

One Stop Destination For UPSC/IAS Preparation

July 2021 Baba's Monthly CURRENT AFFAIRS MAGAZINE



Revamped With Revolutionary Aspects

- Easy To Remember Tabular Format
- **Top 20 Editorial Summaries** Of The Month
- Practice Mcg's At The End
- **A Comprehensive Compendium Of News** Sourced From More Than 5 Reputed Sources

"A Note from the Founder"



Hello everyone,

I hope that you all are fine, safe and healthy.

Every year a new set of students join the IASbaba family and then become integral part of it forever. It is an immense pleasure to see young and energetic aspirants embarking on this tedious journey and then finally achieving their goal. We at IASbaba are happy to help you shape your future.

I would also like to express my gratitude to all the students who have shown their faith on IASbaba. All of you have made IASbaba one of the most successful institutions providing guidance and education for Civil Services Examination.

Now, it's been more than 6 years since IASbaba started and in all these years what has kept us on our toes is our aim to be abreast of every change that UPSC is bringing in its pattern. We strive to innovate and bring the best possible programs and materials.

I am happy to introduce this **new Avatar of your favourite monthly magazine**. We have introduced several changes in the content and presentation based on your feedback and inputs of experts on the system. As your friend, guide and philosopher I hope that this new initiative is going to help you immensely in your preparation and it will become your one-point source of monthly current affairs.

I hope that you will put in your 100% and make yourself, your family and IASbaba proud with your success.

Regards
Mohan Kumar S
Founder, IASbaba



One Stop Destination For UPSC Preparation





Sachin Gupta AIR 3, 2017



Saumya Pandey AIR 4, 2016



Dinesh kumar AIR 6, 2017



Sanjita Mohpatra AIR-10, 2019

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Value Add Notes

Prelims & Mains Test Series

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POLITY & GOVERNANCE

NIPUN Bharat Mission

NIPUN stands for National Initiative for Proficiency in Reading with Understanding and Numeracy program

- It aims to cover the learning needs of children in the age group of 3 to 9 years.
- This initiative is launched as a part of **NEP** (National Education Policy) 2020.
- It is launched under centrally sponsored scheme of Samagra Shiksha
 - ✓ Samagra Shiksha was launched subsuming three existing schemes: Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE). The aim of the scheme is to treat school education holistically, from pre-school to Class XII.
- **Objective of NIPUN**: To ensure Universal acquisition of foundational literacy and numeracy (FLN) so that by 2026-27 every child achieve the desired learning competencies in reading, writing and numeracy at the end of grade 3 and not later than grade 5.
 - ✓ Foundational language and literacy includes oral language, development, deciphering written words, reading fluency, reading comprehension and writing
 - ✓ Foundational numeracy means the ability to reason and apply simple numerical concept in daily life problem solving
- NIPUN will focus on
 - ✓ providing access and retaining children in foundational years of schooling;
 - √ teacher capacity building;
 - development of high quality and diversified Student and Teacher Resources/Learning Materials;
 - ✓ Tracking the progress of each child in achieving learning outcomes.
- A five-tier implementation mechanism will be set up at the National- State-District- Block- School level
- Special package for foundational literacy and Numeracy (FLN) under NISHTHA (National Initiative for School Heads and Teachers Holistic Advancement) is being developed by NCERT.
 - NISHTHA is a capacity building programme for "Improving Quality of School Education through Integrated Teacher Training

BharatNet Project

- In News: Union Cabinet approved a Viability Gap Funding support of up to Rs.
 19,041 crore for implementation of the BharatNet project through Public-Private Partnership model.
 Viability Gap Funding means a grant provided to support infrastructure projects
- Viability Gap Funding means a grant provided to support infrastructure projects
 that are economically justified but fall short of financial viability BharatNet
 Project, by Ministry of Communications, is the world's largest rural broadband
 connectivity programme using Optical fibre.
- Implemented by: Bharat Broadband Network Ltd. (BBNL) Special purpose vehicle set up under Companies Act, 2013
- **Funding:** Entirely by Universal Service Obligation Fund (USOF) which is funded by 5% levy on Adjusted Gross Revenue of Telecos.
- **First Phase:** Provide one lakh gram panchayats with broadband connectivity by laying underground Optic Fibre Cable (OFC) lines by December 2017.
- **Second Phase:** Provide connectivity to all the gram panchayats using an optimal mix of underground fibre, radio and satellite media by Mar 2019.

National Optical Fibre Network (NOFN) launched in 2011 was renamed as Bharat Net Project in 2015

