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Schemes

1) FAME scheme

About the Scheme

- The **National Electric Mobility Mission Plan (NEMMP) 2020** is a National Mission document providing the vision and the roadmap for the faster adoption of electric vehicles and their manufacturing in the country.
- As part of the NEMMP 2020, the **Department of Heavy Industry** (under the Ministry of Heavy Industries & Public Enterprises) formulated a Scheme viz. Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme in 2015.
- The objective of the FAME India scheme is to **promote manufacturing of electric and hybrid vehicle technology and to ensure sustainable growth of the same.**

Phase-I

- The Phase-I of this Scheme was initially launched for a period of 2 years, commencing from 1st April 2015, which was subsequently extended up to 31st March 2019.
- The 1st Phase of FAME India Scheme was implemented through four focus areas namely (i) Demand Creation, (ii) Technology Platform, (iii) Pilot Project and (iv) Charging Infrastructure.

Phase-II

- Phase-II of FAME India Scheme is being implemented for a period of 3 years w.e.f. 01st April, 2019.
- This phase focuses on **supporting electrification of public & shared transportation** and aims to support, through subsidies, approximately 7000 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2 Wheelers.
- In addition, creation of charging infrastructure is also supported for electric vehicles.

Key Objectives

- Encourage faster adoption of electric and hybrid vehicles by way of offering **upfront Incentive on purchase of Electric vehicles.**
- Establishing necessary **charging Infrastructure** for electric vehicles.
- To address the issue of **environmental pollution and fuel security.**

Why in News?

- The Government has sanctioned 670 Electric buses in the states of Maharashtra, Goa, Gujarat and Chandigarh and 241 Charging Stations in Madhya Pradesh, Tamil Nadu, Kerala, Gujarat and Port Blair under Phase-II of FAME India Scheme.

2) Rashtriya Uchchar Shiksha Abhiyan

About the Scheme

- Rashtriya Uchchar Shiksha Abhiyan (RUSA) is a Centrally Sponsored Scheme which aims at **providing strategic funding to eligible state higher educational institutions.**
- The **Ministry of Education** is the nodal agency administering the program.

Funding

- The Central Funding (in the ratio of 90:10 for North-Eastern States, Sikkim, Jammu and Kashmir, Himachal Pradesh and Uttarakhand and 65:35 for Other States and UTs) would be **norm based and outcome dependent.**
- The Funding would flow from the Central Ministry through the State Governments/ Union Territories to the State Higher Education Councils before reaching the identified Institutions.
- The Funding to States would be made on the basis of **critical appraisal of State Higher Education Plans**, which would describe each State's strategy to

address issues of equity, access and excellence in Higher Education.

Vision

- To attain higher levels of access, equity and excellence in the State higher education system with greater efficiency, transparency, accountability and responsiveness.
- With the assistance under RUSA Scheme, the state envisions an increase in the Gross Enrolment Ratio [G.E.R.], quality, access and equity in higher education and to build a system that is not only responsible for producing bright minds but can also support sophisticated research in a number of scientific and scholarly fields.

Priorities and Strategies

- The priorities of the state are:
 1. Quality Assurance
 2. Access and Equity
 3. Infrastructure Development
 4. Faculty Recruitment
 5. Research and innovation

Why in News?

- The second phase of the Rashtriya Uchchatar Shiksha Abhiyan has been given extension till 31st March 2021 or till the date the recommendations of 15th Finance Commission come into effect, whichever is earlier.

3) Deen Dayal Upadhyay Grameen Kaushal Yojana

About DDUGKY

- The **Ministry of Rural Development (MoRD)** launched the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) Antyodaya Diwas in 2014.
- DDU-GKY is tasked with the **dual objectives of adding diversity to the incomes of rural poor families and caters to the career aspirations of rural youth.**
- As a **part of the Skill India campaign**, it plays an instrumental role in supporting the social and economic programs of the government like the Make in India, Digital India, Smart

Cities and Start-Up India, Stand-Up India campaigns.

Beneficiaries

- DDU-GKY is uniquely focused on **rural youth between the ages of 15 and 35 years from poor families.**
- There are several challenges preventing India's rural poor from competing in the modern market, such as the lack of formal education and marketable skills.
- DDU-GKY bridges this gap by funding training projects benchmarked to global standards, with an emphasis on placement, retention, career progression and foreign placement.

Implementation Model

- DDU-GKY follows a **3-tier implementation model.**
- The **DDU-GKY National Unit** at MoRD functions as the policy-making, technical support and facilitation agency. The **DDU-GKY State Missions** provide implementation support; and the **Project Implementing Agencies (PIAs)** implement the programme through skilling and placement projects.

Why in News?

- The Ministry of Rural Development celebrated the foundation day of Deen Dayal Upadhyaya Grameen Kaushalya Yojana.
- Under DDU-GKY, 10.51 lakh rural youth have been trained and 6.65 lakh successfully placed so far.

4) Pradhan Mantri Jan Vikas Karyakram

About the Scheme

- Pradhan Mantri Jan Vikas Karyakram (PMJVK) seeks to provide better **socio economic infrastructure facilities to the minority communities** which would further lead to lessening of the gap between the national average and the minority communities with regard to backwardness parameters.

- Under PMJVK, 80% of the resources would be utilized for projects related to **education, health and skill development** of which at least 33-40% will be earmarked for creation of assets/facilities for **women/girls**.
- The erstwhile **Multi-sectoral Development Programme (MsDP)** has been restructured and renamed as Pradhan Mantri Jan Vikas Karyakram for effective implementation since 2018.
- The areas under PMJVK, have been identified on the basis of minority population and socio-economic and basic amenities data of Census 2011. These areas will be known as **Minority Concentration Areas**.
- It will reduce the imbalances in the identified minority concentration areas to be at par with the rest of the country.
- **Note:** Muslims, Sikhs, Christians, Buddhists, Jain and Zorastrians (Parsis) have been notified as minority communities under the National Commission for Minorities Act, 1992.

Backwardness parameters for minority concentration areas

- Religion-specific socio-economic indicators at the district level:
 - A. Literacy rate
 - B. Female literacy rate
 - C. Work participation rate
 - D. Female work participation rate
- Basic amenities indicators at the district level:
 - a) Percentage of households with pucca walls'
 - b) Percentage of households with safe drinking water; and
 - c) Percentage of households with electricity.

Why in News?

- Union Minister of Minority Affairs said that the Pradhan Mantri Jan Vikas Karyakram is being implemented in 1300 identified Minority Concentration Areas in the country.

Other Schemes for Minorities implemented by the Ministry of Minority Affairs

Seekho aur Kamao (Learn & Earn)

- It is a 100% Central Sector Scheme implemented since 2013-14 for **skill development of minorities**.
- Implemented by the Ministry of Minority affairs, the scheme aims at upgrading the skills of minority youth in various modern/traditional skills depending upon their qualification, present economic trends and market potential, which can earn them suitable employment or make them suitably skilled to go for self-employment.
- The scheme is implemented through selected expert **Project Implementing Agencies (PIAs)**.
- The scheme ensures placements of minimum 75% trainees, out of which at least 50% placement is in the organized sector.

Eligible Trainees/beneficiaries

- The trainee should belong to a minority community.
- The trainee should be between **14-35 years of age**.
- The minimum qualification of trainees should be at least **Class V**.

USTTAD (Upgrading the Skills and Training in Traditional Arts/ Crafts for Development)

- The Scheme was launched in 2015 to **preserve the rich heritage of traditional arts/crafts of minorities**.
- It is a 100% centrally sponsored scheme implemented by the Ministry of Minority affairs.
 - The scheme aims at
 - a) Capacity building and updating the traditional skills of master craftsmen/artisans
 - b) Documentation of identified traditional arts/crafts of minorities; set standards for traditional skills
 - c) Training of minority youths in various identified traditional arts/crafts through master craftsmen; and

d) Develop national and international market linkages.

Eligible Trainees/beneficiaries

- The trainee should belong to a minority community. However, to promote inter-community solidarity, **25% candidates belonging to BPL families of non-minority communities** may also be considered. In addition, 3% seats will also be reserved for **differently abled persons** belonging to minority communities.
- The trainee should be between **14-35 years of age**. Upper age limit may be relaxed for differently abled persons belonging to minorities.
- The minimum qualification of a trainee should be at least **Class V**. This may also be relaxed for differently abled persons belonging to minorities.
- More than one member of a family is eligible for training in the same art/craft form, provided she/he fulfills the eligibility criteria.

Nai Manzil

- Launched in 2015, it aims to provide **education and skill training to the youth from Minority Communities**.
- It aims to benefit the **minority youth who do not have a formal school leaving certificate** i.e. those in the category of school dropouts or educated in the community education institutions like Madrasas, in order to provide them formal education and skills, and enable them to seek better employment in the organized sector and thus to equip them for better lives.

Trainees/Beneficiaries

- The trainee should belong to the Minority community as notified under National Commission for Minorities Act 1992 (viz. Muslims, Christians, Sikhs, Buddhists, Jains and Parsis).
- In the States/UTs where some other minority communities notified by respective State/UT Governments exist, they may also be considered

eligible for the programme but they **will not occupy more than 5% of the total seats**.

- The trainee should be between **17-35 years** of age.
- Certain pockets of minority population within a non-minority district or city are also eligible.
- The trainees should belong to the **Below Poverty Line (BPL) population** both from urban and rural areas.
- **30%** of the beneficiary seats will be earmarked for **girl / women candidates** and **5%** of the beneficiary seats will be earmarked for **persons with disability belonging to the minority community** under the scheme.

Nai Roshni

- Launched in 2012, the Nai Roshni scheme aims to **empower and instil confidence among minority women** by providing knowledge, tools and techniques for interacting with Government systems, Banks and other institutions at all levels.
- The scheme is implemented through **Non-Governmental Organizations (NGOs), Civil societies and Government Institutions all over the country**.
- It includes various training modules like Leadership of women, Educational Programmes, Health and Hygiene, Swachh Bharat, Financial Literacy, Life Skills, Legal Rights of Women, Digital Literacy and Advocacy for Social and behavioural change.

Hamari Dharohar

- This is a 100% Central Sector Scheme which aims to **preserve the rich heritage of minority communities of India** under the overall concept of Indian culture.
- It is implemented by the Ministry of Minority Affairs directly through selected Project Implementing Agencies (PIAs).

Objectives

- To curate rich heritage of minorities under the overall concept of Indian Culture
- Curating exhibitions
- Preservation of literature/ documents, etc.
- Support and promotion of calligraphy, etc.
- Research and Development.

Maulana Azad National Fellowship Scheme for Minority Students

- It was launched in 2008 for students belonging to the minority communities.
- Its objective is to provide **integrated five year fellowships in the form of financial assistance** to students from minority communities to pursue higher studies such as M. Phil and Ph.D in Sciences, Humanities, Social Sciences and Engineering & Technology.

Naya Sawera

- Naya Savera aims to provide **free coaching** to students/candidates belonging to minority communities for qualifying in entrance examinations of technical/ professional courses and Competitive examinations.

Padho Pardesh

- It is a Central Sector Scheme which provides **interest subsidy** to students of minority communities on **educational loans for overseas higher studies**.
- The interest subsidy under the scheme shall be available to the eligible students only once, either for Masters, M.Phil. or Ph.D. levels.
- 35% seats will be earmarked for **girl students**.

Nai Udaan

- It aims to provide **financial support to the minority candidates who clear the preliminary examinations** conducted by the Union Public Service Commission, Staff Selection Commission and State Public Service Commission.

- The **Ministry of Minority Affairs** is the implementing agency and only candidates belonging to notified Minority Communities who clear the Prelim examinations conducted by UPSC; SPSC or SSC etc. and fulfill all other eligibility criteria and conditions will be considered for financial support under the scheme.

Ijyo Parsi

- It is a Central Sector Scheme for **containing population decline of Parsis in India** by adopting scientific protocol and structured interventions.
- It was launched in 2013 by the **Ministry of Minority Affairs**.

5) Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya)

About the scheme

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana –“Saubhagya” is a scheme under the **Ministry of Power** to ensure **electrification of all willing households in the country**.
- The scheme was launched in 2017.

Background

- A government announcement in 2018 that the last unconnected Indian village of Leisang in Manipur had been connected to the grid, drew a lot of debate on the **official definition of rural electrification in India**.
- Critics pointed out that quite a large number of Indian households are still without electricity, despite the 100 per cent rural electrification claim, due to **lack of last-mile infrastructure and affordability**.
- Earlier rural electrification schemes such as the ‘Deen Dayal Upadhyaya Gram Jyoti Yojana’ considered a village ‘electrified’ even **if it has the basic electrical infrastructure and 10% of its households, as well as public places viz schools, hospitals are connected**.
- However, this definition had left out many Indian households from getting

access to electricity. The Saubhagya scheme's main intent was to fill this gap.

Objective

- To provide energy access to all by last mile connectivity and electricity connections to all remaining un-electrified households in **rural as well as urban areas** to achieve universal household electrification in the country.
- **Rural Electrification Corporation (REC)** has been designated as nodal agency for the Saubhagya scheme.
- The electricity connection to households include release of electricity connections by drawing a service cable from the nearest pole to the household premise, installation of an energy meter, wiring for a single light point with LED bulb and a mobile charging point.
- In case the electricity pole is not available nearby from the household for drawing service cable, the erection of additional pole along with conductor and associated accessories shall also be covered under the scheme.

Eligibility

- The prospective beneficiary households for free electricity connections under the scheme would be identified using **SECC 2011 data**.
- However, un-electrified households not covered under SECC data would also be provided electricity connections under the scheme on payment of Rs. 500 which shall be recovered by DISCOMs in 10 instalments through electricity bill.

Why in News?

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana -"Saubhagya" has completed three years since its inception.
- As many as over 2 crore 62 lakh households have been provided electricity connection so far under the Saubhagya scheme.

6) Pradhan Mantri Kisan Sampada Yojana

About PMKSY

- The **Ministry of Food Processing Industries** has been implementing the Pradhan Mantri Kisan SAMPADA Yojana (PMKSY) since 2017.
- SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) is a comprehensive package which **aims to create modern infrastructure with efficient supply chain management from farm gate to retail outlet**.
- It aims to provide a big boost to the growth of the food processing sector in the country and also help in providing better returns to farmers, reducing wastage of agricultural produce, increasing the processing level and enhancing the export of the processed foods.
- Under PMKSY the following schemes are to be implemented.
 - a) Mega Food Parks
 - b) Integrated Cold Chain, Value Addition and Preservation Infrastructure
 - c) Creation/Expansion of Food Processing/Preservation Capacities
 - d) Infrastructure for Agro Processing Clusters
 - e) Scheme for Creation of Backward and Forward Linkages
 - f) Food Safety & Quality Assurance Infrastructure
 - g) Human Resources and Institutions

Objectives of PMKSY

- Creation of modern infrastructure for food processing mega food parks/ clusters and individual units
- To create effective backward and forward linkages - linking farmers, processors and markets
- To create robust supply chain infrastructure for perishables

Why in News?

- The Central government has given permission to 27 projects under the

Pradhan Mantri Kisan Sampada Yojana for development of integrated cold chains and value addition infrastructure in the country.

7) RoDTEP scheme

About Merchandise export from India scheme

- Merchandise Exports from India Scheme (MEIS) was introduced under **Foreign Trade Policy of India (FTP 2015-20)**, as a part of Exports from India Scheme.
- The scheme provides **incentive in the form of duty credit scrip** to exporters to compensate for their losses on payment of duties. The scrips can be transferred or used for payment of a number of duties including the basic customs duty.

What is the issue?

- In 2019, a WTO dispute resolution panel ruled that MEIS was **not in compliance with the global trade norms**.
- Additionally, many exporters had persistently complained that the MEIS scheme doesn't offset all the taxes.

RoDTEP scheme

- To address these issues, the government introduced the **Remission of Duties and Taxes on Exported Products (RoDTEP) scheme** with a view to give a boost to the country's outbound shipments.
- The government announced that whatever taxes, or duties or local levies imposed by the Centre, State or local governments that are not getting refunded through any other scheme, will be done through RoDTEP in a way that is **compliant with the WTO norms**.
- It is proposed to **digitally refund to exporters**, duties and taxes levied at the Centre, State and local levels.
- The RoDTEP scheme will **replace the Merchandise Export from India Scheme** in a phased manner.

Why in News?

- The government has recently capped export incentives under the Merchandise Export from India Scheme at Rs 2 crore per exporter on outbound shipments made during the period from September 1 to December 31, 2020.
- In addition, it has been notified that the MEIS scheme is withdrawn with effect from January 1, 2021.

Initiatives

1) POSHAN Abhiyaan

About the scheme

- POSHAN Abhiyaan (also known as **National Nutrition Mission**) is a flagship programme of the **Ministry of Women and Child Development** that aims to improve nutrition amongst children, pregnant women, and lactating mothers.
- Launched in 2018, it is a multi-ministerial convergence mission with the vision to ensure attainment of **malnutrition free India by 2022**.
- The mission targets to reduce **stunting, under-nutrition, anemia** (among young children, women and adolescent girls) and reduce **low birth weight** by 2%, 2%, 3% and 2% per annum respectively.
- The mission also strives to achieve a reduction in **Stunting** from 38.4% (NFHS-4) to 25% by 2022 (**Mission 25 by 2022**).

Significance

- Amongst India's most serious yet marginally addressed development challenges is malnutrition, which contributes significantly to the country's disease burden.
- Even as **National Family Health Survey 2015-16 (NFHS-4)** data shows that the country's malnutrition rates have gone down, half of all children from families in the lowest income quintile are still stunted (51 percent) or underweight (49 percent).
- Today, India is home to the largest number of stunted children (46.6 million) and wasted children (25.5 million) in the world. **More than a third of children under five suffer from stunting and wasting and 40% of children between one and four are anaemic.**
- According to the NFHS-4, **over 50% of pregnant and non-pregnant women were found to be anaemic.**

Poshan Maah

- To ensure community mobilisation and bolster people's participation, every year the month of September is celebrated as Rashtriya Poshan Maah under POSHAN Abhiyaan across the country.
- The activities in the Poshan maah are focussed on **Social Behavioural Change and Counselling (SBCC)**. The broad themes are: antenatal care, optimal breastfeeding (early and exclusive), complementary feeding, anaemia, growth monitoring, girls' education, diet, right age of marriage, hygiene, and sanitation, eating healthy and food fortification.

Why in News?

- The 3rd Rashtriya Poshan Maah was celebrated during September 2020 to address the problem of malnutrition in women and children.

2) Aspirational Districts Programme

About the programme

- Launched in January 2018, the Aspirational Districts Programme (ADP) is one of the largest experiments on **outcomes-focused governance** in the world.
- The ADP is **NITI Aayog's** flagship initiative to **uplift those backward 115 districts that are lagging behind in specific development parameters** of health and nutrition, education, agriculture and water resources, financial inclusion, skill development, and basic infrastructure.

Core Strategy

- The broad contours of the programme are **Convergence** (of Central & State Schemes), **Collaboration** (of Central, State level 'Prabhari' Officers & District Collectors), and **Competition** among districts driven by a spirit of mass Movement.

- With States as the main drivers, this program will focus on the strength of each district, identify low-hanging fruits for immediate improvement, measure progress, and rank districts.

Selection of districts

- **115 districts** were identified using a composite index of key data sets that included deprivation enumerated under the Socio-Economic Caste Census, key health and education sector performance and state of basic infrastructure.

