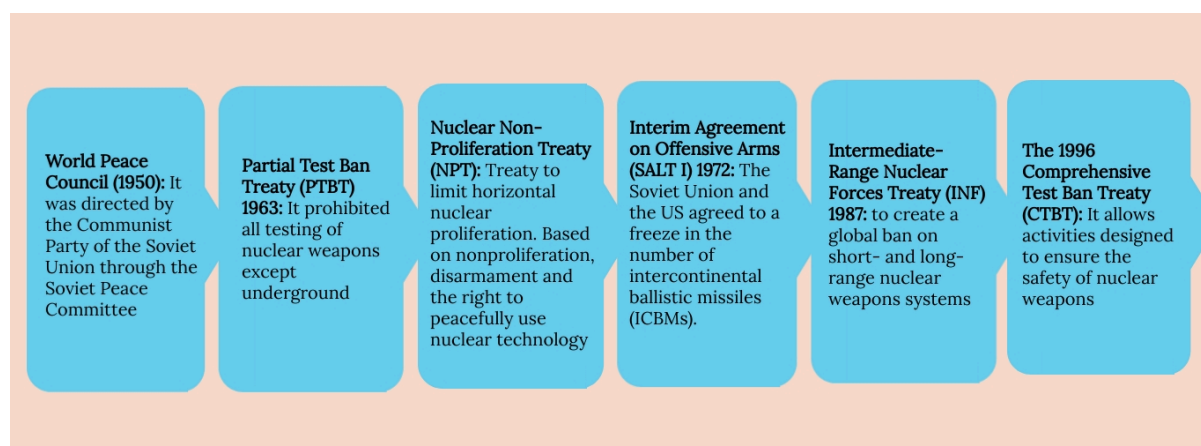
   a. *Horizontal Proliferation:* The development of capability for producing or acquiring nuclear weapons by countries that do not currently have nuclear weapons. This also includes non-state actors.
   b. *Vertical proliferation*: The increase of weapon stockpiles, improvement in technical sophistication and development of new weapons by countries that currently have nuclear weapons.

There was a possibility of human race destroying itself especially after the Cuban Missile Crisis of 1962 which brought the United States and the Soviet Union to the brink of all out nuclear war. It led to nations cooperating with each other to create an international regime to contain both horizontal and vertical nuclear proliferation.

Why was there a need for such international cooperation in nuclear weapon system?

- *Threat*: Global nuclear arsenals are capable of destroying not only cities but civilization itself.
- *To control increasing horizontal proliferation*: In the 1960s it was widely assumed that there would be 30-35 nuclear weapons states by the turn of the century.
- *Massive build-up of weapons*: Countries engaged in an arms race during cold war. Especially among the superpowers - USA and the Soviet Union have more than 70000 nuclear warheads during Cold War.
- *Military deterrence*: Military deterrence has been an internationally accepted reason for possession of nuclear weapons. The doctrine of Mutually Assured Destruction (MAD) created sufficient deterrence that prevented nuclear war during the cold war. Such sense of assurance incentivised the two main nuclear powers to cooperate and limit the number of warheads beyond a threshold.

Need of the CTBT: Between 1945 and 1996, over 2,000 nuclear tests were conducted mainly by the US (over 1,000), the Soviet Union (700) and France (200). This treaty was brought in to halt further nuclear tests.
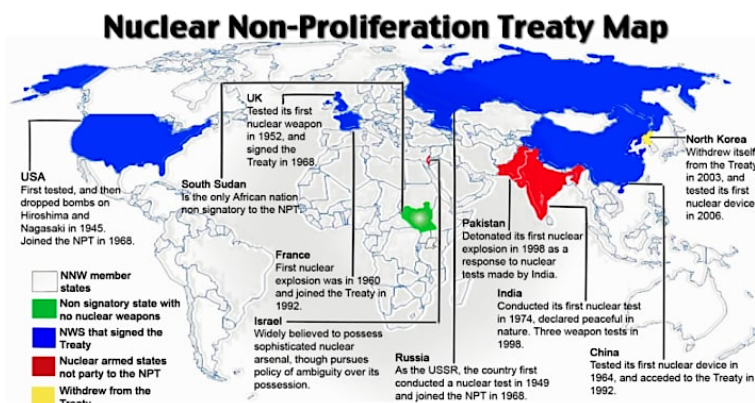

Timeline of various International Initiatives

What is CTBT?

CTBT is the treaty banning all nuclear explosions - everywhere and by everyone. It was negotiated at the Conference on Disarmament in Geneva in 1996. The treaty was adopted by the United Nations General Assembly.

Failure of CTBT:

- **The Treaty not entered into force yet:** The Treaty's entry into force depends on the ratification by 44 specific states that had nuclear facilities at the time the Treaty was negotiated and adopted.
- However, out of the 44 countries, only 35 have ratified so far. Countries like China, Egypt, Iran, Israel and the US, have signed but not ratified. India, North Korea and Pakistan have neither signed nor ratified.

Nuclear Non-Proliferation Treaty Map

UK
Tested its first nuclear weapon in 1952, and signed the Treaty in 1968.

USA
First tested, and then dropped bombs on Hiroshima and Nagasaki in 1945. Joined the NPT in 1968.

South Sudan
is the only African nation non signatory to the NPT.

North Korea
Withdrew itself from the Treaty in 2003, and tested its first nuclear device in 2006.

Pakistan
Detonated its first nuclear explosion in 1998 as a response to nuclear tests made by India.

France
First nuclear explosion was in 1960 and joined the Treaty in 1992.

India
Conducted its first nuclear test in 1974, declared peaceful in nature. Three weapon tests in 1998.

Israel
Widely believed to possess sophisticated nuclear arsenal, though pursues policy of ambiguity over its possession.

Russia
As the USSR, the country first conducted a nuclear test in 1949 and joined the NPT in 1968.

China
Tested its first nuclear device in 1964, and acceded to the Treaty in 1992.

- NNW member states
- Non signatory state with no nuclear weapons
- NWS that signed the Treaty
- Nuclear armed states not party to the NPT
- Withdrew from the Treaty

- **No disarmament**: The treaty doesn't mention any possibility of a verifiable disarmament of the weapons held by nuclear weapons states.
- **Terms not defined**: CTBT prohibits all parties from carrying out "any nuclear weapon test explosion or any other nuclear explosion" but these terms are neither defined nor elaborated.
- **Technological capacity**: The developed countries had technological superiority and could test the weapons using computer simulators. Such capacity created technological haves and have nots.
- **Negotiations were often contentious**: France and China continued testing claiming that they had conducted far fewer tests and needed to validate new designs since the CTBT did not imply an end to nuclear deterrence.

India's stand to CTBT: India has committed itself to universal, globally verified disarmament of nuclear weapons. However, it has not signed the CTBT on the following grounds:

- **Discriminatory in nature**: CTBT was yet another example of nuclear apartheid against India. It did not mandate the original Nuclear Weapon States (NWS) to adopt equal obligations towards universal nuclear disarmament.
- **Security Consideration of India**: China-Pakistan nuclear nexus compelled India to eventually conduct a series of nuclear tests in May 1998.
- **Following the 1998 nuclear tests**: India declared a unilateral moratorium on nuclear testing and has continued to adhere to that position. So India is advancing the objectives of the treaty without formally joining it.
- **Flexibility in testing**: Signing the treaty would forever close the option of future testing.

Critics argue that India should reconsider to join CTBT:

- It would enhance India's stature as a responsible member of nuclear community.
- It would pave the ground for larger diplomatic gains like entry into NSG.
- Our 1998 test was fully successful and we may not require any further testing.
- Our nuclear doctrine of 'credible minimum deterrence' implies that we may not require large number of testing.
- India has now bridged the technology gap and has the capacity to conduct computer-based simulated tests to check the efficacy of our arsenal.
- Our rhetoric of nuclear disarmament would gain credibility.

Measure to be taken to ensure nuclear free world and Way Forward

- *Fulfilling obligations*: All NPT parties, should undertake negotiations on effective measures leading to nuclear disarmament. Rajiv Gandhi Plan of Action (1988) which called for time-bound, verifiable, non-discriminatory global nuclear disarmament can guide the world in this regard.
- *More number of nuclear-weapons-free zones (NWFZ) are needed*: They are defined by the UN as an agreement which a group of states have freely established by treaty or convention that bans the use, development, or deployment of nuclear weapons in a given area. such as the African Nuclear-Weapons-Free Zone Treaty.

13. Afghan Peace Process and India's Quest for New Playbook

Context: Recently the US and Taliban have signed a peace deal "agreement for bringing peace" to bring an end to conflict in Afghanistan.

Timeline of Power struggle

NATO led International Security Assistance Force (ISAF) forces withdrew from Afghanistan in 2011. US also decided a phased withdrawal from Afghanistan in 2014. This enabled Taliban to gain lost ground. Today Taliban controls about 50% of the Afghan territory. This has been a virtual victory of the Taliban, which negotiated a ceasefire agreement with the US in 2019.

US-Taliban Deal:

- *Troops withdrawal*: There would be a conditional withdrawal of US troops by 2021
- *Conditions on Taliban*: Not to allow anyone to use the soil of Afghanistan to threaten the security of the US and its allies.
- *Sanctions removal*: UN sanctions on Taliban leaders to be removed within three months from the agreement.
- *Issue of Prisoner release*: There was major disagreement on the number and time for the exchange of prisoners.

Challenges of the deal

- *For the region*: The withdrawal of US would create a situation of instability and a power vacuum resulting in the emergence of terror activity in the region.
- *For USA*: Its negotiation from a position of weakness has proved that USA is no longer the global policeman. The hastened withdrawal would create multiple centres of power, which will affect any future engagement with the Afghan State.
- *For Afghanistan:* The four-page pact signed between Zalmay Khalilzad, US Special Representative and Mullah Abdul, political head of the Taliban, effectively side-lined the elected Afghan government. This has also questioned its legitimacy. Recently, the

politically challenged inconclusive mandate has fractured the Afghan polity. As witnessed during the simultaneous swearing of former President Ashraf Ghani and CEO Abdullah Abdullah. This will lead to ineffective governance.

- **For Pakistan**: With its influence over the Taliban, Pakistan has gained strategic dept over its western borders.
- **For Taliban stance**: Taliban has regained lost territories. The Taliban rejects the presence of any government in Kabul and claims to be the nation's sole political leader.

Implications of Taliban resurgence:

- **Strategic**: The political vacuum would increase the sphere of influence of competing terrorist organisation like the ISIS, AQIS (Al Qaeda in Indian Subcontinent) which could destabilize the entire region.
- **Economic**: Political instability and resulting violence will derail economic growth, business climate and human development in Afghanistan. India has invested close to 3 Billion dollars in economic projects (India-Afghan friendship dam, Electricity grid, Parliament buildings etc)
- **Cultural**: Taliban is known for its conservative politics and support for sharia law which may discriminate against weaker and vulnerable sections of the society. Such as the Malala Yousafzai was shot by Taliban in response to her activism for women education in Pakistan.

Evolution of India's Policy towards Afghanistan:

- **During Taliban rule from 1996**: India did not recognize Taliban government as India considered it to be a terrorist organisation (hijacking of Indian airlines Flight 814). India covertly supported the Northern Alliance alongside ISAF, which fought a defensive war against the Taliban government.
- **After end of Taliban regime**: India re-established its presence through investment in social and physical infrastructure development. India-Afghan Strategic Partnership was signed in 2011.

HELPING HAND
India's pledged assistance to Afghanistan stands at $3.1 billion since November 2001.

Infrastructure projects with Indian help:
1. A 218 km-road project from Zaranj to Delaram in south-western Afghanistan.
2. A 220 kV DC transmission line from Pul-e-Khumri to Kabul.
3. The Salma Dam power project in Herat province.
4. The Afghan parliament and the Indira Gandhi Institute of Child Health and Habibia School, both in Kabul.
5. A 220/110/20 kV substation at Chimtala.

- **India's role in Peace Process**: India insisted that any political compromise should be "Afghan-led, Afghan-owned and Afghan controlled process". But due to pressure from Pakistan on USA, India was mostly ignored in peace talks.
- **Change in India's stand**: With global community engaging with the Taliban, India changed its stand and created new redlines for any peaceful political solution.

India draws new 'red lines' for talks on Afghan peace process:

- "All initiatives and processes must include all sections of the Afghan society, including the legitimately elected government". This means that there is acceptability in Delhi about talking to the Taliban — since they represent a "section of the Afghan society".
- "Any process should respect the constitutional legacy and political mandate". This means that the achievement of establishing democratic processes and human rights, including women's rights, should be respected.
- Any process "should not lead to any ungoverned spaces where terrorists and their proxies can relocate". This is crucial for India, as it points out the threat from terrorist groups including the Haqqani network, Al Qaeda, Islamic State, which must not be allowed to operate there.

Options for India:

- New Delhi's Afghan policy needs changes and must include openly talking to the Taliban and all other political groups.

- Directly talking to Taliban on the one hand gives India options but it may also wipe out our goodwill among the progressive sections of Afghan society.

- India might consider appointing a special envoy dedicated to Afghan reconciliation. The envoy could make sure that India's views are heard at every meeting and conference on reconciliation.

- India should avoid putting boots on the ground as it may be costly and entangle us in Afghanistan like the USA, but India could continue to provide much needed military support to Afghan forces.

- India can organise a Jirga (grand assembly of people) to popularise the idea of Afghan-led reconciliation.

- Pursue a regional approach to peace by working actively at SCO's Afghanistan Contact Group.

Way Forward

After years of fighting the insurgents, peace is the only solution for Afghanistan. For Afghanistan's future, the Taliban has to be engaged in peace talks. Afghanistan is already one of the most poor countries in the world. COVID and Taliban can make its condition even worse.

1. Labour Reforms: The Tussle between Flexibility and Security

Context: Amid the ongoing Covid-19 pandemic, several states have put forward ordinance and notifications containing exemptions from compliance with certain labour laws.

Significance of labour laws:
- **Rights**: Labour laws define legal rights and obligations of employee and employers.
- **Relationship**: It regulates industrial relations and mitigates industrial disputes. Conducive industrial relations are important for economic growth and progress.
- **Investments**: Progressive labour laws are important for ease of doing business and attracting foreign investment.
- **Regulations**: Labour laws regulate working conditions, payment of wages and social security of workers.

Classification of Labour Laws in India

There are 44 central laws and more than 150 state laws on labour. The labour laws can be categorised into the following:

1. **Conditions of Work**: Factories Act, 1948, The Contract Labour (Regulation and Abolition Act), 1970, Shops and Commercial Establishments Act
2. **Wages and Renumeration**: The Minimum Wages Act, 1948, The Payment of Wages Act, 1936
3. **Social Security**: Employees Provident Fund Act, 1952, Workmen's Compensation Act, 1923, Employees State Insurance Act, 1948
4. **Employment Security and Industrial Relations**: Industrial Disputes Act, 1947, Industrial Establishments (Standing Order) Act, 1946.

Constitutional Provisions related to Labour Laws in India:
- **Article 246** puts the issues related to labour and labour welfare under the concurrent list. Thus, both the centre and states can enact laws on labour matters.
- **Article 43A** (inserted by 42nd amendment) directs the state to take steps to ensure worker's participation in management of industries.
- **Article 23** prohibits forced labour
- **Article 24** prohibits employment of children (below age of 14 years) in factories, mines and other hazardous occupations

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Issues with Labour Laws in India:
1. **Inflexibility in Labour Laws**: In India, the labour laws are archaic and rigid which create several issues such as:
   a. **Increased contractual employment**: The share of contract workers in total employment increased sharply from 15.5 per cent in 2000-01 to 27.9 per cent in 2015-16
   b. **Constrains the growth of firms**: Inflexibility in labour laws has led to increase in dwarf firms. [According to the Economic survey 2019, small firms (employing less than 100) that have been in existence for over 10 years are dwarf firms.]
   c. **Decreases efficiency and stifles competition**: Rigid labour laws hinders ease of doing business and reduces competitiveness of industries. According to the World Economic Forum, India ranks 103 out of 141 countries on the competitiveness of its labour market in 2019.
   d. **Hinders formalization of economy**: Nearly 90% of the country's workforce is in the informal sector with no minimum wages or any kind of social security. A major

factor for lack of formalization is inflexibility in labour laws for hiring and firing of workers and compliance hurdles which deter firms to provide formal contracts.

2. *Multiplicity of Labour Laws*: As labour is in the concurrent list, both states and centre can enact labour laws. States often create exceptions to Central labour laws and practices. Consequently, there are conflicting provision and inconsistency in compliance and enforcement.

3. *Competitive federalism*: The Economic Survey 2015-16 observed that several states, such as Rajasthan, Maharashtra and Gujarat have amended their labour laws with the goal of attracting large employers and high growth industries to their state. There is a rising concern that competitive federalism will ultimately induce a "race to the bottom" with states tweaking labour laws.

4. *Corruption and rent-seeking*: Complicated procedures in labour inspection issue has promoted rent seeking behaviour and corruption.

5. *Substitution of capital for labour*: The high cost associated with the labour laws and their maintenance has made firms move towards capital-based production.

6. *Demographic Dividend*: Since 2018, India's working-age population (people between 15 and 64 years of age) has grown larger than the dependant population (children aged 14 or below and people above 65 years of age). This demographic dividend will last till 2055. India's archaic labour laws are detrimental in reaping the benefits from this demographic dividend mainly because:
   - The laws hinder employment in the formal economy
   - Due to high contractualization of employment, there is no focus on skill development which is detrimental for career progress.
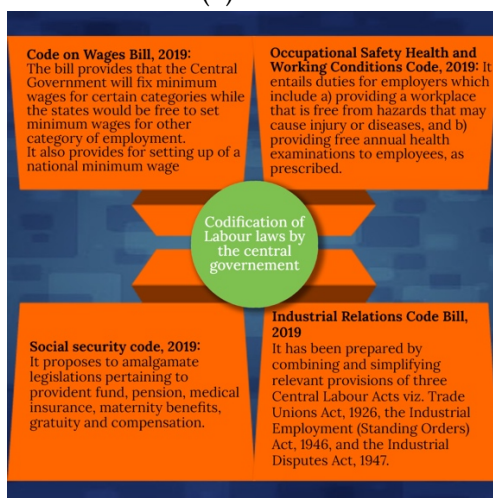
Case study of Rajasthan as shown in the Economic Survey

Underlining the need for flexibility in labour laws, the Economic Survey 2019 cited the Rajasthan model of labour reforms (picked up since 2015) to boost employment and factory productivity.

The Survey said two years before the reforms, the numbers of factories deploying more than 100 workers each in the state were growing on an average 3.65%, and two years post labour reforms, the growth accelerated to 9.33%. For the rest of India, this growth was 4.56% in 2013 and 5.52% in 2017.