Third Phase: From 2019 to 2023, a state-of-the-art, future-proof network, including fibre between districts and blocks, with ring topology to provide redundancy would be created. The revised strategy will include creation, upgrading, operation, maintenance and utilisation of BharatNet by private sector partner, who will be selected by a competitive international bidding process. The selected private sector partner is expected to provide reliable, high speed broadband services as per predefined Services Level Agreement (SLA) Revamped In News: Cabinet Committee on Economic Affairs has approved a Reforms-based **Distribution Sector** and Results-linked, Revamped Distribution Sector Scheme worth Rs. 3.03 trillion Scheme wherein the Centre's share will be Rs. 97,631 crore. Aim: To improve the operational efficiencies and financial sustainability of discoms (excluding Private Sector DISCOMs). It will provide **conditional financial assistance** to strengthen the supply infrastructure of discoms. ✓ Conditions include smart metering system, feeder segregation, modernisation of distribution, strengthening rural areas network. Goals: Reducing AT&C losses to pan-India levels of 12-15% + Reduction of costrevenue gap to zero by 2024-25. Nodal Agency: Rural Electrification Corporation and Power Finance Corporation. All the existing power sector reforms schemes such as Integrated Power Development Scheme, Deen Dayal Upadhyaya Gram Jyoti Yojana, and Pradhan Mantri Sahaj Bijli Har Ghar Yojana will be merged into this umbrella program. It would be based on the action plan worked out for each state rather than a 'one-size-fits-all' approach. **Project BOLD: KVIC** In News: Khadi and Village Industries Commission (KVIC) launched a project named Bamboo Oasis on Lands in Drought (BOLD) from Rajasthan. ✓ KVIC is a statutory body established under 1956 Act under overall guidance of Ministry of MSME The project seeks to create bamboo-based green patches in arid and semi-arid land zones. **Reason for Selecting Bamboo:** It grows very fast and in about three years' time, they could be harvested. It is also known for conserving water and reducing evaporation of water from the land surface, useful in arid and drought-prone regions. Significance: Reduce desertification + provide livelihood and multi-disciplinary rural industry support + sustainable development + food security Andhra Pradesh-Andhra Pradesh has complained to the Krishna River Management Board (KRMB) **Telangana Water** that Telangana is drawing Krishna river water from the Srisailam, Nagarjuna Sagar **Dispute** and Pulichintala projects for hydel power generation without obtaining clearances from KRMB Also, AP says that the power generation at Srisailam, when the storage is well below the minimum draw down level, would badly affect flows to the AP and Telangana Rayalaseema Lift Irrigation Scheme (RLIS). are supposed to ✓ AP's RLIS (objected by Telangana for lack of approval) plans to lift 3 tmc ft share Krishna river water daily from the Srisailam reservoir to meet the requirements of the water in 66:34 ratio Rayalaseema region of AP State. as per the allocation AP CM says, the unauthorised drawing of water from the above projects resulted made on an ad in the wastage of precious water as it flowed into Bay of Bengal. hoc basis by the Telangana wants to utilize Krishna water in the above projects for generating power to operate pumping stations for Kaleswaran Lift Irrigation Project (KLIP)

Krishna Water ✓ KLIP is world's largest multi-purpose irrigation project on the **Godavari** Disputes Tribunal-1 **River** in Kaleshwaram, Bhoopalpally, Telangana. Both states have proposed several new projects without getting clearance from KRMB, the Central Water Commission and the Apex Council. Apex Council mandated by AP Reorganisation Act, 2014 comprises of Union Water Resources Minister + CM of Telangana + CM of AP. New Ministry of Co-Created for realizing the vision of 'Sahkar se Samriddhi' (Prosperity through **operation** Created Cooperation) and to give a **new push to the cooperative movement.** by Union It will provide a focused administrative, legal and policy framework for Government strengthening the cooperative movement in the country. It will work to streamline processes for 'Ease of doing business' for co-operatives and enable development of Multi-State Co-operatives (MSCS). A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Enactment of the Cooperative Credit Societies Act, 1904 gave Cooperative a definite structure and shape. 1919 - Montague-Chelmsford Reform, cooperation becomes provincial (State) subject. Categorization continued in Constitution of India. 1942, British enacted the Multi-Unit Cooperative Societies Act to cover Cooperative Societies with membership from more than one province. National Cooperative Development Corporation (NCDC) was set up as statutory corporation in 1962 The Constitution (97th Amendment) Act, 2011 made following changes New Part IXB regarding the cooperatives working in India added. (Part IXA deals with Municipals) ✓ In Art. 19(1)(c) the word "cooperatives" was added after "unions and associations". This enables all the citizens to form cooperatives by giving it the status of fundamental right of citizens. ✓ A new Article 43B was added in the Directive Principles of State Policy (Part IV) regarding the "promotion of cooperative societies Tele-Law In News: Justice Department commemorated the milestone of crossing 9 lakh beneficiaries under its Tele-Law programme through Common Service Centres (CSC) ✓ Common Services Centre (CSC) programme is an initiative of the Ministry of Electronics & IT (MeitY), that serves as the access points for delivery of various electronic services to villages in India Tele-Law means the use of technology for the delivery of legal information and advice through expert panel of lawyers placed at CSCs & Legal Service Authority. Tele-Law was launched by the Ministry of Law and Justice in collaboration with the MeitY in 2017 to address cases at the pre-litigation stage. Under this programme, smart technology of video conferencing, telephone/instant calling facilities are available at the vast network of CSC. The service is **free** for those who are eligible for free legal Aid as mentioned under Section 12 of the Legal Services Authority Act, 1987. For all others a nominal fee is charged. It is presently operating in 633 districts (including 115 Aspirational Districts) across 34 States/UTs through a network of 50,000 CSCs. **Significance**: Access to justice for weaker & vulnerable sections of society Nyaya Bandhu (Pro Bono Legal Services) Mobile Application:

Integrated Child Development Scheme (ICDS)	Supplementary Nutrition under ICDS in Jharkhand even once in the first six				
	Services Scheme:	 Beneficiaries: Children in the age group of 0-6 years, pregnant women and lactating mothers It provides a package of six services namely supplementary nutrition, pre-school non-formal education, nutrition & health education, immunization, health check-up and referral services. Supplementary Nutrition includes Take Home Ration (THR), Hot Cooked Meal and morning snacks 			
	PM Matru Vandana Yojana: National	 It is a centrally sponsored conditional cash transfer scheme Rs.5,000/- is paid in three installments directly to the Bank/Post Office Account of Pregnant Women and Lactating Mother in DBT (Direct Benefit Transfer) Mode upon fulfilling certain conditions It provides day care facilities to children of age group of 6 months 			
	Creche Scheme:	 to 6 years of working women. The facilities are provided for seven and half hours a day for 26 days in a month. Children are provided with supplementary nutrition, early childcare education, and health and sleeping facilities. 			
	Scheme for Adolescent Girls:	 It aims at out of school girls in the age group 11-14, to empower and improve their social status through nutrition, life skills and home skills. The scheme has nutritional and non-nutritional components which include nutrition; iron and folic acid supplementation; health check-up and referral service; skill training; life skill education, home management; counselling on accessing public services. 			
	Child Protection Scheme:	 It aims to contribute to the improvement and well-being of children in difficult circumstances, as well as, reduction of vulnerabilities to situations and actions that lead to abuse, neglect, exploitation, abandonment & separation of children from parents. 			
	POSHAN Abhiyaan:	 It targets to reduce the level of stunting, under-nutrition, anemia and low birth weight babies by reducing mal-nutrition, anemia among young children as also, focus on adolescent girls, pregnant women and lactating mothers. 			
Matsya Setu App		d by: ICAR-Central Institute of Freshwater Aquaculture, Bhubaneswar, unding support of National Fisheries Development Board, Hyderabad.			

Aim: To disseminate the latest freshwater aquaculture technologies to the aqua farmers that will enhance their productivity and in turn, their incomes. Species-wise/subject-wise self-learning online course modules will be provided through the app e-Certificate will be issues upon completion of the course Aquaculture is breeding, raising, and harvesting fish, shellfish, and aquatic plants. India is the **second-largest fish producer** (7.7% of global fish production) and **4**th largest exporter of fish in the world. (China is the largest producer of fish) Kongu Nadu In News: An official list of new Union Cabinet ministers issued by the BJP mentioned that Tamil Nadu leader L Murugan hailed from "Kongu Nadu", which led to debate over the use of such phrase 'Kongu Nadu' is neither a place with a PIN code nor a name given formally to any region. It is a commonly used informal name for part of western Tamil Nadu. The name derives from Kongu Vellala Gounder, an OBC community with a significant presence in the districts of Western Tamil Nadu The region includes prominent businesses and industrial hubs at Namakkal, Salem, Tirupur and Coimbatore. There were mentions of 'Kongu Nadu' in Sangam literature as a separate territory. • The Ministry of Heavy Industries and Public Enterprises will now be called the Department of **Public Enterprises** Ministry of Heavy Industries. (DPE) o DPE will now be the sixth department in the finance ministry besides economic affairs, revenue, expenditure, financial services and Department of Investment In News: and Public Asset Management (DIPAM). **About DPE** Government reallocated the DPE It is the nodal department for all the Central Public Sector Enterprises (CPSEs) from Ministry of CPSEs are those companies in which the direct holding of the Union Heavy Industries to Government or other CPSEs is 51% or more. **Finance Ministry** It lays down policy guidelines on performance improvement and evaluation, autonomy and financial delegation and personnel management in CPSEs. The shift of DPE to the Finance Ministry will help in efficient monitoring of the capital expenditure, asset monetisation and financial health of the CPSEs. **Evolution of DPE** o In their report, the Estimates Committee of 3rd Lok Sabha (1962-67) stressed the need for setting up a centralized coordinating unit, which could also make continuous appraisal of the performance of public enterprises. Which led to the setting up of the Bureau of Public Enterprises (BPE) in 1965 in the Ministry of Finance. o In 1985, BPE was made part of the Ministry of Industry. In May, 1990, BPE was made a full-fledged Department known as the DPE **SPARSH: System for** SPARSH is an integrated system for automation of sanction and disbursement of Pension defence pension. Administration This web-based system processes pension claims and credits pension directly Raksha into the bank accounts of defence pensioners without relying on any external intermediary. **In News:** Ministry of A Pensioner Portal is available for pensioners to view their pension related

information, access services and register complaints, if any.

SPARSH envisages establishment of Service Centres to provide last mile

connectivity to pensioners who may be unable to directly access the SPARSH

Defence has

implemented

portal.