Institutional framework

- **NITI Aayog** anchors the programme with support from Central Ministries and the State Governments.
- While NITI Aayog is steering the initiative in 30 districts, various central ministries oversee 50 districts besides the **Ministry of Home Affairs**, which focuses on 35 Left Wing Extremism (LWE) affected districts.
- Officers at the level of Joint Secretary / Additional Secretary have been nominated to become the '**Central Prabhari Officers**' of each district.
- States have appointed state-nodal and Prabhari officers.
- An Empowered Committee under the Convenorship of the CEO, NITI Aayog will help in the convergence of various government schemes and streamlining of efforts.

Focus Areas

- To enable optimum utilization of their potential, this program focuses closely on improving people's ability to participate fully in the vibrant economy.
- Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development, and Basic Infrastructure are this programme's core areas of focus.

Baseline Ranking

- The objective of the program is to monitor the real-time progress of

aspirational districts based on 49 indicators (81 data-points) from the 5 identified thematic areas.

- Districts are aspiring to first catch-up with the best district within their State, and subsequently aspire to become one of the best in the country, by competing with, and learning from others in the spirit of competitive & cooperative federalism.

Why in News?

- Recently, Micro, Small and Medium Enterprises Minister Nitin Gadkari emphasised upon improving MSME footprint in 115 aspirational districts.
- He said, their contribution to GDP is presently negligible, but if focused attention is given to them, they can uplift the employment scene in a big way.

3) Mission Karmayogi

About the programme

- Mission Karmayogi is a nationwide programme to lay the **foundation for capacity building of civil servants**. It will help the officers to learn about the best practices across the world.
- Officially called the "**National Programme for Civil Services Capacity Building (NPCSCB)**", the mission plans to **transform human resource management in the country**.
- Mission Karmayogi aims to prepare the Indian civil servant for the future by making him more creative, constructive, imaginative, innovative, proactive, professional, progressive, energetic, enabling, transparent and technology-enabled.
- The fundamental focus of the reform is the creation of a '**citizen centric civil service**' capable of creating and delivering services conducive to economic growth and public welfare.
- It shifts the focus from "Rule based training to **Role based training**".

Greater thrust has been laid on behavioural change.

Unfolding of Mission Karmayogi

- Mission Karmayogi programme will be delivered by setting up a digital platform called **iGOTKarmayogi**.
- The platform will act as a launchpad for the National Programme for Civil Services Capacity Building, which will enable a comprehensive reform of the capacity building apparatus at the individual, institutional and process levels.
- **NPCSCB will be governed by the Prime Minister's Human Resource Council**, which will also include state Chief Ministers, Union Cabinet ministers and experts. This council will approve and review civil service capacity building programmes.
- There will be a wholly-owned **Special Purpose Vehicle (SPV), which will govern the iGOT-Karmayogi platform**.
- The SPV will be a “not-for-profit” company which will create and operationalise the content, market place and manage key business services of iGOT-Karmayogi platform.
- To cover around 46 lakh central employees, a sum of Rs 510.86 crore will be spent over a period of 5 years from 2020-21 to 2024-25. The expenditure is partly funded by multilateral assistance to the tune of \$50 million.

4) e-Gram Swaraj Portal

What's in the news?

- With a vision to strengthen digitalization in Panchayats for the purpose of empowering rural India, a unified tool e-Gram SWARAJ portal has been developed by the **Ministry of Panchayati Raj** for effective monitoring and evaluation of works taken up in the Gram Panchayats.
- The portal can be accessed at <https://egramswaraj.gov.in/>. Anybody

can create an account on the Gram Swaraj Portal and know about the developmental works of villages.

About the Portal

- e-Gram SWARAJ unifies the planning, accounting and monitoring functions of Gram Panchayats.
- It provides a single window for capturing Panchayat information with the complete Profile of the Panchayat, details of Panchayat finances, asset details, activities taken up through Gram Panchayat Development Plan (GPDP), Panchayat information from other Ministries/ Departments such as Census 2011, SECC data, etc.

Significance

- Monitoring and recording all the work via Gram Swaraj Portal will help **speed-up the implementation of projects** in village areas.
- The Gram Swaraj Portal will provide a **boost in transparency** by decentralized planning of development projects, with progress reports updates and **increased accountability**.
- The Portal will boost **e-governance** in the Panchayati raj institutions across the nation.

5) One Nation One Ration Card

PDS in India

- Under the **National Food Security Act, 2013**, about 81 crore persons are entitled to buy subsidized foodgrain — rice at Rs 3/kg, wheat at Rs 2/kg, and coarse grains at Re 1/kg — from their designated Fair Price Shops (FPS) of the **Targeted Public Distribution System (TPDS)**.
- PDS is operated under the **joint responsibility** of the Central and the State Governments.
- The Central Government, through **Food Corporation of India (FCI)**, has assumed the responsibility for procurement, storage, transportation

and bulk allocation of food grains to the State Governments.

- The **operational responsibilities** including allocation within the State, identification of eligible families, issue of Ration Cards and supervision of the functioning of Fair Price Shops (FPSs) etc., rests with the **State Governments**.

What is the one 'One Nation, One Ration Card' system?

- Earlier, a ration cardholder can buy food grains only from an FPS that has been assigned to her in the locality in which she lives.
- However, under the 'One Nation, One Ration Card' system, the beneficiary will be able to buy subsidised foodgrains from **any FPS across the country**.
- The biggest beneficiaries will be **migrant workers** who move to other states to seek better job opportunities.

How will the system of ration card portability work?

- Ration card portability is aimed at providing **intra-state as well as inter-state portability** of ration cards.
- The new system, based on a technological solution, will identify a beneficiary through **biometric authentication** on electronic Point of Sale (ePoS) devices installed at the FPSs, and enable that person to purchase the quantity of foodgrains to which she is entitled under the NFSA.
- While the **Integrated Management of Public Distribution System (IM-PDS) portal** (<http://www.impds.nic.in/>) provides the technological platform for the inter-state portability of ration cards, enabling a migrant worker to buy foodgrains from any FPS across the country, the other portal (**annavitran.nic.in**) hosts the data of distribution of foodgrains through E-PoS devices within a state.
- Once the 'one nation one ration card' system takes effect in a given state, the

beneficiary family **can purchase food grains from different locations**. For example, a migrant worker staying in a different state can buy his or her share of the subsidized food grains from any FPS in the state where they work while the remaining family members will be able to buy their quota of the supplies back at home.

Since when has the One Nation, One Ration Card System been in the works?

- Work on this ambitious project started about two years back when the government launched a scheme called **Integrated Management of Public Distribution System (IM-PDS)** in April 2018 to reform the public distribution system in the country.
- The PDS system was marred with inefficiency leading to leakages in the system. To plug the leakages and make the system better, the government started the reform process.
- For this purpose, it used a technological solution involving the **use of Aadhaar to identify beneficiaries**. Under the scheme, the **seeding of ration cards with Aadhaar** is being done.
- Simultaneously, **PoS machines** are being installed at all FPSs across the country. Once 100 per cent of Aadhaar seeding and 100 per cent installation of PoS devices is achieved, the national portability of ration cards will become a reality.

Why in News?

- The progress of implementation of the One Nation One Ration Card initiative was reviewed recently.
- Presently, this initiative is seamlessly enabled in a single cluster of 32 States and UTs covering about 69 crore beneficiaries.

6) Ambedkar Social Innovation and Incubation Mission

What's in the news?

- The **Ministry of Social Justice and Empowerment** has launched the “Ambedkar Social Innovation and Incubation Mission (ASIIM) under Venture Capital Fund for SCs” to **promote innovation and enterprise among Scheduled Caste (SC) students** studying in higher educational institutions.

About ASIIM

- Under ASIIM, **one thousand SC youth** will be identified in the coming four years with start-up ideas through the Technology Business Incubators (TBIs) in various higher educational institutions.
- They will be **funded 30 lakh rupees** in three years as equity funding to translate their start-up ideas into commercial ventures.
- Successful ventures would further qualify for **venture funding of up to five Crore rupees from the Venture Capital Fund for SCs (VCF-SC)**.

Objectives

- The main objectives of ASIIM are:
 1. To promote entrepreneurship among the SC Youth with **special preference to Divyangs**.
 2. To support 1,000 innovative ideas till 2024 through synergetic work with the Technology Business Incubators (TBIs) set up by the **Department of Science and Technology**.
 3. To support, promote, hand-hold the start-up ideas till they reach commercial stage by providing liberal equity support.
 4. To incentivise students with an innovative mindset to take to entrepreneurship with confidence.

Significance

- ASIIM under VCF-SC will promote innovation in the SC youth and would help them to become job-givers from job-seekers.
- It would further give fillip to the ‘Stand Up India’ initiative of the Prime Minister.

- Refer Pulse June 2020 edition for details on ‘Stand Up India’ initiative.

7) Ministry of Housing and Urban Affairs Initiatives

Why in News?

- The **Ministry of Housing and Urban Affairs (MoHUA)** has launched the ‘Climate Smart Cities Assessment Framework (CSCAF) 2.0’ and ‘Streets for People Challenge’ in a virtual event organized by the Smart Cities Mission.

About CSCAF 2.0

- The Climate Smart Cities Assessment Framework is a first-of-its-kind assessment framework on **climate relevant parameters**.
- It was launched in 2019 by the Ministry of Housing and Urban Affairs, with the objective to provide a **clear roadmap for Indian cities towards combating climate change while planning their actions within the city including investments**.
- The initiative intends to inculcate a climate-sensitive approach to urban planning and development in India.

Indicators of the Framework

- It has 28 indicators across five categories namely;
 1. Energy and Green Buildings,
 2. Urban Planning, Green Cover & Biodiversity,
 3. Mobility and Air Quality,
 4. Water Management and
 5. Waste Management.

About Streets for People Challenge

- The Challenge aims to support cities across the country to develop a **unified vision of streets for people in consultation with stakeholders and citizens**.
- Cities will be required to reimagine their streets as public spaces through the lens of economic regeneration, safety, and child-friendly interventions, in order to ensure a green recovery from COVID-19.

Environment

1) Sandalwood Spike Disease (SSD)

Indian Sandalwood

- *Santalum album*, commonly known as Indian Sandalwood, is a **dry deciduous forest species** native to **China, India, Indonesia, Australia, and the Philippines**.
- Because it is strong and durable, it is mostly harvested for its timber. Close-grained sandalwood heartwood is used for fine furniture and carving.
- The heartwood and roots also contain '**sandal oil**' which is valued for use in perfumes, incense, cosmetics, soaps, and medicines. The bark contains tannin, which is used for dye.
- Because of its economic value, it is prone to illicit felling and overexploitation. Hence, IUCN has accorded it **vulnerable** status.

Why in the news?

- The sandalwood trees of Karnataka and Kerala are destructively hit by the **sandalwood spike disease (SSD)**.
- It is an infectious disease caused by a **phytoplasma** (bacterial parasites of plant tissues), which are transmitted by insect vectors.
- SSD is very less studied and has no cure. The infected tree has to be cut to reduce the spread of the disease. Yearly 1-5% of the sandalwood is lost due to this disease.
- This disease has the potential to wipe out the whole population of sandalwood.

2) Mission Lantana

Lantana shrub

- Lantana camara is one of the world's most **invasive species**. It is native to **American and African continents** but it has spread across the Indian and Australian continent due its **high adaptability rate**.



- In India it was introduced during the 1800s as an ornamental plant. Lantana has long escaped India's manicured gardens and has spread across the length and breadth of the country, invading roadsides, fallow plots, agricultural fields and forests.
- It competes with native plants for space and resources, leading to a **reduction in biodiversity**. It also alters the nutrient cycle in the soil.
- The leaves of the Lantana are **poisonous to the herbivorous**, hence its occupancy and invasion in the forest areas is harmful to the grass-eating animals.
- It can also cause problems if it invades agricultural areas as a result of its toxicity to livestock, as well as its ability to form dense thickets which, if left unchecked, can greatly reduce the productivity of farmland.

Why in the news?

- After noticing the spread of Lantana in the Sajjangarh wildlife sanctuary in Rajasthan, forest officials took up **MISSION LANTANA** to remove the weed across the sanctuary and plant native species.
- The lantana was responsible for the reduction of grass in the sanctuary which inturn resulted in the decrease of herbivorous animals such as deer.

Sajjangarh wildlife sanctuary

- It is a sanctuary located near Udaipur, **Rajasthan**. The sanctuary is located on the **Bansdara Peak** of the Aravalli

Range at an elevation of 944 m above the sea level.

- Sajjangarh Wildlife Sanctuary is a salient part of Sajjangarh Palace built in 1884. The Palace derived its name from **Maharana Sajjan Singh**, one of the rulers of the Mewar dynasty.
- The sanctuary contains **Jiyan Lake** which supports the sanctuary.

Related Information

What are invasive species?

- An invasive species can be any kind of living organism—an amphibian, plant, insect, fish, fungus, or bacteria—that is not native to an ecosystem and causes harm.
- **Not all non-native species are invasive.** For example, most of the food crops grown in India, including onion, potato and tomatoes are not native to the region.
- To be invasive,
 - A species must adapt to the new area easily
 - It must reproduce quickly
 - It must harm the economy, or the native plants and animals of the region
- Some of the most serious invasive species in India are *Alternanthera philoxeroides*, *Cassia uniflora*, *Chromolaena odorata*, *Eichhornia crassipes*, *Lantana camara*, *Parthenium hysterophorus* and *Prosopis juliflora*, etc.

3) G20 Initiatives

About G20

- Founded in 1999, the Group of Twenty (G20) is the premier forum for its members' international economic cooperation and decision-making.
- The G20 comprises Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, **India**, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, UK and USA.

G20 members



Note: The European Union is also a member

BBC

- The G-20's member-countries represent around 85% of the world's economic output, three-quarters of international trade and two thirds of the world's population.
- The objectives of the G20 are:
 - Policy coordination between its members in order to achieve global economic stability, sustainable growth;
 - To promote financial regulations that reduce risks and prevent future financial crises; and
 - To create a new international financial architecture.

Why in News?

- The Environment Ministerial Meeting (EMM) of the G20 countries was held in September through video conferencing under the Presidency of Kingdom of Saudi Arabia.
- During the meet, the member countries launched the **Global Initiative to reduce Land Degradation and Global Coral Reef R&D Accelerator Platform.**

Global Initiative to reduce Land Degradation

- It aims to strengthen the implementation of existing frameworks to **prevent, halt, and reverse land degradation within G20 member states and globally**, taking into account possible implications on the achievement of

other SDGs and adhering to the principle of doing no harm.

- G20 member countries announced that they share the ambition to achieve a **50 percent reduction of degraded land by 2040, on a voluntary basis.**

Coral Reef program

- The Global Coral Reef R&D Accelerator Platform is an innovative action-oriented initiative aimed at creating a global research and development (R&D) program to advance research, innovation and capacity building in all facets of **coral reef conservation, restoration, and adaptation, and strengthen ongoing efforts and commitments** made to enhance coral reefs conservation and their further degradation.

Related Information

What is Land Degradation?

- Land degradation is the **reduction or loss of the biological or economic productivity and complexity** of rain—fed cropland, irrigated cropland, or range, pasture, forest or woodlands resulting from natural processes, land uses or other human activities and habitation patterns such as land contamination, soil erosion and the destruction of the vegetation cover.
- Land degradation is caused by multiple forces, including **extreme weather conditions**, particularly drought. It is also caused by **human activities** that pollute or degrade the quality of soils and land utility.
- **Desertification** is a form of land degradation by which fertile land becomes desert.

Impacts

- Globally, about **25 percent of the total land area has been degraded.**
- When land is degraded, **soil carbon and nitrous oxide is released** into the atmosphere, making land degradation one of the most important contributors to climate change.

- As land is degraded and deserts expand in some places, **food production is reduced, water sources dry up and populations are pressured to move to more hospitable areas.**
- The problems are **particularly severe in the driest parts of the planet.** Dryland landscapes cover approximately 40 percent of the world's land area and support two billion people. The vast majority of people who depend on drylands live in developing countries, where women and children are most vulnerable to the impacts of land degradation and drought.

Coral reefs

- Coral reefs are large underwater structures composed of the skeletons of colonial **marine invertebrates called coral.**
- The coral species that build reefs are known as **hermatypic, or "hard," corals** because they extract **calcium carbonate (CaCO₃)** from seawater to create a hard, durable exoskeleton that protects their soft, sac-like bodies.
- Other species of corals that are not involved in reef building are known as "soft" corals. These types of corals are flexible organisms often resembling plants and trees and include species such as sea fans and sea whips.

Symbiotic relationship

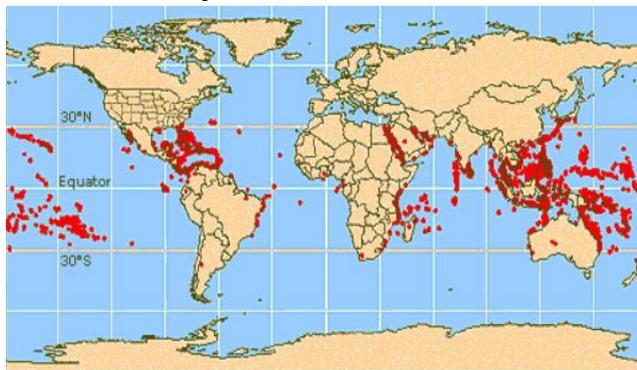
- Most reef-building corals contain photosynthetic algae, called **zooxanthellae**, that live in their tissues. The corals and algae have a **symbiotic relationship.**
- The coral provides the algae with a protected environment and compounds they need for photosynthesis. In return, the algae produce oxygen and help the coral to remove wastes. The presence of the zooxanthellae also provides colored pigments to help protect the coral's white skeleton from sunlight.

Significance of Coral reefs

- Coral reefs only occupy 0.1% of the area of the ocean but they support 25% of all marine species on the planet.
- Because of the diversity of life found in the habitats created by corals, reefs are often called the "**rainforests of the sea.**"

Geographical distribution

- The reef-building corals prefer to grow at
 - depths shallower than 30 m (100 ft), or
 - where the **temperature range is between 16-32°C**, and
 - **light levels are high**
- The majority of reef building corals are found within tropical and subtropical waters. These typically occur between **30°N and 30°S of the equator.**
- The largest of these coral reef systems, the **Great Barrier Reef** in Australia, is more than 1,500 miles long (2,400 kilometers).



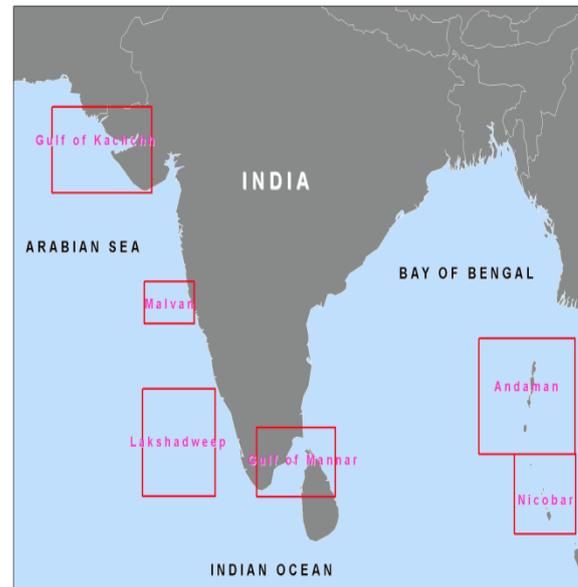
Coral reefs in India

- Coral reefs are present in the areas of **Gulf of Kutch, Gulf of Mannar, Andaman & Nicobar, Lakshadweep Islands and Malvan coast of Maharashtra.**

Main threats to coral reefs

- **Climate change:** Warmer water temperatures can result in **coral bleaching**. When water is too warm, corals expel the algae (zooxanthellae) living in their tissues causing the coral to turn completely white. This is called **coral bleaching**. When a coral

bleaches, it is not dead. Corals can survive a bleaching event, but they are under more stress and are subject to mortality.