Key Reforms Initiated by Indian Government:

The government has codified 44 central labour laws into four broad codes: (a) wages (b) social security (c)industrial safety and welfare and (d) industrial relations.

Recent changes made by States amid Covid-19 pandemic:

- **Uttar Pradesh**: UP government has promulgated 'Uttar Pradesh Temporary Exemption from Certain Labour Laws Ordinance, 2020'. It provides exemption from compliance of a majority of the labour laws for a period of three years.
- **Madhya Pradesh**: The state government has amended the Industrial Disputes Act, 1947 allowing new establishments to be exempt from certain provisions of the Act. It has also provided exemption from certain provisions of the Factories Act.
- **Gujarat**: The government exempted all factories registered under the Factories Act, 1948 from various provisions relating to weekly hours, daily hours, intervals.
- **Rajasthan**: The government has extended working hours from eight to twelve hours per day for a period of three months

Implications of the recent changes:
Positive Implications:
1. **Impetus to domestic industries**: It will boost domestic industries to promote production of goods and services when economy is reeling under the effect of COVID-19 lockdown.
2. **To enhance ease of doing business**: It might attract countries shifting their manufacturing base from China due to supply chain disruptions amid Covid-19 pandemic.

Negative Implications
1. **Informalisation of economy**: According to ILO, nearly 81% of India's employed population is in informal sector. The recent changes will increase this share as the existing formal workers would not get any social security.
2. **Right to negotiation violated:** The labour unions now will have no bargaining power which in turn impinges on other rights of labourers. It thus creates an enabling environment for exploitation.
3. **Fall in wages and vicious cycle of poverty:** If all labour laws are removed, most employment will effectively turn informal and bring down the wage rate sharply. And there is no mechanism for any worker to even seek grievance redressal.
4. **Contravention of ILO Conventions and its own Laws:** Repealing many of these provisions will put India in contravention of ILO conventions and its own laws. For e.g. ILO norm is maximum 60 hours per week.
5. **Breach of federalism:** By allowing the states to override central legislation without justification is a breach of federalism.
6. **Ethical concerns:** The recent labour law changes erode labour rights and also goes against universal humanistic values.

Steps to be taken:
Short Term
1. **Increasing the number of shifts:** Instead of increasing number of hours from 8 to 12, increasing shifts from 1 to 2 will pave way for more employment.
2. **Government to partner with industries**: The government should partner with the industry and invest towards sharing the wage burden and ensuring the health of the laborers.
3. **Social Dialogue**: Any changes in labour laws should be made only after proper consultations with workers' organisations and employers' organisations

Long Term:
1. **Consolidation of multiple labour laws**: The government should urgently legislate the draft labour codes on wages, social security, industrial safety and welfare and industrial relations.
2. **Remodelling laws**: It is important to remove the dualities and ambiguities from existing labour laws. This would enable the industry to leverage full potential of labour market.

3. ***Ensuring social security net***: The labour laws should ensure social security, safety at workplace, welfare provisions for both organised and unorganised sector.

4. ***Collective Bargaining***: It is important to recognise trade unions and uphold the provisions regarding collective bargaining. Labour courts/tribunals should be strengthened for timely dispute resolution and set a time frame for different disputes

5. ***Enforcement of international labour standards***: The Indian labour laws should ensure the enforcement of all international labour standards in true spirit.

Shram Suvidha Portal

It is a unified web portal developed by Ministry of labour and employment. It seeks to consolidate information of Labour Inspection and its enforcement.

2. NSA: Tyrannical act or justified legislation

What is the National Security Act?

The NSA is a Preventive Detention law that involves detaining a person from committing further crimes. It empowers the Centre or a State government to detain a person acting in any manner against the national security or disrupting public order or for maintenance of supplies and services essential to the community. The maximum period for which one may be detained is 12 months. But the term can be extended if the government finds fresh evidence.

Difference in normal circumstances and under NSA:

Normal Conditions	Under NSA
If a person is arrested, he or she is guaranteed certain basic rights.	Basic rights not given.
Right to be informed: The person has Right to be informed of the reason for the arrest. Section 50 of the CrPC mandates that the person arrested has to be informed of the grounds of arrest and has the right to bail.	It is not necessary to inform the person about the reasons for his arrest for up to five days and in exceptional circumstances not later than 10 days. Even when providing the grounds for arrest, the government can withhold information which it considers to be against public interest to disclose.
Produce before court: Sections 56 and 76 of the Cr.PC also provides that a person has to be produced before a court within 24 hours of arrest.	Preventive detention
Aid of legal practitioner: Article 22(1) of the Constitution says an arrested person cannot be denied the right to consult and to be defended by a legal practitioner of his choice.	**No aid of legal practitioner**: The arrested person is also not entitled to the aid of any legal practitioner in any matter connected with the proceedings before an advisory board, which is constituted by the government for dealing with NSA cases.

History of Preventive detention in India:

A. **Pre-Independence**:

- **Bengal Regulation III (1818):** It was enacted to empower the government to arrest anyone for defence or maintenance of public order without giving the person recourse to judicial proceedings.
- **Rowlatt Acts of 1919:** The British government enacted this Act that allowed confinement of a suspect without trial.

B. **Constitutional Provisions**

- **Article 22** provides for the preventive detention of individuals in certain cases. It is to be noted that the Indian Constitution is the only democratic constitution in the world which has a preventive detention explicitly mentioned in it.

Over the years, several important judgements regarding Article 22 and preventive detention include:

- **The SC in Hussainara Khatoon case** declared Right to Free Legal Aid as a Fundamental Right and Constitutional Amendment Act, 1976 provided for Article 39A which added Free legal Aid as a directive principle of state policy.
- In **AK Roy vs. Union of India (1982)** case related to examining the constitutionality of the National Security Ordinance, 1980, which sought to provide for preventive detention in certain cases, the Court argued that the President's Ordinance making power is not beyond the scope of judicial review. The ordinance can also be challenged.
- Supreme Court in **Ahmed Noormohmad Bhatti V. State of Gujarat, (2005)** upheld the validity of the power of the Police under section 151 of Criminal Procedure Code 1973 to arrest and detain a person, without a warrant. It ruled that a provision could not be held to be unreasonable as arbitrary and unconstitutional merely because the Police official might abuse his authority

C. Post-Independence

Preventive Detention Act (1950)		UAPA (1967)		NSA(1980)
Temporary measure to deal with the challenges posed by violence and displacement during the partition of India.	AFSPA (1958)	Power to declare organizations "unlawful" and then limit and scrutinize members to a significant degree.	MISA (1971-77)	No lawyer, no appeal, no argument
	Initially to address separatist movements in Nagaland		Infamous for its excesses during the emergency.	

Criticism of the Act:

- **No *figures are available for the exact number of detentions under the* NSA:** The National Crime Records Bureau (NCRB) which collects and analyses crime data in the country does not include cases under the NSA in its data as no FIRs are registered.
- '*National Security' Laws to Suspend Fundamental Rights*:
  - In 2000, the NSA was used in Uttarakhand to target two civil rights activists who ran the NGO, Sahayog. They had published a booklet, AIDS aur Hum, promoting sexual health that scandalized the local community.
  - NSA was used because the booklet was seen as explicit and perceived as a moral offence to society. The NSA simply held them to account in the name of public decency.
- *Detaining People in the Name of 'Public Safety'*:
  - The Public Safety Act (PSA) has been used indiscriminately in Kashmir to facilitate preventive detentions of "suspected militants".
  - The PSA has been called a "lawless law" because of the arbitrary nature in which it is used.
  - It has been used against human right activist such as Khurram Parvez's arrest.
- *'Anti-Terrorism' Laws to Repress Dissent'*:
  - The Unlawful Activities (Prevention) Act, 1967 was amended after the November 26, 2008 terrorist attacks in Mumbai, to become India's main anti-terrorist law. However, it has been criticized on the grounds that it fails to understand the

multidimensional nature of terrorism and what makes acts of terrorism distinct from other forms of crime.

- o The UAPA has been misused rampantly and several controversial arrests have been made under it. For instance, the arrest of Delhi University professor G N Saibaba and his comrades on the allegation of being Naxals.
- **Terrorism Laws to Target Minorities and Marginalized Groups**
  - o These laws allow the executive to use them as per discretion and overturns the notions of natural justice.
  - o The Prevention of Terrorism Act (POTA) was used to arrest 28 Dalit and Adivasi agricultural workers in Uttar Pradesh in February 2003 for allegedly being Naxalites. Some of those arrested were later shot in an encounter killing.
- **Extra-Judicial powers**: Experts say that these cases point to the fact that governments sometimes use it as an extra-judicial power.

Way Forward

- In the four decades of its existence, the NSA has been in the news for all the wrong reasons. Thus, it is time to reconsider the law and ensure that there are adequate safeguards against governments using it arbitrarily.
- Arbitrary use of the Act hampers democracy and basic rights of an individual. Even, the Supreme Court has held that the law of preventive detention has to be strictly construed and meticulous compliance with the procedural safeguards, is mandatory and vital.
- Every breach of law cannot be termed as a threat to public order: This distinction was made by the apex court in the case of Ram Manohar Lohia v. State of Bihar, wherein the court stated that "One has to imagine three concentric circles. It is then easy to see that an act may affect law and order, but not public order just as an act may affect public order but not security of the State."

3. Locust Attack in India

Context: Outbreaks of desert locust attack have been reported from Gujarat, Rajasthan, Maharashtra, Madhya Pradesh, Punjab, Haryana and Uttar Pradesh.

Locusts:

Locusts are a group of short-horned grasshoppers that multiply in numbers as they migrate long distances in destructive swarms.

Four species of locusts are found in India: Desert locust, Migratory locust, Bombay Locust and Tree locust. Desert locust live and breed in semi-arid/desert regions.

The locust sarms devour leaves, flowers, fruits, seeds, bark and growing points, and also destroy plants by their sheer weight as they descend on them in massive numbers.

Present Locust attack in India

In India, locusts are normally sighted during July- October along the Pakistan border. However, in 2020 locusts have arrived early- the first sightings reported on April 11. Further, locust swarms have moved towards central states and has also been sighted in urban areas.

1. **Reasons for early arrival**:
   - Locust early arrival could be attributed to the cyclonic storms Mekunu and Luban that struck Oman and Yemen respectively in 2018. Heavy rainfall led to extensive locust breeding that continued through 2019.
   - The main locust breeding areas in the Horn of Africa, Yemen, Oman, Southern Iran and Pakistan's Baluchistan and Khyber Pakhtunkhwa provinces recorded widespread rains in March-April 2020 enabled further breeding.
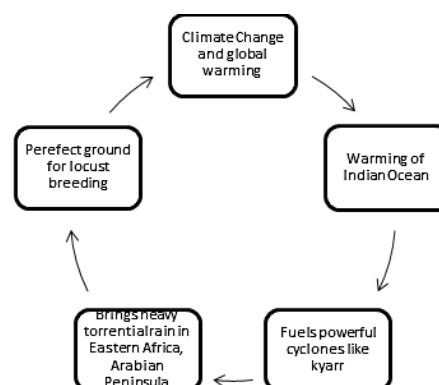
- In June 2019, the Indian side of the Thar desert received unexpected rainfall, which again made conditions conducive for locusts to lay their eggs. The rain also led to the sprouting of desert vegetation like 'Sewan' and 'Safed Dhaman' or Cenchrusciliaris grass. This led to more breeding of locusts, that got a ready food supply.

2. *Reasons for movement to east and central states*: After arrival in India, locust swarms have moved east and to the central States of Madhya Pradesh and Maharashtra. This eastward movement has been associated with the strong westerly winds of Cyclone Amphan.

3. *Reasons for sighting in urban areas*: This year locust swarms have been sighted in urban areas such as Jaipur, Gwalior, Morena and Sheopur, Amravati, Nagpur and Wardha. According to Locust Warning Organization, in the absence of crops in the field locusts have moved across urban areas attracted by green cover.

Relationship between Locust Attack and Climate Change: Desert locusts are usually restricted to the semi-arid and arid deserts of Africa, and South-West Asia that receive less than 200 mm of rain annually. Under normal conditions, their population decreases by natural death or through migration.
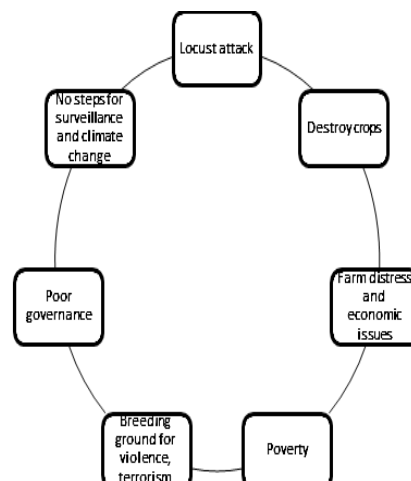
- *Unseasonal Rainfall*: The population of locusts multiply under wet weather conditions. The Horn of Africa received 400% above normal rainfall from October to December 2019, facilitating locust population growth. These abnormal rains were caused by the Indian Ocean dipole, a phenomenon accentuated by climate change.

- *Global warming*: Studies have also linked hotter climates to more damaging locust swarms and the last five have been hottest since the industrial revolution.

- *Ocean Warming*: Global warming has resulted in warming of Indian ocean which has fuelled cyclones like Karr. Heavy rainfall brought in by cyclonic storms in Eastern Africa and Arabian Peninsula facilitated breeding of locusts.

Challenges caused by locusts' swarms

1. *Food Security and livelihood in danger*: The swarms feed on green standing crops which have been destroyed in Eastern Africa as well as Pakistan. This has threatened the food security of these nations and farmer's livelihood. Somalia and Pakistan, thus, have declared state of emergency in their nations.

2. **Breed exponentially:** In their lifecycle of 3 months, desert locusts breed exponentially which give rise to new swarms in short period. The rise in their number creates havoc for farms across continents.

3. **Locust plague and Covid 19:** The locust plague amid the corona crises has caused enormous distress in nations affected by it as mobilization of resources is already under strain.

Steps taken by India to control Locusts

1. **Locust Warning Organisation (LWO):** It is under the Directorate of Plant Protection Quarantine and Storage, Ministry of Agriculture & Farmers Welfare. It is responsible for monitoring, survey and control of Desert Locust mainly in the States of Rajasthan and Gujarat.

2. **Locust Control and Research scheme:** It is implemented by Locust Warning Organisation (LWO) with the aim of protection of standing crops and other green vegetation from Desert locust.

3. **Insecticide Sprayers:** Spraying of organophosphate chemicals. India has 50 insecticide sprayers and has put an order of 60 specialised insecticide sprayers with the UK.

Way Forward:

- **Policy overhauls:** Covering locust and such attacks under PM Fasal Bima Yojana which currently is silent on such issues.

- **Science and technology development:** Need of better supercomputers which provides analytical tool to predict the variation in atmospheric variables causing warming and cooling of oceans.

- **Enhancing partnerships:** India, Pakistan and Afghanistan have been under locust attack. The countries together can engage in dialogue for establishing mechanisms to deal with attack under groups such as SAARC.

- **Remote sensing and controlling breeding:** Technological solutions like remote sensing, UAV's needs to be deployed at larger scale to check the breeding of locusts and bring their population under control.

- **Balanced use of insecticides:** After locust attack, The Indian government was forced to use the most lethal pesticides, organophosphates (OPs), which will eventually leech into the desert's waterbodies as well as the next crop. Ten types of chemicals divided into three categories are recommended to be used for controlling locusts by the United Nations Food and Agriculture Organization (FAO) and the OPs should be the last resort
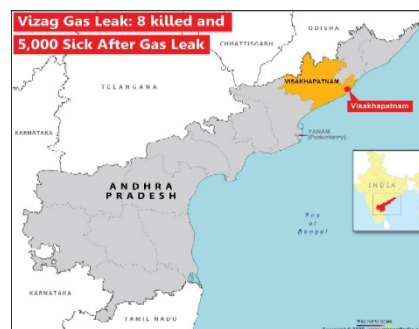
4. Vishakhapatnam Gas Leak and Chemical Disasters

Context: Styrene gas leakage at a polymer plant in Visakhapatnam has killed several people and forced the evacuation of thousands of people. It is being termed as a chemical disaster. The malfunctioning of a tank's refrigerating unit led to an increase in temperature which caused styrene to evaporate and leak.
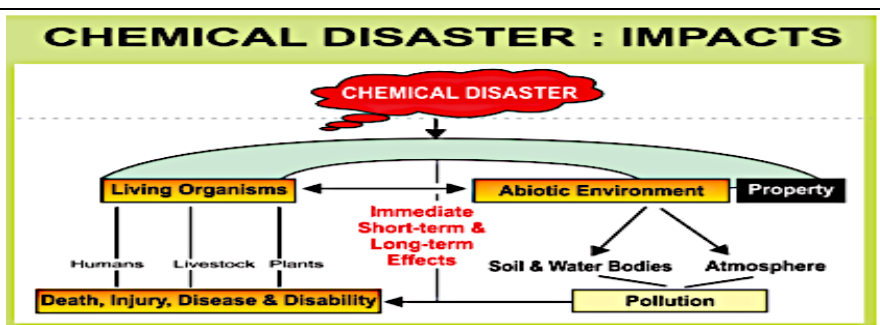
Chemical Disaster: It is the unintentional release of one or more hazardous substances that can cause harm to the environment, human and animal life.

Causative Factors behind Chemical Disasters

- Ageing of process plants and inadequate steps to pace with modern technologies
- Human error as a result of non-compliance of standard operating procedures (SOPs) that have been put into place by a company.
- Defects in design, absence of SOPs to mitigate an early warning in process. Poor coordination between different departments in a company.
- Improper maintenance of equipment
- Natural disasters like floods and earth quakes. Example: Fukushima Nuclear Disaster in Japan which occurred after a tsunami.
- Accidents during the transportation of hazardous chemicals. Example: Bombay docks explosion, 1944 caused when a freighter carrying a cargo of gold, ammunition and other items caught fire.

Impact of Chemical Disasters: Chemical disasters lead to injuries, loss of lives, damage to property and environment.

What is Styrene Gas?