SPARSH

The two largest banks dealing with defence pensioners – State Bank of India (SBI) and Punjab National Bank (PNB) – have been co-opted as Service Centres. **Jal Jeevan Mission** JJM aims to provide safe and adequate drinking water through individual (JJM) household tap connections by 2024 to all households in rural India. It envisages supply of 55 litres of water per person per day to every rural In News: Union household through Functional Household Tap Connections (FHTC) by 2024. grant to Odisha It also includes functional tap connection to Schools, Anganwadi centres, GP under the Jal Jeevan buildings, Health centres, wellness centres and community buildings Mission in the year The programme will also implement source sustainability measures as 2021-22 has been mandatory elements, such as recharge and reuse through grey water increased to Rs. management, water conservation, rain water harvesting. 3,324.3 Crore. JJM focuses on integrated demand and supply-side management of water at the local level. The Mission is based on a community approach to water. It looks to create a jan andolan for water, thereby making it everyone's priority. It promotes and ensure voluntary ownership among local community by way of contribution in cash, kind and/ or labour and voluntary labour. Parent Ministry: Ministry of Jal Shakti The fund sharing pattern between the **Centre and states** is 90:10 for Himalayan and North-Eastern States, 50:50 for other states, and 100% for UTs Four-tier implementation & monitoring of the scheme at National, State, District & village level. Wherever necessary, bulk water transfer, treatment plants and distribution network to cater to every rural household Technological interventions for removal of contaminants where water quality is an issue It also includes **support activities**, i.e. Information Education & Communication (awareness of water conservation), Human Resource training, development of utilities, water quality laboratories, water quality testing & surveillance, R&D, knowledge centre, capacity building of communities, etc. **National Green** In news: The Madras High Court disapproved 2017 Central notification, which Tribunal (NGT) termed the NGT's North Zone bench in Delhi as a principal bench. It added that if a procedure of transferring cases to Delhi is adopted, it will amount to denied access to justice. It observed that all five zonal benches of the NGT are equally powerful and their orders are applicable across India The zonal benches are Central zone – Bhopal, East zone – Kolkata, South Zone – Chennai, West Zone – Pune and North Zone – New Delhi NGT is a statutory body established in 2010, as per the NGT Act. It is a **specialised judicial body** equipped with expertise solely for the purpose of adjudicating environmental cases in the country. Agricultural and In news: APEDA signed Memorandum of Understanding (MoU) with NAFED **Processed Food Objective of the MoU:** For harnessing exports potential of agricultural and **Products Export** processed food products of cooperatives & Farmer Producer Organizations(FPO) **Development** The key areas of cooperation include facilitating APEDA registered exporters **Authority (APEDA)** getting assistance under all the schemes implemented through NAFED. The MoU shall ensure sustainability and growth of exports by Cooperatives by and addressing issues such as technology, skill, quality products and market access. **About APEDA**

National Agricultural Cooperative Marketing Federation of India Ltd (NAFED).

- It is an apex body under the Union Ministry of Commerce and Industry responsible for the export promotion of agricultural products.
 - It was established under the APEDA Act of 1985.

Functions

- o Promotion of exports of agricultural and processed food products.
- Promotion of export oriented production and development of the Scheduled products.
- To make Improvement in areas such as packaging
- Setting standards and specifications for the scheduled products
- o Financial assistance, reliefs and subsidies to the related industries.
- o Provide training in the related areas

About NAFED

- Apex organization of marketing cooperatives for agricultural produce in India.
- It was founded on 2nd October 1958.
- It is registered under the Multi-State Co-operative Societies Act, 2002.
- NAFED is now one of the largest procurement as well as marketing agencies for agricultural products in India.

Objectives:

- (1) To organize, promote and develop marketing, processing and storage of agricultural, horticultural and forest produce;
- o (2) To distribute agricultural machinery, implements and other inputs;
- o (3) To act and assist for technical advice in agricultural production

Ladakh Autonomous Hill Development Council (LAHDC), Leh

In News: NTPC has

signed MoUwith UT

of Ladakh & LAHDC

to set up India's first

Green Mobility

Project.

- LAHDC, Leh is an autonomous district council that administers the Leh district of Ladakh.
 The council was created under the LADHC Act of 1995.
- LAHDC-Leh has a total of 30 seats and four councillors are nominated by the government.

• The executive arm of the council consists of an executive committee composed of a Chief Executive Councillor and four other executive councillors.

- The autonomous hill council work with village panchayats to take decisions on economic development, healthcare, education, land use, taxation, and local governance which are further reviewed at the block headquarters in the presence of the chief executive councillor and executive councillors.
- The administration of UT of Ladakh looks after law and order, communications and the higher education in the districts.
- The democratic constitution of the Council has heralded democratic decentralization of planning process with the involvement of local people.

Do You Know?

- Leh, which is a Buddhist-dominated district of Ladakh, has demanded the implementation of the sixth schedule for the Union territory to guard against demographic change and dilution of the unique cultural and tribal identity.
- An Autonomous Hill Council has also been established in neighboring Kargil District. The Hill Council in Kargil came in to existence in July 2003.

Supreme Court Upheld Authority of Delhi's Peace and Harmony Committee

- The Peace and Harmony Committee (PHC) was constituted by the Delhi Legislative Assembly to probe the **Delhi riots of February 2020**
- It had issued summons to Facebook representatives for questioning over the role played by the social media platform in the 2020 Delhi riots.

7

Case: Ajit Mohan v. Legislative Assembly, National Capital Territory of Delhi

- Central Government and Facebook challenged PHC & summons on the grounds the formation of the PHC was not within the authority of the Delhi Assembly as law and order and police of Delhi is a Union subject
- Delhi Legislative Assembly defended constitution of PHC by citing
 - Entry 1 in the state list dealing with public order, which is distinct from law and order and Entry 1 in concurrent list which gives sweeping power to state assemblies to legislate on the subject 'criminal law'.
 - Entry 39 in the state list that gave assemblies power to enforce the attendance of witnesses for the purpose of recording statements was also relied upon.
- Supreme Court ruled in favour of Delhi & upheld authority of PHC
 - SC rejected the simplistic approach adopted by Facebook that it is merely a
 platform posting third-party information and has no role in generating,
 controlling or modulating that information.
 - However, Facebook representatives appearing before the Committee need not answer any query from PHC directly regarding law, order and the police, which are subjects on which the Delhi Assembly cannot legislate.