- **Ocean acidification:** Ocean acidification is caused by rising levels of CO₂ in the atmosphere. Oceans absorb some of the CO₂. As CO₂ enters the ocean, it reacts with water increasing hydrogen ion concentration (thus decreasing ocean pH) and decreasing the carbonate ion concentration. A reduction in carbonate ions affects the **Calcification process** of Corals.
 - *Calcification is the process by which corals form their skeletons by combining calcium ions and carbonate ions to create calcium carbonate.*
- **Pollution:** Urban and industrial waste, plastics, sewage, agrochemicals, and oil pollution are poisoning reefs. Some pollutants, such as sewage and runoff from farming, increase the level of nitrogen in seawater, causing an overgrowth of algae.
- **Sedimentation:** Erosion caused by construction, mining, logging, and farming is leading to increased sediment in rivers. This ends up in the ocean, where it can smother corals by

depriving them of the light needed to survive.

- **Destructive fishing practices:** These include cyanide fishing, blast or dynamite fishing, bottom trawling, and muro-ami (banging on the reef with sticks). **Bottom-trawling** is one of the greatest threats to cold-water coral reefs.

4) El Nino and La Nina's impact on Indian Monsoon

About El Nino and La Nina

- During normal conditions in the Pacific ocean, trade winds blow west along the equator, taking warm water from South America towards Asia.
- To replace that warm water, cold water rises from the depths — a process called **upwelling**.
- El Nino and La Nina are two **opposing climate patterns** that break these normal conditions. They are **complex weather patterns** resulting from **variations in ocean temperatures in the Equatorial Pacific**.
- El Niño and La Niña are opposite phases of what is known as the **El Niño-Southern Oscillation (ENSO) cycle**.

ENSO cycle

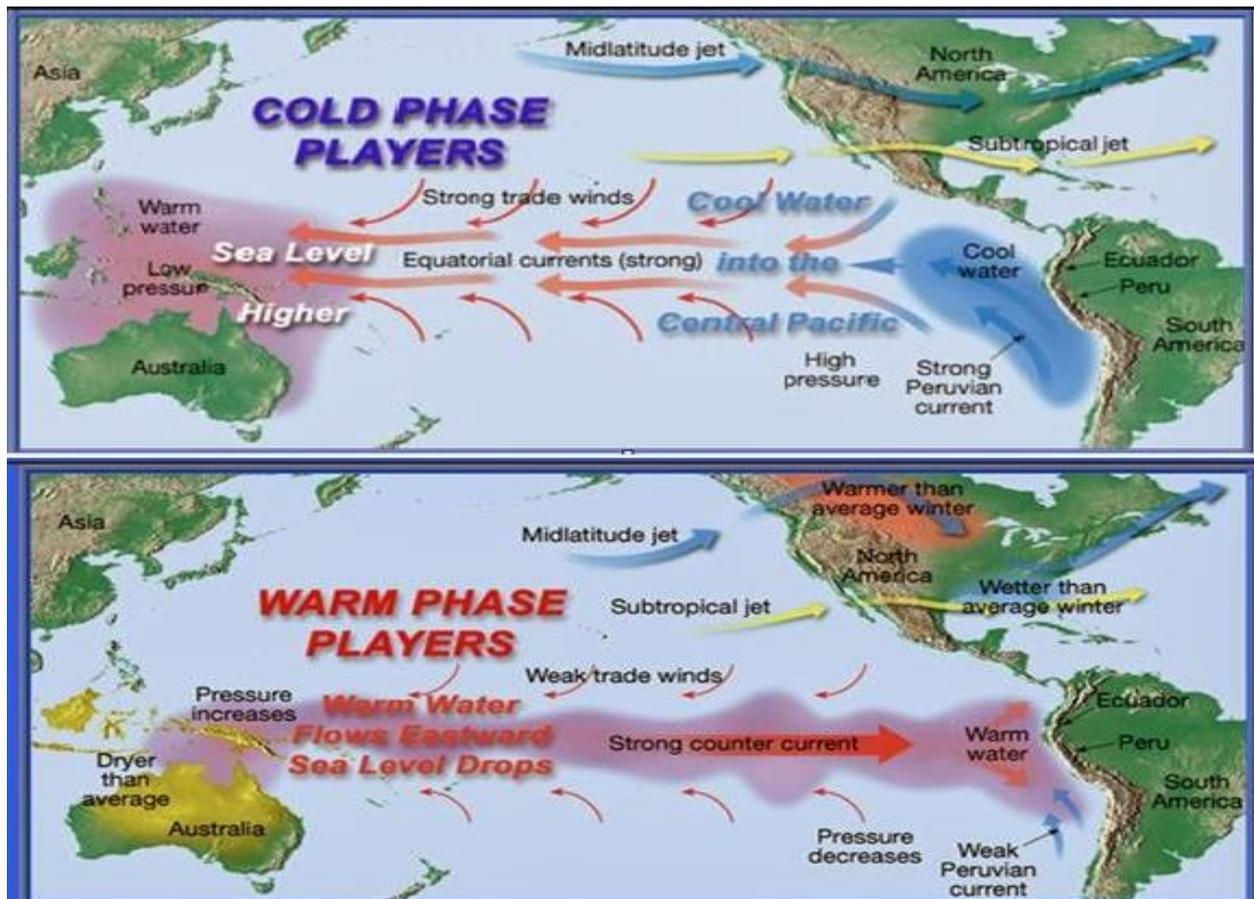
- The ENSO cycle is a scientific term that describes the **fluctuations in**

temperature between the ocean and atmosphere in the east-central Equatorial Pacific.

- **La Niña** is sometimes referred to as the **cold phase of ENSO** and **El Niño** as the **warm phase** of ENSO. These deviations from normal surface temperatures can have large-scale impacts not only on ocean processes, but also on global weather and climate.

El Nino

- El Nino is a climate pattern that describes the **unusual warming of surface waters** in the eastern tropical Pacific Ocean.
- During El Niño, the surface winds across the entire tropical Pacific are **weaker than usual**. Ocean temperatures in the central and eastern tropical Pacific Ocean are warmer than average, and rainfall is below average over Indonesia and above average over the central or eastern Pacific.
- Rising air motion (which is linked to storms and rainfall) increases over the central or eastern Pacific, and surface pressure there tends to be lower than average. Meanwhile, an increase in sinking air motion over Indonesia leads to **higher surface pressure and dryness**.



La Nina

- La Nina is the “cool phase” of ENSO, a pattern that describes the **unusual cooling of the tropical eastern Pacific**.
- The surface winds across the entire tropical Pacific are **stronger than usual**, and most of the tropical Pacific Ocean is cooler than average. Rainfall increases over Indonesia (where waters remain warm) and decreases over the central tropical Pacific (which is cool).
- Over Indonesia, there is more rising air motion and lower surface pressure. There is more sinking air motion over the cooler waters of the central and eastern Pacific.

Duration and frequency

- Episodes of El Nino and La Nina typically last **nine to 12 months**, but can sometimes last for years.
- While their frequency can be quite irregular, El Nino and La Nina events

occur **every two to seven years**, on average.

- Generally, **El Nino occurs more frequently than La Nina**.

Why in the news?

- The United States National Oceanic and Atmospheric Administration predicted that there was over **50 percent chance of a La Niña condition** in the equatorial Pacific Ocean during the autumn of 2020.

5) Global Biodiversity Outlook Convention on Biological Diversity

- Signed by 150 government leaders at the **1992 Rio Earth Summit**, the Convention on Biological Diversity (CBD) is dedicated to promoting sustainable development.
- Conceived as a practical tool for translating the **principles of Agenda 21** into reality, the Convention recognizes that biological diversity is about more than plants, animals and

microorganisms and their ecosystems – it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live.

- **India** is a party to CBD and enacted the **Biological Diversity Act, 2002**, (*Refer Pulse August edition*) to meet the obligations under Convention on Biological Diversity.
 - *Agenda 21 is a non-binding action plan of the United Nations for sustainable development, covering a wide range of specific natural resources and the role of different groups, as well as issues of social and economic development and implementation.*
 - *It is a product of the 1992 Rio Earth Summit.*

Objectives

- The CBD entered into force on 29 December 1993. It has 3 main objectives:
 1. The conservation of biological diversity
 2. The sustainable use of the components of biological diversity
 3. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources

Aichi Targets

- The 'Aichi Targets' were adopted by the Convention on Biological Diversity at the tenth meeting of the Conference of the Parties to the CBD (COP10) which took place in Nagoya, Japan in 2010.
- During the meeting, the parties agreed that previous biodiversity protection targets were not achieved, and therefore they needed to come up with new plans and targets.
- The short-term plan provides a set of **20 time-bound, measurable targets to be met by the year 2020**, collectively known as the **Aichi Biodiversity Targets**, grouped under **five Strategic Goals**.

Protocols to CBD

Cartagena Protocol

- The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international agreement which aims to **ensure the safe handling, transport and use of living modified organisms (LMOs)** resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.
- It entered into force on 11 September 2003. Number of Parties: 173 (including **India**).

Nagoya Protocol

- The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity is an international agreement which aims at **sharing the benefits arising from the utilization of genetic resources in a fair and equitable way**.
- It entered into force on 12 October 2014. Number of Parties: 129 (including **India**).

Nagoya – Kuala Lumpur Supplementary Protocol

- Adopted as a **supplementary agreement to the Cartagena Protocol on Biosafety**, the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety aims to contribute to the conservation and sustainable use of biodiversity by providing **international rules and procedures in the field of liability and redress relating to living modified organisms**.
- It entered into force on 5 March 2018. Number of Parties: 48 (including **India**).

Why in News?

- The **Convention on Biological Diversity** has released its **fifth Global Biodiversity Outlook (GBO) report**.
- GBO is the flagship publication of the CBD and summarises progress made towards achieving the objectives of the Convention, such as the Aichi Targets and identifies key actions to achieve these.

Highlights of the Report

- The report states that **none of the 20 agreed conservation targets** (also known as Aichi Global biodiversity targets) **have been met in the last 10 years**.
- The loss of ecosystems has speeded up and **70% of the land is impacted by human intervention**.
- The **Covid-19 situation** has further accelerated our disconnection with nature.

Shifts that need to be implemented

- The GBO-5 suggested eight types of shifts that need to be implemented to achieve the 2050 Vision for Biodiversity. These includes
 - **Transition within land and forests:** The report called the restoration of all forests that had been degraded. It also urged restoring local ecosystems.
 - **Sustainable agriculture:** Farmers would have to reduce the use of chemicals and instead focus more on agroecological farming practices.
 - **Sustainable food systems:** The report urged people to eat healthier, plant-based food and less

meat. It also called for focussing on the problem of food wastage within the supply chain and household.

- **Climate action:** It called for nature-based solutions to reduce climate change.
- **One health:** Agricultural and urban ecosystems, as well as wildlife should be managed in an integrated manner.
- **Sustainable management of fisheries, oceans and freshwater** as well as **sustainable development of cities and infrastructure** were the other areas in which the shift needed to take place.

What needs to be done ahead?

- Biodiversity needs to be a central point and an **integrated approach is needed**.
- Experts believe that all nations will now have to implement the ambitious new target of protecting at least 30% of the planet by 2030 – popularly known as **30x30 target** – under the UN Convention on Biological Diversity. **It means 30% land and 30% ocean needs to be conserved** for achieving global biodiversity by 2050.
- In addition to this, biodiversity should be made an **integral and essential component of planning**.
- Mono cropping can be replaced by **multi-crop cultivation** as well as **sustainability of groundwater is essential**.

Agriculture

1) Pusa Decomposer

Stubble burning

- Stubble burning is the act of clearing agricultural fields by burning the residue that is left on the land after harvesting, to ready it for the next round of seeding.
- The period from 15 October to 15 November is when stubble burning instances spike because paddy crops are harvested during this time and the residue left behind needs to be quickly cleared to sow wheat.
- It is one of the major causes of **severe air pollution** which occurs in Delhi and nearby cities during winters.
- Several solutions have been proposed over the years to tackle the issue. The most recent one is the 'Pusa Decomposer' capsule developed by the **Indian Agriculture Research Institute (IARI)** in New Delhi.

What is Pusa Decomposer?

- It is essentially a **fungi-based liquid solution** that can soften hard stubble to the extent that it can be easily mixed with soil in the field to act as **compost**. This would then rule out the need to burn the stubble.
- When farmers burn the residue, not only does it lead to air pollution, it also **burns the top layer off the soil** and deprives the fields of much-needed nutrients. When we use this bio-decomposer, we also retain a portion of the stalk and the roots, which get decomposed in the fields themselves and **add to the nutrition in the soil**.

How is the decomposer to be used by farmers?

- There are **seven strains of fungi** that IARI has identified after research which help in rapid breakdown of hard stubble.
- These seven strains of fungi are packed into four capsules, which cost about Rs.20 per pack of four. But there is a

process for developing the liquid solution from these capsules which can take about four to five days.

- It starts with boiling 25 litres of **water** mixed with 150 grams of **jaggery**, which scientists say has properties that help in multiplication of fungi.
- After this mix has cooled, 50 grams of **besan** (or gram flour) is added to it along with four 'Pusa Decomposer' capsules.
- This solution is then covered with a thin piece of cloth and left in a dark room for four days. On the fourth day, a thick growth of fungi will be seen on top of the solution. This has to be mixed well, and thereafter the solution is ready for use.

How long does it take for the decomposer to work?

- The window of time required for the solution to work, which is currently the main concern of farmers, is **around 20 to 25 days**, as per the IARI.
- Farmers argue that this window is too long for them, as they ideally wait about a week or 10 days after harvesting the non-basmati variety of rice — which leaves hard stubble — to sow the wheat crop.
- IARI scientists, however, say that farmers do not necessarily have to plant the next crop in a rush — and that 20-25 days is enough waiting time.
- IARI scientists have also said that farmers do not necessarily have to wait for the entire 20-25 day window before getting to work on the field. They can start ploughing and preparing the land 10-15 days after spraying the decomposer.

Why in the News?

- The Ministry of Environment, Forest and Climate Change has asked states of Punjab, UP, Haryana and Delhi to

conduct field trials of Pusa Decomposer.

2) Zero Budget Natural Farming Agriculture and Water Scarcity

- Excessive use of water threatens the sustainability of livelihoods dependent on water and agriculture.
- In India, the **Green Revolution** had a phenomenal impact on India's food production, but it also rendered the land infertile, led to extensive water consumption and aggravated groundwater loss.
- As per the **Central Water Commission**, the country's agriculture sector already consumes over 83 per cent of the available water resources and the demand will grow.

Zero Budget Natural Farming

- In the recent past, there has been a global demand to shift to sustainable farming systems, such as Zero Budget Natural Farming (ZBNF).
- India, too, introduced ZBNF in its Union Budget 2019-20.
- ZBNF is a method of **chemical-free agriculture drawing from traditional Indian practices**.
- It was originally promoted by **Maharashtrian agriculturist** and Padma Shri recipient **Subhash Palekar**, who developed it in the mid-1990s as an alternative to the Green Revolution's methods driven by chemical fertilizers and pesticides and intensive irrigation.
- Without the need to spend money on these inputs or take loans to buy them, the cost of production could be reduced and **farming made into a "zero budget" exercise**, breaking the debt cycle for many small farmers.
- ZBNF is also **against vermicomposting**, which is the mainstay of typical organic farming.

Jeevamrutha

- Instead of commercially produced chemical inputs, the ZBNF promotes

the application of jeevamrutha, a **mixture of fresh desi cow dung and aged desi cow urine, jaggery, pulse flour, water and soil** on farmland.

- This is a fermented microbial culture that **adds nutrients to the soil**, and acts as a **catalytic agent** to promote the activity of microorganisms and earthworms in the soil.
- About 200 litres of jeevamrutha should be sprayed twice a month per acre of land. Only one local indian breed cow is needed for 30 acres of land.

Other techniques in ZBNF

- The ZBNF method also promotes **soil aeration, minimal watering, intercropping, bunds and topsoil mulching** and **discourages intensive irrigation and deep ploughing**.

Advantages of ZBNF

- **Input costs are near zero** as no fertilizers and pesticides are used.
- ZBNF farms were able to **withstand drought and flooding**.
- The planting of multiple crops and border crops on the same field provide **varied income and nutrient sources**.
- There is reduced usage of water and electricity, improved health of farmers, flourishing of local ecosystems and biodiversity and no toxic chemical residues in the environment.
- The inputs help **manage soil nutrition, fertility, pests and seeds**.
- The technology requires **less tilling** and completely rejects the use of inorganic fertilisers, pesticides and herbicides.

Why in the news?

- A research team recently conducted an exploratory study in Andhra Pradesh to compare ZBNF and non-ZBNF techniques in paddy, groundnut, chilli, cotton and maize farming.

Highlights of the study

- The comparison was made on six parameters— **water, electricity and energy consumption, greenhouse gas emissions, yield and net revenue.**
- The study found the **maximum benefits of ZBNF in paddy farming.**
- **Water:** A saving of 1,400 to 3,500 cubic metre of water per acre per paddy cropping period (one acre equals 0.4 hectare) was accomplished by adopting ZBNF.
- **Electricity:** In just one crop season, electricity consumption of farms relying on groundwater **reduced by 1,500-3,900 units** per acre.
- **Greenhouse gas Emissions:** Multiple aeration hinders microbial activity and cuts methane emissions by 88 per cent, compared to the conventional flooding practice. This leads to an additional saving of fossil fuels used for electricity generation and emissions reduction.
- ZBNF can avoid the current **drawing of groundwater** by 50 to 60 per cent, ensure adequate groundwater reserve, improve water table and reduce financial and labour stress on farmers.

Conclusion

- ZBNF does show water-saving potential and can address India's food and security in the long run, but deep investigation is required to ascertain if it can be replicated in the various agro-climatic zones across the country.
- ZBNF requires time and policy support so that the government provides monetary help for it to be adopted in all the states.

3) STRATEGIES TO BOOST INDIA'S GLOBAL AGRICULTURE TRADE

Context

- Agriculture accounts for a vital part of the Indian economy, accounting for 17 percent of Gross Value Added, 40

percent of employment and 11 percent of India's trade with the rest of the world. India is the eighth largest exporter of agricultural produce.

- These figures underscore the need for having a pragmatic strategy for India's trade in agriculture, especially in the wake of the pandemic.

Agricultural Exports & Imports

- In 2019-20, while agricultural exports from India were US\$ 33.9 billion, i.e. **10.8 percent of India's total merchandise exports, agricultural imports** stood at US\$ 19.9 billion, accounting for **4.2 percent of India's total merchandise imports.**
- Compared to the previous financial year, while agricultural exports dipped by 7.4 percent, agricultural imports hiked up by 1.8 percent in 2019-20.