- It a derivative of benzene and is a colourless, inflammable liquid that evaporates easily.
- It is used in the manufacturing of polystyrene plastics, fiberglass, rubber, and latex. It is also found in vehicle exhaust, cigarette smoke, and in natural foods like fruits and vegetables.
- It is included in the schedule of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989

Legal Safeguards against Chemical Disasters in India

1. **Environment (Protection) Act, 1986**: Under the Act, two rules have been notified for ensuring chemical safety, namely,
   - The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (MSIHC) amended in 1994 and 2000
   - The Chemical Accidents (Emergency, Planning, Preparedness, and Response) Rules, 1996 (EPPR).
2. **Public Liability Insurance Act, 1991**: It mandates hazard units to procure an insurance policy and deposit an equal amount in the Environment Relief Fund to provide immediate relief to victims of chemical accidents
3. **Bhopal Gas Leak (Processing of Claims) Act, 1985**: It gives powers to the central government to secure the claims arising out of or connected with the Bhopal gas tragedy.
4. **National Environment Appellate Authority Act, 1997**: The National Environment Appellate Authority established under the Act can hear appeals regarding the restriction of areas in which any industries, operations or processes shall or shall not be carried out subject to certain safeguards under EPA, 1986

Major Chemical Disasters in India

According to the National Disaster Management Authority (NDMA), over 130 significant chemical accidents have been reported in India in the recent past.

Major incidents:

- **1984**: Bhopal Gas Tragedy caused by accidental release of toxic gas Methyl Iso Cyanate (MIC).
- **2011**: Chlorine Gas Leak in an effluent treatment plant in Chinchwad, Pune
- **2014**: Poisonous Gas Leak from Bhilai Steel Plant in Durg, Chhattisgarh
- **2018**: Ammonia Gas leak from a plant in Ratnagiri, Mumbai

NDMA Guidelines on Chemical Disaster

- **Regulatory Framework**:
  - National regulation on occupational safety and health should be prepared.
  - Statutes for grant of compensation to chemical accident victims should be revisited.
  - A scheme for giving good performance awards to industries for achieving exemplary safety standards and statutory compliance shall be developed and implemented.
- **Codes of Practices, Procedures and Standards**:
  - Procedures for the conduct of safety audits need to be strengthened.
  - The pace of development of safer alternatives and adoption of safer, affordable and sustainable technologies and processes should be accelerated.
- **Statutory Inspection, Safety Auditing and Testing of Emergency Plans**:
  - **Inspection System by Regulatory Bodies**: A proforma should be developed to standardize the inspection procedures and reporting mechanism by each state factory inspectorate.
  - **Safety Plan for Commissioning and Decommissioning**: A hazardous unit should be obliged to submit its commissioning and de-commissioning plans to the factory inspectorate

Major International efforts:

- **Awareness and Preparedness for Emergencies at the Local Level (APELL) Project**: It is a tool developed by the United Nations Environment Programme, Division of Technology, Industry and Economics office (UNEP DTIE) in 1988. It seeks to minimise the occurrence of harmful effects of technological accidents and emergencies.
- **Strategic Approach to International Chemicals Management (SAICM):** It was adopted in 2006 by 190 countries including India. It is a voluntary agreement to ensure the safe use of chemicals by 2020

Suggested Reforms:

Role of Industry

1. **Identification of hazardous activities**:
   - Good knowledge about the safety aspects of the industrial operations would enable prevention and mitigation
   - Use of appropriate hazard identification tools such as checklists analysis, safety audit would help in mitigating the hazards.
2. **Maintenance of plant facility and equipment**
   - Proper maintenance of all the equipment and machinery at regular intervals
   - Regular site safety and health inspection

Role of government

1. ***Accident investigation board and chemical accident database***: An accident investigation board should be set up in India to investigate the chemical disasters and bring out guidelines based on lessons learnt in each incident.
2. ***Awareness Campaigns***: This would help workers in reducing unsafe acts and in tackling the disaster if it were to happen.
3. ***Research and development***: Research into new methods of producing the product with less toxicity can to a large extent reduce the adverse effect if any accident were to happen.
4. ***Offsite Emergency Planning***: This would ensure that the local authority adequately discharges his duty to minimize the consequences of major accident to people and environment.
5. ***Ensure Accountability***: The government should ensure accountability by proper implementation of laws.

Conclusion: The toxic gas leak in Visakhapatnam is grim reminder to the importance of prevention and response to chemical disasters. It also highlights that there is an urgent need to strengthen occupational safety in India.

5. Artificial Intelligence: Opportunities and Challenges

Artificial Intelligence (AI): AI can be defined as a system's ability to learn and interpret external data through software/algorithms or machines/devices to perform human-like tasks such as thinking, perceiving, learning, problem solving and decision making.

Opportunities and Applications: AI can be used across different sectors such as law, manufacturing, health, education, agriculture, urban planning, transportation, supply chain management, finance and cyber security to enhance both efficiency and effectiveness.

How AI is changing governance in the world?
- ***Agriculture***: Application of AI in agriculture can help in increasing crop yield by providing real-time advisory, early detection of pest attacks, prediction of crop prices, precision farming etc. Examples: Berlin-based agricultural tech start-up PEAT has developed a deep learning application called Plantix that reportedly identifies potential defects and nutrient deficiencies in soil. CROPTIX- diagnose crop diseases in the field and alert rural farmers in Kenya
- ***Healthcare***: AI can be used in diagnosis, treatment design, imaging diagnosis, early detections of disease outbreaks, robot assisted surgeries, virtual nurse assistants etc. Examples: Sensely's "Molly"- an AI-powered nurse used by UCSF and the UK's NHS to interact with patients
- ***Education***: AI can help in creating student-based learning profile and customised learning environments. Smart assistance by Alexa, Google home help improve learning outcomes. Ex- Pearsons' WriteToLearn software, provides tips to improve writing.
- ***Urban planning***: Can be used for optimizing infrastructure in cities, service delivery, crowd management, cyber security, public safety and water and waste management Examples: Bandicoot: In Kerala, engineers have developed sewer-cleaning robots to put an end to manual scavenging
- ***Transportation***: Can be used in developing AI-based traffic management system including sensors, CCTV cameras, automatic number plate recognition cameras, speed detection cameras, signalised pedestrian crossings, parking optimisation etc. Example: Smart parking system in US.

- *Manufacturing*: Can be used in supply chain management, predictive maintenance, logistics, and quality assurance. Example: General Electric's Brilliant Manufacturing: Designed to make the entire manufacturing process more efficient and thus reduce costs.
- *Energy*: EWeLiNE of Germany, can work as an early-warning system for grid-operators to assist them in calculating renewable-energy output over the next 48 hours. This can address the demand and supply management of electricity systems
- *Environment*: Project Sunroof: an online tool based on Google Earth's 3D imagery that helps individual homeowners explore whether they should go solar by providing them with a viability report.

AI Policy in India

India has developed a very unique approach for its national AI strategy by leveraging it not only for economic and military growth, but also for social inclusion, calling it, #AIforAll.

Strategically, the government of India wants to establish the country as an "AI Garage" which means that if a company can deploy an AI technology in India, it will then be applicable for the whole developing world.

- *National Strategy on Artificial Intelligence (NITI)* has identified five priority sectors - education, health, agriculture, transportation and, Smart Cities and infrastructure.
- *National Program on AI*: Set up by NITI Aayog at IIT Chennai. The research will focus to encourage Big Data, cybersecurity and Robotics are some of the initiatives that will help promote Industry 4.0.
- The government has launched a new *national artificial intelligence (AI) portal* which will serve as a knowledge hub for all those who are engaged in this domain.
- The government also launched a national programme for the youth called *'Responsible AI for Youth'* to empower them with AI-oriented mindset, skills and tools.
- Many other initiatives like Digital India, Mission on Cyber-Physical Systems, making government data open (data as public good) all have a bearing on AI.

Challenges and Shortcomings of AI

Technological Challenges:
- *Lack of explainability (Black Box Problem):* AI does not provide the reasoning behind a particular decision, classification or forecast made by it and thus lacks transparency.
- *Lack of contextual awareness and inability to learn*: AI has limitations in terms of making decisions where context plays a critical role and thus is limited to specific domains.

Economic Challenges:
- *Job Losses*: There are concerns that increasing automation will lead to job loss especially low skilled and operational jobs.
- *Lack of competency and need for re-skilling and up-skilling workers*: Inadequate availability of AI expertise, manpower and skilling opportunities remains a major challenge for AI adoption
- *Lack of Trust and Resistance to change*: Establishing trust among workers and stakeholders and managing resistance to change in adopting AI systems is a challenge.

Public Policy Challenges:
- *Privacy and Data Protection*: AI can be used for personal data exploitation, identification and tracking, profiling and surveillance of people, thus putting privacy and data protection as foremost public policy challenge.
- *Ethics*: AI systems should be designed so as to conform with human values throughout their operation and benefit global society.
- *Digital Divide and data deficit*: Policy should address "digital divide" by ensuring affordable internet connectivity so that low resource communities are not left from the benefits of AI.

- **Accountability and Legal Issues**: Addressing accountability if an AI system fails to complete an assigned task is a major challenge.
- **Misuse Protection**: AI systems can cause damage if used maliciously and addressing security concerns remains a major challenge.

Application of AI in India

Sector	AI Application
Health	AI could be a valuable assistive tool for doctors in helping reduce their workload and assisting in diagnosis. NITI Aayog is working with Microsoft and Forus Health to introduce a technology for early detection of diabetic retinopathy as a pilot project
Education	Andhra Pradesh government has collaborated with Microsoft to predict drop-outs
Agriculture	AI-based agricultural pest and disease identification system. Tamil Nadu has launched AI-based agricultural pest and disease identification system called Tumaini. Intello Labs: Uses image – recognition software to monitor crops and predict farm yields. Aibono :-Uses Agri – data science and AI to provide solutions to stabilizes crop yields
Urban infrastructure	Pune Street Light Project- energy efficient street lights: can be remote controlled through a Supervisory Control and Data Acquisition (SCADA) systems.
Defence	DRDO has been working on a project to develop a Multi Agent Robotics Framework (MARF)- will have array of robots functioning as human soldiers

Way Forward

- **Research**: A two-tiered structure for AI research (NITI Aayog Recommendation):
  - Centre of Research Excellence (CORE) focused on developing a better understanding of existing core research and pushing technology frontiers through creation of new knowledge
  - International Centres of Transformational AI (ICTAI) for developing and deploying application-based research. Private sector collaboration is considered to be a key aspect of ICTAIs.
- **Supporting start-ups**: granting funding, particularly in the initial years, and allowing incubation hubs (space and other infrastructure facilities) for AI start-ups.
- **Human resource development**: Skilling and re-skilling of workforce to help adopt AI
- **Patents**: Establishment of IP facilitation centres to help bridge the gap between practitioners and AI developers, and adequate training of IP granting authorities, judiciary and tribunals.
- Ensuring Ethics by establishing Ethic Councils to ensure that development of AI adheres to standard practices along the lines of the FAT framework (Fairness, Accountability and Transparency).

6. Patent Pooling: A Timely Idea

Context: Costa Rica recently urged the World Health Organization to set up a voluntary system for companies to "pool" patents and other intellectual property.

Intellectual Property Rights

- Intellectual Property Rights (IPR) provide certain exclusive rights to the inventors or creators of that property. It aims to reap commercial benefits from their creative efforts.
- There are several types of intellectual property protection such as patent, copyright, trademarks, GI Tags among others.
- A patent is a right that gives its owner the right to exclude others from making, selling and importing an invention for a limited period.

Patent pooling

In simplest terms, patent pooling can be defined as an agreement between two or more patent holders to aggregate some or all their patents for the purpose of cross-licensing i.e. they license their patents to one another or to third parties.

Aim: The main aim of patent pools is to facilitate the sharing and transfer of intellectual property. This facilitates innovation with a minimum of disturbance from IP-related legal issues.

Example: In 1998, Sony, Pioneer and Philips formed a patent pool for DVDs

Advantages and Disadvantages of Patent Pooling

Advantages	Disadvantages
Reduces litigation	Difficult to form
Reduces transaction costs	Expensive to administer
Establishment of industry standards	Distortion of competition
Helps in faster development of technology Efficiency in production	Anti-competitive licensing practices may arise
Clears Blocking patents- when patents are mutually blocking, or one patent infringes the other	Potential forum for price-fixing

Indian Patent System:

- The patents are governed by the Patents Act, 1970. The term of every patent in India is twenty years.
- The Patents Act is implemented and administered by the Office of the Controller General of Patents, Designs and Trademarks (CGPDTM).

National Intellectual Property Rights (IPR) Policy 2016

It has seven objectives:

1. To create public awareness about the economic, social and cultural benefits of IPRs among all sections of society
2. To stimulate the generation of IPRs
3. To have robust IPR laws
4. To modernize and strengthen service oriented IPR administration.
5. Get value for IPRs through commercialization.
6. To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements.
7. To strengthen and expand human resources, institutions and capacites for teaching, training, research and skill building in IPRs

Patent Pooling in the Biomedical Sector:

In 2010, UNITAID created the Medicines Patent Pool (MPP). MPP's aim was to aggregate patents, clinical trials data and other IP relating to HIV/AIDS, Tuberculosis and Hepatitis-C medications. This was done to make them available at low cost to manufacturers that commit to produce and sell these to developing nations and low-income countries.

Earlier, patent pooling was advocated during various disease outbreaks that gripped the world. For example, patent pooling was considered in response to the SARS outbreak of 2002-03, the H5N1 influenza outbreak of 2005, and the H1N1 influenza pandemic of 2009. However, they were never formed.

Importance of Patent Pooling in Public Health

WHO Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property **(GSPOA)** recognized that patent pools can facilitate innovation and promote access to new health products.

The Doha Declaration on Public Health (2001) which is a part of the TRIPS (Trade-Related Aspects of Intellectual Property Rights) agreement also advocated patent pooling.

The importance of patent pooling in public health is four-fold:

1. Patent pooling is **based on cooperation and shared knowledge**. It helps curb monopolization of life-saving health products and technologies.
2. The patent pools could **improve access to affordable health technologies and products**, particularly in poor countries.
3. It can **facilitate follow-on innovation** to obtain access to the necessary IP to undertake further research and development.
4. It helps **in faster production and thus ensures quick availability of drugs and vaccines**. This is because creation of a pool and immediate licensing ensures that there are hundreds of manufacturers across the world.

Coronavirus Pandemic and Patent Pooling- What is the way Forward?

Any impediments in form of multiple patents, licensing issues needs to be dealt with and at the same time it is important to acknowledge and protect the sanctity of the patent system and innovation.

A *global patent pool for COVID-19 should have a four-fold approach*:

- global pool of COVID-19-related innovations should be created. It should be managed by a responsible international organization.
- there should be cooperation from countries and international organizations, researchers, innovators, companies and universities for the patent pool
- public-private partnerships (PPP) need to be scaled up. A 'PPP-pandemic patent pool' at a global level, to pool all innovations should be created.
- the very idea of profit making amidst a pandemic should be kept aside and focus should be on saving human lives.

7. Covid-19 and the Environment: Boon for Now, Warning for Tomorrow

Context: The ongoing Covid-19 pandemic has challenged us to re-think and re-align our strategies for environmental protection.

Correlation between emerging infection like Covid-19 and climate change

According to the United Nations Environment Programme (UNEP), 75% of all emerging infectious diseases in humans like Ebola, SARS and MERS are zoonotic. These zoonotic diseases are closely interlinked with the health of ecosystems.

- **Loss of Biodiversity**: Climate change and human activities such as deforestation, industrial agriculture, illegal wildlife is a major cause for extinction or relocation of native species. These species become resilient or invasive species to the new environment, become vulnerable and host and transmit pathogens (reservoir hosts).
- **Increased human-animal contact**: Anthropogenic activities have destroyed the natural buffer zones that normally separate humans from animals. This has brought animals in close contact with humans and increased the risk of transmission of zoonotic diseases. For example, according to scientists, Ebola fever had several outbreaks in Africa since 1970 because of increased interaction of humans with fruit bats due to encroachment into forest areas.

- **Climate Change**: Changes in temperature, humidity and seasonality affect the survival of pathogens in the environment. According to studies, disease epidemics especially zoonotic diseases would aggravate due to climate change.
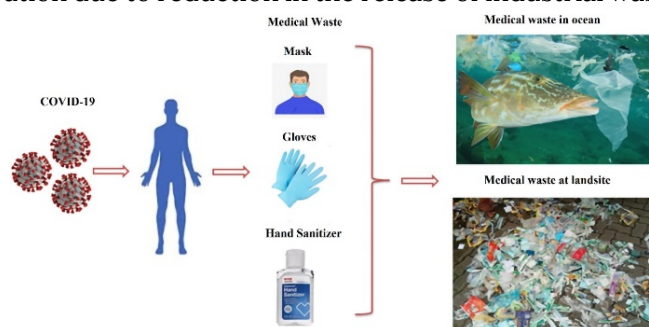
Impact of Covid-19 on environment:

Improved Air Quality:

- Exposure to outdoor and indoor air pollution contributed to over 1.2 million deaths in India in 2017 and is the 3rd largest cause of death among all health risks (State of Global Air, 2019). Lockdown and traffic restrictions to control the expansion of Covid-19 has significantly reduced air pollution in India.
- According to a study conducted by the Indian Institute of Technology (IIT) Delhi, the India has witnessed 43, 31, 10, and 18% decrease in PM 2.5, PM 10, CO, and NO2 levels respectively during the lockdown period.

Correlation between Covid-19 and Air Pollution: *A recent study by Harvard University has shown the correlation between long-term exposure to air pollution and Covid-19 morbidity and mortality. Those living in polluted cities are likely to have poor respiratory, cardiac and other systems and hence are more vulnerable to Covid-19.*

Improved Water Quality: There has been significant improvement in water quality of surface water bodies across the globe including India. According to a CPCB Report, quality of water in Ganga and its tributaries showed overall improvement especially with regard to increased Dissolved Oxygen (DO) and reduced nitrate concentration due to reduction in the release of industrial waste and discharges from various non-point sources.

Reduction in Noise Pollution: Lockdown and quarantine measures have restricted use of private and public transportation and stopped commercial activities. This has led to considerable decrease in noise level in most cities.

Increased Medical waste: Biomedical waste has increased during the Covid-19 pandemic. For example, Hospitals in Wuhan (China) produced an average of 240 metric tons of medical waste per day during Covid-19 outbreak, compared to the previous average of 50 tons. This has put waste management authorities, sanitation workers and waste pickers at risk because the virus can survive between 24 hours to three days on the surface material on improperly disposed medical waste. (New England Journal of Medicine).

Reduction in Waste Recycling: During Covid-19 pandemic countries such as the USA have stopped recycling programs in some of their cities due to concerns over spreading at recycling centres. Further, countries like Italy has prohibited infected residents from sorting their waste.

What reforms should India initiate to strengthen environmental protection?

1. **Structural Changes**: India should align its various scheme in lines with environment protection. We need to rationalize fertilizer subsidies (Urea contamination) and promote schemes such as the Pradhan Mantri Kisan Urja Suraksha evem Utthan Mahabhiyan (PM KUSUM) which integrates food security, energy security and income security of farmers.
2. **Tackling Air pollution**:
   - Larger allocations and subsidies to initiatives like the National Solar Mission.