66(A) of IT Act &

Shreya Singhal Judgement

In News: Union Home Ministry has asked the States and UT to withdraw immediately the cases registered under the repealed Section 66A of IT Act, 2000

- Recently, The Supreme Court (SC) has expressed shock that the provision was still being used to book people, though SC held it as unconstitutional and a violation of free speech in the Shreya Singhal judgment, 2015
- Section 66(A) of the Information Technology Act criminalizes the sending of offensive messages through a computer or other communication device.
- Section 66A gives arbitrary powers to the police to make arrests for any
 "offensive" message an entirely subjective term. This has the potential for
 being abused by authorities for curbing dissent
- Over the few years, incidents related to comments, sharing of information, or thoughts expressed by an individual on the Internet attracted criminal penalties under Section 66(A) of IT Act, 2000 as they were considered "offensive"
- In Shreya Singhal v. Union of India case, 2015 the entire provision was struck down by Supreme Court, which is considered a watershed moment for online free speech in India.
- The judgment had found that Section 66A was contrary to both **Articles 19** (free speech) and **Article 21** (right to life) of the Constitution.
- Describing the law as "vague in its entirety," the Supreme Court said, it encroaches upon the public's right to know.

School Innovation Ambassador Training Program (SIATP)

- In news: Union Education Minister and Tribal Affairs Minister jointly launched the 'School Innovation Ambassador Training Program' for 50,000 School Teachers.
- Aim: Training 50,000 school teachers on Innovation, Entrepreneurship, IPR, Design Thinking, Product development, Idea generation etc.
- The training will be delivered in online mode only.
- Designed by: Innovation Cell of the Ministry of Education and AICTE
- The All India Council for Technical Education (AICTE) is a statutory body
 established by AICTE Act, 1987 for proper planning and co-ordinated
 development of a technical education system throughout the country and
 regulation & proper maintenance of norms and standards in the technical
 education system

G. Rohini Commission to examine the issue of Subcategorization

In news: Cabinet approves Extension of term of the commission, headed by G. Rohini, constituted under Article 340 of the constitution to examine the issue of Sub-categorization within other Backward Classes in the Central List.

- Sub categorization of the OBCs will ensure that the more backward among the OBC communities can also access the benefits of reservation for educational institutions and government jobs.
- At present, there is no sub-categorisation and 27% reservation is a monolithic entity.
- National Commission for Backward Classes (NCBC) proposed the subcategorisation of Other Backward Classes (OBCs) back in 2015

Article 340

- It lays down conditions for the appointment of a Commission to investigate the conditions of the backward classes.
- The President may by order appoint a Commission consisting of such persons as he thinks fit to investigate the conditions of socially and educationally backward classes within the territory of India.

About NCBC

- In **Indra Sawhney case of 1992**, SC had directed the govt. to create a permanent body to entertain, examine and recommend the inclusion and exclusion of various Backward Classes for the purpose of benefits and protection.
- In pursuant to these directions parliament passed NCBC Act in 1993 and constituted the NCBC (statutory body under the Ministry of Social Justice and Empowerment)
- **102nd Constitution Amendment Act, 2018** provided constitutional status to NCBC. The amendment act also inserted new Articles 338 B and 342 A.
 - Article 338B provides authority to NCBC to examine complaints and welfare measures regarding socially and educationally backward classes.
 - Article 342A empowers President to specify socially and educationally backward classes in various states and union territories. He can do this in consultation with Governor of concerned State. However, law enacted by Parliament will be required if list of backward classes is to be amended.

Digital Platform Kisan Sarathi

- In news: In order to facilitate farmers to get 'right information at right time' in their desired language, a digital platform 'Kisan Sarathi' was recently launched.
- Launched by: Ministry of Agriculture and Farmers Welfare and Ministry of Electronics and Information Technology
- It shall empower farmers with technological interventions to reach farmers in remote areas.
- The farmers can interact and avail personalised advisories on agriculture and allied areas directly from the respective scientists of Krishi Vigyan Kendra (KVKs).
- It will be highly valuable not only in addressing the location specific information needs of the farmers but also in Agricultural Extension, Education and Research activities of Indian Council of Agricultural Research (ICAR)

Development of Infrastructure Facilities for Judiciary (DIFJ)

- In news: The Union Government has approved continuation of the **Centrally Sponsored Scheme (CSS)** of DIFJ for further five years to 2026.
- The entire cost of the scheme will be Rs 9000 crore out of which the Centre will contribute Rs 5357 crore including Rs 50 crore for the implementation of the Gram Nyayalayas Scheme as a part of the National Mission for Justice Delivery and Legal Reforms.
- DIFJ has been in operation since 1993-94.