Trade Constituents and Constraints

- The **top five agricultural commodities** which were exported from India in 2019-20 accounted for almost **64 percent of India's agricultural exports. Cereals** constituted about 20 percent of India's agricultural exports.
- As far as imports are concerned, **close to 50 percent of India's agricultural imports** are accounted for by **animal or vegetable fats and oils.**

Trade Barriers

- Trade barriers may take the form of **tariffs or non-tariffs.**
 - **Tariffs-** It includes the **imposition of customs duties** which raise the price of the import and erode their competitive edge
 - **Non-tariffs-** It entails **quotas, subsidies, prohibitions, standards, etc.** which make it difficult to penetrate the destination market.
- Even when tariffs have been reduced or dismantled, there can be non-tariff barriers to trade in the form of requirements of **certification,**

registration, testing, packaging, labelling, licensing, prohibition, restrictions, etc.

- Over the years, developed countries have moved from tariffs to non-tariff barriers. Therefore, despite having low tariffs, developed countries offer **low market access to exporters**, which signifies that the full potential of India's agricultural exports to developed countries has not yet been tapped.

Recent developments to promote Agri exports

- The **Kisan Rath app** was launched recently to facilitate farmers and traders in identifying suitable modes of transport for movement of agricultural produce. It was developed by the **National Informatics Centre**, under the Ministry of Electronics and Information Technology.
- Besides, **All India Agri Transport 24X7 Call Centres** to facilitate inter-state movement of perishables during lockdown. Truck drivers and helpers, traders, retailers, transporters farmers, manufacturers or any other stakeholder who is facing problems in inter-state movement of agricultural, horticultural or any other perishable commodities besides seeds and fertilizers may seek help by calling at the Call Centre.
- Cabinet approval has been accorded to the setting up of an **Animal Husbandry Infrastructure**

Development Fund to promote to establish (i) the dairy processing and value addition infrastructure, (ii) meat processing and value addition infrastructure and (iii) Animal Feed Plant.

Way Forward

- India's Agriculture Export policy should focus on the following objectives:
 - To **diversify** our export basket, destinations and **boost high value and value added agricultural exports**, including focus on perishables.
 - To **promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products** exports.
 - To provide an **institutional mechanism** for pursuing market access, tackling barriers and dealing with sanitary and phytosanitary issues.
 - To strive to double India's share in world agri exports by **integrating with global value chains**.
 - Enable farmers to get benefit of export opportunities in **overseas markets**.

Economy

1) Index of Eight Core Industries

About ICI

- The monthly Index of Eight Core Industries (ICI) is a **production volume index**.
- The objective of the ICI is to provide an advance indication on production performance of industries of 'core' nature. These industries are likely to impact on general economic activities as well as industrial activities.
- The Eight Core Industries- **Electricity, steel, refinery products, crude oil, coal, cement, natural gas and fertilizers**- comprise **40.27 per cent** of the weight of items included in the **Index of Industrial Production (IIP)**.
- **Industry Weight (In percentage)**
 1. Petroleum & Refinery production - 28.04
 2. Electricity generation - 19.85
 3. Steel production - 17.92
 4. Coal production - 10.33
 5. Crude Oil production - 8.98
 6. Natural Gas production - 6.88
 7. Cement production - 5.37
 8. Fertilizers production - 2.63
- ICI is released by the **Office of Economic Advisor**, under the Ministry of Commerce and Industries. The base year of the ICI is **2011-12**.

Why in News?

- According to the official data, the output of eight core infrastructure sectors dropped by 8.5% in August, mainly due to decline in production of steel, refinery products and cement.

2) Wholesale Price Index

About WPI

- Wholesale Price Index measures and tracks the changes in the **price of goods in the stages before the retail level**. It provides estimates of inflation at the wholesale transaction level for the economy as a whole.
- WPI basket **does not cover services**.

- It is released by the **Office of Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry**.
- The base year is **2011-2012**.
- The index basket consists of commodities under 3 main categories in decreasing order of weightage: **Manufactured products, Primary Articles and Fuel and Power**.

Why in News?

- India's wholesale inflation turned positive in August for the first time since March reflecting a recovery in producers' pricing power.
- Wholesale Price Index rose to 0.16% in August from a 0.58% contraction in July.

3) Consumer Price Index (CPI)

About CPI

- It is an index which measures the weighted average of prices of a basket of **consumer goods and services** such as transportation, food and medical care.
- It is calculated by measuring price changes for each item in the **predetermined basket of goods and services** and averaging them.
- It is released by the **National Statistical Office (NSO)** under the Ministry of Statistics and Programme Implementation.
- The base year used to calculate CPI in India is **2011-2012**.

WPI vs CPI

- While the Wholesale Price Index keeps track of the wholesale price of goods, the CPI measures the average price that households pay for a basket of different goods and services.
- The CPI basket consists of **services like housing, education, medical care, recreation etc. which are not part of WPI basket**. A significant

proportion of WPI item basket represents **manufacturing inputs and intermediate goods** like minerals, basic metals, machinery etc. whose prices are influenced by global factors but these are not directly consumed by the households and are **not part of the CPI item basket**.

- Even as the WPI is used as a key measure of inflation in some economies, the RBI **no longer uses it for policy purposes**. The central bank currently uses the **Consumer Price Index** as a key measure of inflation to set the monetary and credit policy.
- Under the flexible inflation targeting (FIT) framework, RBI aims to contain CPI based inflation **within 4 percent with a band of (+/-) 2 percent**.

Why in News?

- According to the data released by the Ministry of Statistics & Programme Implementation (MoSPI), Retail inflation, measured by the Consumer Price Index, stood at 6.69 per cent in the month of August.

4) State Development Loans

What are SDLs?

- State Development Loans (SDLs) are **market borrowings by state governments**.
- **The RBI** issues these securities on their behalf, through auctions.
- Purpose of issuing State Development Loans is to meet the budgetary needs of state governments. Each state is allowed to issue securities up to a certain limit each year.
- SDLs are eligible securities for Statutory Liquidity Ratio (SLR) and Liquidity adjustment facility (LAF) purposes, and are bought by banks, insurance companies, mutual funds, provident funds and other institutional investors.
- Generally, the coupon rates on State Development Loans are higher than those of central government securities

of the same maturity. This shows that the central government is considered more creditworthy than state governments.

- In 2015, the Government allowed **Foreign Portfolio Investors (FPIs)** to buy SDLs **up to 2% of outstanding SDLs** in the market.

Why in News?

- Eleven States raised a total of ₹14,298 crore at the auction of State government securities or State development loans (SDLs) held recently.

5) CAG Report

What is the Operating ratio?

- Operating ratio measures **expenses as a proportion of revenue or the amount spent on every rupee earned**.
- A measure of expenditure against revenue, the operating ratio shows how efficiently the organisation is operating and how healthy its finances are.
- For example: An operating ratio of 98 per cent means that the organisation spent Rs 98 to earn Rs 100.
- Lower the ratio, the healthier are the organisation's finances.

What are Extra Budgetary Resources?

- Extra Budgetary Resources (EBR) are those **financial liabilities that are raised by public sector undertakings** for which **repayment of the entire principal and interest is done from the Central Government Budget**.
- Apart from budgetary spending, EBRs have also been mobilized to finance infrastructure investment since 2016-17.
- These EBRs are **not taken into account while calculating the Fiscal Deficit**.
- However, they are considered in the calculations of **Government Debt**.

- The Union Budget 2020-21 proposes to raise EBR of Rs 57,004 crore in 2019-20 BE which 0.27 per cent of GDP is.

Why in News?

- A recent Comptroller and Auditor General (CAG) report tabled in Parliament held that the Ministry of Railways had resorted to 'window dressing' for presenting the working expense and operating ratio for 2018-19 in a better light.
- The CAG noted that against the target of 92.8% in the Budget Estimates, the **operating ratio of railways was 97.29% in FY19**. This means railways spent ₹97.29 to earn ₹100. This, however, is an improvement from FY18's 98.44%, the worst in ten years.
- The CAG reported that the Ministry of Railways resorted to Extra Budgetary Resources (EBR) for project financing 2015-16 onwards.

6) NABARD

About NABARD

- NABARD was established in 1982 under the National Bank for Agriculture and Rural Development Act, 1981.
- NABARD is an **apex refinancing agency** for the institutions providing investment and production credit for promoting the various developmental activities in rural areas.
- It is responsible for the development of the small industries, cottage industries, and any other such village or rural projects.
- NABARD also provides **direct term loans** at affordable rates of interest to certain activities like Designated Food Parks (DFPs) and food processing units in the DFPS.
- NABARD is **wholly owned** by the Government of India.

Why in News?

- NABARD has announced a special refinance facility of ₹800 crore for

FY21 to support the Government of India's **Water, Sanitisation and Hygiene (WASH) programme**.

- NABARD will provide concessional refinance to all eligible financial institutions including commercial banks, regional rural banks and cooperative banks with a repayment period of up to 36 months.

WASH programme

- WASH is the collective term for Water, Sanitation and Hygiene. Due to their interdependent nature, these three core issues are grouped together to represent a growing sector. While each a separate field of work, each is dependent on the presence of the other.
- For example, without toilets, water sources become contaminated; without clean water, basic hygiene practices are not possible.

7) Cess

What is a cess?

- The Union government is empowered to raise revenue through a gamut of levies, including taxes (both direct and indirect), surcharges, fees and cess.
- While **direct taxes and indirect taxes** are taxes where the revenue received can be spent by the government for **any public purpose** in any manner it deems appropriate for the nation's good, a cess is an earmarked tax that is collected for a **specific purpose** and ought to be spent only for that.
- Every cess is collected after **Parliament has authorised its creation through an enabling legislation** that specifies the purpose for which the funds are being raised.
- **Article 270** of the Constitution allows cess to be **excluded from the purview of the divisible pool** of taxes that the Union government must share with the States.

Present status

- The introduction of the GST in 2017 led to most cesses being done away with and as of August 2018, there were only **seven cesses** that continued to be levied.
- These were Cess on Exports, Cess on Crude Oil, Health and Education Cess, Road and Infrastructure Cess, Building and Other Construction Workers Welfare Cess, National Calamity Contingent Duty on Tobacco and Tobacco Products and the GST Compensation Cess.
- Last year, Finance Minister Nirmala Sitharaman introduced a new cess — a **Health Cess** of 5% on imported medical devices — in the Finance Bill for 2020-2021.

Why in News?

- The Comptroller and Auditor General (CAG) of India, in its latest audit report of government accounts, has observed that the Union government withheld in the Consolidated Fund of India (CFI) more than ₹1.1 lakh crore out of the almost ₹2.75 lakh crore collected through various cesses in 2018-19.
- The CAG found this objectionable since cess collections are supposed to be transferred to **specified Reserve Funds** that Parliament has approved for each of these levies in the **Public Account of India**.

Related Information

Cess & Surcharge

- A **cess** is a tax that is levied by the government to raise **funds for a specific purpose**. **Surcharge** is an **additional charge** or tax. For example: A surcharge of 10% on a tax rate of 30% effectively raises the combined tax burden to 33%.
- The main difference between surcharge and cess is that **surcharge can be spent like any other taxes**, the cess should be spent only for a specific purpose for which it is created.
- The Union government **does not have to share cesses and surcharges** with

the states as they are not part of the divisible pool that needs to be shared with states.

Impact on fiscal devolution

- The cesses and surcharges constituted just about 3% of Central gross tax revenue in 2000-01; but in 2015-16, it was **16.5%** and it could be as much as **20% in 2020-21**.
- Given that cess and surcharge do not need to be a part of the divisible pool of resources, this increasing share of cess and surcharge in the Union government's tax receipts has a **direct impact on fiscal devolution**.

Complicate the tax system

- In addition to this, cesses are earmarked taxes and to ensure a minimum allocation to important and priority programmes, this method of financing could be used.
- Large numbers of cesses make it difficult to see all of them as **priority areas** requiring protection of funding which may result in the possibility of limiting the funding of important and priority areas to the amount of cess collected even when they require much larger amounts.
- Too many cesses also **complicate the tax system** and add to administrative and compliance costs.

8) Trade surplus

What is Balance of Payments?

- Balance of Payments (BoP) statistics systematically summaries the economic transactions of an economy with the rest of the World for a specific period.
- BoP broadly **comprises current account, capital account and changes in foreign exchange reserves**.

Current account

- Current account of the BoP includes **merchandise** (exports and imports) and **invisibles**.

- Invisible transactions are further classified into **three categories**, namely
 1. Services-travel, transportation, insurance, Government not included elsewhere (GNIE) and miscellaneous (such as, communication, construction, financial, software, news agency, royalties, management and business services);
 2. Income; and
 3. Transfers (grants, gifts, remittances, etc.) which do not have any quid pro quo.

Capital account

- The main components of the capital account include **foreign investment, loans and banking capital**.
- Foreign investment, comprising Foreign Direct Investment (FDI) and Portfolio Investment consisting of Foreign Institutional Investors (FIIs) investment, American Depository Receipts/Global Depository Receipts (ADRs/GDRs) represents **non-debt liabilities**, while loans (external assistance, external commercial borrowings and trade credit) and banking capital, including non-resident Indian (NRI) deposits are **debt liabilities**.

Why in News?

- According to the RBI data, India recorded a **surplus of \$19.8 billion (3.9% of GDP) in its current account balance** in the first quarter of FY21.
- India registered a surplus of \$0.6 billion (0.1% of GDP) in the preceding quarter. A deficit of \$15 billion (2.1% of GDP) was recorded a year earlier.
- The surplus in the current account in the first quarter of 2020-21 was on account of a **sharp contraction in trade deficit** to \$10 billion due to a steeper decline in merchandise imports relative to exports on a year-on-year basis.

9) E-Way Bill

What is it?

- Electronic Way Bill (E-Way Bill) is basically a **compliance mechanism** wherein by way of a digital interface the person causing the movement of goods uploads the relevant information prior to the commencement of movement of goods and generates e-way bill on the GST portal.
- E-way bill is a mechanism to **ensure that goods being transported comply with the GST Law** and is an **effective tool to track the movement of goods and check tax evasion**.
- An e-way bill is required for inter-State movement of goods worth **over ₹50,000**. For intra-State movement, the limits vary from State to State.
- Since **imports and exports** have been considered as inter-state supplies under the GST act, the e-way bill is required to be issued for these transactions as well.
- **Exceptions** to e-way bill requirement
 1. goods being transported by a non-motorised conveyance;
 2. goods being transported from the port, airport, air cargo complex and land customs station to an inland container depot or a container freight station for clearance by Customs;
 3. Contraceptives, judicial and non-judicial stamp paper, newspapers, khadi, raw silk, Indian flag, human hair, kajal, earthen pots, cheques, municipal waste, puja samagri, LPG, kerosene, etc. are also outside the ambit of the e-way bill.

Why in News?

- According to the latest **Goods and Services Tax Network (GSTN)** data, more than 4.87 crore e-way bills, valued at over ₹13.85 lakh crore, were generated by businesses and transporters in August 2020, reflecting a pick up in economic activity.

Related information

About GSTN

- Goods and Services Tax Network is a **nonprofit non-government company**, which provides IT infrastructure and services to the Central and State Governments, taxpayers and other stakeholders for implementation of the Goods and Services Tax (GST) in India.
- It acts as the interface between the government and the taxpayers and helps taxpayers in India to prepare, file returns, make payments of indirect tax liabilities and do other compliances.

10) Exchange Traded Funds

What are ETFs?

- An exchange-traded fund (ETF) is a basket of securities that trade on an exchange. ETFs can contain all types of investments including **stocks, commodities, or bonds**.
- ETFs were started in 2001 in India.
- ETFs are in many ways similar to mutual funds; however, they are listed on exchanges and ETF shares trade throughout the day just like ordinary stock.
- The Government of India uses ETF to **disinvest its holdings in public sector companies** rather than sell them on a piecemeal basis in the market. The latest such vehicle is the **Bharat 22 ETF**.

Bharat-22

- The foundation of Bharat 22 ETF was laid by the government in the Union Budget 2017 as a vehicle **to achieve its disinvestment target** and was launched in November 2017.
- Bharat 22 is an open-ended ETF which **allows investors to invest in a basket of government-owned and private sector entities**.
- The index comprises 22 stocks of Central Public Sector Enterprises, Public Sector Banks and private entities.

- It is managed by **ICICI Prudential Asset Management Company**.
- The scheme is intended for investors who are seeking long-term capital appreciation through a diversified portfolio which is largely comprised of high-quality public sector undertakings.

Why in News?

- Gold-backed ETFs witnessed a huge inflow in August, for the fifth month in a row, amid major economies staring at a recession due to the spread of COVID-19 pandemic.
- Gold-backed ETFs are investment instruments that are based on price movements and investments in physical gold.
- Net inflow in gold ETF category, reached ₹5,356 crore in the January-August period.
- With all major economies staring at a recession due to the spread of the COVID-19 pandemic, gold, with its safe-haven appeal, has emerged as one of the best-performing asset classes and a preferred investment destination among investors.

11) GDP growth at -23.9% in Q1

What's in the news?

- According to the latest data released by the **National Statistical Office**, Indian economy saw its worst contraction in decades, with **Gross Domestic Product (GDP) shrinking by a record 23.9% in the April to June quarter** in comparison to the same period last year.
- The contraction reflects the severe impact of the COVID-19 lockdown, which halted most economic activities, as well as the slowdown trend of the economy even pre-COVID-19.

What is the biggest implication?

- Economists expect this to contribute to a **contraction in annual GDP this year**, which may be the worst in the history of independent India.

CHART 1: INDIA'S GDP STORY SINCE ECONOMIC LIBERALISATION

From average growth of 7% to contraction of 7%



- Since economic liberalisation in the early 1990s, Indian economy has clocked an average of 7% GDP growth each year. This year, it is likely to contract by 7%.
- There have been **four other instances of minor contraction** between 1965-68, and 1972-73, but this year is likely to be the worst since Independence.

How have each sector fared?

- In terms of the gross value added (GVA) by different sectors of the economy, data show that **barring agriculture**, where GVA grew by 3.4%, **all other sectors of the economy saw their incomes fall**.
- The worst affected were construction (-50%), trade, hotels and other services (-47%), manufacturing (-39%), and mining (-23%). It is important to note that these are the sectors that create the maximum new jobs in the country.

What causes GDP contraction?

- In any economy, the total demand for goods and services — that is the GDP — is generated from **one of the four engines of growth**.
- The biggest engine is **consumption demand (C)** from private individuals. In the Indian economy, this accounted for **56.4% of all GDP** before this quarter.
- The second biggest engine is the demand generated by **private sector**

businesses (I). This accounted for **32% of all GDP** in India.

- The third engine is the **demand for goods and services generated by the government (G)** and it accounted for **11% of India's GDP**.

CHART 4: ENGINES OF GROWTH FALTER

Sources of total demand /engines of growth	Q1 FY20 (Rs crore)	Q1 FY21 (Rs crore)	Difference (Rs crore)	% change (year on year)
Expenditure by individual consumers [C]	19,92,967	14,61,164	-5,31,803	-27
Expenditure/Investment by private businesses [I]	11,32,195	5,99,192	-5,33,003	-47
Expenditure by Govt [G]	4,18,249	4,86,636	68,387	16
Net demand from exports minus imports	-1,17,242	75,675	1,92,917	165
Total (including discrepancies)	35,35,267	26,89,556	-8,45,711	-23.9

Source: MoSPI and Express Research GrOup

- The last engine is the **net demand on GDP after we subtract imports from India's exports (NX)**. In India's case, it is the smallest engine and, since India typically imports more than it exports, its **effect is negative on the GDP**.

- **Total GDP = C + I + G + NX**

What is the way out?