- Investment in new technologies for cleaner air. Examples: smog free towers, vertical forests.
- Reduce regulatory barriers that restrict the flow of capital to green projects.
- Implementing "polluter's pay" principle
- Strengthen National Disaster Management Authority (NDMA) to be used as a platform to combat air pollution as an emergency.

3. *Make sustainable food systems*: Agriculture and food systems should be made sustainable by reducing food waste, reducing pesticides, decarbonizing food production and distribution systems

4. *Addressing zoonotic disease emergence*:
   - There should be increased monitoring of human and wildlife health in landscapes that are being transformed due to increased man-animal contact. We should adopt the principles of One Health as provided by WHO.
   - Understanding and preparedness for potential outbreaks should be increased to minimize risks.

5. *Addressing Biomedical Waste*: Biomedical waste has become a daunting challenge for waste management authorities. The government needs to ensure that the waste generated during testing and treatment of coronavirus patients is disposed of scientifically in Common Bio-Medical Waste Treatment Facilities (CBWTF).

6. *Scientific Research*: It is important to invest more on scientific research and enhance scientific collaborations to strengthen environmental protection in a post Covid world.

7. *Behavioural Change*: It is important to promote lifestyle change to curb consumerism. The 3Rs – reduce, reuse, recycle should be adopted.

Conclusion: In India, the complete lockdown has reduced environmental pollution substantially which years of strategies and policies failed to achieve. However, such lockdown is no way and means to address the environmental degradation. It is high time that the government place right environment and climate related policies in place.

8. Energy Efficiency: the need of the hour

Context: The Ministry of Power and New & Renewable Energy has released a report on the "Impact of energy efficiency measures for the year 2018-19".
Energy Efficiency: Energy efficiency is a method of reducing energy consumption by using less energy for providing the same service. It is done by leveraging a more efficient technology or processes. For example, an LED bulb is much efficient as compared to incandescent bulb.
Benefits of Energy efficiency:
1. *Energy Security*: Energy security is the reliable and stable availability of energy sources at an affordable price. Energy efficiency increases energy security primarily through energy savings and reduction in dependence over fossil fuel imports and making energy access affordable
2. *Energy savings*: Energy efficiency can produce energy savings leading to larger socioeconomic outcomes. For example, according to IEA, energy efficiency improvements in India since 2000 prevented 6% of additional energy use in 2017.
3. *Reduction in Fuel Imports*: Energy efficiency reduces demand for energy imports, thus helping in reducing public expenditure on energy. According to IEA, India prevented 5% additional fossil fuel imports, between 2007-2017, from energy efficiency improvements.

4. ***Energy access and affordability***: Reduced electricity/energy bill due to increased energy efficiency helps in ensuring affordable energy and increases access to energy.

Economic Benefits:

- ***Reduction in fossil fuel subsidies***: Energy efficiency will also help reduce expenditure on fossil fuel subsidies. It is particularly important for India which spent Rs. 83,134 crores in FY 2019 on oil, gas and coal subsidies- seven times larger than subsidies for alternative energy.
- ***Industrial productivity and competitiveness***: Energy efficiency in industries lead to reductions in resource use and pollution, improved production and capacity utilisation, and less maintenance. These help in increasing productivity and competitiveness.
- ***Economic Benefits to Energy Provider***: Energy efficiency will help DISCOMS provide better energy services to customers, reduce operating costs and improve profit margins. It is crucial for DISCOMS in India which are reeling under a massive debt of Rs 94,000 crore.

Environmental and Health Benefits:

- ***Reduced Greenhouse gas emissions and Climate Change Mitigation***: Greenhouse gas (GHG) emissions are reduced as energy efficiency results in reduced wastage and demand for fossil fuel energy. For example, according to IEA, 145 Mt CO2 equivalent emissions were prevented in India between 2000 and 2017 due to energy efficiency measures.
- ***Natural Resource Management***: Energy efficiency helps to relieve pressure on a scarce resource such as coal used in thermal power generation.
- ***Improvement in health***: According to a World Bank Report titled "In the Dark", in 2015, air pollution from coal-based power generation caused 82900 deaths in India. In this backdrop, energy efficiency is crucial for public health improvement as it will improve air quality by reducing GHG emissions from transport and power generation.
- ***Sustainable Development***: Energy efficient is crucial to ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All (SDG 7).

Important Measures taken in India to promote Energy Efficiency

Act/ Policy/ Plan/ Mission/ Schemes	Description
Energy Conservation Act, 2001	The main objective is to promote energy efficiency. It established the Bureau of Energy Efficiency (BEE).
Electricity Act, 2003	It emphasises higher efficiency levels of generating plants, energy conservation measures and boosting renewable and nonconventional energy sources.
National Energy Efficiency Strategy Plan 2031 – UNNATEE (Unlocking National Energy Efficiency potential)	It describes a framework and implementation strategy to establish a clear linkage between energy supply-demand scenarios and energy efficiency opportunities
National Mission on Enhanced Energy Efficiency (NMEEE)	It is one of the eight missions under the National Action Plan on Climate Change (NAPCC). It aims to strengthen the market for energy efficiency by creating a conducive regulatory and policy regime.
Standards and Labelling	It provides consumer knowledge about the energy efficiency of appliances through a star rating.

Unnat Jyoti by Affordable LEDs for All (UJALA) scheme	It seeks to promote efficient lighting and enhance awareness on using efficient equipment.
Street Lighting National Program (SLNP)	It seeks to implement energy efficient LED based street lighting thus reduce energy consumption in lighting which helps DISCOMs to manage peak demand
Energy Conservation Building Codes (ECBC)	It sets minimum energy standards for commercial buildings having a connected load of 100kW or contract demand of 120 KVA and above
Bachat Lamp Yojana (BLY)	It seeks to accelerate market transformation in energy-efficient lighting.
National Electric Mobility Mission Plan 2020 (NEMMP)	It aims promote to Electric and Hybrid Vehicles. Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME) has been formulated under the plan.

Suggested Reforms

According to UNNATEE, India's energy saving potential is estimated to be 86.9 Mtoe in case of a "moderate" implementation of EE programs and 129 Mtoe in case of an "ambitious" implementation of EE programs by year 2031. The reforms needed to achieve this potential are as follows:

1. ***Comprehensive Energy Efficiency Policy***: India does not have an overarching energy efficiency policy covering all the energy producing and consuming sectors.

2. ***Institutional Arrangements***:
   - There is a need to remove duplicity of work. For example, currently OEMs need to first certify that the products meet BIS standards and then apply to BEE under standard and labelling program. There should be a single window for clearance.

3. ***Adequate Finance***: project proponents and service providers (ESCOs) need to have access to finance at cheaper rates to promote energy efficient solutions. The National Clean Environment Fund or another special cess levied could be utilized for financing.

4. ***Promotion of energy efficiency in Agriculture***:
   - Framers should be provided easier access to finance for buying energy efficiency equipment.
   - There is no standardization of technology guidelines for growing and harvesting of crops. Like energy conservation building code (ECBC), standardization could be followed for agricultural sector across India.

5. ***Promotion of energy efficiency in Buildings***:
   - There should be mandatory implementation of ECBC in states
   - Automated Building Management Systems (BMS) should be adopted. It provides effective control and monitoring functions of heating, ventilation, cooling, lighting appliances, etc.

6. ***Promotion of energy efficiency in Industry***:
   - The PAT programme currently covers 621 designated consumers (DCs)-about half the industrial energy consumption in India. The scope of PAT should be increased. Also, voluntary PAT programme could be launched for consumers not identified under the programme.
   - Industry 4.0 technologies such as cloud computing, Internet of Things, Big data Analytics, robotics, etc should be promoted in manufacturing processes. They have benefits like cost reduction, higher efficiency and energy savings.

7. ***Promotion of energy efficiency in Transport***:

- It is important to promote shared last mile connectivity transport solutions. Example: Introduction packet rapid transport model of Philippines.
- CAFE norms should be made more stringent in order to encourage automobile manufacturers to focus on producing electric vehicles.

State Energy Efficiency Index
- It tracks the progress of Energy Efficiency (EE) initiatives in 36 states and union territories based on 97 significant indicators. It was first released in 2018.
- It is developed by Bureau of Energy Efficiency (BEE) in association with Alliance for an Energy Efficient Economy (AEEE).
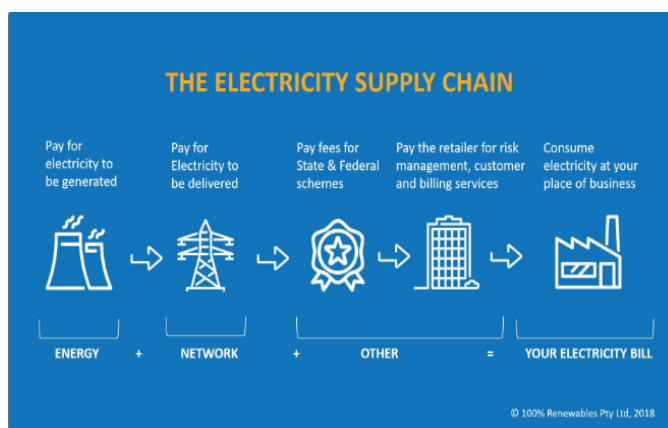- Haryana, Karnataka and Kerala topped the State Energy Efficiency Index 2019.

Conclusion: Under the Paris Climate Change agreement, India has committed to reduce the emissions intensity of its GDP by 33 to 35 % by 2030 from 2005 level. Increasing energy efficiency thus remains a crucial part in India's efforts to meet climate goals. Concerted efforts and a multi-stakeholder approach are need of the hour for India to realise its energy saving potential, meet climate goals and progress towards sustainable development.

9. Reforms in the Electricity Sector

Context: The government has introduced Draft Electricity Amendment Bill 2020 which seeks to amend Electricity Act, 2003.

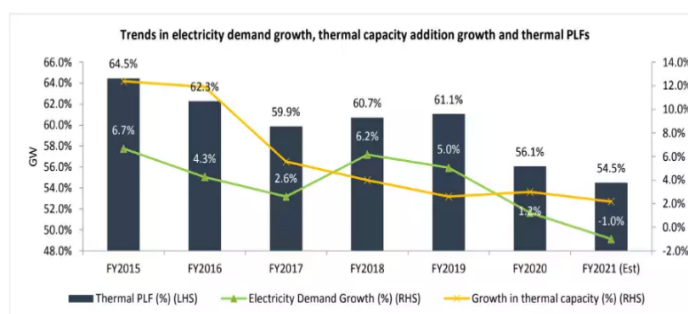**Brief Overview of Indian electricity sector**:
- Total Installed Capacity: 370.11 GW
- Average Electricity Use in 2018-2019: 1,181 kWh per capita
- Transmission & Distribution losses in 2017-18: 21.04%

- According to ICRA, India's electricity sector is likely to register a decline in power demand by 1% and a drop in plant load factor (PLF) to 54% for FY 2020-2021.

Central Electricity Authority (CEA) estimates:
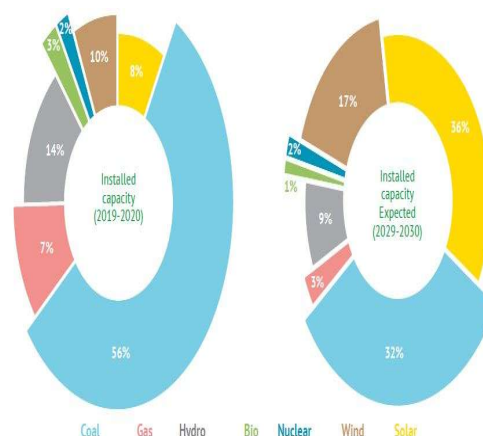- By 2029-30 the share of renewable energy generation would increase from 18% to 44%; Share of thermal power is expected to reduce from 78% to 52%.

- The projected installed capacity in year 2029-30 is around 832 GW and would comprise of 291 GW from thermal, 17 GW from Nuclear, 523 GW from Renewable energy (including 73 GW from Hydro).

Issues with the Power Sector and Need for the Bill:

1. ***Low Electricity Demand***: There is direct correlation between electricity demand and economic growth. Thus, a slowing economic growth would reduce the electricity demand. In 2019, electricity demand was 5.2% below the Central Electricity Authority (CEA) target.

2. ***Low utilisation of generation capacity***: The capacity to generate electricity has increased, however the actual generation of electricity has not been proportional with this increased capacity. Example: The coal sector has failed to match production with the growth in coal-based generation capacity. This has created a gap between the demand and supply of coal. As a result, India's coal imports have

   risen from 59 to 233.56 million tonnes from 2008-19.

3. ***Poor financial health of discoms***: The financial condition of power distribution companies (DISCOMS) has worsened over the years. Discoms' financial losses stood at Rs 28,369 crore at the end of 2019. Government interventions like the UDAY scheme has also failed to achieve its desired goals.

4. ***AT&C losses***: The national average for Aggregate Technical and Commercial (AT&C) loss for 2017-18 was 22.73. In countries such as UK and US, AT&C losses are about 6-7%.

5. ***Issues with Electricity Act, 2003***
   - ***Non-performance of the contract***: The 2003 Electricity Act does not deal with the issues related to performance of the contract for supply and purchase of electricity. Poor performance of contract leads to uncertainty, and adversely affects the investment environment and ease of doing business.
   - ***Non- uniformity in selection process***: As per existing provisions of Electricity Act, 2003 there are multiple Committees for selection to the posts of Chairpersons and members of APTEL, the Central Commission and State Commissions and there is no uniformity in selection process.
   - ***Lack of Payment Security***: The Electricity Act, 2003 does not have payment security mechanism for dispatch of electricity which has led to a huge accumulation of unrealized revenues.

Electricity Act, 2003
Objective: to introduce competition, protect consumer's interests and provide power for all.
It provides for National Electricity Policy, Rural Electrification, Open access in transmission, phased open access in distribution, license free generation and distribution, power trading, mandatory metering and stringent penalties for theft of electricity.

Proposed Amendments:
1. ***Renewable Energy***: The amendment delegates the Central Government with the power to prepare and notify a National Renewable Energy Policy for promotion of generation of electricity from renewable sources. It is proposed to expand the scope of renewable power purchase obligations to include Hydro sources.
2. ***Cross Border Trade***: Central Electricity Regulatory Commissions (CERC) has been empowered to oversee and regulate the cross-border trade of electricity. The Central will prescribe rules and guidelines for the same.

3. ***Creation of Electricity Contract Enforcement Authority (ECEA):*** The amendment calls for the creation of the Electricity Contract Enforcement Authority. The authority will have the sole jurisdiction to adjudicate upon matters regarding contract related to sale, purchase and transmission of electricity.
4. ***Payment Security***: The amendment proposes a mechanism wherein no electricity will be scheduled or dispatched by the load centres under existing contracts unless adequate security of payment is provided.
5. ***Grant of Subsidy mandated***: The amendment says that the appropriate commissions should fix tariff for retail sale of electricity without taking into account the subsidy. Further, the benefit of subsidy should be granted directly to the consumer. The amendment says that the tariff policy will specify a manner to gradually reduce cross-subsidies
6. ***Time limit for adoption of tariff fixed***: The Amendment has prescribed a period of 60 days to adopt the determined tariffs.
7. ***Creation of National Load Despatch Centre***: The amendment calls for the creation of the National Load Despatch Centre. It will have the following functions:
   * authority for carrying out real time operations and monitoring of national grid,
   * supervision and control of the inter-regional and inter-state transmission of network and grid security,
   * optimum scheduling and despatch of electricity.
8. ***Enhancement of the powers of the Appellate Tribunal of Electricity***: APTEL will be given the powers of a High Court to deal with wilful disobedience of persons and entities under the Contempt of Courts Act, 1971.

Criticism of the Draft Electricity Amendment Bill 2020
There are three major criticisms of the Bill:
1. ***Increased Centralization***: Critics have opined that the amendment will lead to increased centralised control through the formation of the ECEA. The ECEA will disempower regulatory commissions in the states and people who fight legal battles.
2. ***Removal of subsidies and cross-subsidies***: The major concern is that the farmers and the poor will have to pay first from their own pocket, after which they will get subsidies.
3. ***Distribution sub-licensee***: The Amendment advocates distribution of sub-licence and a franchise model. However, according to experts, franchisee model has not worked in India so far. Example: Attempt to establish franchise model failed in Bhiwandi, Nagpur and Sagar

Conclusion: Electricity is one of the most critical components of infrastructure which is essential for sustained growth of the Indian economy. The government needs to address the issues plaguing the electricity sector to ensure sustainable growth of the country. The Draft Electricity Amendment Bill 2020 is a step in the right direction.

10. Dairy Sector in India: Key to Inclusive Growth

Agro-industry includes the activities that utilize raw materials sourced from agriculture and also those provide input for modern agronomic practices. India has the world's 10th largest arable land, 20 agro-climatic regions and 15 major climates. Thus, there is opportunity of an overall growth of agricultural economy as only 2 to 3 percent of agri commodities are processed. Dairy Industry holds special significance in this regard.
Scenario of Dairy Industry in India:

Indian dairy sector includes milk production, collection, processing, distribution and marketing, plays a seminal role in rural economy, second only to agriculture. Following data establish the fact :

Milk production and per capita availability

- Over 71 million of 147 million households in the country depend on dairy for their livelihood.
- Milk production in India stands at 176.3 million tons in 2017-18, but due to various socio-economic factors, there exists wide inter-state variability in milk production.
- While the per capita availability of milk is 375grams per day at all-India level, it varies between 71 grams per day in Assam to 1120 grams per day in Punjab.
- India is world's largest producer and consumer of milk accounting for nearly 19 per cent of the world milk production.
- Indian dairy sector is struggling with low productivity of animals which is estimated as 1806 kg per year, as against the world average of 2310 kg.

Milk production for 2017-18 (million tonnes)

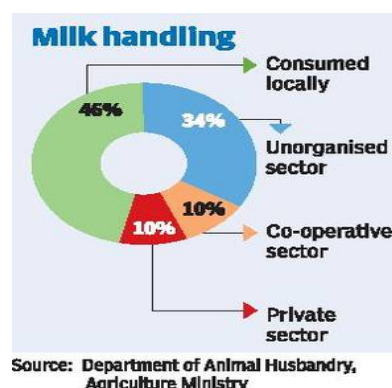|	
World	830
India	164
Unorganised players	133
Organised players	31*
Co-operatives	17
Private	14

Source: NDDB, GCMMF   *Co-ops + Private

Key Challenges of dairy sector:

- Low productivity of Indian bovines,
- Imbalanced feeding to animals,
- Limited access of milk producers to organized sector,
- Age old infrastructure operating on obsolete technology,
- Lack of organized credit system
- Lack of manufacturing facilities for value added products,
- Lack of efficient chilling infrastructure at village level,
- Lack of penetration in smaller cities/towns in terms of milk marketing and
- Lack of efficient cold chain distribution network.