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Gram Nyayalayas

- The Central Government through this scheme augments the resources of the State Governments for construction of court buildings and residential quarters for Judicial Officers (JO) in all the States / UTs.
 - The upgraded "Nyaya Vikas-2.0" web portal and mobile application is used for monitoring physical and financial progress of CSS judicial infrastructure projects by geo-tagging completed and ongoing projects.

Gram Nyayalays (GM)

- These village courts are established under the **Gram Nyayalayas Act, 2008** for speedy and easy access to the justice system in the rural areas of India.
- A Gram Nyayalaya has jurisdiction over an area specified by a notification by the State Government in consultation with the respective High Court.
- The Court can function as a mobile court at any place within the jurisdiction of such Gram Nyayalaya, after giving wide publicity to that regard.
- They have both civil and criminal jurisdictions over the offences.
- Appeals to Sessions Court in Criminal matters and to District Court in Civil matters
- Pecuniary jurisdiction of the Nyayalayas -fixed by respective High Courts.
- GM are presided over by a Nyayadhikari, who will have the same power, enjoy same salary and benefits of a Judicial Magistrate of First Class.
- Such Nyayadhikari are to be appointed by the State Government in consultation with the respective High Court
- Civil suits are proceeded on a day-to-day basis, with limited adjournments and are to be disposed of within a period of six months from the date of institution of the suit.
- In execution of a decree, the Court can allow special procedures following rules of natural justice.
- Gram Nyayalayas allow **for conciliation of the dispute and settlement** of the same in the first instance.
- Gram Nyayalayas has been given **power to accept certain evidences** which would otherwise not be acceptable under Indian Evidence Act.
- The **Gram Nyayalaya Portal** helps online monitoring of working of the Gram Nyayalayas by the implementing states.
- However, the Act has not been enforced properly, with only 208 functional GM in the country (Sept. 2019) against a target of 5000 such courts.
- The major reasons behind the non-enforcement include financial constraints, reluctance of lawyers, police and other government officials.

Unique initiatives under Pradhan Mantri Awas Yojana – Urban (PMAY-U)

In news: Pradhan Mantri Awas Yojana – Urban (PMAY-U), one of the world's largest affordable housing Missions, has launched two unique initiatives.

- It has launched Khushiyon Ka Aashiyana- Short Film contest 2021 and Awas Par Samvaad which is a series of 75 seminars and workshops, to take ahead the Prime Minister's vision of 'Housing for All'.
- 'Awas Par Samvaad' aims to create awareness and promote discussion, deliberation and dissemination on 'Housing for All'among multiple stakeholders belonging to varied streams of learning and practices, e.g. engineering, urban community development, planning, finance, etc.

About Pradhan Mantri Awas Yojana – Urban (PMAY-U)

- Aim: Launched in 2015 to provide housing for all in urban areas by year 2022.
- Implemented by:Ministry of Housing and Urban Affairs
- Features:

- Addresses Urban housing shortage among the Urban Poor including the Slum Dwellers by ensuring a pucca house to eligible urban poor.
- o All houses under PMAY(U) have basic amenities like toilet, water supply, electricity and kitchen.
- o It promotes women empowerment by providing the ownership of houses in the name of female members or in joint name.
- Preference is also given to differently abled persons, senior citizens, SCs, STs, OBCs, Minority, single women, transgender and other weaker & vulnerable sections of the society.

It is Divided into Four Verticals:

- o In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation.
- Credit Linked Subsidy.
- Affordable Housing in Partnership.
- Beneficiary-led individual house construction/enhancement.

Emigration Bill 2021

Emigration Bill, 2021

In News: The

will replace the

Act of 1983

extant Emigration

proposed

Key Features of the Bill

- It seeks to provide a regulatory mechanism to govern overseas employment of Indian nationals, and protect and promote the welfare of Indian emigrants.
- It defines emigrants as Indian citizens who seek to or have departed out of India for employment.
- **Authorities**: The draft Bill seeks to create two authorities: (i) the Bureau of Emigration Policy and Planning (BEPP), and (ii) the Bureau of Emigration Administration (BEA).
- The functions of BEPP will consist of preparing policies on matters related to welfare of emigrants; negotiating labour and social security agreements with destination countries.
- The functions of BEA will consist of maintaining a database of Indian emigrants, and implementing measures and programmes for welfare of emigrants.
- Nodal committees in states and union territories (UTs): Their functions include: (i) initiating action to prosecute entities involved in trafficking of persons, and (ii) undertaking pre-departure orientation programmes and skill upgradation programmes for prospective emigrants.
- **Human resources agencies:** These are agencies engaged in recruitment for an employer. These agencies must be registered by a competent authority. The certificate of registration will be valid for five years and may be cancelled on various grounds. Appeal against decisions of the competent authority with regard to registration of these agencies will lie with the central government
- **Accreditation of employers**: Any employer who intends to recruit an emigrant must apply for accreditation with the competent authority. Such accreditation will be valid for a period of five years.