- When incomes fall sharply, private individuals cut back consumption. When private consumption falls sharply, businesses stop investing. Since both of these are voluntary decisions, there is no way to force people to spend more and/or coerce businesses to invest more in the current scenario.
- The same logic holds for exports and imports as well.

- Under the circumstances, there is **only one engine that can boost GDP and that is the government (G)**.
- Only when the government spends more — either by building roads and bridges and paying salaries or by directly handing out money — can the economy revive in the short to medium term.
- If the government does not spend adequately enough then the economy will take a long time to recover.

What is holding back the government from spending more?

- Even before the Covid crisis, **government finances were overextended**. In other words, it was not only borrowing but borrowing more than what it should have.
- As a result, the borrowing space of the government is severely restricted.

12) New Priority Sector lending norms

What is Priority Sector Lending?

- Priority Sector means those sectors which the Government of India and Reserve Bank of India consider as important for the development of the basic needs of the country and are to be given priority over other sectors. The banks are mandated to encourage the growth of such sectors with adequate and timely credit.
- Priority Sector includes the following categories:
 1. Agriculture
 2. Micro, Small and Medium Enterprises
 3. Export Credit
 4. Education
 5. Housing
 6. Social Infrastructure
 7. Renewable Energy
 8. Others

Targets Under the Priority Sector Lending

1. **Domestic scheduled commercial banks** (excluding Regional Rural

Banks and Small Finance Banks) and **Foreign banks with 20 branches and above**: 40 per cent of Adjusted Net Bank Credit or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher.

2. **Regional Rural Banks & Small finance banks**: 75 per cent of Adjusted Net Bank Credit or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher.
3. **Foreign banks with less than 20 branches**: 40 per cent of Adjusted Net Bank Credit or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher, to be achieved in a phased manner by 2020.
4. **Sub-targets** are specified for certain sectors like 18% to agriculture with 8% to small and marginal farmers, 7.5% to micro units and 10% to Advances to Weaker Sections.

Why in News?

- The RBI has released revised priority sector lending guidelines to augment funding to segments including start-ups and agriculture.
- The revised PSL guidelines will enable better credit penetration to credit deficient areas, increase the lending to small and marginal farmers and weaker sections, boost credit to renewable energy, and health infrastructure.

Changes made

- According to the revised guidelines,
 1. **Bank finance of up to ₹50 crore to start-ups,**
 2. **loans to farmers both for installation of solar power plants for solarisation of grid-connected agriculture pumps,** and for **setting up compressed biogas (CBG) plants** have been included as fresh categories eligible for finance under the priority sector.
- The revised PSL guidelines have been framed to **address regional**

disparities in the flow of priority sector credit. Higher weightage has been assigned to incremental priority sector credit in '**identified districts**' where priority sector credit flow is comparatively low.

- The targets prescribed for '**small and marginal farmers**' and '**weaker sections**' are being increased in a phased manner and higher credit limit has been specified for **farmer producer organisations (FPOs)/farmers** **organisations** **producers**

companies (FPCs) undertaking farming with assured marketing of their produce at a pre-determined price.

- While the **loan limits for renewable energy have been doubled** now, the **credit limit for health infrastructure**, including those under 'Ayushman Bharat', has also been **doubled** to improve the country's health infrastructure.

Organisations

1) International Criminal Court

About ICC

- The International Criminal Court (ICC) is a permanent judicial body established by the **Rome Statute** of the International Criminal Court (1998).
- It is an **independent judicial body distinct from the UN**.
- ICC investigates and tries **individuals charged with the gravest crimes of concern to the international community**: genocide, war crimes, crimes against humanity and the crime of aggression.
- The ICC was established as a court of last resort to prosecute the most heinous offenses in cases where national courts fail to act.
- It is headquartered in **The Hague, Netherlands**.

Membership

- Only those who ratified the Rome Statute are parties to ICC.
- 123 countries are States Parties to the Rome Statute of the ICC.
- Prominent countries that are not members include China, **India**, Iraq, Libya, Yemen, Qatar, Israel, USA and Russia.

Jurisdiction

- The ICC can open an investigation into possible crimes in **one of three ways**:
 1. A member country can refer a situation within its own territory to the court;
 2. The UN Security Council can refer a situation; or
 3. The prosecutor can launch an investigation into a member state proprio motu, or “on one’s own initiative.”
- The court **can investigate individuals from non-member states** if the alleged offenses took place in a member state’s territory, if the nonmember state accepts the court’s jurisdiction, or with the Security Council’s authorization.

Comparison of ICC and ICJ

International Criminal Court (ICC)	International Court of Justice (ICJ)
Independent judicial body distinct from the UN	Principal judicial organ of the UN
Handles prosecutions of individuals	Hears disputes between sovereign states
Established by the Rome Statute in 2002	Established in 1945 by the San Francisco Conference, which also created the UN
Only those who ratified the Rome Statute are parties to ICC	All members of the UN are parties to the statute of the ICJ, and non-members may also become parties
The judges are elected by the Assembly of States Parties, the court's governing body.	The judges are elected by the UN General Assembly and the Security Council
Headquarters of both the courts are situated at The Hague, Netherlands.	

Why in News?

- The U.S. announced sanctions, including asset freezes and visa bans against two officials of the International Criminal Court for an investigation into alleged war crimes by U.S. forces in Afghanistan since 2003.

- U.S. Secretary of State Mike Pompeo pointed out that the U.S. had never ratified the Rome Statute, which created the ICC in 1998, and thus was not subject to its rulings.

India and ICC

- Although **the U.S.** was part of the founding movement to build the ICC to try cases of genocide and war crime, especially after the courts in Rwanda failed, it decided not to ratify the Statute in 2002.
- Countries like **Russia, China and India**, however, were never in favour of the Rome Statute or the ICC, and never signed on.
- For India, the decision was based on a number of principles. The ICC is a **criminal court**, unlike the International Court of Justice (which adjudicates on civil matters), and arrogates to itself the right to prosecute matters against countries that aren't even signatories.
- India said that the **Statute gave to the UN Security Council a role in terms that violates international law** by giving the power to refer cases to the ICC, the power to block such references and the power to bind non-State parties to such decisions.
- India also objected to the **omission of cross-border terror, use of nuclear arms and weapons of mass destruction** from the areas the ICC would institute its investigations.

2) International Commission of Jurists

About ICJ

- The International Commission of Jurists (ICJ) is an **international non-governmental organisation** which promotes human rights and the rule of law.
- Its membership consists of sixty eminent jurists from around the world.

- The ICJ has an International Secretariat based in **Geneva, Switzerland.**

Why in News?

- The International Commission of Jurists has said civil rights lawyer Prashant Bhushan's conviction for **criminal contempt of court** by the Supreme Court seemed to be inconsistent with the freedom of expression law guaranteed by the **International Covenant on Civil and Political Rights** that India was a party to.

About ICCPR

- The International Covenant on Civil and Political Rights (ICCPR) is a multilateral treaty adopted by the **United Nations General Assembly** in 1966, and it came into force in 1976.
- The ICCPR, together with the Universal Declaration of Human Rights and the International Covenant on Economic Social and Cultural Rights, are considered the **International Bill of Human Rights.**
- The covenant commits its parties to respect the civil and political rights of individuals, including the right to life, freedom of religion, freedom of speech, freedom of assembly, electoral rights and rights to due process and a fair trial.
- At present, the Covenant has 173 parties (including **India**).
- (*Refer Pulse July 2020 edition for details on contempt of court*)

3) Association of World Election Bodies

What is it?

- The Association of World Election Bodies (A-WEB) is the largest association of Election Management Bodies worldwide. It was established in 2013 in South Korea.
- A-WEB aims at strengthening the processes of election management in member countries.

- At present A-WEB has 115 Election Management Bodies (EMBs) as Members and 16 Regional Associations/Organisations as Associate Members.
- **Election Commission of India (ECI)** has been very closely associated with the process of formation of A-WEB since 2011-12.
- **India** took over as the **Chair** of the organisation for two years from 2019.

Why in News?

- The Election Commission of India hosted an International Webinar on 'Issues, Challenges and Protocols for Conducting Elections during COVID-19: Sharing Country Experiences' on its completion of one year of Chairmanship of the Association of World Election Bodies (A-WEB).

Science and Technology

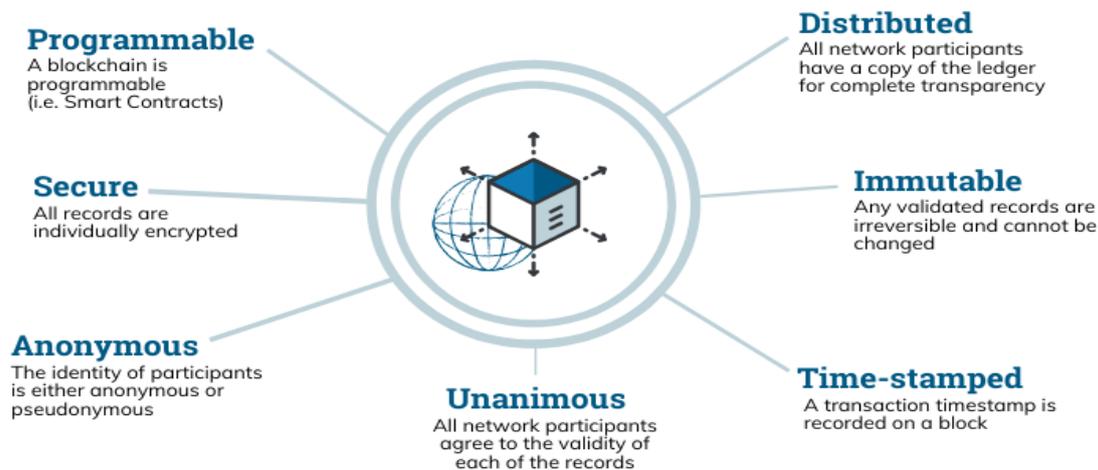
1) Blockchain technology and Voting

Blockchain

- A blockchain is a **distributed ledger of information** which is replicated across various nodes on a “peer-to-peer” network for the purpose of **ensuring integrity and verifiability of data stored on the ledger**.
- Blockchain, sometimes referred to as **Distributed Ledger Technology (DLT)**, makes the history of any digital asset unalterable and transparent through the use of **decentralization and cryptographic hashing**.

- A simple analogy for understanding blockchain technology is a **Google Doc**. When we create a document and share it with a group of people, the document is distributed instead of copied or transferred.
- This creates a decentralized distribution chain that gives everyone access to the document at the same time. But blockchain is more complicated than a Google Doc
- Blockchain is an especially promising and revolutionary technology because it helps **reduce risk, stamps out fraud and brings transparency** in a scalable way for myriad uses.

The Properties of Distributed Ledger Technology (DLT)



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Applications

- Blockchain ledgers have traditionally been used as supporting structures for **cryptocurrencies**, such as Bitcoin and Ethereum; however, their use in non-cryptocurrency applications too has seen a steady rise such as:
 1. Secure sharing of medical data
 2. Music royalties tracking
 3. Cross-border payments
 4. Real-time IoT operating systems
 5. Personal identity security

6. Anti-money laundering tracking system
7. Supply chain and logistics monitoring
8. Voting mechanism
9. Advertising insights
10. Original content creation
11. Cryptocurrency exchange
12. Real estate processing platform

Why in News?

- The Election Commission recently held an online conference in collaboration with IIT Madras, through which they explored the possibility of using

blockchain technology for the purpose of enabling remote elections.

Benefits of remote voting

Increases voter participation

- Remote voting helps to increase voter participation which had remained only around **67%** in general elections by ensuring people, who had migrated from their native constituencies for various reasons to vote from wherever they were.
- It benefits **internal migrants and seasonal workers**, who account for roughly 51 million of the populace (Census 2011) and remotely-stationed members of the **Indian armed forces** in exercising their democratic right of voting.

Security concerns

Need for physical presence and biometric authentication

- Electors would still have to physically reach a designated venue in order to cast their vote where systems would use white-listed IP devices on dedicated internet lines, and that the system would make use of the biometric attributes of electors.
 - *IP whitelisting is a security feature often used for limiting and controlling access only to trusted users.*

Principle of secrecy

- Blockchain solutions rely heavily on the proper implementation of cryptographic protocols. If any shortcomings exist in an implementation, it might stand to potentially **unmask the identity and voting preferences of electors**. It goes against **Section 94 of the Representation of People Act** which upholds the privilege of the voter to maintain confidentiality about her choice of vote.
- The principle of secrecy of ballots is also an important postulate of constitutional democracy.

Vulnerable to attacks

- An attacker may be able to clone the biometric attributes required for authenticating as another individual and cast a vote on their behalf.
- Physical implants or software backdoors placed on an individual system could allow attackers to collect and deduce voting choices of individuals.

Existing alternatives

- To resolve the issue of ballot portability, technological solutions which involve setting up entirely new, untested voting infrastructure may not be the answer when there exists solutions such as **postal ballots or proxy voting**, which allows individuals to vote out of their home State.
- *Refer Pulse July 2020 edition for details on Postal ballots.*

Way Forward

- Digitisation, in itself, does not make processes more robust.
- Any solution to electoral problems must be **software independent** and **fault tolerable**, where failure or tampering of one mechanism or several would not affect the integrity or transparency of the overall process.

2) Gopalakrishnan committee report on non-personal data

What's in the news?

- A nine-member committee headed by Infosys co-founder Kris Gopalakrishnan, constituted by the government, has submitted its draft report. The committee has kept time till August 13 for the public to send suggestions.

Major Recommendations

- The committee has suggested that **non-personal data** generated in the country be allowed to be harnessed by various domestic companies and entities as it may be useful for Indian entrepreneurs to develop new and

innovative services or products to benefit citizens.

- It also suggested a **separate national legislation** and a **separate authority** to oversee non-personal data.

What is non-personal data?

- In its most basic form, non-personal data is any set of data which **does not contain personally identifiable information**. This in essence means that no individual or living person can be identified by looking at such data.
- For example, while order details collected by a food delivery service will have the name, age, gender, and other contact information of an individual, it will become non-personal data if the identifiers such as name and contact information are taken out.

Significance of Non Personal data

- Non Personal data can be useful in either **framing public policy or creating and providing new services**. For example,
 - Aggregate data from land registries can tell us a lot about land use patterns.
 - Data related to traffic flows can be used to guide traffic management.
- Non-personal data are also viewed as critical for **development of the Artificial Intelligence ecosystem**.

Classification

- The Gopalakrishnan committee has classified non-personal data into **three main categories**, namely **public non-personal data, community non-personal data and private non-personal data**.
- Depending on the source of the data and whether it is anonymised in a way that no individual can be re-identified from the data set, the three categories have been divided.

What are public, community, and private non-personal data sets?

- **All the data collected by government and its agencies** such as census, data collected by municipal corporations on

the total tax receipts in a particular period or any information collected during execution of all publicly funded works has been kept under the umbrella of **public non-personal data**.

- **Any data identifiers about a set of people** who have either the same geographic location, religion, job, or other common social interests will form the **community non-personal data**. For example, the metadata collected by ride-hailing apps, telecom companies, electricity distribution companies among others have been put under the community non-personal data category by the committee.
- **Private non-personal data** can be defined as those which are produced by individuals which can be derived from application of proprietary software or knowledge.

How sensitive can non-personal data be?

- Unlike personal data, which contains explicit information about a person's name, age, gender, sexual orientation, biometrics and other genetic details, non-personal data is **more likely to be in an anonymised form**.
- However, in certain categories such as data related to **national security or strategic interests** such as locations of government laboratories or research facilities, **even if provided in anonymised form can be dangerous**.
- Similarly, even if the **data is about the health of a community or a group of communities**, though it may be in anonymised form, it **can still be dangerous**, the committee opined.
- Possibilities of such harm are much higher if the original personal data is of a sensitive nature. Therefore, the committee recommended that non-personal data arising from such sensitive personal data may be

considered as **sensitive non-personal data**.

What areas does India's non-personal data draft miss?

- Though the non-personal data draft is a pioneer in identifying the power, role, and usage of anonymised data, there are certain aspects such as community non-personal data, where the **draft could have been clearer**.
- Non-personal data often constitutes protected trade secrets and often **raises significant privacy concerns**.
- The paper proposes the nebulous concept of community data while **failing to adequately provide for community rights**.
- The final draft of the non-personal data governance framework must **clearly define the roles for all participants**, such as the data principal, the data custodian, and data trustees.

Conclusion

- Since data governance is a relatively new concept in India, the government would be better served in taking an incremental approach to any perceived problems.
- This should begin with reforming how the government itself deals with citizens' data.

3) Hypersonic Technology Demonstrator Vehicle

What's in the news?

- India conducted a successful test flight of the indigenously developed Hypersonic Technology Demonstrator Vehicle (HSTDV), powered by a scramjet engine. The air-breathing scramjet engine was successfully flight-tested at hypersonic speed within the atmosphere.

What is HSTDV?

- The Hypersonic Technology Demonstrator Vehicle is an **unmanned scramjet demonstration aircraft for**

hypersonic speed flight, developed by India's DRDO.

- HSTDV is not a weapon itself but is being developed as a **carrier vehicle for hypersonic and long-range cruise missiles**.
- The HSTDV cruise vehicle is mounted on a solid rocket motor, which takes it to a required altitude. Once it attains certain mach numbers for speed, the cruise vehicle is ejected out of the launch vehicle. After that, the scramjet engine is ignited automatically.

What is a scramjet engine?

- A scramjet engine is an improvement over the ramjet engine because the former **operates efficiently at hypersonic speeds and allows supersonic combustion**.
- Ramjets, in contrast, operate well at supersonic speeds around Mach 3 but their efficiency drops at hypersonic speeds (Mach 5 and above).
- The HSTDV has an **air-breathing scramjet engine** which means that it **uses atmospheric oxygen for propulsion**.
- Launch vehicles use combustion of propellants consisting of oxidiser and fuel for deriving energy. Air breathing propulsion systems use **atmospheric oxygen**, which is available up to about 50 km of earth's surface to burn the fuel stored on-board thereby making the system **much lighter, more efficient and cost effective**.
- Air breathing propulsion is a solution for a **powered long return cruise flight necessary for reusable launch vehicles**.

What makes HSTDV a breakthrough?

- Hypersonic missiles are termed as "a new class of military threat" as these are capable of maneuvering and flying faster than 5,000 kilometers per hour.
- The speed and maneuverability enable hypersonic missiles to **penetrate most missile defenses**, and further

compress the timelines for a response by a nation under attack.

- The only countries in the world which have hypersonic technology are the **United States of America, Russia and China**.
- While India joined this exclusive club, other countries in the process of developing similar tech are Japan, Australia, and Europe.
- In addition to war applications, India will also use HSTDV for **multiple civilian applications** including missiles of the future for air defence, surveillance and reconnaissance besides in the development of energy-efficient, low cost and reusable satellite-launch vehicles.

How fast is HSTDV?

- HSTDV can cruise at a **speed of Mach 6**, or six times the speed of sound, and rise up to an altitude of 32.5 km in just 20 seconds.
- When DRDO tested the HSDTV with the help of Agni missile boosters, it successfully achieved an altitude of over 30,000 ft in just 22 seconds at a speed of Mach 6.

4) BrahMos missile

About BrahMos Missile

- BrahMos is the **supersonic cruise missile** jointly developed by **Defence Research and Development Organisation (DRDO)** of India and **NPOM** of Russia.
- BrahMos is an amalgamation of the names of the rivers **Brahmaputra** of India and **Moskva** of Russia.
- BrahMos is a **two-stage missile** with solid propellant booster as first stage and liquid ramjet as the second stage.
- Being a cruise missile it can be guided towards a **predetermined land- or sea-based target**.
- With a capability to attain **speeds 2.8 times that of sound** (Mach 2.8),

BrahMos is classified as a **supersonic cruise missile**.