Steps Taken :

- *Dairy Cooperatives*: Intervention of dairy co-operatives has increased farmers' income, created employment opportunities, eased availability of credit to poor farmers, led to empowerment of women, enhanced nutritional security and increased flow of new technology. Women members of the dairy co-operative are also being encouraged to assume leadership roles. However, dairy co-operatives are facing several constraints and challenges mainly due to state co-operative laws. Hence, Government of India launched a central sector scheme in 2016-17 to support state co-operative dairy federations in providing a stable market access to farmers.

Milk handling

- Consumed locally
- Unorganised sector
- Co-operative sector
- Private sector

Source: Department of Animal Husbandry, Agriculture Ministry

- *Funding*: A corpus fund of Rs 300 crore has been kept in perpetuity with National Dairy Development Board (NDDB) to provide soft loan as working capital to dairy federations.
- *Dairy Processing and Infrastructure Development Fund (DIDF)* : In order to boost dairy processing and infrastructure, a special fund (DIDF) was created for the period from 2017-

18 to 2028-29. The project is being implemented by National Dairy Development Board and National Dairy Development Corporation. This fund is helping build an efficient milk procurement system by setting up chilling infrastructure, modernization of processing infrastructure, and adding manufacturing facilities for value added products for the milk unions and milk producer companies.

The Path Ahead :

At present, India's share in global dairy trade is just one per-cent, which needs to be enhanced by technology infusion and quality management. Exclusive and dedicated efforts are needed to transform Indian dairying into a globally competitive enterprise with welfare of farmers at the core. India's plans for prosperity include the following initiatives :

- National Action Plan for Dairy Development for 2022 : The plan envisions to increase milk production to 254.55 million metric ton by 2021-22 and 300 MMT by 2023-24.
- National Artificial Insemination Program : The programs aim to cover entire country with quality Artificial Insemination (AI) services.
- National Bovine Genomics Centre for Indigenous Breeds : It is being set-up to pave way for systematic and fast paced improvement of the precious indigenous animal resources using highly precise gene technology.
- National Dairy Plan : Union Government also implemented a comprehensive National Dairy Plan (phase-I) during 2011-12 to 2018-19. The second Phase will primarily focus on developing milk processing infrastructure and establishment of milk quality testing equipment at critical points of procurement areas.
- Dairy Entrepreneurship Development Scheme : It aims to promote to promote entrepreneurship by generating opportunities for self-employment in dairy sector.

Some of the topics that we will be covering in next edition:

- Expansionist China: Dragon's world view
- Universal basic income: Has its time arrived
- Local traditions in India: vocal about local
- Essential Commodities Act: Essential or Non Essential?
- Reforming G 7 : The Anachronistic group
- Understanding Fiscal Federalism in India
- Non Alignment Movement in a Multipolar World
- Police reforms – the never ending
- UNSC reforms
- Social implication of Covid-19

And many more analytical topics.

POLITY

1. Lok Sabha Speaker nominates 15 MPs to the Delimitation Commission

News: Lok Sabha Speaker has nominated 15 MPs as associate members to assist the Delimitation Commission in redrawing the Lok Sabha and the Assembly constituencies of Assam, Arunachal Pradesh, Manipur, Nagaland and the J&K Union Territory.

Facts:

- **Delimitation**: It refers to the process of fixing the boundaries of territorial constituencies in a country or a state having a legislative body.
- **Process of Delimitation**: Under Article 82 of the Constitution, Parliament may enact a Delimitation Act after every Census. Once the Act is in force, the Union government sets up a Delimitation Commission.
- **In India, Delimitation Commissions have been constituted 4** times – in 1952 under the Delimitation Commission Act,1952, in 1963 under Delimitation Commission Act,1962, in 1973 under Delimitation Act,1972 and in 2002 under Delimitation Act, 2002.
- **Delimitation Commission:** It is appointed by the President of India and works in collaboration with the Election Commission of India.
- **Composition:** Retired Supreme Court judge, Chief Election Commissioner and Respective State Election Commissioners.
- **Associate members:** Members of Parliament and Legislative Assemblies of states for which the Delimitation Commission is set up, are nominated as associate members to help the commission in its task.
- **Powers:** The Delimitation Commission is a high-power body whose orders have the force of law and cannot be called in question before any court, as per Article 329(a) of the Constitution.

2. How different is the PM CARES Fund from the PM's National Relief Fund?

News: On March 28, the PM CARES Fund, was set up to tackle the distressed situation posed by the Covid-19 pandemic.

Facts:

	PM CARES Fund	PMNRF Fund
Full form	Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund	Prime Minister National Relief Fund
Established	2020	1948
Used for	To undertake assistance relating to a public health emergency calamity or distress either man-made or natural, including the creation of healthcare or pharmaceutical facilities, funding relevant research or any other type of support.	To provide immediate relief to families of those killed in natural calamities like floods, cyclones and earthquakes, etc. and to the victims of the major accidents and riots
Headed by	Prime Minister	Prime Minister

Members	Defence Minister, Home Minister and Finance Minister and three eminent persons nominated by PM in relevant fields	Administered on an Honorary basis by Joint Secretary to the Prime Minister as Secretary of the fund.
Contributions	Voluntary contributions from individuals/ organizations and does not get any budgetary support	Consists entirely of public contributions and does not get any budgetary support
Income Tax	It would qualify for 80G benefits for 100% exemption under the Income Tax Act, 1961	Exempt under the Income Tax Act, 1961 under Section 10 and 139 for return purposes
CSR	Contributions can be counted against a company's corporate social responsibility (CSR) obligations.	Contributions can be counted against a company's corporate social responsibility (CSR) obligations under companies Act,2013
Foreign Donations	Accepts Foreign Donations and exempted from the Foreign Contribution (Regulation) Act, 2010	It has also received foreign contributions as a public trust since 2011.

3. Law making Hindi official language in Haryana courts challenged in SC

News: Lawyers have challenged in the Supreme Court Haryana Official Language (Amendment) Act of 2020 on the grounds that it unconstitutionally and arbitrarily imposed Hindi as the sole official language to be used in lower courts across the State.

Facts:

Official Language in India

- The **Munshi-Ayyangar formula** incorporated in the Constitution under Part XVII, Chapter I, provided Hindi in the Devanagari script as the official language of The Central government. The use of English was allowed for first 15 years.
- In 1963, the government passed the Official Languages Act, 1963 which provided the continuance of English as official language in addition to Hindi.
- Further, the Constitution through the Eighth Schedule recognizes 22 Indian languages. The states can choose languages mentioned in the Schedule as their Official language.
- The language of Supreme Court and High Courts, the language of any legislative document in the Union/state (Art.348), and the language for communication between two states or a state and the Union, is provided to be English (Art. 345)

Eight Schedule: It consists of the 22 languages namely (1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.

Article 351: It provides for the spread of the Hindi language to develop so that it may serve as a medium of expression for all the elements of the composite culture of India without interfering with the other languages specified in the 8th Schedule.

4. Collegium to clear judges' name through phone or by circulation

News: Supreme Court Collegium system has decided to clear proposals to appoint judges either telephonically or by circulation method amid Covid-19 pandemic.

Facts:

- **Collegium System:** It is the system of appointment and transfer of judges that has evolved through judgments of the Supreme Court and not by an Act of Parliament or by a provision of the Constitution.
- **Composition:** The Supreme Court collegium is headed by the Chief Justice of India and comprises four other senior most judges of the court. A High Court collegium is led by its Chief Justice and four other senior most judges of that court.

A JURY OF JUDGES

WHAT IS THE COLLEGIUM SYSTEM?
- A forum which decides on **appointments, transfers (A/Ts)** of judges.
- Comprised of Chief Justice of India, 4 **Supreme Court Judges**
- President merely **approves CJI's choice**
- Born from 'Three Judges Cases' which gave **primacy to CJI's call** on A/Ts
- Judiciary gets **greater say than Executive on A/Ts**

CRITICISMS
- **Administrative burden** of checking professional background data
- **Closed-door affair, lacks transparency**
- **Exclusivity** sidelines talented junior judges, advocates

- **Procedure:** The collegium sends its recommendation to the Government for approval. The government can either accept it or reject it. In the case it is rejected, the recommendation comes back to the collegium. If the collegium reiterates its recommendation to the government, then it is bound by that recommendation.
- Names recommended for appointment by a High Court collegium reaches the government only after approval by the CJI and the Supreme Court collegium.

5. AP High Court orders reinstatement of State Election Commissioner

News: The Andhra Pradesh (AP) High Court has struck down an Ordinance promulgated by the AP government to curtail the tenure of the State Election Commissioner and has reinstated the earlier SEC.

Facts:

- **State Election Commission (SEC):** It is a constitutional authority constituted under the provisions of 243K.
- **Purpose:** They were constituted for superintendence, direction and control of the preparation of electoral rolls for and the conduct of all elections to the Panchayats and the Municipalities.
- **Composition:** It is a single member Commission comprising the State Election Commissioner.
- **Appointment:** Governor appoints the State Election Commissioner of the State.
- **Powers:** They enjoy the powers same as those by the Election Commission of India (ECI).
- **Removal:** They can only be removed from his office in the similar manner and on the grounds as a judge of a High Court.

6. Bodoland Territorial Area Districts placed under Governor's Rule

News: Assam's Bodoland Territorial Area Districts (BTAD) was placed under the Governor's Rule as the elections to the council had been deferred because of the COVID-19 pandemic.

Facts:

- **Bodoland Territorial Area Districts (BTAD):** It comprises four districts of western and northern Assam which falls under the Bodoland Territorial Council (BTC).
- **Bodoland Territorial Council (BTC):** It is an autonomous district council constituted under the Sixth Schedule of the Indian Constitution.

- *Autonomous District Council:* They are administrative bodies constituted in accordance with Sixth Schedule, Article 244 (2) & Article 275(1) of the Indian Constitution.
- *Powers*:
  ○ Can constitute village courts within their jurisdiction to hear trial of cases involving the tribes
  ○ Empowered to make legislative laws on matters like land, forests, fisheries, social security, entertainment, public health, etc. with due approval from the governor
  ○ Acts passed by Parliament and state legislatures may or may not be levied in these regions unless the President and the governor gives approval.

Sixth Schedule: It consists of provisions for the administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram according to Article 244 of the Indian Constitution. It was passed by the constituent Assembly in 1949.

7. Right to religion: Supreme Court explains reference to larger Bench

News: The Supreme Court has said that it enjoys unlimited power to take up any cause to do complete justice under Article 142.This judgement came on a petition which challenged the court order referring the issue of scope of right to freedom of religion under Article 25 of the Constitution to a larger bench under review jurisdiction in the Sabarimala case.

Facts:

- *Right to Freedom of Religion*: It is guaranteed by the Constitution under Articles 25 to 28:
  ○ *Article 25*: It provides 'Freedom of Conscience' that all persons are equally entitled to freedom of conscience and the right to freely profess, practise and propagate religion.
  ○ *Article 26*: It says that every religious group or individual has the right to establish and maintain institutions for religious and charitable purposes and to manage its own affairs in matters of religion.
  ○ *Article 27:* It says that the state shall not compel any citizen to pay any taxes for the promotion or maintenance of any particular religion or religious institution.
  ○ *Article 28*: Freedom to attend religious instruction or religious worship in certain educational institutions.

Article 142: It provides for the enforcement of decrees and orders of the Supreme Court.
Article 142(1): It states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it and the orders shall be enforceable throughout the territory of India.

8. Rs 46k-crore tax devolution to states

News: Finance Ministry has sanctioned Rs 46,038 crore for May instalment of devolution of states' share in central taxes and duties based on the FY21 Budget estimate (BE) and not actual. For FY21, the 15th Finance Commission has kept tax devolution to 28 states at 41% of the divisible pool.
Facts:

15th Finance Commission:

- It was constituted by the President of India under the chairmanship of NK Singh.
- The commission has submitted its first report which consists of recommendations for the financial year 2020-21.

○ The final report with recommendations for the 2021-26 period will be submitted by October 30, 2020.

Key Recommendations:

- **Devolution of taxes to states:** The share of states in the center's taxes is recommended to be decreased from 42% during the 2015-20 period to 41% for 2020-21.
  ○ The 1% decrease is to provide for the newly formed union territories of Jammu and Kashmir and Ladakh from the resources of the central government.
- **Grants-in-aid:** In 2020-21, the following grants will be provided to states: (i) revenue deficit grants (ii) grants to local bodies, and (iii) disaster management grants. The Commission has also proposed a framework for sector-specific and performance-based grants.

Criteria	14ᵗʰ FC 2015-20	15ᵗʰ FC 2020-21
Income Distance	50.0	45.0
Population (1971)	17.5	-
Population (2011)	10.0	15.0
Area	15.0	15.0
Forest Cover	7.5	-
Forest and Ecology	-	10.0
Demographic Performance	-	12.5
Tax Effort	-	2.5
Total	**100**	**100**

Devolution Criteria

Finance commission: It is constituted by the President under Article 280 of the Constitution mainly to give its recommendations on distribution of tax revenues between the Union and the States and amongst the States themselves.
  ○ The Commission is appointed every five years. It consists of a Chairman and four other members.

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9. Maharashtra Governor modifies law on forest rights

News: Maharashtra Governor modified the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

Facts:
- The Governor modified Section 6 of the FRA, in its application to the Scheduled Areas of Maharashtra.
- The modification allows rightful claimants of forest rights to appeal against decisions of the district level committee (DLC).
- Divisional level committees under the chairmanship of divisional commissioners have been constituted to hear the appeals against the DLC's decisions.

Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

Aim: To recognize forest rights of Scheduled Tribes and other traditional forest dwellers who have been occupying and are dependent on the forest land for generations.

Rights Recognised under the Act:
- Community Rights or rights over common property resources of the communities in addition to their individual rights,
- right of ownership, access to collect, use, and dispose of minor forest produce,
- Rights in and over disputed land Rights of settlement and conversion of all forest villages, old habitation, un-surveyed villages and other villages in forests into revenue villages,
- right to protect, regenerate or conserve or manage any community forest resource which the communities have been traditionally protecting and conserving for sustainable use,
- right to rehabilitation in case of illegal eviction or displacement from forest land,
- Right to intellectual property and traditional knowledge related to biodiversity and cultural diversity

Section 6 of the Act: It provides for a 3-level verification process and grievance redressal mechanism regarding acceptance or rejection of the claims on forests. The three levels are:

- **Gram Sabha:** It makes a recommendation
- **Sub-Divisional Level Committee:** The Gram Sabha's recommendation goes through screening committee at the taluka level
- **District Level Committee:** The recommendation is again screened at the district level.
    - o The State Government then shall constitute a State Level Monitoring Committee to monitor the process of recognition and vesting of forest rights.

10. Supreme Court on Migrants

News: The Supreme Court took Suo-motu cognizance of migrant workers issue

Facts:

- The Court observed that there have been "inadequacies and certain lapses" on the part of the Central and State governments in dealing with the migrant workers crisis.
- The Court ordered the Centre and the States to immediately provide transport, food and shelter free of cost to the stranded migrant workers.

Suo Moto Cognizance: Suo Moto cognizance is when the judiciary in India take a case on their own. It is taken on the grounds of blatant violation of law, to maintain public order, to prevent constitutional violation, to remedy serious injustice and against contempt of court.

Relevant constitutional Provisions:

- **Article 32 and Article 226:** The articles provide for judicial review by Supreme Court and High Court respectively. On the basis of these Articles, Public Interest Litigations (PILs) are filed.
    - o Article 32 provides for the right to constitutional remedy and empowers an individual to directly move to the Supreme court if his/her fundamental rights enshrined under part III of the constitution is violated.
    - o Article 226 empowers High court to issue a direction, order, and writs for enforcement of fundamental rights and other legal rights
- **Article 136 (Special Leave Petition):** Under the article, Supreme Court is authorized to grant in its discretion special leave to appeal from (a) any judgment, decree determination, sentence or order (b) in any case or matter or (c) passed or made by any court or tribunal in the territory of India.
- **Article 142:** It provides for the enforcement of decrees and orders of Supreme Court

1. PM Vaya Vandana Yojana pension scheme extended till March 31, 2023

News: Government of India has extended Pradhan Mantri Vaya Vandana Yojana (PMVVY) pension scheme meant for senior citizens till March 31, 2023.

Facts:

- Launched Year: 2017.
- *Aim*: To provide social security during old age and to protect elderly persons aged 60 and above against a future fall in their interest income due to uncertain market conditions.
- *Implementation*: Life Insurance Corporation of India (LIC)
- *Minimum entry age*: 60 years (completed)
- *Maximum entry age*: No limit
- *Investment limit*: One can invest a maximum amount of Rs.15 lakh.
- *Benefits*:
    - *Pension Payment*: On survival of the Pensioner during the policy term of 10 years, pension in arrears (at the end of each period as per mode chosen) shall be payable.
    - *Death Benefit*: On death of the Pensioner during the policy term of 10 years, the Purchase Price shall be refunded to the beneficiary.
- *Interest Rate*: It provides initially an assured rate of return of 7.40 % per annum for the year 2020-21 per annum and thereafter to be reset every year.
- *Loan*: Loan facility is available after completion of 3 policy years.
- *Tax*: The scheme is exempted from GST.

2. Tribal Affairs Minister launches 'GOAL' programme to provide online mentorship to tribal youth

News: Union Minister for Tribal Affairs has launched the GOAL (Going Online as Leaders) programme.

Facts:

- GOAL (Going Online as Leaders) is the joint initiative of Facebook and the Ministry of Tribal Affairs.
- *Aim*: To empower tribal youth through mentorship, leadership training, and digital literacy skills.
- Under this, 5,000 young tribal entrepreneurs (to be called as 'Mentees') will be trained by experts (to be called as 'Mentors') from different disciplines on digital skills under the digital entrepreneurship program.
- *Focus of the programme*: It will focus on three areas such as Life skills, digital literacy and Leadership and Entrepreneurship and on sectors such as agriculture, handicrafts, textiles, health among others.

3. Members of Parliament Local Area Development Scheme (MPLADS) suspended

News: The Union government suspended the Members of Parliament Local Area Development Scheme (MPLADS) for two years in order to divert these funds for strengthening the government's effort in tackling the Covid-19 pandemic and its adverse effects.

Facts:

- Members of Parliament Local Area Development (MPLAD) Scheme is central sector scheme launched in 1993.
- *Aim:* to provide funds to MPs to execute certain developmental projects to meet the urgent needs of their constituents.
- Implementing Agency: Ministry of Statistics and Programme Implementation

Salient Features of MPLADS

1. *Role of MP:*

   - The role of the MP is only recommendatory in nature.