Conjugal rights before Supreme Court

In News: SC is going to hear fresh challenge to the Conjugal Rights provided under **Hindu Personal Laws**

- Conjugal rights are **rights created by marriage**, i.e. right of the husband or the wife to the society of the other spouse.
- In simple words, it means right to stay together
- The law recognises these rights—both in personal laws dealing with marriage, divorce etc, and in criminal law requiring payment of maintenance and alimony to a spouse.
- British Origin: The British law treated wives as their husband's personal **possession** hence they were not allowed to leave their husbands.
- Hindu Marriage Act, 1955 (Section 9) says If either the husband or the wife, without reasonable excuses, withdraws from the society of the other (stays

(Hindu Marriage Act, 1955)

It is being challenged now on the grounds that it violates fundamental Right to Privacy

- **away from spouse**), the aggrieved party may approach the Court for restitution of conjugal rights.
- The decree of restitution of conjugal rights will be actioned according to the Civil Procedure Code, 1908. The aggrieved party can approach the High Court challenging the lower court's decision.
- During this period whether the wife can ask for maintenance, under Section 25 of Hindu Marriage Act.
- This decree, if not obeyed, the court will attach the judgment-debtor's properties.
- The aid of Restitution of Conjugal Rights necessities both marriage parties to live together and cohabit.
- But this measure has also been misused many times, disturbing the Right to Life,
 Right to Privacy and the Right to Equality
- In 1984, the SC had upheld Section 9 of the Hindu Marriage Act in the case of *Saroj Rani v Sudarshan Kumar Chadha*, holding that the provision serves a social purpose as an aid to the prevention of break-up of marriage.

Debate on Conjugal Rights.

- Marriage in India Sacred Union & not Social Contract (West). Therefore, in the interest of Society, State can interfere to preserve marriages.
- However, other say that there is no meaning in forcing the other party to stay with the aggrieved party as they are not at all interested.
- In the recent judgement of Joseph Shine v Union of India 2019, the SC has put great emphasis on the right to privacy and bodily autonomy of married women, stating that marriage does not take away their sexual freedom nor choice.
- If everybody is entitled to their bodily autonomy, choice, and right to privacy, how can a court mandate two adults to cohabit if one of them does not wish to do so. Hence, Conjugal rights is being challenged freshly in SC.

New Commission for Air Quality Management

• In news The Ministry of Environment, Forests and Climate Change (MoEFCC) is set to table the Commission for Air Quality Management in the National Capital Region and Adjoining Areas Bill, 2021 in Parliament during the Monsoon Session.

About the Bill

- It provides for the constitution of a Commission for better coordination, research, identification, and resolution of problems related to air quality in the National Capital Region (NCR) and adjoining areas.
- Adjoining areas have been defined as areas in the states of Haryana, Punjab, Rajasthan, and Uttar Pradesh adjoining the NCR where any source of pollution may cause adverse impact on air quality in the NCR.
- It also dissolves the Environment Pollution Prevention and Control Authority established in the NCR in 1998.
- **Composition**: It will be headed by a full-time chairperson who has been a Secretary to the Government of India, or a Chief Secretary to a State government. The chairperson will hold the post for three years or until s/he attains the age of 70 years.
- It will have members from several Ministries as well as representatives from the stakeholder States.
- It will have experts from the Central Pollution Control Board (CPCB), Indian Space Research Organisation (ISRO) and Civil Society.

Functions

 Coordinating actions taken by concerned state governments (Delhi, Haryana, Punjab, Rajasthan, and Uttar Pradesh).

- Planning and executing plans to prevent and control air pollution in the NCR.
 - Providing a framework for identification of air pollutants.
 - Conducting research and development through networking with technical institutions.
 - Training and creating a special workforce to deal with issues related to air pollution.
 - Preparing various action plans such as increasing plantation and addressing stubble burning.

Powers:

- The new body will have the power to issue directions and entertain complaints as it deems necessary for the purpose of protecting and improving the quality of the air in the NCR and adjoining areas.
- It will also lay down parameters for control of air pollution (such as permissible levels of emissions and discharge of pollutants).
- It will also be in charge of identifying violators, monitoring factories and industries and any other polluting unit in the region, and will have the powers to shut down such units.
- It will also have the powers to overrule directives issued by the state governments in the region, that may be in violation of pollution norms

National Digital Education Architecture (NDEAR)

- The Education Ministry announced setting up a National Digital Education
 Architecture (NDEAR) to promote a "digital first" approach, support teaching and
 learning activities, and facilitate educational planning as well as governance and
 administrative activities.
- NDEAR will help in building up a new education ecosystem that will create a digital foundation leading to self-governance of all parties involved, particularly states and the Centre.
- The policy lets educationists do evaluation based on talents and abilities, helping students understand their area of specialties that can be utilised in their future profession.

97th Constitutional Amendment Act, 2011

- In News: The Supreme Court on Tuesday struck down certain provisions of the Constitution (97th Amendment) Act, 2011
- Gujarat High Court in 2013 had struck down certain provisions of the 97th CAA by reasoning that Parliament cannot enact laws with regard to cooperative societies as it is a State subject. This was appealed by Centre in Supreme Court.