- It operates on the **"Fire and Forget"** principle i.e it does not require further guidance after launch.
- BrahMos currently has a **range of 290 km**, but efforts are also on to extend this to **400 km**.
- Various versions of the BrahMos, including those which can be fired from land, warships, submarines and Sukhoi-30 fighter jets have already been developed and successfully tested in the past.

Why in News?

- DRDO has successfully test-fired the BrahMos surface-to-surface cruise missile with an indigenous booster, along with other sub-systems made within the country.

5) Scrub Typhus Attack

About Scrub Typhus

- Scrub typhus, also known as bush typhus, is a disease that spreads to people through **bites of larval mites**. The symptoms include fever, headache, rashes and bodyache.
- The illness is caused by the **bacteria called Orienta Tsutsugamushi**.
- Most cases of scrub typhus occur in rural areas of Southeast Asia, Indonesia, China, Japan, India, and northern Australia.
- More than 50 per cent of the people who get this disease die, if not given immediate medical attention.
- Scrub typhus is treated with the **antibiotic doxycycline**.

Why in News?

- An outbreak of scrub typhus has claimed the lives of five people in Nagaland's Noklak district.

6) Astrosat

About Astrosat

- ASTROSAT is **India's first dedicated multi wavelength space**

observatory. This scientific satellite mission endeavours for a more detailed understanding of our universe.

- ASTROSAT is designed to observe the universe in the **Visible, Ultraviolet, low and high energy X-ray regions of the electromagnetic spectrum simultaneously** with the help of its five payloads.
- AstroSat with a lift-off mass of 1515 kg was launched in 2015 into a 650 km orbit inclined at an angle of 6 deg to the equator by **PSLV-C30** from Satish Dhawan Space Centre, Sriharikota.
- The minimum useful life of the AstroSat mission is expected to be 5 years.
- The scientific objectives of ASTROSAT mission are:
 - To understand high energy processes in binary star systems containing neutron stars and black holes;
 - Estimate magnetic fields of neutron stars;
 - Study star birth regions and high energy processes in star systems lying beyond our galaxy;
 - Detect new briefly bright X-ray sources in the sky;
 - Perform a limited deep field survey of the Universe in the Ultraviolet region.

Why in News?

- AstroSat has detected extreme-UV light from a galaxy located 9.3 billion light-years away from Earth.
- The galaxy called **AUDFs01** was discovered by a team from the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.
- This discovery is a very important clue to how the dark ages of the Universe ended and there was light in the Universe.

7) Mars Orbiter Mission

About the Mission

- The Mars Orbiter Mission (MOM), commonly referred to as **Mangalyaan-1**, is a space probe launched by the **Indian Space Research Organization (ISRO)** on November 5, 2013.
- The **indigenously-built space probe**, which is **India's first interplanetary mission**, has been in the Martian orbit since September 24, 2014.
- India is the **first Asian nation to reach the Mars orbit** and the **first in the world to achieve it on its first attempt.**

Objective

- The objective of the mission is to explore Martian surface features, mineralogy, morphology and atmosphere using indigenous scientific instruments.
- The mission also aims to develop technologies required in planning, designing, management and operations of an interplanetary mission.
- Initially planned for a lifetime of 6 months, ISRO **extended the mission** in April 2015 because of the adequate quantity of fuel still left in the spacecraft.

Description

- MOM was launched aboard **PSLV C-25** (an XL version of the PSLV).
- It carried **5 science payloads**. They are:
 - Mars Colour Camera (MCC)
 - Thermal Infrared Imaging Spectrometer (TIS)
 - Methane Sensor for Mars (MSM)
 - Mars Exospheric Neutral Composition Analyser (MENCA)
 - Lyman Alpha Photometer (LAP)

Achievements of MOM

- The MOM orbiter has helped India's space agency prepare a **Martian Atlas** based on the images provided by the orbiter.
- **Phobos and Deimos**, the two moons of Mars, were also imaged from close distances by the Mars Colour Camera (MCC).

- An important conclusion of the mission has been the finding that **dust storms on the Martian can raise up to hundreds of kilometres.**

Why in News?

- ISRO's Mangalyaan mission has completed six years of orbiting Mars.
- ISRO is also planning to send its second Mars mission, Mangalyaan-2, after the launch of Chandrayaan-3, India's upcoming Moon mission.

8) Cyanobacteria behind elephants death

What are cyanobacteria?

- Cyanobacteria, also known as **blue-green algae**, are found worldwide especially in calm, nutrient-rich waters.
- Some species of cyanobacteria produce **toxins** that affect animals and humans.
- People may be exposed to cyanobacterial toxins by drinking or bathing in contaminated water.
- Symptoms include skin irritation, stomach cramps, vomiting, nausea, diarrhoea, fever, sore throat, headache.
- Animals, birds, and fish can also be poisoned by high levels of toxin-producing cyanobacteria.

Why in News?

- In Botswana's Okavango Delta, over 300 elephants mysteriously found dead in 2020. This mysterious mass death of elephants had raised alarm across the world.
- The Botswana government recently figured out that the elephant deaths were due to ingesting toxin-producing cyanobacteria at waterholes.
- Scientists warn that **climate change** may be making these incidents - known as toxic blooms - more likely, because they favour warm water.

9) Cloud computing for better flood inundation mapping

What's in the news?

- Using openly accessible **satellite data and a cloud computing platform**, an international team has now developed a powerful tool for a **near real-time mapping of flood extent.**
- Flood inundation maps or maps showing where flooding may occur can help in better flood risk preparedness.

How does the tool work?

- Space-based sensors known as **synthetic aperture radar (SAR)** have been used widely for monitoring and mapping of flood-water inundation. SAR is capable of acquiring data in all-weather condition, making it useful for mapping and monitoring flood inundation areas.
- These sensors operate on the constellation of two SAR satellites belonging to the **Copernicus Programme** launched by the European Space Agency.
- The data from the satellites was utilised on a cloud-based platform known as **Google Earth Engine (GEE)** for the rapid processing of big data.

Results

- The team studied water inundation maps from 2015 and their analysis was clearly able to show the areas submerged underwater in 2018. The team notes the new flood inundation maps showed an **accuracy of over 94%.**
- The water inundation maps can help swiftly deploying the rescue team and rescue operations can be started immediately.
- Cloud computing platforms and satellite data are also being used by researchers for **landslide prediction, drought forecasting, crop monitoring and avalanche forecasting.**

Additional Details

What is cloud computing?

- Cloud computing is the delivery of different services through the Internet. These resources include tools and

applications like data storage, servers, databases, networking, and software.

- Rather than keeping files on a proprietary hard drive or local storage device, **cloud-based storage makes it possible to save them to a remote database**. As long as an electronic device has access to the web, it has access to the data and the software programs to run it.
- Cloud computing is a popular option for people and businesses for a number of reasons including **cost savings, increased productivity, speed and efficiency, performance, and security**.

Synthetic Aperture Radar

- Synthetic Aperture Radar (SAR) refers to a technique for producing fine-resolution images from a resolution-limited radar system.
- SAR systems take advantage of the long-range propagation characteristics of radar signals and the complex information processing capability of modern digital electronics to provide high resolution imagery.

Copernicus program

- Copernicus is the **European system for monitoring the Earth** and is coordinated and managed by the **European Commission** in partnership with the **European Space Agency (ESA)**.
- It consists of a complex set of systems which collect data from multiple sources: earth observation satellites and in situ sensors such as ground stations, airborne sensors, and sea-borne sensors.
- It processes these data and provides users with accurate, timely and easily accessible information to improve the management of the environment, understand and mitigate the effects of climate change and ensure civil security.

10) Venus and life

About Venus

- Venus, the second world from the sun, has long been considered **Earth's twin**. It's about the same size as our home planet, with similar gravity and composition.
- Venus is wrapped in a thick, toxic atmosphere that traps in heat. Surface temperatures reach a scorching 880 degrees Fahrenheit (471 degrees Celsius), hot enough to melt lead.
- **European Space Agency's mission, Venus Express**, found signs of ozone, made of three oxygen atoms and considered a biomarker, in the upper atmosphere of Venus, in 2011.

Why in News?

- Scientists have detected traces of phosphine in Venus that indicates microbes may inhabit Earth's inhospitable neighbour.

About phosphine gas

- Phosphine, a highly toxic compound of one phosphorous atom and three hydrogen atoms, is **given out by some microbes during biochemical processes**.
- On Earth, it is made naturally by some species of **anaerobic bacteria**—organisms that live in the oxygen-starved environments of landfills, marshlands, and even animal guts.
- Used as a **chemical weapon** during World War I, phosphine is still manufactured as an **agricultural fumigant**, and is used in the **semiconductor industry**.

About the findings

- Venus should be hostile to phosphine. Its surface and atmosphere are rich in oxygen compounds that would rapidly react with and destroy phosphine.
- Still, the researchers estimate that phosphine forms about 20 parts per billion of Venus's atmosphere, a tantalizing sign of potential life beyond Earth.
- However, it's too early to conclude that life exists beyond Earth's shores.

Scientists caution that the detection itself needs to be verified, as the phosphine fingerprint described in the study could be a false signal introduced by the telescopes or by data processing.

India's mission to Venus

- **Shukrayaan-1** is a proposed orbiter to Venus by the **Indian Space Research Organisation (ISRO)** to study the surface and atmosphere of Venus using GSLV Mark III.
- It is expected to be launched in 2024.

Challenges in probing Venus

- High surface temperature
- Dense atmosphere (due to the presence of carbon dioxide)
- Presence of sulphuric acid in the atmosphere of Venus makes it a highly corrosive environment.

Way forward

- International collaborations can help probe efficiently the dense atmosphere of Earth's neighbour.

Reports and Indices

1) State Startup Ranking 2019

What's in the news?

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** has released the results of the second edition of States' Startup Ranking Exercise.
- DPIIT conducted the ranking exercise with the key objective to foster competitiveness and propel States and Union Territories to work proactively towards uplifting the startup ecosystem.
- The ranking exercise aims to evaluate measures taken by states and union territories during the assessment period from May 1, 2018 to June 30, 2019.

Parameters

- The States' Startup Ranking Framework 2019 has **7 broad reform areas**, consisting of 30 action points ranging from Institutional Support, Easing Compliances, Relaxation in Public Procurement norms, Incubation support, Seed Funding Support, Venture Funding Support, and Awareness & Outreach.
- To establish uniformity and ensure standardization in the ranking process, States and UTs have been divided into **two groups**.
 - UTs except Delhi and all States in North East India except Assam are placed in **Category 'Y'**.
 - All other States and UT of Delhi are in **Category 'X'**.
- A total of 22 States and 3 Union Territories participated in the exercise.
- For the purposes of Ranking, States are classified into **5 Categories**: Best Performers, Top Performers, Leaders, Aspiring Leaders and Emerging Startup Ecosystems.



Highlights of the Report

- **Karnataka and Kerala** have emerged as the top performers, while **Gujarat** was ranked as the best performer in States' Startup Ranking 2019.
- Besides, Karnataka was also recognised as an institutional leader, regulatory change champion, procurement leader and incubation hub.
- The states in the leader category are Maharashtra, Odisha, Rajasthan, Bihar, and Chandigarh. In the aspiring leaders category, states like Telangana, Uttarakhand, Haryana, Jharkhand, Punjab, and Nagaland were included.

2) Digital Education Divide

What's in the news?

- A recent report on the latest **National Statistical Organisation (NSO)** survey shows just how stark is the digital divide across States, cities and villages, and income groups.
- The survey on household social consumption related to education was part of the NSO's 75th round, conducted from July 2017 to June 2018.

Key Findings of the survey

- Across India, **only one in ten households have a computer** — whether a desktop, laptop or tablet.
- Almost **25% of all homes have Internet facilities**, accessed via a fixed or mobile network using any device, including smartphones.
- Most of the **Internet-enabled homes are located in cities**, where 42% have Internet access. In **rural India, however, only 15% are connected to the internet**.
- 20% of Indians above the age of 5 years had basic digital literacy and just 40% in the critical age group of 15 to 29 years, which includes all high school and college students as well as young parents responsible for teaching younger children.
- **Delhi** has the highest Internet access, with 55% of homes having such facilities. **Himachal Pradesh** and **Kerala** are the only other States where more than half of all households have Internet.
- **Odisha** is at the bottom with only one in ten homes having Internet.
- There is less than 20% Internet penetration, even in States with software hubs such as Karnataka and Tamil Nadu.

Digital divide

- The **biggest divide is by economic status**, which the NSO marks by dividing the population into five equal groups, or quintiles, based on their usual monthly per capita expenditure.
- **Kerala** shows the least inequality with more than 39% of the poorest rural homes having Internet, in comparison to 67% of the richest urban homes.
- Assam shows the starkest inequality, with almost 80% of the richest urban homes having the Internet access denied to 94% of those in the poorest rural homes in the State.
- Even as digital literacy is likely to grow during this pandemic, **concerns remain about basic literacy**. More

than one in five Indians above 7 years still cannot read and write in any language.

- Over the last decade, **literacy rates have increased from 71.7% to 77.7%**, with the highest gains coming among rural women.

About NSO

- The National Statistical Office is the Statistics Wing of the **Ministry of Statistics and Programme Implementation**.
- In 2019, the central government merged the Central Statistical Organisation (CSO) and National Sample Survey Organisation (NSSO) into the National Statistical Organisation.
- NSO is mandated with the following responsibilities:-
 1. Acts as the nodal agency for planned development of the statistical system in the country
 2. Compiles and releases the **index of industrial production (iip)** every month and conducts the **annual survey of industries (asi)**;
 3. Organizes and conducts periodic **all-india economic censuses**
 4. Prepares national accounts as well as publishes annual estimates of national product, government and private consumption expenditure, capital formation, savings, etc. As also the state level gross capital formation of supra-regional sectors and prepares comparable estimates of state domestic product (sdp) at current prices;

3) Global Innovation Index

About the Index

- Global Innovation Index (GII) is co-published annually by **Cornell University, INSEAD Business School, and the World Intellectual Property Organization (WIPO)**, a specialized agency of the United Nations.

- GII ranks global economies according to their innovation capabilities, including roughly 80 indicators, grouped into **innovation inputs and outputs**.
- The metrics include institutions, human capital and research, infrastructure, market sophistication and business sophistication, knowledge and technology outputs and creative outputs.

Why in News?

- The Global Innovation Index 2020 was released recently.

Highlights of the Index

- India has been ranked **48th** on the GII 2020 among 131 economies, breaking into the top 50 countries for the first time.
- India occupied the 52nd position in 2019 and was ranked 81st in the year 2015.
- As per the latest rankings, India is the third most innovative lower-middle-income economy.
- Switzerland, Sweden, US, UK and Netherlands are in the top spots of this year's ranking.

How India fared?

- Three 'clusters' — **Bengaluru, Delhi and Mumbai** — feature in the top 100 science & technology hotspots, further endorsing India's presence in the global innovation economy.
- The WIPO had also accepted **India as one of the leading innovation achievers of 2019 in the central and southern Asian region**, as it has shown a **consistent improvement in its innovation ranking for the last 5 years**.
- India increased the most in three pillars: **Institutions, business sophistication and creative outputs**.
- However, India continued to lag in **infrastructure**. Also, it scored low in **human capital and research**.

Measures by India

- The official statement noted that NITI Aayog has been working tirelessly to ensure optimisation of national efforts in this direction by bringing policy-led innovation in different areas such as electric vehicles, biotechnology, nanotechnology, space and alternative energy sources.
- The **India Innovation Index**, which was released last year by the **NITI Aayog**, has been widely accepted as the major step in the direction of decentralization of innovation across all the states of India.

4) Living Planet Report 2020

About Living Planet Report

- Every two years, the **World Wide Fund for Nature (WWF)** publishes the Living Planet Report in association with the Zoological Society of London.
- It is a science-based analysis on the health of our planet and the impact of human activity.
 - *WWF is an international non-governmental organization founded in 1961 that works in the field of wilderness preservation and the reduction of human impact on the environment.*

Why in News?

- The Living Planet Report 2020 was released on September 10, 2020.
- The biennial report is based on the global dataset analysed between 1970 and 2016.

Highlights of the Report

Massive reduction in wildlife populations

- The **global wildlife populations have declined by an average 68%** in over four decades between 1970 and 2016.
- Environmental degradation, climate change, overexploitation of species, invasive species and population are the major contributing factors in the decline in biodiversity.
- **Freshwater species were the most affected** with an 84% decline in their

populations. One out of every three freshwater species was threatened with extinction and species with larger body size, called megafauna, were more at risk than smaller ones.

- Further, the **rate of decline of wildlife populations is different across various regions**. Biodiversity in Latin America and the Caribbeans was the worst affected with a 94% drop, while in Europe and Central Asia the decline was the least at 24%. There was a 33% slump in North America, 65% in Africa and 45% in the Asia-Pacific region.

Major causes

- It cited that **human activity** was the major factor behind the decline of wildlife populations. To feed and fuel our 21st century lifestyles, we are **overusing the Earth's biocapacity by at least 56%**.
- **Agriculture**, including expansion or intensification of crop or livestock farming, plantations and aquaculture, is the most frequently identified threat to plants in IUCN [International Union for Conservation of Nature] Red List assessments.
- **Habitat destruction and land use changes**, mainly urbanisation and agriculture-related, are the major causes reported for plant extinctions.
- **Fishing** was the largest factor affecting the ocean's biodiversity, followed by climate change, pollution and coastal development, among others.

Link with infectious diseases

- **About 60% of infectious diseases come from animals** and nearly two-thirds of them are wild animals.
- The emergence of these diseases is driven by **anthropogenic changes** such as deforestation and the expansion of agricultural land, the intensification of livestock production, and the increased harvesting of wildlife.
- This was the reason behind the outbreak of Nipah virus in Malaysia in

1998, Serial Acute Respiratory Syndrome or SARS in China in 2003 and many others.

Scenario in India

- India has 2.4 per cent global land share, about eight per cent global biodiversity and around 16 per cent global population. There is an enormous human footprint, which in turn is affecting biodiversity.
- Vertebrate population has been declining at a rate of about 60 per cent in India, a figure close to the global benchmark.
- **Almost a third of Indian wetlands** have been affected under combined pressure of urbanisation, agricultural activities and pollution.
- While **India's ecological footprint per person is less than 1.6 global hectares (gha) / person** (smaller than that of many large countries), its high population size has made the gross footprint significantly high.
- India has a **bio-capacity of approximately 0.45 gha per person**, which means it is a 'bio-capacity debtor' or an 'ecologically deficit country' with a 148 per cent more demand than supply on its natural resources.

Way Forward

- The report urged that protecting biodiversity was more than an ethical commitment, and that it was **non-negotiable for the survival of humanity as nature and humans are intertwined**. The report also pointed out that biodiversity was important for **food security**.
- The report cited measures that can be taken to protect wildlife, including forming strategies at the national level, ranging from dietary changes to land-use conservation.
- It underscores the need for a global New Deal for Nature and People with clear, ambitious goals, to see us on the path to recovery by 2030.

Polity

1) National Human Rights Commission

About NHRC

- The National Human Rights Commission (NHRC) is a **statutory organisation** established in 1993 under the Protection of Human Rights Act (PHRA), 1993.
- The Act also created Human Rights Commissions at the levels of the various States.
- NHRC was established in conformity with the **Paris Principles**, adopted at the first international workshop on national institutions for the promotion and protection of human rights held in Paris in 1991, and endorsed by the General Assembly of the United Nations in 1993.