   - Elected Members of Rajya Sabha can recommend works in the state from where they have been elected.

   - Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.
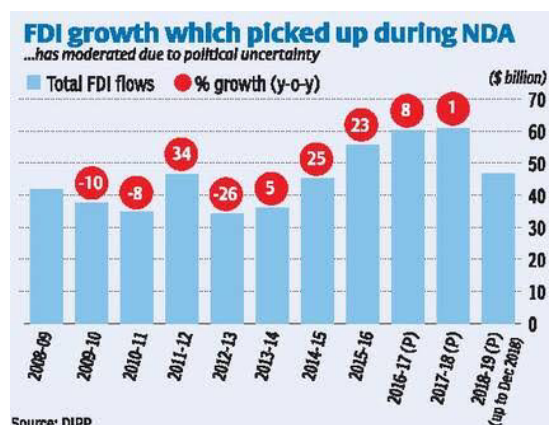
2. *Allocation of Funds:* An MP is entitled to Rs. 5 crore per annum to identify and fund developmental projects.

3. *Release of Funds:* Funds are released in the form of grants in-aid directly to the district authorities in two equal instalments of Rs 2.5 crore each. The funds released under the scheme are non-lapsable.

4. *Works permitted:* Education, Drinking Water, Electricity, Non-conventional Energy Sources, Health and Family Welfare, Sanitation and Public Health, Irrigation, Sports, Animal Care, roads, pathways and bridges.

5. *Implementation of the Work:* Following the recommendation of the MP, the district authority is responsible for sanctioning the eligible works, and implementation of the sanctioned ones

1. India records highest ever FDI equity inflow in FY21

News: According to the data released by the Department for Promotion of Industry and Internal Trade (DPIIT), foreign direct investment (FDI) in India grew by 13% to a record of USD 49.97 billion in the 2019-20 financial year.

Facts:

- **FDI**: It includes automatic route, acquisition route and government route. It has risen 13% to $49.97 billion in FY 2019-20 from $44.36 billion a year earlier.
- ***Total FDI***: It includes automatic route, acquisition route, government route, reinvested earnings and other capital. It has doubled to $73.45 billion in 2019-20 from $36.04 billion in 2013-14.
- Sectors that attracted the most foreign inflows during includes services, computer software and hardware, telecommunications, trading and automobiles.
- Singapore emerged as the largest source of FDI in India followed by Mauritius.
- Maharashtra has garnered the highest share of FDI followed by Karnataka and Delhi.

2. Cabinet approves Special Liquidity Scheme for NBFCs/HFCs

News: Union Cabinet has approved a Special Liquidity Scheme for Non-Banking Financial Companies (NBFCs) and Housing Finance Companies (HFCs) to improve liquidity position of the NBFCs/HFCs.

Facts:

- The Scheme will be administered by the Department of Financial Services.
- Under the Scheme, a large public sector bank would set up a Special Purpose Vehicle (SPV) to manage a Stressed Asset Fund (SAF) whose securities would be guaranteed by the Government of India.
- The SPV would issue securities as per requirement subject to the total amount of securities not exceeding Rs. 30,000 crores.
- The securities issued by the SPV would be purchased by RBI only and proceeds thereof would be used by the SPV to acquire the debt of at least investment grade of short duration (residual maturity of up to 3 months) of eligible NBFCs / HFCs.

Non-Banking Financial Company (NBFC): It is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares issued by Government or local authority or other marketable securities.

- However, it does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services of immovable property.
- Further, NBFCs lend and make investments just like banks. But there are a few differences as:
  - NBFC cannot accept demand deposits;

- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;
  - Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.
- Housing Finance Company (HFC): It is a company registered under the Companies Act, 1956 which primarily transacts business of providing finance for housing whether directly or indirectly.

3. RBI announces nine additional measures for strengthening the Economy

News: Reserve Bank of India (RBI) has announced several measures for strengthening the Economy in the uncertain times ushered in by the COVID-19 pandemic.

Key measures:

- **Repo Rate:** It is the rate at which the RBI lends money to the banks for a short term. It has been reduced by 40 basis points from 4.4% to 4.0%.
- **Reverse Repo Rate:** It is the short-term borrowing rate at which RBI borrows money from banks. It has been reduced from 3.75% to 3.35%.
- **Marginal Standing facility:** It is a window for banks to borrow from the Reserve Bank of India in an emergency situation when interbank liquidity dries up completely. It has been reduced from 4.65% to 4.25%.
- **Consolidated Sinking Fund:** States have been allowed to borrow more from Consolidated Sinking Fund which is being maintained by state governments as a buffer for repayment of their liabilities.
- Exte**nsion of Moratorium on Loan Repayments:** The lending institutions have been permitted to extend the moratorium (suspension) on term loan instalments by another three months till 31st August 2020.
  - A term loan is a loan from a bank for a specific amount that has a specified repayment schedule and either a fixed or floating interest rate.
- **Voluntary Retention Route (VRR):** Rules have been relaxed under VRR which is an investment window provided by RBI to Foreign Portfolio Investors to provide easier rules in return for a commitment to make higher investments.
- **Special Refinance Facility:** RBI had announced a special refinance facility of ₹15,000 crore to SIDBI at RBI's policy repo rate for a period of 90 days. This facility has now been extended by another 90 days.
- **Export Credit:** The maximum permissible period of pre-shipment and post-shipment export credit sanctioned by banks to exporters has been increased from the existing one year to 15 months for disbursements made up to July 31,2020.
- **Line of Credit:** A line of credit of ₹15,000 crore will be given to the EXIM Bank, for financing India's foreign trade. The loan facility has been given for a period of 90 days, with a provision to extend it by one year.
- **Import Payments:** The time period for import payments against normal imports into India has been extended from six months to twelve months from the date of shipment.
- **Maximum Credit:** The maximum credit which banks can extend to a particular corporate group has been increased from 25% to 30% of the bank's eligible capital base.

4. Cabinet approves Rs. 3 lakh crores emergency credit line for MSME

News: Union Cabinet has approved additional funding of up to Rs.3 lakh crore through introduction of Emergency Credit Line Guarantee Scheme (ECLGS) for MSMEs.

Facts:

- *Aim:* To mitigate the economic distress being faced by about 45 lakh MSMEs by providing them additional funding of up to Rs 3 lakh crore in the form of a fully guaranteed emergency credit line.
- *Eligibility:* All MSME borrower accounts with outstanding credit of up to Rs.25 crore as on 29th February,2020 and with annual turnover of up to Rs.100 crore would be eligible for the scheme. They can get up to 20% fresh loans of their entire outstanding credit.
- *Guarantee*: National Credit Guarantee Trustee Company (NCGTC) will provide 100% guarantee against losses on loans advanced to eligible MSMEs and MUDRA borrowers.
- *Duration:* The loan will be provided for four years with a moratorium of one year on the principal amount.
- *Interest Rates:* The Interest rates under the Scheme are capped at 9.25% for banks and financial institutions and at 14% for non-banking financial companies (NBFCs).

National Credit Guarantee Trustee Company (NCGTC):

- It was set up as a private limited company in 2014 by the Department of Financial Services, Ministry of Finance under the Indian Companies Act,1956.
- Purpose: To act as a common trustee company to manage and operate various credit guarantee trust funds

5. Centre raises borrowing limit of states from 3 pc of GSDP to 5 pc in FY21

News: The Central Government has increased the borrowing limit of states from 3% of gross state domestic product (GSDP) to 5%.

Facts:

- States have so far borrowed only 14% of the 3% of GSDP limit which is authorised to them while 86% of the limit remains unutilized. However, the limit of states has now been increased from 3% of gross state domestic product (GSDP) to 5%.
- But part of this borrowing will be linked to specific reforms in four areas:
  - Universalisation of 'One Nation One Ration card'
  - Ease of Doing Business
  - Power distribution and
  - Urban Local Body revenues.
- A specific scheme will also be notified by Department of Expenditure on the following pattern:
  - Unconditional increase of 0.50%
  - 1% in 4 tranches of 0.25%, with each tranche linked to clearly specified, measurable and feasible reform actions
  - Further 0.50% if milestones are achieved in at least three out of four reform areas.

Fiscal Responsibility and Budget Management Act (FRBM Act), 2003:

- The Act aimed to make the Central government responsible for ensuring inter-generational equity in fiscal management and long-term macro-economic stability.
- The Act set limits on the Central government's debt and deficits. It limited the fiscal deficit to 3% of the GDP.

- Similarly, the states too were given different targets to ensure that the States too are financially prudent. The States have thus enacted their own respective Financial Responsibility Legislation, which sets the same 3% of Gross State Domestic Product (GSDP) cap on their annual budget deficits.
- It also mandates greater transparency in fiscal operations of the Central government and the conduct of fiscal policy in a medium-term framework. Thus, the Budget of the Union government includes a Medium-Term Fiscal Policy Statement that specifies the annual revenue and fiscal deficit goals over a three-year horizon.
- The NK Singh committee (set up in 2016) recommended that the government should target a fiscal deficit of 3% of the GDP in years up to March 31, 2020 cut it to 2.8% in 2020-21 and to 2.5% by 2023
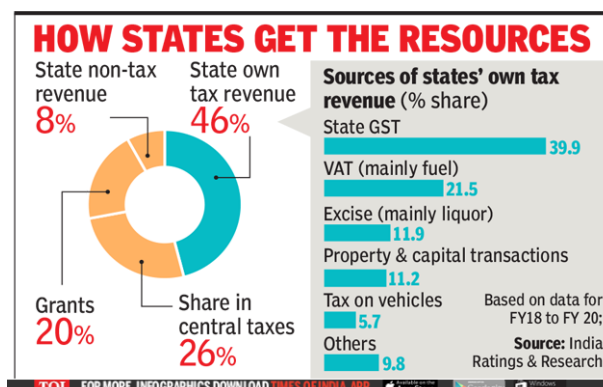
6. Major States lost ₹97,100 crore in own revenue in April: India Ratings

News: According to India Ratings and Research, due to lockdown 21 major States will suffer a collective revenue loss of about ₹ 97,100 crores for the month of April alone.

Facts:

States Sources of Income: The States revenue mainly comes from following heads:

- **State Goods and Services Tax (SGST):** It is a destination-based tax on consumption of goods and services. It has come into force since 1st July 2017.
- **Share in Central Taxes:** Article 280 of the Indian Constitution requires the composition of the Finance Commission in every five years so that the states can get a reasonable part in the tax revenue of the union government.
- **State VAT on petroleum products:** Value added tax (VAT) is a consumption tax placed on a product whenever value is added at each stage of the supply chain from production to the point of sale. Although, GST has replaced VAT on most goods, some goods such as petroleum are still not covered under GST.

HOW STATES GET THE RESOURCES

State non-tax revenue 8%
State own tax revenue 46%
Grants 20%
Share in central taxes 26%

Sources of states' own tax revenue (% share)
State GST — 39.9
VAT (mainly fuel) — 21.5
Excise (mainly liquor) — 11.9
Property & capital transactions — 11.2
Tax on vehicles — 5.7
Others — 9.8
Based on data for FY18 to FY 20;
Source: India Ratings & Research

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- **State excise duty on liquor:** Excise Duty is levied on goods manufactured in India and are meant for domestic consumption. Many of the excise duties have been subsumed under GST. However, few items such as liquor are kept out.
- **Stamp Duty:** It is a state levy paid to register a document, typically an agreement or transaction paper between two or more parties with the registrar. It is not uniform across states and varies for different types of documents.
- **Motor Vehicle tax,** Tax and duty on electricity and
- **Non-Tax revenue:** It is the recurring income earned by the government from sources other than taxes. It becomes payable only when services offered by the government are availed of such as police services, electricity, municipal services among others.

7. EPFO contributions reduced; gains in take home, employee cost

News: The Finance minister has provided relaxation to all private sector companies by reducing the statutory PF contribution of both employer and employee from 12% to 10% for the next three months.

Facts:

Employees' Provident Fund (EPF) Scheme:

- *Employees Provident Fund (EPF):* It is a retirement benefit scheme under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952.
- *Nodal Body:* The fund is maintained and overseen by the Employees Provident Fund Organisation of India (EPFO).
- *Eligibility*: It covers every establishment in which 20 or more persons are employed and certain organisations are covered, subject to certain conditions and exemptions even if they employ less than 20 persons each.
- *Features*:
  - Under the scheme, employers and employees contribute 12% of an employee's monthly salary (basic wages plus dearness allowance) to the Employees' Provident Fund (EPF) scheme.
  - The employee gets a lump sum amount including self and employer's contribution with interest on both on retirement.

Employees Provident Fund Organisation (EPFO):

- It is a statutory body formed under the Employees' Provident Fund and Miscellaneous Provisions Act, 1952.
- It is administered by the Ministry of Labour & Employment, Government of India.

1. Indian and Chinese troops clash in Sikkim, Ladakh

News: Indian and Chinese troops have clashed at two points along the Line of Actual Control (LAC) namely at the Naku La Pass and Pangong Tso lake.

Facts:

- **Naku La Pass**: It is a pass in Sikkim at an altitude of more than 5,000 metres above the mean sea level.
- **Pangong Tso Lake**: It is a long narrow landlocked lake situated at a height of more than 14,000 ft in the Ladakh Himalayas. One-third of the lake is in Indian control while the rest of the is under Chinese control. The LAC cuts through the lake but India and China do not agree on its exact location.

THE FLASHPOINTS

Spot 1 Finger 5 (Pangong Tso, eastern Ladakh)	Spot 2 Naku La sector (ahead of Muguthang, Sikkim)
Date: May 5-6	Date: May 9
Troops involved: 250	Troops involved: 150
Injured: Several (on both sides)	Injured: 4 Indian, 7 Chinese

2. Prime Minister to participate in NAM Summit through Video Conference

News: The Prime Minister will participate in the Virtual Non-Aligned Movement (NAM) Summit through Video Conference. The summit will be chaired by Azerbaijan and will conclude with a political declaration of Uniting Against COVID-19.

Facts:

- **Non-Aligned Movement**: It was formed during the Cold War as an organization of States that did not seek to formally align themselves with either the United States or the Soviet Union but sought to remain independent or neutral.
- **Origin**: The concept of NAM originated in 1955 at the Asia-Africa Bandung Conference held in Indonesia.
- **First NAM Summit**: It took place in Belgrade, Yugoslavia in 1961 under the heads of Yugoslavia, India, Egypt, Ghana and Indonesia.
- **Purpose**: It was enumerated at the Havana Declaration of 1979 to ensure the national independence, sovereignty, territorial integrity and security of non-aligned countries in their struggle against imperialism, colonialism, neo-colonialism, racism and all forms of foreign subjugation.
- **Members**: It consists of 120 member states.
- **Observers**: There are 17 countries and 10 international organizations that are Observers at NAM.

3. India, U.S. to collaborate on COVID-19 vaccine trials, say U.S. health officials

News: India and the U.S have decided to work together on vaccine research and testing for COVID-19 under the Indo-U.S. Program(VAP).

Facts:

- The Indo-US Vaccine Action Programme(VAP) is a bilateral programme established in 1987.
- **Aim:** To develop and evolve joint R&D projects towards development of safe and efficacious vaccines against some of the major communicable diseases that presently take a large toll in India & USA.

- **Nodal Agencies:** U.S. National Institutes of Health, Indian Department of Biotechnology(DBT) and Indian Council of Medical Research(ICMR) along with other partners.

Global Vaccine Action Plan (GVAP):

- It is a framework adopted at the 65th World Health Assembly in 2012 to achieve the vision of the Decade of Vaccines 2011-2020 (DoV).
- **Aim:** To prevent millions of deaths by 2020 through more equitable access to existing vaccines for people in all communities.

1. Govt. launches initiatives on International Day of Biodiversity

News: On the occasion of the International Day for Biological Diversity 2020, the Union Minister of Environment has launched key initiatives towards conservation of biodiversity.

Facts:

Biodiversity Samrakshan Internship Programme:

- It was launched by the National Biodiversity Authority (NBA) and United Nations Development Programme (UNDP).
- ***Aim:*** To engage 20 students with postgraduate degrees for a period of one year to support the projects of NBA in various State/UTs and to technically assist the State Biodiversity Boards Biodiversity Council in discharge of their mandates.

Not all Animals Migrate by Choice Campaign:

- It was launched by the Wildlife Crime Control Bureau along with the United Nations Environment Programme (UNEP) against Illegal Trafficking of Endangered Species.
- Aim: To create awareness and garner public support for the protection and conservation of wildlife, prevention of smuggling and reduction in demand for wildlife products.

- • ***Wildlife Crime Control Bureau***: It is a statutory multi-disciplinary body established by Government of India under the Ministry of Environment, Forests and Climate Change to combat organized wildlife crime in the country.
- • ***National Biodiversity Authority (NBA)***: It was established in 2003 as a statutory autonomous body under the Ministry of Environment, Forests and climate change to implement the provisions under the Biological Diversity Act, 2002.
- • ***International Day for Biodiversity***: It is celebrated every year on 22nd May to mark the adoption of the text of the Convention of Biological Diversity. 2020 Theme was Our solutions are in nature.

2. Government Announces Results Of Star Rating Of Garbage Free Cities

News: The Ministry of Housing & Urban Affairs (MOHUA) has announced the results of the Star Rating of Garbage Free Cities for the assessment year 2019-2020.

Facts:

- The Star Rating Protocol was launched by the Ministry of Housing & Urban Affairs (MOHUA) in 2018.
- ***Aim***: To institutionalize a mechanism for cities to achieve Garbage Free status and to motivate cities to achieve higher degrees of sustainable cleanliness.
- It is one of the various initiatives which intends to make Swachh Bharat Mission-Urban (SBM-U) as a successful project.
- ***Parameters:*** It is based on 25 key parameters across the solid waste management spectrum which follow a SMART framework – Single metric, Measurable, Achievable, Rigorous verification mechanism and Targeted towards outcomes.
- ***Procedure***:
  - ○ It is supported by self-assessment and self-verification for achieving a certain star rating.
  - ○ It also involves citizen groups for a transparent system of self-declaration.

○ This self-declaration will be verified through an independent third-party agency appointed by MoHUA for 1-star, 3-star, 5-star and 7-star garbage free ratings.

- **Key Takeaways**:
  - ○ A total of six cities have been certified as 5-Star, 65 cities as 3-Star and 70 cities as 1-Star.
  - ○ The 5-Star cities include Ambikapur (Chattisgarh), Surat and Rajkot (Gujarat), Indore (Madhya Pradesh) and Navi Mumbai (Maharashtra).

3. Super Cyclone Amphan Is Set to Hit India and Bangladesh

News: Cyclone Amphan has intensified into a super cyclonic storm and is expected to make landfall between West Bengal and Bangladesh close to Sundarbans.

Facts:

Cyclone Amphan:

- Cyclone Amphan is a tropical cyclone formed over Bay of Bengal that has turned into a super cyclonic storm.
- The Cyclone Amphan is also the strongest storm to have formed in the Bay of Bengal since the super cyclone of 1999 that ravaged Paradip in Odisha.

Why does the Bay of Bengal receive higher Cyclones compared to Arabian Sea?

- **Higher Rainfall:** Bay of Bengal receives higher rainfall which provides required humidity for cyclone formation.
- **Temperature:** Bay of Bengal is hotter than Arabian sea. Hot water temperature is the basic criteria for the development & intensification of cyclones.
- **Location:** The typhoons originating in the Pacific Ocean too influence the cyclones in BOB not the case in Arabian Sea.
- **Constant Inflow of Fresh Water:** The inflow from the Ganga and Brahmaputra rivers makes it impossible for the warm water to mix with the cooler water making it ideal for a cyclonic depression.
- **Sluggish Winds:** It keeps temperatures relatively high of about 28 degrees around the year.

Reasons responsible for intensification of Cyclones in Bay of Bengal:

- In 2020, the Bay of Bengal has observed record summer temperatures due to global warming from fossil fuel emissions that have been heating up oceans.
- However, such unusual warming around India is no longer restricted to just the BoB but also the Arabian Sea and the Indian Ocean. It makes storm prediction less reliable as well as disrupting monsoon patterns.
- Further, reduced particulate matter emissions during the lockdown resulted in fewer aerosols such as black carbon that are known to reflect sunlight and heat away from the surface.

Classification of Cyclones: The criteria followed by Indian meteorological Department(IMD) to classify Cyclones in the Bay of Bengal and in the Arabian Sea are as under:

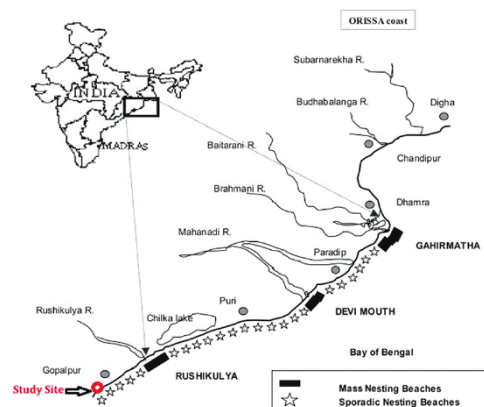| Types of Disturbances	Associated Wind Speed in the Circulation
Low Pressure Area	<31 km/hr
Depression	31-49 km/hr
Deep Depression	50-61 km/hr

Cyclonic Storm	62-88 km/hr (Here, IMD assigns the name to Cyclone)
Severe Cyclonic Storm	89-118 km/hr
Very Severe Cyclonic Storm	119-221 km/hr
Super Cyclonic Storm	>222 km/hr

4. A good year for Olive Ridley turtles

News: In 2020, 3,23,063 Olive Ridley turtles had nested at the Rushikulya rookery.

Facts:

- The Olive Ridley turtles are the smallest and most abundant of all sea turtles in the world. They are best known for their unique mass nesting called Arribada.
- **Habitat**: warm waters of the Pacific, Atlantic and Indian oceans.
- **Conservation status**: Vulnerable in the IUCN Red List and Schedule – I of the Indian Wildlife (Protection) Act, 1972.
- **Breeding areas in India**:
  o Gahirmatha rookery (Gahiramatha Marine Sanctuary) close to the mouth of Brahmani-Baitarani Rivers,
  o Devi river mouth and
  o Rushikulya river mouth

5. Howrah's historic botanical garden turns into a graveyard of nearly 1,000 trees

News: The Amphan cyclone severely damaged the world's largest banyan tree in the Howrah botanical garden

Facts:

- Acharya Jagadish Chandra Bose Indian Botanic Garden is located in Shibpur, Howrah, West Bengal. It was founded in 1786 by Colonel Kyd.
- It has the world's largest banyan tree aged 342 years.
- The Botanical Survey of India uses the picture of this tree as its logo. The banyan tree is also India's national tree.

Botanical Survey of India

- Founded in 1890, it comes under the Ministry of Environment, Forest and Climate Change. It is headquartered in Kolkata, West Bengal
- It is the apex organization carrying out taxonomic and floristic studies on wild plant resources of India

6. Declare wild boars as vermin, allow culling: Farmers to govt

News: Farmers in Telangana demanded the state to declare wild boars as vermin.

Facts:

- Vermin are wild animals deemed to be harmful and can be killed or hunted without restriction.
- Section 62 of the Wildlife Protection Act, 1972 empowers the states to send a list of wild animals to the Centre requesting it to declare them vermin for selective slaughter.
- They are listed under the Schedule V of the Wildlife Protection Act, 1972.

Different Schedules of Wildlife Protection Act

Categories	Details
Schedule I	• Animal species given the highest protection • Hunting (except when a threat to human life) is prohibited • Wildlife trade strictly prohibited • Offences under this schedule prescribed highest penalties • Example: Tiger, Lion
Schedule II	• Animal species given the highest protection • Hunting (except when a threat to human life) is prohibited • Wildlife trade strictly prohibited • Offences under this schedule prescribed highest penalties • Example: Himalayan Brown Bear, King Cobra
Schedule III & IV	• Animal protected but the penalty for any violation is less compared to the first two schedules. • Example Hyena (Schedule III), Swans (Schedule IV)
Schedule V	• Animal listed in the schedule are called vermin which can be hunted • Example: Mice, rat
Schedule VI	• Cultivation, collection, extraction, trade of plants and its derivatives are prohibited • Example: Red Vanda, Blue Vanda

7. Global Forest Resources Assessment 2020

News: The Global Forest Resources Assessment 2020 (FRA 2020) has been released by the United Nations Food and Agriculture Organization (FAO).

Facts:

- The report presents a comprehensive view of the world's forests and the ways in which the resource is changing.
- It is based on the assessment of more than 60 forest-related variables in 236 countries and territories in the period of 1990–2020.

Key takeaways:

- *Total forest area*: The world's total forest area is 4.06 billion hectares (bha) which is 31% of the total land area.
- *Countries with Highest forest cover*: Russian Federation, Brazil, Canada, United States of America and China constituted more than 54% of the world's forests.
- *Decline in rate of forest loss*: The rate of net forest loss decreased substantially during the period of 1990–2020.

- **Forest Area**: During the last decade Forest area has increased in Asia, Oceania and Europe while the highest rate of net forest losses were recorded in Africa followed by South America.
- **Types of forest loss**: The largest proportion of the world's forests are tropical (45%), followed by boreal, temperate and subtropical.
- **Plantation Forests**: The highest percent of plantation forests were in South America while the lowest were in Europe.

FAO:

- It is a specialized agency of the United Nations that leads international efforts to defeat hunger.It is headquartered in Rome, Italy.
- Aim: To achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.
- Reports:
  - Global Food Price Index
  - State of the World's Forests report among others.
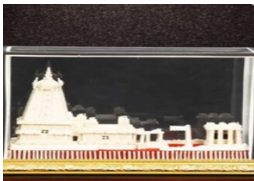
8. Invasive mussel spreads in backwaters

News: Charru mussel (Mytella strigata), an invasive species is spreading in the backwaters of Kerala.

Facts:

- **Charru mussel (Mytella strigata):** It is an invasive species native to the South and Central Americas.
- It spreads primarily through the discharge of ballast waters of ships (seawater carried in the ballast tanks of ships to improve its stability and balance).
- It can tolerate a wide variety of environmental conditions (salinity, water temperatures and oxygen levels) which helps them thrive in the new areas they colonise.
- Threat:
  - They displace native species of mussel and clam species (which local fishermen depend on for their livelihood) from their coastal habitats and cause a reduction in native biodiversity.

Invasive Species: It is an organism that causes ecological or economic harm in a new environment where it is not native.

1. GI Tags in News:

	State	Details	
Thanjavur Netti	Tamil Nadu	It's a traditional art form made from Netti (pith) from a marshy plant called as Aeschynomene Aspera	
Arumbavur Wood Carving	Tamil Nadu	These are sculptures primarily made out of the wooden logs of Mango, Lingam tree, Indian Ash tree, Rosewood, Neem tree. The entire design carved is made out of a single block of wood	
Telia Rumal	Telangana	It involves intricate handmade work with cotton loom displaying a variety of designs and motifs in three particular colours — red, black and white	
Sohrai Khovar	Jharkhand	It is a traditional and ritualistic mural painting practised by local tribal women in Hazaribagh	
Toda Embroidery	Nilgiris, Tamil Nadu	It is an art work made with use of red and black threads with a white cotton cloth background	
Manipur Black Rice	Manipur	locally known as chakhao, it owes its colour to natural black pigments called anthocyanins	
Gorakhpur Terracotta	Uttar Pradesh	Art form where potters make animal figures like, horses, elephants, camel, goat and ox with hand applied ornamentation	
Kovilpatti Kadalai Mittai	Tamil Nadu	It is peanut candy made from groundnut and jaggery	
Kashmir Saffron	Jammu and Kashmir	It is cultivated and harvested in the Karewa (highlands). It is the only saffron in the world grown at an altitude of 1,600 m to 1,800m above mean sea level.	

2. NGMA to commemorate the birth anniversary of Gurudev Rabindranath Tagore

News: National Gallery of Modern Art organised the Virtual Tour titled "Gurudev – Journey of the Maestro through his visual vocabulary" to commemorate the 159th birth anniversary of Gurudev Rabindranath Tagore.

Facts:

- Rabindranath Tagore (1861-1941) known as 'Gurudev' was a poet, novelist and painter.
- He was the first Indian to be awarded the Nobel Prize for Literature in 1913, for his novel 'Geetanjali'.

Contributions:

- ***Bengal Partition***: He was against the partition of Bengal and wrote the song Banglar Mati Banglar Jol (Soil of Bengal, Water of Bengal) to unite the Bengali population after the Bengal partition in 1905.It was reunited in 1911.
- ***Rakhi Utsav***: It was started by Tagore during Bengal Partition where people from Hindu and Muslim communities tied colourful threads on each other's wrists to counter British efforts to create a divide between Hindus and Muslims.
- ***Knighthood***: He was awarded a knighthood by King George V in 1915 but Tagore renounced it after the 1919 Jallianwala Bagh massacre.
- ***Vishwabharati University***: It was established by Tagore with the aim of helping education go beyond the confines of the classroom.
- ***National Anthem***: He wrote the National Anthem of India (Jana Gana Mana) and Bangladesh (Amar Shonar Bangla).

3. Lost at home: Over 5 million people internally displaced in India in 2019

News: United Nations (UN) Children's Fund (UNICEF) has released the Lost at Home report.

Facts:

- The report looks at the risks and challenges internally displaced children face, and the urgent actions needed to protect them.
- India constituted the highest number of internal displacements in 2019 followed by Philippines, Bangladesh and China.
- Internal Displacement: It refers to the forced movement of people within the country they live in due to conflict, violence, development projects, disasters and climate change.

UNICEF:

- It was created by the United Nations General Assembly in 1946.
- ***Purpose***: It is devoted to aiding national efforts to improve the health, nutrition, education, and general welfare of children.
- ***Headquarters***: New York, USA.
- ***Reports***: State of the World's Children report.

4. International Labour Day 2020

News: May 1 is observed as the International Labour Day in order to celebrate the labours and the working class.

Facts:

- The Labour Day was designated on this day in the memory of the Haymarket affair (ally in support of workers demanding an eight-hour workday) of 1886 in Chicago, USA.
- In India, the first celebration of the Labour Day was organised in Madras by the Labour Kisan Party of Hindustan on May 1,1923.

1. Now, 'Banana Covid' hits plantations

News: Fusarium Wilt TR4 dubbed as Banana Covid is setting up new hotspots and threatening the output of Banana Cultivation in India.

Facts:

- **Tropical Race 4(TR4)**: It is a novel fungus strain that causes Fusarium wilt (aka Panama disease) in banana plants.
- **Origin**: It was first identified in Taiwan and has jumped from Asia to the Middle East and Africa reaching as far as Latin America.
- **Threat**: It cripples plantations by first attacking the leaves which turn yellow from their trailing edges before wilting away.
- **Treatment**: There is no effective remedy yet. Hence, scientists recommend biosecurity measures including plant quarantine to slow its spread.

2. Antarctic Impulsive Transient Antenna(ANTIA) finds high energy particles from ice

News: NASA's Antarctic Impulsive Transient Antenna (ANITA) has detected high energy particles from ice in Antarctica.

Facts:

- ANITA instrument: It is a radio telescope to detect ultra-high energy cosmic-ray neutrinos from a scientific balloon flying over the continent of Antarctica.
- ANITA is also the first NASA observatory for neutrinos of any kind.
- **How does ANITA detect Neutrinos:** The ANITA instrument detects these ultra-high energy neutrinos by use of the Askaryan effect.

Askaryan Effect: It predicts the production of a coherent radio emission from the cascade of particles produced in a high-energy particle interaction
Neutrinos: They are subatomic particles with no electric charge and with a very small mass. They are considered to be the second most abundant particle in the universe after photons or light particles.

3. National community-based sero-survey to estimate prevalence of SARS-CoV-2 infection

Facts:

- **Sero Survey**: It involves testing the blood samples of a group of individuals to monitor trends in prevalence of the novel coronavirus or SARS-COV-2 infection at the district level.
- Under this, a combination of Elisa antibody kits and RT-PCR will be used for testing. For RT-PCR tests, throat and nasal swabs will be collected.
- **Bodies Involved:** Indian Council of Medical Research (ICMR) and the National Centre for Disease Control in collaboration with key stakeholders and state Health Departments.
- **Why Sero Survey:** It will involve high and low-risk groups in select districts. This will help the government and its agencies monitor Covid-19 trends but also check for community transmission in any part of the country.

- *Community Transmission*: It means that the source of infection for the spread of an illness is unknown or a link in terms of contacts between patients and other people is missing.
- *Reverse Transcription Polymerase Chain Reaction (RT-PCR) Tests*: It is a nuclear-derived method for detecting the presence of specific genetic material from any pathogen including a virus.
- *ELISA Test:* ELISA stands for enzyme-linked immunoassay. It is a commonly used laboratory test to detect antibodies in the blood.

4. African Swine Fever

News: In Assam, over 2,900 pigs have died due to African Swine Fever (ASF). This is the first time that an ASF outbreak has been reported in India.

Facts:

- *African Swine Fever*: It is a highly contagious and fatal animal disease that infects and leads to an acute form of haemorrhagic fever in domestic and wild pigs.
- *Causes*: It is caused by a large DNA virus of the Asfarviridae family.
- *Transmission*: It is transmitted to pigs through:
    o direct contact with infected domestic or wild swine
    o indirect contact through ingestion of contaminated substances or
    o contaminated material such as food waste, feed or garbage or through biological vectors such as ticks.
- *Human Transmission*: It is not a threat to human beings since it only spreads from animals to other animals.
- *Mortality Rate:* It is close to 100% and since the fever has no cure, the only way to stop it spreading is by culling the animals.
- *Difference:* ASF is differentiated from Classical Swine Fever (CSF), whose signs may be similar to ASF but is caused by a different virus for which a vaccine exists.
- The disease is listed in the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code and thus reported to the OIE.

World Organisation for Animal Health (OIE):

- It is an intergovernmental organisation created in 1924 for improving animal health worldwide.
- Members: In 2018, the OIE consists of 182 Member Countries and Territories. India is one of the member countries.
- Headquarters: Paris, France.
- It is also recognised as a reference organisation by the World Trade Organization (WTO).

5. Silent hypoxia

News: Many COVID-19 patients have reported a condition called 'silent' or 'happy' hypoxia.

Facts:

- *Silent or Happy hypoxia*: It is a condition in which the patients have extremely low levels of oxygen concentration, yet they do not show signs of breathlessness or distress.
- *How can it be detected?* Medical experts have said that a medical device called a pulse oximeter– used to detect oxygen level in the blood– could help in the early detection of silent hypoxia.
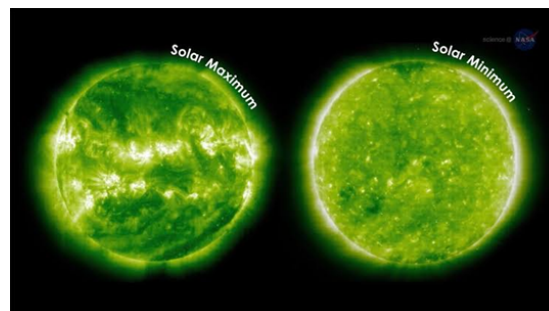
- *Hypoxia:* It is a condition wherein there is not enough oxygen available to the blood and body tissues. It can either be generalised affecting the whole body or local affecting a region of the body.
- *Thrombosis:* It is the formation of a blood clot, known as a thrombus, within a blood vessel. It prevents blood from flowing normally through the circulatory system

6. Sun reportedly entering 'Solar Minimum': What does it mean?

News: The sun is said to have reached into a state of 'solar minimum' as it has been more than 100 days since the sunspots are virtually not visible at all.

Facts:

- *Solar Minimum*: It is the period of least solar activity in the 11-year solar cycle of the Sun.During this time, sunspot and solar flare activity diminishes and often does not occur for days at a time.
- *Concerns*: It may cause health risks to astronauts travelling through space as the sun's magnetic field weakens and provides less shielding from these cosmic rays.

- *Solar Cycle*: It is the cycle that the Sun's magnetic field goes through approximately every 11 years.
- *Sunspots*:
  - These are areas that appear dark on the surface of the Sun. They appear dark because they are cooler than other parts of the Sun's surface.
  - The temperature of a sunspot is still very hot though at around 6,500 degrees Fahrenheit.
  - Why are sunspots relatively cool: It's because they form at areas where magnetic fields are particularly strong. These magnetic fields are so strong that they keep some of the heat within the Sun from reaching the surface.
- *Solar Flares*: It is an intense burst of radiation coming from the release of magnetic energy associated with sunspots.

1. Mission Sagar: India's helping hand across Indian Ocean amid COVID-19 outbreak

News:Government of India has launched Mission Sagar amidst COVID-19 pandemic.

Facts:

- **Aim**: To provide two medical assistance teams, medicines and essential food items related to Covid-19 to five Island nations in the Indian Ocean namely Maldives, Mauritius, Seychelles, Madagascar and Comoros.
- Indian Naval Ship (INS) Kesari has been deployed under this mission.
- **Implementation**: It is being implemented in close coordination with the Ministries of Defence and External Affairs and other agencies of the Government of India.
- The mission has been deployed under India's vision of Security and Growth of All in the Region (SAGAR) in the Indian Ocean.