Functions of NHRC

- The NHRC enquires into complaints of violation of human rights or negligence in the prevention of such violation by a public servant, studies treaties and international instruments on human rights and makes recommendations for their effective implementation to the Government.
- It is responsible for spreading human rights awareness amongst the masses.
- While inquiring into complaints under the Act, the Commission shall have all the powers of a **civil court**.

Composition of NHRC

- According to the **Protection of Human Rights (Amendment) Act, 2019**, the NHRC consists of
- A **Chairperson**, who has been a Chief Justice of India or a Judge of the Supreme Court
- One member who is, or has been, a Judge of the Supreme Court of India
- One member who is, or has been, the Chief Justice of a High Court
- Three Members, out of which at least one shall be a woman to be appointed from amongst persons having

knowledge of, or practical experience in, matters relating to human rights

- In addition, the Chairpersons of National Commissions viz., National Commission for Scheduled Castes, National Commission for Scheduled Tribes, National Commission for Women, National Commission for Minorities, National Commission for Backward Classes, National Commission for Protection of Child Rights; and the Chief Commissioner for Persons with Disabilities serve as **ex officio members**.
- The term of the Chairperson and Members of the Commission is **three years or until he attains the age of seventy years**, whichever is earlier. They shall be **eligible for re-appointment**.
- They can be removed only on the **charges of proved misbehavior or incapacity**, if proved by an inquiry conducted by a Supreme Court Judge.

Limitations of NHRC

- As per the Protection of Human Rights Act, the NHRC **can only recommend the government but the recommendations are non-binding**. This lack of authority gives an outright rejection of any recommendation or partial compliance.
- Under the Act, human rights commissions **cannot investigate** an event if the complaint was made more than **one year after the incident**. Therefore, a large number of genuine grievances go unaddressed.
- State human rights commissions cannot call for information from the national government, which means that they are implicitly denied the power to investigate armed forces under national control.
- Also, the National Human Rights Commission powers related to violations of human rights by the

armed forces have been **largely restricted**.

- Another major problem is that it is **flooded with too many complaints**, and is finding it difficult to address the increasing number of complaints.

Why in News?

- The National Human Rights Commission has sought an action-taken report within four weeks from the Centre and the Madhya Pradesh government on a complaint by Bhopal gas tragedy survivors demanding the monthly pension of ₹1,000 to each widow of victims that was discontinued in December 2019.

2) No-confidence motion

What is a no-confidence motion?

- **Article 75** of the Indian Constitution states that the Council of Ministers shall be collectively responsible to the Lok Sabha.
- A no-confidence motion is usually moved by the opposition when it feels that the ruling government does not enjoy a majority in the House any longer.
- **No reason** is required to move such a motion. It can be moved against the entire council of ministers only (and **not against the individual ministers**).
- A no-confidence motion can be moved by any member of the house and can be done **only in the Lok Sabha** and not in the Rajya Sabha.

Procedure

- There is **no mention of a No-Confidence Motion** in the Constitution of India. Such a motion is moved under Rule 198 of the **Rules of Procedure and conduct of Lok Sabha**.
- A **minimum of 50 members** have to accept the motion and the Speaker would accordingly announce the date for the discussion on the motion. A no-confidence motion needs a **majority vote** to pass the House.

- In case the government fails to prove its majority, then the government has to resign.
- **J.B. Kripalani** moved the first-ever no-confidence motion in **August 1963** against the Nehru government after the India-China war.

Why in News?

- The no-confidence motion moved by the Opposition in the Karnataka Legislative Assembly against Chief Minister B.S. Yediyurappa was defeated by a voice vote

3) National Medical Commission Act, 2019

Background

- The **Medical Council of India (MCI)** is responsible for regulating medical education and practice. Over the years, there have been several issues with the functioning of the MCI with respect to its regulatory role, composition, allegations of corruption, and lack of accountability.

National Medical Commission Act, 2019

- The Act repeals the Indian Medical Council Act, 1956 and dissolves the MCI.
- The Act sets up the National Medical Commission (NMC) as an umbrella regulatory body with certain other bodies under it. The **NMC will subsume the MCI and will regulate medical education and practice in India**.
- States will establish their respective **State Medical Councils** within three years. These Councils will have a role similar to the NMC, at the state level.
- Functions of the NMC include: (i) laying down policies for regulating medical institutions and medical professionals, (ii) assessing the requirements of human resources and infrastructure in healthcare, (iii) ensuring compliance by the State Medical Councils with the regulations made under the Bill, and (iv) framing

guidelines for determination of fee for up to 50% of the seats in the private medical institutions.

Who will be a part of the NMC?

- The Act replaces the MCI with the NMC, whose members will be **nominated**. The NMC will consist of 25 members.
- Of these 25 members, **at least 15 (60%) are medical practitioners**.

What are the regulatory bodies being set up under the NMC?

- The Act sets up **four autonomous boards** under the supervision of the NMC.
 1. The Under-Graduate Medical Education Board (UGMEB)
 2. The Post-Graduate Medical Education Board (PGMEB)
 3. The Medical Assessment and Rating Board
 4. The Ethics and Medical Registration Board

How is the Act changing the eligibility guidelines for doctors to practice medicine?

- There will be a **uniform National Eligibility-cum-Entrance Test** for admission to under-graduate and postgraduate superspeciality medical education in all medical institutions.
- Further, the Act introduces a common final year undergraduate examination called the **National Exit Test** for students graduating from medical institutions to obtain the license for practice. This test will also serve as the basis for admission into post-graduate courses at medical institutions.

How does the Act regulate community health providers?

- As of January 2018, the doctor to population ratio in India was 1:1655 compared to the World Health Organisation standard of 1:1000.
- To fill in the gaps of availability of medical professionals, the Act provides for the NMC to grant limited license to

certain **mid-level practitioners** called community health providers, connected with the modern medical profession to practice medicine.

- These mid-level medical practitioners may prescribe specific medicines in primary and preventive healthcare. However, in any other cases, these practitioners may only prescribe medicine under the supervision of a registered medical practitioner.

Why in News?

- The National Medical Commission, in place of the Medical Council of India, as the country's apex regulator of medical education and profession has come into existence recently.

4) Members of Parliament Local Area Development Scheme

About the Scheme

- The Members of Parliament Local Area Development Scheme (MPLADS) is meant to enable **Members of Parliament to recommend works of developmental nature** with emphasis on **creation of durable community assets based on locally felt needs** to be taken up in their constituencies in the area of national priorities namely drinking water, education, public health, sanitation, roads etc.
- The **Ministry of Statistics and Programme Implementation** has been responsible for the policy formulation, release of funds and prescribing monitoring mechanism for implementation of the Scheme.

Features

- The MPLADS is **fully funded** by the Government of India. The **annual MPLADS fund entitlement** per MP constituency is **Rs. 5 crore**.
- Funds under the MPLADS are **non-lapsable**.
- **Lok Sabha Members** can recommend works within their Constituencies and **Elected Members of Rajya Sabha** can

recommend works within the State of Election (with select exceptions). **Nominated Members** of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.

- All works to meet locally felt infrastructure and development needs, with an emphasis on creation of durable assets in the constituency are permissible under MPLADS as prescribed in the scheme guidelines.
- The MPLADS funds can be merged with other schemes such as MGNREGA and Khelo India.

Allocation for SC & ST

- The guidelines recommend MPs to suggest works costing at least 15 per cent of their MPLADS entitlement for the year for areas inhabited by **Scheduled Caste population** and 7.5 per cent for areas inhabited by **Scheduled Tribe population**.
- In case there is insufficient tribal population in the area of Lok Sabha Member, they may recommend this amount for the creation of community assets in tribal areas outside of their constituency but within their State of election.

Implementation

- Under MPLADS, the role of the MPs is limited only upto recommendation of works. Thereafter, it is the responsibility of the **District Authority** to sanction, execute and complete the works recommended by Members of Parliament within the stipulated time.
- The District Authority shall identify the Implementing Agency capable of executing the eligible work qualitatively, timely and satisfactorily. It shall be responsible for timely and effective implementation of such works.
- Information on MPLADS (the number and cost of works sanctioned, implementing agencies, projects

completed, etc) should be made available to citizens under the **Right to Information Act**.

- **At least 10% of the projects** under implementation in the district are to be **inspected** every year by the district authority.

Why in News?

- In June 2020, the government announced suspension of MPLADS for two years, due to the COVID-19 pandemic.
- Members of several parties have been demanding the restoration of the suspended MPLAD Scheme Fund.

Rationale behind the suspension of MPLADS

- Suspension of the MPLAD Scheme will make Rs 7,800 crore available to the government which will go to the Consolidated Fund of India to fight COVID-19.

Arguments against the suspension of MPLADS

- It will **adversely impact grass-root level work** as the MPLAD is meant to execute development work in the constituency, suspending it is a huge disservice to the constituents and will undermine the role and functions of MPs.
- During the times of COVID-19 pandemic, MPLADS funds could have been used for procurement of such supplies that will help in fighting against the disease.
- By suspending MPLADS, the government will take away the expenditure which would attend to unique requirements of an area. This centralisation **goes against federalism, development**.
- As the scheme attempts to address large variations in infrastructure across the states, the suspension will make it **difficult to reduce inequality in development**.
- MPLADS has enabled MPs to **play a leadership role in the**

developmental process of his constituency and sort out its day-to-day problems.

5) Enemy Property

What is “enemy property”?

- In the wake of the India-Pakistan wars of 1965 and 1971, there was migration of people from India to Pakistan. Under the Defence of India Rules framed under The Defence of India Act, 1962, the **Government of India took over the properties and companies of those who took Pakistani nationality.**
- Some **movable properties** too, are categorised as enemy properties.
- These “enemy properties” were vested by the central government in the **Custodian of Enemy Property for India** (a statutory authority under the **Ministry of Home Affairs**). The same was done for property left behind by those who went to **China after the 1962 Sino-Indian war.**
- The **Tashkent Declaration** of January 10, 1966 included a clause that said India and Pakistan would discuss the return of the property and assets taken over by either side in connection with the conflict.
- However, the Government of Pakistan disposed of all such properties in their country in the year 1971 itself.

How did India deal with enemy property?

- The **Enemy Property Act**, enacted in 1968, provided for the continuous vesting of enemy property in the **Custodian of Enemy Property for India.** The **Central government**, through the Custodian, is in possession of enemy properties spread across many states in the country.
- In 2017, Parliament passed **The Enemy Property (Amendment and Validation) Act, 2017**, which **expanded the definition of the term “enemy subject”, and “enemy firm”**

to include the legal heir and successor of an enemy and the succeeding firm of an enemy firm.

- The thrust of the amendments was to guard against claims of succession or transfer of properties left by people who migrated to Pakistan and China after the wars. The amendments denied legal heirs any right over enemy property.
- The Custodian, with prior approval of the central government, may dispose of enemy properties vested in him in accordance with the provisions of the Act, and the government may issue directions to the Custodian for this purpose.

Why in News?

- Nilesh Shah, a part-time member of the **Economic Advisory Council to the Prime Minister**, said that India should look at selling enemy properties valued at over ₹1 lakh crore to take care of the current expenditure which will drive growth.
- He said the assets were valued at ₹1 lakh crore three years ago and this is the best time to remove encroachments and clear title deficiencies to sell such properties.

Related Information

EAC-PM

- Economic Advisory Council to the Prime Minister (EAC-PM) is a **non-constitutional, non-permanent and independent body** constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.
- The Terms of Reference of EAC-PM include analyzing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon, addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister.

- These could be either **suo-motu or on reference** from the Prime Minister or anyone else.
- The chairman is appointed from time to time when the body is constituted.

6) Question Hour and Zero Hour

About Question Hour

- Generally, the **first hour of the parliamentary sitting** is slotted for the Question Hour. During this one hour, Members of Parliament (MPs) ask questions to ministers and **hold them accountable** for the functioning of their ministries.
- The questions are of **three kinds**, namely, starred, unstarred and short notice.
 1. A **starred question** (distinguished by an asterisk) requires an oral answer and hence supplementary questions can follow.
 2. An **unstarred question** requires a written answer and hence, supplementary questions cannot follow.
 3. A **short notice question** is one that is asked by giving a notice of less than ten days. It is answered orally.
- In addition to the ministers, the questions can also be asked to the **private members** (MPs who are not ministers).
- Question Hour in both Houses is held on **all days of the session**. But there are **two days when an exception** is made.
 1. There is no Question Hour on the day the **President addresses MPs from both Houses** in the Central Hall. The President's speech takes place at the beginning of a new Lok Sabha and on the first day of a new Parliament year.
 2. Question Hour is not scheduled either on the day the **Finance Minister presents the Budget**.
- **Regulation:** The presiding officers of the both Houses (Rajya Sabha and Lok

Sabha) are the final authority with respect to the conduct of Question Hour.

- Question Hour is strictly regulated and **mentioned in the rules of procedure**.

Significance

- The 'Question Hour' is an important part of the parliamentary proceedings and has assumed greater importance because the members can **elicit information through questions on matters affecting the day-to-day life of the citizens** for which Ministers are collectively answerable to the legislature.
- Asking questions of the government has a long history in our legislative bodies. Prior to Independence, the first question asked of the government was in **1893**. It was on the burden cast on village shopkeepers who had to provide supplies to touring government officers.
- This parliamentary device is primarily meant for **exercising a kind of legislative control over executive actions**. Members' questions have exposed financial irregularities and brought data and information regarding government functioning to the public domain.
- With the **broadcasting of Question Hour** since 1991, Question Hour has become one of the most visible aspects of parliamentary functioning.
- Besides, the Members also find an opportunity through this device to **criticise Government's policies and programmes; ventilate public grievances; expose Government's lapses; and extract promises from Ministers**.

About Zero Hour

- Unlike the question hour, the zero hour is **not mentioned in the Rules of Procedure**.
- Thus it is an **informal device** available to the members of the Parliament to

raise matters without any prior notice.

- The zero hour **starts immediately after the question hour and lasts until the agenda for the day** (i.e., regular business of the House) is taken up.
- It is an **Indian innovation** in the field of parliamentary procedures and has been in existence since **1962**.

Why in News?

- The Lok Sabha and Rajya Sabha secretariats notified that there will be no Question Hour during the Monsoon Session of Parliament, in view of the COVID-19 pandemic, and that Zero Hour will be restricted in both Houses.

7) Armed Forces Special Powers Act

About AFSPA

- Passed in 1958 for the North-East and in 1990 for Jammu & Kashmir, the Armed Forces Special Powers Act (AFSPA) gives armed forces special powers to control “**disturbed areas**”, which are designated by the government when it is of the opinion that a region is in such a disturbed or dangerous condition that the use of armed forces in aid of civil power is necessary.
- An area can be disturbed due to differences or disputes between members of different religious, racial, language or regional groups or castes or communities.
- The **Central Government** or the **Governor of the State** or **administrator of the Union Territory** can declare the whole or part of the State or Union Territory as a disturbed area.
- Under its provisions, the armed forces have been **empowered to open fire, enter and search without warrant, and arrest any person** who has committed a cognisable offence, all

while having immunity from being prosecuted.

- The law has been repealed where insurgencies have subsided, and when governments have gained confidence in managing the region using the police force.
- Critics both in India and abroad have criticised government agencies for acting with impunity under AFSPA. **Manipuri activist Irom Sharmila** had been on a 16-year hunger strike in protest against AFSPA. The **Jeevan Reddy Committee** formed in 2004 has recommended a complete repeal of the law.

Why in News?

- Assam has been declared as Disturbed Area for another 6 months with effect from 28th of August under the Armed Forces (Special Powers) Act, 1958.
- The decision was taken in view of the attacks on security forces by militants during the last 6 months in the North East and recovery of illegal arms in Assam.

8) Supplementary grants

Different types of grants

- In addition to the budget that contains the ordinary estimates of income and expenditure for one financial year, various other grants are made by the Parliament under extraordinary or special circumstances.

Supplementary grants

- It is granted when the amount authorised by the Parliament through the appropriation act for a particular service for the current financial year is found to be insufficient for that year.

Additional grants

- It is granted when a need has arisen during the current financial year for additional expenditure upon some new service not contemplated in the budget for that year.

Excess grant

- It is granted when money has been spent on any service during a financial year in excess of the amount granted for that service in the budget for that year. It is voted by the Lok Sabha after the financial year.
- Before the demands for excess grants are submitted to the Lok Sabha for voting, they must be approved by the **Public Accounts Committee of Parliament.**

Vote of Credit

- It is granted for meeting an unexpected demand upon the resources of India, when on account of the magnitude or the indefinite character of the service, the demand cannot be stated with the details ordinarily given in a budget.
- Hence, it is like a **blank cheque** given to the Executive by the Lok Sabha.

Exceptional grant

- It is granted for a special purpose and forms no part of the current service or any financial year.

Token grant

- It is granted when funds to meet the proposed expenditure on a new service can be made available by reappropriation. A demand for the grant of a token sum (of Re 1) is submitted to the vote of the Lok Sabha and if assented, funds are made available.
- Reappropriation involves transfer of funds from one head to another. It **does not involve any additional expenditure.**

Regulation

- Supplementary, additional, excess and exceptional grants and vote of credit are regulated by the **same procedure which is applicable in the case of a regular budget.**

Why in News?

- Finance Minister Nirmala Sitharaman tabled the first batch of Supplementary Demands for Grants for the Financial Year 2020-21 in the Lok Sabha.

9) Foreign Contribution (Regulation) Amendment Act, 2020

About Foreign Contribution (Regulation) Act, (FCRA), 2010

- The FCRA 2010 regulates the acceptance and utilisation of foreign contribution by individuals, associations and companies. Foreign contribution is the donation or transfer of any currency, security or article (of beyond a specified value) by a foreign source.
- The objective is to prevent use of foreign contribution or foreign hospitality for any activity detrimental to the national interest.
- **All societies, companies, associations and NGOs** have to register themselves under the FCRA and fulfil definite criteria to be eligible for foreign funds.
- The registration is initially **valid for five years** and it can be renewed subsequently if they comply with all norms.
- Registered associations can receive foreign contributions for **social, educational, religious, economic and cultural purposes.**
- Filing of annual returns, on the lines of Income Tax, is compulsory.

Who cannot receive foreign donations?

- **Members of the legislature and political parties, government officials, judges and media persons** are prohibited from receiving any foreign contribution.
- However, in 2017 the Ministry of Home Affairs (MHA), amended the FCRA law paving the way for **political parties to receive funds** from the Indian subsidiary of a foreign company or a foreign company in which an Indian holds 50% or more shares.

Why in News?

- The Parliament has passed the Foreign Contribution (Regulation) Amendment

Act, 2020 which amends the Foreign Contribution (Regulation) Act, 2010.

Highlights of the 2020 Act

Prohibition to accept foreign contribution

- The amendment adds **public servants** (as defined under the Indian Penal Code) to the list of persons who are prohibited to accept any foreign contribution.
- Public servant includes any person who is in service or pays of the government, or remunerated by the government for the performance of any public duty.

Transfer of foreign contribution

- The amendment act prohibits the transfer of grants received under FCRA to any other person or organisation.

Aadhaar for registration

- Any person seeking prior permission, registration or renewal of registration must provide the **Aadhaar number of all its office bearers, directors or key functionaries, as an identification document.**
- In case of a foreigner, they must provide a copy of the passport or the

Overseas Citizen of India card for identification.