SAGAR:

- The term was coined by the Indian Prime Minister in 2015.
- It is a maritime initiative which gives priority to Indian Ocean region for ensuring peace, stability and prosperity of India in Indian Ocean region.
- **The initiative aims at**
  - enhancing capacities to safeguard land and maritime territories & interests
  - deepening economic and security cooperation in the littoral and
  - action to deal with natural disasters and maritime threats like piracy, terrorism.

2. India gears up for Vande Bharat, Samudra Setu missions: Everything you need to know

News: Government of India is launching Vande Bharat Mission and Operation Samudra Setu to bring back Indian nationals stranded abroad due to the coronavirus lockdown.

Facts:

Vande Bharat Mission: It is a multi-agency mission that will see the operation of 64 flights to bring back Indian nationals from Gulf countries, US, UK among other nations. Once completed, it may turn out to be the largest evacuation operation since the 1990 airlift of 1.7 lakh people from Kuwait.

Operation Samudra Setu (Sea Bridge): It is an operation of Indian Navy to repatriate Indian citizens from overseas. Indian Naval Ships (INS) Jalashwa and Magar are presently en route to Maldives to commence evacuation operations as part of Phase-1.

3. TRF is a ploy by Pakistan to evade scrutiny, says J&K's DGP

News: The Resistance Front (TRF) had claimed responsibility for the recent attack on the security forces along the Line of Control in the Kupwara sector, Kashmir.

Facts:

- The Resistance Front (TRF) is a new terror outfit based in Jammu and Kashmir (J&K).
- It is backed by Pakistan based Lashkar-e-Taiba (LeT) and created in 2019 following the withdrawal of Article 370.

- **Why was it created?** a) To blame all the attacks on TRF in order to escape scrutiny by the Financial Action Task Force (FATF) and b) To project Kashmiri terrorism as a resistance movement by Kashmiris.

FATF:

- It is an inter-governmental body set up in 1989 as a global money laundering and terrorist financing watchdog.
- *Headquarters*: Paris, France.
- *Members*: 37 member countries and 2 regional organisations. India is also a member.

4. Exercise RIMPAC will be held with sea only events

News: The U.S Navy will host the Exercise RIMPAC this year, but the drills will only be held at sea because of the coronavirus pandemic.

Facts:

- Exercise RIMPAC (Rim of the Pacific) is the world's largest international maritime warfare exercise held biennially since 1971 by the United States Navy's Indo-Pacific Command at Hawaii.
- *Aim*: To strengthen international maritime partnerships, enhance interoperability and improve the readiness of participating forces for a wide range of potential operations.
- *Theme*: Capable, Adaptive, Partners.
- Indian Navy had participated in the exercise in 2006, 2010 and 2012 as an observer. Since 2014, India has been participating as a member country.

Bilateral Exercises between India and US:

- *Yudh Abhyas*: It is a joint military exercise between India and the US.
- *Tiger Triumph:* It is a tri-service military exercise between India and the US.
- *Vajra Prahar*: It is a Special Forces joint military training exercise conducted alternately in India and the US since 2010.

1. Govt accepts Shekatkar recommendations to boost border roads projects

News: The Government of India has accepted several important recommendations made by Shekatkar committee related to border infrastructure and other issues.

Facts:

- The Shekatkar Committee was set up by the Government of India to recommend measures on enhancing Combat Capability and Rebalancing Defence Expenditure.

Key Recommendations accepted and under implementation:

- Speeding up road construction and outsourcing road construction work beyond optimal capacity of the Border Roads Organization (BRO).
- Mandatory to adopt Engineering Procurement Contract (EPC) mode for execution of all works costing more than Rs 100 crore.
- Delegating enhanced procurement powers from Rs 7.5 crore to Rs 100 crore to BRO for domestic and foreign procurements.
- Introducing advanced new technologies to speed up construction such as precision blasting, use of geo-textiles for soil stabilization using cementitious base for pavements and plastic-coated aggregates for surfacing.

Other Key Recommendations:

- India's defence budget should be in the range of 2.5 to 3% of the GDP.
- A Joint Services War College for training middle-level officers should be established.
- The Military Intelligence School at Pune should be converted to a tri-service intelligence training establishment.

2. Punjab farmers to go for direct seeding of rice

News: Due to labour shortage, Punjab farmers are turning towards direct seeding of rice (DSR) moving away from the traditional practice — of sowing nursery and then transplanting it.

Facts:

Direct Seeding of Rice:

- DSR refers to the process of establishing a rice crop from seeds sown in the field rather than by transplanting seedlings from nursery.
    - 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 the main field with standing water.
- In DSR, as flooding of fields is not done during sowing, chemical herbicides are used to kill weeds.
    - In transplanting, standing water acts as herbicide and prevents growth of weeds by denying them oxygen in the submerged stage.
- ***Advantage of DSR***:
    - Water savings
    - less numbers of labourers required,
    - saves labour cost and
    - reduce methane emissions
- ***Disadvantage of DSR***:

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○ Seeds are exposed to birds, rats, and snails.
○ High weeds infestation
○ Non-availability of herbicides.
○ High requirement of seeds when compared to transplanting.
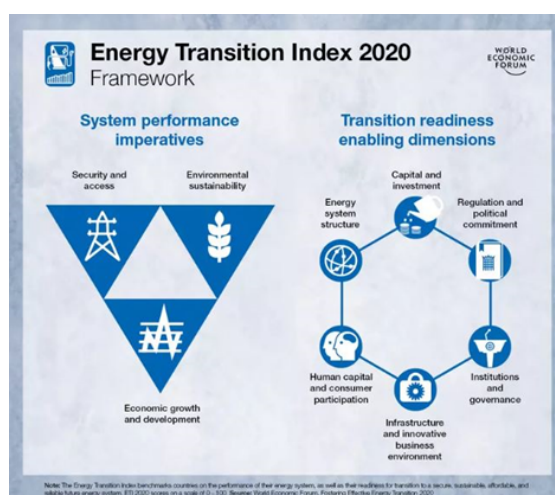
3. Energy Transition Index 2020

News: World Economic Forum (WEF) has released the annual rankings of the global Energy Transition Index.

Facts:

- The Global Energy Transition index is an annual report that ranks 115 economies across:
  ○ Performance of their energy systems and
  ○ Transition readiness for a secure, sustainable affordable and inclusive energy system

Key Takeaways:

- Top 3: Sweden topped the index followed by Switzerland and Finland.
- India: It has moved up two positions to rank 74th.

World Economic Forum (WEF)

- It was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland.
- **Objective**: To improve the state of the world by engaging business, political, academic and other leaders of society to shape global, regional and industry agendas.
- **Reports**:
  ○ Global Competitiveness Report
  ○ Global Gender Gap Report
  ○ Global Risks Report and
  ○ Global Travel and Tourism Report among others.

4. World Press Freedom Day 2020

News: On May 3rd,2020, World Press Freedom Day is being celebrated.

Facts:

- World Press Freedom Day has been organised and promoted by the United Nations since 1993.The day also marks the anniversary of the Windhoek Declaration.
- **Theme**: Journalism without Fear or Favour.

World Press Freedom Conference: It is organized by UNESCO since 1993 to discuss emerging challenges to press freedom and journalist's safety and to work together on identifying solutions. Netherlands is the host for 2020.

Windhoek Declaration: It is a statement of press freedom principles put together by African newspaper journalists in 1991.The Declaration was later endorsed by the UNESCO General Conference.
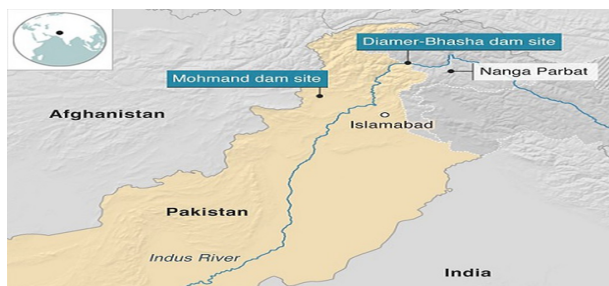
World Press Freedom Prize: It was established in 1997 on the initiative of UNESCO's Executive Board to honour a person or institution who contributed to freedom of press especially in the face of danger.

1. **Chamba tunnel:** It is a 440-metre long tunnel built by Border Roads Organization (BRO) on Rishikesh-Dharasu road Highway (NH94) in Uttarakhand under the Chardham Pariyojana. The Chardham Pariyojana project involves developing and widening 900-km of national highways connecting the holy Hindu pilgrimage sites of Badrinath, Kedarnath, Gangotri, and Yamunotri.

2. **CoAST India (Collaboration/Covid Action Support Group):** It is a GIS-enabled dashboard launched by India Observatory in collaboration with Anand-based Forest Ecological Security (FES). It maps the movement of migrants in real time and gathers information to help in planning urgent steps for welfare of stranded migrants.

3. **National Test Abhyas:** Developed by the National Testing Agency, it is an Artificial Intelligence powered mobile app. It will enable candidates to take mock tests for upcoming exams such as JEE Main, NEET under the NTA's purview.

4. **National Migrant Information System (NMIS):** Developed by National Disaster Management Authority (NDMA), it is an online dashboard to monitor and facilitate the interstate movement of migrant workers and their contact-tracing during lockdown across India.

5. **CHAMPIONS Portal:** Ministry of Micro, Small and Medium Enterprises (MSME) has launched Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength (CHAMPIONS) portal. It is a technology driven portal which aims to assist Indian MSMEs in finance, raw materials, labour, permissions, grievance redressal.

6. **Defence Testing Infrastructure Scheme (DTIS):** The Ministry of Defence has recently approved the DTIS which aims to promote indigenous defence production with special focus on participation of MSMEs and Start Ups by bridging gaps in defence testing infrastructure in India

7. **Global Partnership on Artificial Intelligence:** Recently, the USA joined the Global Partnership on Artificial Intelligence which is a G7 countries Partnership initiated by France and Canada. It aims to study and provide recommendations on the responsible adoption of AI based on shared principles of human rights, inclusion, diversity, innovation and economic growth

8. **COVID-19 Technology Access Pool (C-TAP) initiative:** An initiative launched by WHO, it aims to make vaccines, tests, treatments and other health technologies to fight COVID-19 accessible to all. A Solidarity Call to Action have been issued to the global community to voluntarily share COVID-19 health technology related knowledge, intellectual property and data.

9. **WHO Foundation:** Recently announced by WHO, it is an independent grant-making entity that will support the WHO's efforts to address the most pressing global health challenges and to deliver on the organization's triple billion goals.

10. **Operation Warp Speed:** It is a public–private partnership initiated by the United States to facilitate and accelerate development, manufacturing, and distribution of COVID-19 vaccines, therapeutics and diagnostics.

11. **Chithirai Festival:** It is an annual festival celebrated at Meenakshi Temple in Madurai, Tamil Nadu. Recently, its rituals got cancelled due to Covid-19.

12. **'Khudol':** United Nations Secretary-General's Envoy on Youth has listed Manipur's 'khudol'(gift) among the top 10 global initiatives for an inclusive fight against the COVID-19 pandemic. Khudol (gifts) implemented by Ya_All, an Imphal-based NGO aims to ensure

food, health and hygiene of the LGBTQI+ community, people living with HIV, daily-wage earners, children and adolescents.

13. **GARUD portal:** 'Government Authorization for Relief Using Drones' (GARUD) portal has been launched by Ministry of Civil Aviation (MoCA) and Directorate General of Civil Aviation (DGCA). It aims to provide necessary approvals and fast track conditional exemptions to government agencies for COVID-19 related drone operations.

14. **Amery Ice Shelf:** According to the National Centre for Polar and Ocean Research (NCPOR), there would be a 24% increase in the expansion of the Amery Ice Shelf (AIS) boundaries by 2021 from its 2016 positions. The ice shelf is one of the largest glacier drainage basins in the world located on the east coast of Antarctica.

15. **River Nila:** The Ministry of Tourism's 17th Dekho Apna Desh webinar was titled 'Exploring River Nila'. River Nila, also known as Bharathappuzha is the second longest river in Kerala after Periyar. It originates from Thirumoorthy Hills of Anamalais in Tamil Nadu and drains into the Arabian Sea at Ponnani in Malappuram district, Kerala.

16. **World Migratory Bird Day:** It is celebrated every year on 9th May. The theme for 2020 was Birds Connect Our World.

17. **Sal forest tortoise:** Recently, a study was conducted on Sal Forest Tortoise by Wildlife Institute of India (WII). It is listed as Critically Endangered in the IUCN Red List and features in the Schedule IV of the Wildlife Protection Act, 1972.

18. **Diamer-Bhasha Dam:** Recently, Pakistan has signed a contract with China for the construction of the Diamer-Bhasha dam. The dam is located on the Indus River in northern Pakistan between Kohistan district in Khyber Pakhtunkhwa and Diamer district in Gilgit Baltistan.

19. **World Economic Situation and Prospects Report:** World Economic Situation and Prospects (WESP) midyear 2020 Report forecasts the global economy to shrink by 3.2% in 2020. Indian economy is projected to grow at 1.2% in 2020 followed by 5.5% growth in 2021. The report is released jointly by the United Nations Department of Economic and Social Affairs (UN/DESA), United Nations Conference on Trade and Development (UNCTAD) and the five United Nations regional commissions.

20. **Agappe Chitra Magna:** Recently launched by Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) in collaboration with Agappe Diagnostics Ltd, it is a magnetic nanoparticle-based RiboNucleic Acid (RNA) extraction kit for use during testing for the detection of COVID-19.

21. **Quantum Entanglement:** Recently, scientists have developed a novel protocol to find out whether a pair of electrons is in a Quantum entanglement state. Quantum Entanglement is the physical phenomenon that occurs when a pair or group of particles is generated and interacts in a way such that the quantum state of each particle of the pair or group cannot be described independently of the state of the others.

22. **'EventBot' Malware:** CERT-In (Indian Computer Emergency Response Team) has issued a caution against EventBot Malware. EventBot a Trojan that targets mobile banking, mobile wallets and other financial services apps by masquerading as a legitimate Android app.

23. **Cerebrus:** Central Bureau of Investigation (CBI) has sent alerts on Cerberus. It is a banking Trojan which is primarily used to steal financial data such as credit card numbers. It uses

a phishing method to send SMS to lure a user to download the link containing the malicious software.

24. **COBAS-6800:** COBAS 6800 is a fully automated machine enabled with robotics for performing RT-PCR tests for COVID-19. It is installed at the National Centre for Disease Control (NCDC).

25. **'SwasthVayu' :** National Aerospace Laboratories(NAL) has developed a BiPAP Ventilator named 'SwasthVayu'. It is a non-invasive (involves use of masks or similar device) ventilator for the use of non-critical non-ICU cases of Covid-19.

26. **BiPAP:** It stands for Bilevel Positive Airway Pressure ventilator. It is used in the treatment of sleep apnea, lung disease and to treat respiratory weakness.

27. **"COVID KAVACH ELISA":** It is the first indigenous testing kit developed by National Institute of Virology, Pune. ELISA stands for enzyme-linked immunoassay. It is a commonly used laboratory test to detect antibodies in the blood.

28. **Project Consortium for Affordable & Rapid Diagnostics (CARD):** It has been launched by Niti Aayog and the Department of Biotechnology. It aims to scale up India's capacity to make coronavirus testing kits by rolling out at least 10 million rapid antibody tests by July,2020 and additionally other tests for Covid-19.

29. **NGC 3895:** NASA's Hubble telescope has released an image of a spiral galaxy called NGC 3895. It is located at over 161 million light-years and is a part of Ursa Major.

30. **Compendium of Indian technologies for combating COVID-19:** Developed by National Research Development Corporation(NRDC), it carries information about 200 Coronavirus(COVID-19) related Indian technologies, ongoing research activities available for commercialisation and efforts taken by the Government categorised under 3Ts of tracking, testing and treating.

31. **Rajiv Gandhi Kisan Nyay Yojana:** Recently launched by Chhattisgarh, it aims to encourage farmers for increasing crop production in the state and provide them the right price for their produce. Under the scheme, rice and maize farmers would get ₹10,000 an acre while sugarcane farmers would get ₹13,000 in four instalments.

32. **UNRWA:** India has given USD 2 million in aid to the United Nations Relief and Works Agency (UNRWA) working for the welfare of Palestinian refugees. UNWRA was established by the United Nations in 1949 to provide assistance and protection for registered Palestine refugees.

33. **India-World Bank: Social Protection Response Programme:** The World Bank has announced a $1 billion assistance under the proposed Accelerating India's COVID-19 Social Protection Response Programme which aims to support India's efforts at providing social assistance to the poor and vulnerable households severely impacted by the COVID-19 pandemic.

34. **WHO Executive Board:** Union Health Minister Dr. Harsh Vardhan will take charge as the chairman of the WHO Executive Board at its 147th session. The Executive Board is composed of 34 members technically qualified in the field of health with members being elected for three-year terms. The chairman is chosen by rotation for one year from each of the WHO's six regional groups: African Region, Region of the Americas, South-East Asia Region, European Region, Eastern Mediterranean Region and Western Pacific Region.

35. **Katkari Tribe:** A group of Tribal Youth from Katkari community is marketing Giloy through Pradhan Mantri Van Dhan Yojana. Katkari tribe is located in some places of Gujarat and in the state of Maharashtra where they are designated as Particularly vulnerable tribal group (PVTG).

36. **Konark Sun Temple:** Government of India has launched a scheme for 100% solarisation of Konark sun temple and Konark town. Konark Sun Temple was built in the 13th century by King Narasimhadeva I (AD 1238-1264) of the Eastern Ganga Dynasty and is located near the sacred city of Puri, Odisha. It is a World Heritage Site.

37. **New Millennium Indian Technology Leadership Initiative(NMITLI):** The Council of Scientific and Industrial Research (CSIR) has sanctioned a project to develop human monoclonal antibodies as a therapy for Covid-19 under NMITLI. NMITLI seeks to catalyze innovation centered scientific and technological developments as a vehicle to attain for Indian industry a global leadership position.

38. **9th Edition of the Status Paper on Government Debt:** Central Government's Debt as a percentage of Gross Domestic Product (GDP) has dropped marginally by 0.1% from 45.8% in fiscal 2017-18 to 45.7% in fiscal 2018-19. Domestic Debt is around 94.1% of the Centre's liabilities in FY19. General government Debt to GDP ratio which includes the combined debt of the Centre and states declined by 0.1% from 68.7% in March 2018 to 68.6% in March,2019.

39. **Minor Forest Produce:** Ministry of Tribal Affairs has announced inclusion of 23 additional Minor Forest Produce (MFP) items in Minimum Support Price (MSP) list. Minor forest produce are all non-timber forest produce of plant origin. It includes bamboo, brushwood, stumps, canes, cocoon, honey, waxes, Lac, tendu leaves, medicinal plants, roots among others.