FCRA account

- Organisations can receive the foreign funds in a bank account designated as the 'FCRA account' **only in branches of the State Bank of India, New Delhi**, as notified by the central government.

Reduction in use of foreign contribution for administrative purposes

- Under the 2010 Act, a person who receives foreign contribution must use it only for the purpose for which the contribution is received. Further, they must not use more than 50% of the contribution for meeting administrative expenses.
- The amendment act **reduces this limit to 20%.**

Suspension of registration

- Under the 2010 Act, the government may suspend the registration of a person for a period not exceeding 180 days.
- The latest amendment adds that such **suspension may be extended up to an additional 180 days.**

International Relations

1) Singapore Convention on Mediation

Background

- The United Nations General Assembly adopted the **United Nations Convention on International Settlement Agreements Resulting from Mediation** (also known as the "Singapore Convention on Mediation") in 2018.
- The Convention provides a uniform and efficient framework for the **enforcement of international settlement agreements resulting from mediation**.
- It ensures that a settlement reached by parties becomes **binding and enforceable** in accordance with a simplified and streamlined procedure.

Why in News?

- The Singapore Convention on Mediation came into force recently.
- It will provide a more effective way for enforcing mediated settlements of corporate disputes involving businesses in India and other countries that are signatories to the Convention.
- As on September 1, the Convention has **53 signatories**, including **India, China and the U.S.**

What are the benefits?

- The Convention will boost the confidence of the investors and shall provide a positive signal to foreign investors about the signatory countries' commitment to adhere to international practice on **Alternative Dispute Resolution (ADR)**.
- The harmonised and simplified enforcement framework under the Convention translates to **savings in time and legal costs**, which is important for businesses in times of uncertainty, such as during the current COVID-19 pandemic.

Related initiative to promote ADR Mechanisms

- In order to encourage international commercial arbitration in India and to evolve a comprehensive ecosystem of arbitration, the Government has passed the **New Delhi International Arbitration Centre (NDIAC) Act, 2019**.
- The act establishes NDIAC as a **statutory body** to conduct arbitration, mediation, and conciliation proceedings in the country.
- The act declares the NDIAC as an **institution of national importance**.

2) India, France, Australia hold first trilateral dialogue

What's in the news?

- **India, Australia and France** held talks for the first time under a trilateral framework with focus on enhancing cooperation in the Indo-Pacific, a region that has been witnessing increasing Chinese military assertiveness.
- The virtual meeting was held with the objective of building on the strong bilateral ties that the three countries share with each other and synergise their respective strengths to ensure a peaceful, secure, prosperous and rules-based Indo-Pacific Region.

Outcome of the meet

- The three sides discussed economic and geo-strategic challenges and cooperation in the Indo-Pacific, particularly in the context of the COVID-19 pandemic and domestic responses to the crisis.
- Cooperation on marine global commons and potential areas for practical partnership at the trilateral and regional level were also discussed, including through regional organisations such as **ASEAN, Indian**

Ocean Rim Association (IORA) and the Indian Ocean Commission.

- The three countries agreed to hold the dialogue on an **annual basis**.

Related information

About ASEAN

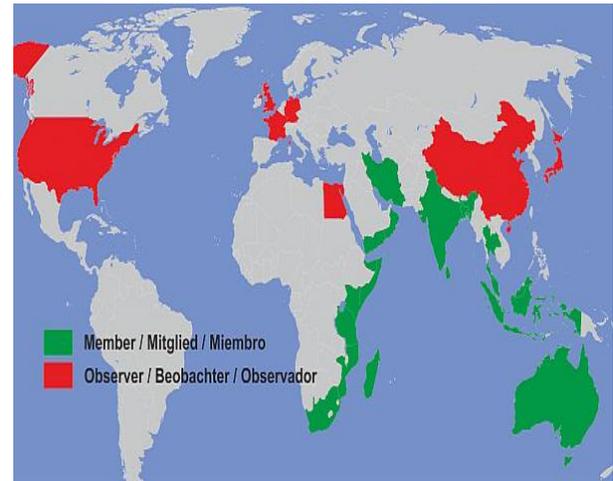
- The Association of Southeast Asian Nations, or ASEAN, is a regional & intergovernmental organisation of 10 countries of southeast Asia.
- ASEAN was established in 1967 in Bangkok, Thailand, with the signing of the **ASEAN Declaration (Bangkok Declaration)**.



Image: ASEAN

- Its members are **Thailand, Malaysia, Laos, Cambodia, Indonesia, Singapore, Myanmar, Philippines, Brunei and Vietnam**.
- The organisation aims to accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership. They work towards the progress of the southeast Asia region.

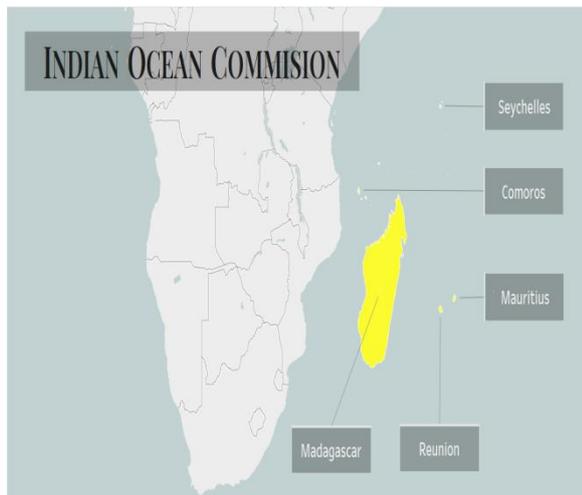
About IORA



- IORA is an inter-governmental organisation which was established in 1997 to strengthen regional cooperation and sustainable development within the Indian Ocean region.
- IORA consists of 22 Member States (including **India**) and 10 Dialogue Partners.
- IORA became an observer to the UN General Assembly and the African Union in 2015.
- Decisions made within IORA are reached by **consensus** and commitments are undertaken on a voluntary basis.
- The IORA Secretariat is based in **Mauritius**. It is headed by a fixed term Secretary-General.

About IOC

- The Indian Ocean Commission (IOC) is an intergovernmental body created in 1984 that coordinates maritime governance in the south-western Indian Ocean.



- It consists of **five Member States**: The Union of the Comoros, France Reunion Island, Madagascar, Mauritius and the Seychelles.
- The IOC's mission is to unite Member States' forces and pool their resources, raise awareness of the special challenges that developing islands face and promote Indianoecania as a region of unique human, cultural and natural diversity.
- In 2020, India was accepted as an **observer** of the Indian Ocean Commission.

3) Supply Chain Resilience Initiative

Background

- With COVID-19 and trade tensions between China and the United States threatening supply chains, **Japan** has mooted the Supply Chain Resilience Initiative (SCRI) as a trilateral approach to trade, with **India and Australia** as the other two partners.

What does supply chain resilience mean?

- In the context of international trade, supply chain resilience is an approach that **helps a country to ensure that it has diversified its supply risk across a clutch of supplying nations instead of being dependent on just one or a few.**
- Without such mechanisms, unanticipated events — whether

natural, such as volcanic eruptions, tsunamis, earthquakes or even a pandemic; or manmade, such as an armed conflict in a region — that disrupt supplies from a particular country or even intentional halts to trade, could adversely impact economic activity in the destination country.

What is Japan proposing?

- The COVID-19 pandemic has brought into sharp focus that when assembly lines are heavily dependent on supplies from one country (in this case- **China**), the impact on importing nations could be crippling if that source stops production for involuntary reasons, or even as a conscious measure of economic coercion.
- In recent years, electrical and electronic gear, and machinery, nuclear reactors and boilers were sectors that clocked up significant imports from China into Japan.
- So, any halt to supplies (as it happened when China had to shut down factories in regions hit by the SARS-CoV-2 virus that has caused the COVID-19 pandemic) could potentially impair economic activity in Japan.

What does India stand to gain, or lose?

- An **internal push to suddenly cut links with China would be impractical.** China's share of imports into India in 2018 (considering the top 20 items supplied by China) stood at 14.5%. In areas such as Active Pharmaceutical Ingredients for medicines such as paracetamol, **India is fully dependent on China.** In electronics, China accounts for 45% of India's imports.
- Chinese supplies dominate segments of the Indian economy. Sectors that have been impacted by supply chain issues arising out of the pandemic include pharmaceuticals, automotive parts,

electronics, shipping, chemicals and textiles.

- Over time, if India enhances self-reliance or works with exporting nations other than China, it could build resilience into the economy's supply networks.
- While India appears an attractive option for potential investors both as a

market and as a manufacturing base, trade experts point to the need for India to **accelerate progress in ease of doing business and in skill building.**

Why in News?

- India, Japan and Australia announced that the Supply Chain Resilience Initiative would be launched soon.

Art and Culture

1) Channapatna toys

About



- Channapatna toys are a particular form of **wooden toys** (and dolls) that are manufactured in the town of **Channapatna** in the Ramanagara district of **Karnataka**.
- This traditional craft is protected by the **geographical indication (GI)** tag.
- As a result of the popularity of these toys, Channapatna is known as **Gombegala Ooru (toy-town)** of Karnataka.
- Channapatna toys have a 200 year old history and are made out of wood — soft ivory wood, teak, rubber, cedar or neem — and lacquered with vibrant, natural dyes.
- Its history has been traced to the **era of Hyder Ali and Tipu Sultan** in the **18th century**.
- The fame of Channapatna toys was built on the smooth quality and bright colours of the products that were safe to handle.

Why in News?

- Prime Minister Narendra Modi called upon start-ups and entrepreneurs to “team up for toys”, pointing out that India’s share in the ₹7 lakh crore global toy market is minuscule.
- He asserted that the country has the potential to be a hub for the industry.
- Prime Minister’s thrust on going vocal about local toys has sent signs of hope to the artisans of the Channapatna toy

town, who have dealt a crippling blow due to the COVID-19 pandemic.

2) Kakatiya Dynasty

About

- Kakatiya Dynasty is the south Indian Dynasty which ruled **Andhra Pradesh** from 1083 CE to 1323 CE. The 12th and 13th centuries saw the emergence of the Kakatiyas and they were the **feudatories of the Western Chalukyas** of Kalyana, ruling over a small territory near Warangal.
- The rule of Kakatiya Dynasty is considered as the most promising period of **History of Telugu & Andhra Pradesh**.
- The Kakatiya dynasty was eventually conquered by the Delhi Sultanate.

Contribution

- The Rulers of the Kakatiya Dynasty had great patronage for art and literature. They took initiative to promote **Sanskrit** and during this period there was **revival of Sanskrit literature**.
- They were known for the **construction of multiple tanks for irrigation and drinking water**.
- Most of the **Kakatiya records do not mention the varna** (social class) of the family, but the majority of the ones that do, proudly describe them as **Shudra**. Examples are the **Bothpur and Vaddamanu inscriptions** of King Ganapati's general Malyala Gunda senani.
- The Kakatiyas also maintained marital relations with other Shudra families, such as the Kotas and the Natavadi chiefs. All these evidences indicate that the Kakatiyas were of Shudra origin.
- Some of the important constructions under the Kakatiyas are:
 1. During 1163 AD, the **Thousand-Pillared Temple** at Hanamkonda (now located in Telangana) was built by King Rudra Deva of the Kakatiya

Dynasty. This temple is dedicated to Siva, Vishnu and Surya, and is star-shaped. Every part of the temple depicts the typical **Chalukya style of architecture**.

2. **Warangal fort temple:** The fort was constructed in the 13th century in the reign of the Kakatiya King Ganapati Deva. An interesting feature of Warangal fort temple is there are four gateways called '**Kirti Stambhas**' which face the four cardinal points of the compass.
3. **Ramappa Temple:** It is a shiva temple which dates back to 1213 AD. It was built by the patronage of Ganapathi Deva in Warangal. **Marco Polo**, during his visit to the Kakatiya Empire, allegedly called the temple "the brightest star in the galaxy of temples". The Ramappa temple finds its hold on a 6 feet high platform on a cruciform plan. The temple's chamber is crowned with a shikharam and is surrounded by pradakshinapatha. At the entrance of the temple, we can find a Nandi mandapam. An imposing Nandi vigraham stands on it.
4. **Golconda Fort:** It is located in the western part of **Hyderabad city**. The fort was built by the Kakatiya dynasty in the 13th century. Later, the Golconda fort came into the possession of the Bahmani dynasty. Still later, the Qutub Shahi dynasty took over and made Golconda its capital.

Why in News?

- A temple **constructed by Emperor Ganapati Deva**, a mighty ruler of **Kakatiya dynasty**, in Dharanikota near Andhra Pradesh capital Amaravathi has been converted into an abode of local goddess Balusulamma (Goddess Durga).
- The presiding deity at this **13th century temple** was **Kakati Devi**, the tutelary deity of **Kakatiya rulers**. Due to ravages of time and for no upkeep, the presiding deity got damaged.

King Ganapati Deva

- King Ganapati Deva was the supreme king among all the rulers of the Kakatiya dynasty. He played a pioneering role in consolidation of Telugu region under one rule.
- He significantly expanded Kakatiya lands during the 1230s when he launched a series of attacks outside the dynasty's traditional Telangana region and thus brought under Kakatiya control the Telugu-speaking lowland delta areas around the Godavari and Krishna rivers.
- Ganapati Deva was keen to bolster the dynasty's economy. He encouraged merchants to trade abroad, abolishing all taxes except for a fixed duty and supporting those who risked their lives to travel afar. He created the **man-made Pakhal Lake**.

3) Vallam Kali of Kerala

What is it?

- Vallam Kali is a **traditional boat race in Kerala**.
- It is a form of canoe racing and uses paddled war canoes. It is mainly conducted during the season of the **harvest festival Onam**.
- The race of chundan vallam ('snake boat') is the major event. Hence Vallam Kali is also known as the **snake boat race**.
- The **Nehru Trophy Boat Race** is a popular vallam kali event held in the **Punnamada Lake** near Alappuzha, Kerala.
- **Vanchipattu** ('boatsong') is the form of poetry in Malayalam language commonly used during vallam kali and related festivals.

Why in News?

- Locals have joined hands to preserve a legendary snake boat that took part in the Nehru Trophy Boat Race.

4) Renati Chola Inscription

Renati Cholas

- The **Telugu Cholas of Renadu** (Renati Cholas) ruled over Renadu region, the present day Kadapa district of **Andhra Pradesh**. The **earliest** of this family was **Nandivarman** (500 AD).
- They were originally independent, later forced to the suzerainty of the **Eastern Chalukyas**.
- The **Cholas of Renadu** claimed that they belonged to **Karikala Chola's dynasty**.
- They are said to be the first kingdom to use **Telugu in administration** and inscriptions, instead of Sanskrit.

Why in News?

- A rare inscription dating back to the Renati Chola era has been unearthed in a remote village of Kadapa district that has kindled interest among the fraternity of archaeology and history.

Characteristics of the inscription

- The inscription was found **engraved on a dolomite slab**.
- Dolomite is a **sedimentary carbonate rock** composed mostly of calcium magnesium carbonate.
- The inscription was written in **archaic Telugu** which was readable in 25 lines.
- It was assigned to the **8th Century A.D.**, when the region was under the rule of Chola Maharaja of Renadu.
- The inscription seems to throw light on the **record of a gift of six Marttus** (a measuring unit) of land gifted to a Brahmin serving the temple. Some lines are indicative of the **priority given to morality** in those days.

Related Information Cholas

- The Chola dynasty was a **Tamil dynasty** that ruled primarily in southern India until the **13th century**. Their core area of the rule was the **Kaveri delta**, later known as **Cholamandalam**.
- The earliest datable references to the Chola are in inscriptions from the **3rd century BCE** left by Emperor Ashoka.
- **Karikala Chola** was the most famous among the early Chola kings. Sangam poems mention the **Battle of Venni** where he defeated the confederacy of Cheras, Pandyas and eleven minor chieftains. Trade and commerce flourished during his reign.
- He also founded the **port city of Puhar** (identical with Kaveripattinam) and constructed the dam **Kallanai** also known as **Grand Anicut**.
- **Rajaraja Chola, Rajendra Chola** and **Kulothunga Chola I** were famous emperors of the medieval Cholas.
- **Brihadisvara Temple** was built by **Chola emperor Raja Raja Chola I** (985-1014 AD) between 1003 AD and 1010 AD.
- The Cholas maintained an **efficient navy**. In the conquests of **Rajendra Chola** came almost the whole eastern part of **Sumatra, and the central and southern parts of the Malay peninsula**. He also occupied the capitals of **Srivijaya (Indonesia)** and **Kedah (Malaysia)**.

Miscellaneous

1) Sir M Visvesvaraya

About Sir Visvesvaraya

- Sir M Visvesvaraya was the 19th **Diwan of Mysore**, serving from 1912 to 1919. He was knighted as a **Knight Commander of the British Indian Empire (KCIE)** by King George V for his contributions to the public good.
- He was awarded the highest Indian honor, the **Bharat Ratna** in 1955 and is known as the **Father of Indian Economic Planning**.
- He wrote the books **Planned Economy for India, Nation Building: a five year plan for the provinces and Unemployment in India : it's causes and cure**.

Achievements

- Implemented an intricate system of irrigation in the Deccan Plateau, and designed and patented a system of automatic weir **water floodgates** that were first installed in 1903 at **Khadakvasla Reservoir near Pune**.
- He was the Chief engineer responsible for the construction of the **Krishna Raja Sagara Dam in Mysore**.
- Designed a **flood protection system** for the city of **Hyderabad**.
- He was instrumental in developing a system to **protect Visakhapatnam port** from **sea erosion**.
- Sir M Visvesvaraya also played a vital role in promoting the **Kannada language**.

Why in News?

- Engineer's Day is observed on the 15th of September every year in India commemorating the birthday of Bharat Ratna Sir Mokshagundam Visvesvaraya.

2) Aligarh Muslim University

About AMU

- Mohammedan Anglo Oriental College was founded by **Sir Syed Ahmad Khan** in 1875 in Aligarh, and later it evolved into Aligarh Muslim University (AMU).
- The movement associated with Syed Ahmad Khan and the college came to be known as the **Aligarh Movement**, which pushed to realise the need for establishing a modern education system for the Indian Muslim populace.

Why in News?

- Aligarh Muslim University was recently in the news since there was an issue with the ownership of the land on which the University is situated.

Additional Details

Sir Syed Ahmed Khan

- Sir Syed Ahmed Khan was born in Delhi (1817). He was one of the most eminent Muslim reformist and philosopher of the 19th century.
- He wrote '**Asbab-e-Baghawat-e-Hind**' (Reasons for the Indian Revolt of 1857) which cited British ignorance and aggressive expansion policies as the chief causes of the revolt.
- In 1864, he founded the **Translation Society** which was later renamed '**The Scientific Society**' to instill a scientific temperament among Muslims in India.
- He was an advocate for **modern scientific education** and **English for Muslims** to advance their conditions. He was strictly **against superstition** and evil customs prevalent in society.
- He instituted **All India Muslim Educational Conference** that revived the spirit of Muslims at the national level.
- His interest in religion was also active and lifelong. He began a sympathetic interpretation of the Bible, wrote Essays on the Life of Mohammed.
- But he was doubtful about the rise of Indian nationalism. He **advocated Muslims to have loyalty to the British** so that further upliftment was possible.
- Syed advised the Muslims against joining active politics and to concentrate instead on education.
- In 1888, he was made a **Knight Commander of the Star of India** by the British crown.