The Constitution (97th Amendment) Act, 2011 made following changes

- New Part IXB regarding the cooperatives working in India added
- Part IXB dictated the terms for running co-operative societies like the number of directors a society should have or their length of tenure and even the necessary expertise required to become a member of the society.
- In Art. 19(1)(c) the word "cooperatives" was added after "unions and associations". This enables all the citizens to form cooperatives by giving it the status of fundamental right of citizens.
- A new **Article 43B** was added in the Directive Principles of State Policy (Part IV) regarding the "promotion of cooperative societies"

Key Takeaways of SC Judgement

- Upheld the validity of the 97th constitutional amendment
 - However, dissenting judgement by Justice Nariman struck down the entire 97th CAA.
- Struck down part of Part IXB which dealt with cooperative societies confined to states. Court held that co-operative societies come under the "exclusive"

legislative power" of State legislatures and Centre can't shrink State's exclusive authority. However, Part IXB of the Constitution is operative only in so far as it concerns multi-State co-operative societies. This is because Multi-State Cooperatives comes under Union List. The court also took exception to the fact that the 97th Constitutional Amendment was passed without ratification from the States. **Significance of the Verdict** It allays States' fears that new Union Ministry of Cooperation would have disempowered them. Judgement reiterates State's exclusive legislative power over cooperatives within their territories. SMILE Scheme **Ministry of Social Justice and Empowerment** It is a new Scheme after the merger of existing Schemes for Beggars and **SMILE = Support for** Transgenders. Marginalized Scheme provides for the use of the existing shelter homes available with the **Individuals for** State/UT Governments and Urban local bodies for rehabilitation of the persons Livelihood and engaged in the act of Begging. **Enterprise Focus**: Rehabilitation, provision of medical facilities, counselling, education, skill development, economic linkages and so on. Implementation: It will be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations. Do You Know? According to the Census 2011, total number of beggars in India is 4,13,670 and the number has increased from the last census. Recently, SC has agreed to examine a plea for decriminalising begging which has been made an offence in various states under Prevention of Begging Act. **Honey Mission Features of the Programme Programme** Launched by Khadi and Village Industries Commission (KVIC) ✓ KVIC – statutory body established by KVIC, 1956 Act, Under Ministry of MSME Honey Mission is being implemented to promote Bee Keeping activities and provide self-sustaining employment opportunities among farmers, Adivasies and unemployed youth in rural India. Under the programme, beneficiaries are provided with Bee Boxes, live bee colonies, tool kits and training. Also, Under <u>Scheme of Fund for Regeneration of Traditional Industries'</u> (SFURTI) implemented by the Ministry of MSME, traditional beekeepers are provided with sustainable employment by organizing them into clusters, and supporting them with new machinery and training. 29 Honey clusters have been approved under the scheme which will benefit 13388 beekeepers with Government of India financial assistance of Rs.68.65 It is also proposed to form 08 Self Help Groups benefitting 80 beekeepers in the Bundelkhand Region in the financial year 2021-22 **Adarsh Smarak** Launched in 2014 for providing **improved visitor amenities**, especially for the Scheme physically challenged. • Implemented by the **Ministry of Culture.** Augmentation of civic amenities at the protected sites - facilities like toilets, drinking water, wi-fi services, cafeteria, interpretation centre, brail signage, etc. **Objectives of the Scheme**

To make the monument visitor friendly.

- To provide interpretation and audio-video centers.
- To make the monument accessible to differently-abled people.
- To implement Swachh Bharat Abhiyan.

Garib Nawaz Employment Scheme

In News: Recently, the Union Minister for Minority Affairs replied in the Parliament that a total number of 371 training centers under this Scheme were opened across the country

- The scheme was launched by the Ministry of Minority Affairs in 2017.
- Maulana Azad Education Foundation, an autonomous body under the aegis of Ministry of Minority Affairs, implements the Scheme.
- The main aim of this scheme is to provide short term job oriented skill development courses to minorities' youth in order to enable them for skill based employment.
- This scheme is implemented as per common norms of the Ministry of Skill Development & Entrepreneurship (MSD&E) through the empaneled Program Implementation Agencies (PIAs).
- The PIA is mandated to place minimum 70% trainees out of total trained trainees.
- The monthly stipend for maximum of three months and post placement support for maximum of two months after getting employment are also being paid to the beneficiaries directly into their account.

HC upholds CCI probe against Flipkart, Amazon

• In news E-commerce majors Amazon and Flipkart recently lost their legal battle in the High Court of Karnataka, as a division bench upheld the CCI's decision to conduct an investigation into whether they had entered into anti-competitive agreements in violation of the provisions of the Competition Act, 2002.

About Competition Commission of India (CCI)

- It is a statutory body established in 2003 and became fully functional in 2009.
- It is responsible for enforcing The Competition Act, 2002 throughout India.
- The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises.
- The Act regulates combinations (acquisition, acquiring of control and Merger and acquisition), which causes or likely to cause an appreciable adverse effect on competition within India.
- Composition: CCI consists of a Chairperson and 6 Members appointed by the Central Government.
- Eligibility: Person should be qualified to be a judge of a High Court, or, has special knowledge of, and professional experience of not less than fifteen years in international trade, economics, commerce, law, finance.
- Functions: It is the duty of the Commission to:
 - ✓ eliminate practices having adverse effect on competition
 - ✓ promote and sustain competition.
 - ✓ protect the interests of consumers.
 - ✓ ensure freedom of trade in the markets of India.

Rashtriya Gram Swaraj Abhiyan

In News: The restructured Centrally Sponsored Scheme of Rashtriya Gram Swaraj Abhiyan is being implemented with

- Primary aim: Strengthening of Panchayati Raj Institutions for achieving SDGs
- Main thrust: Convergence with Mission Antyodaya and emphasis on strengthening Panchayati Raj Institutions in 117 Aspirational districts.
- It is an effort in the direction of achieving "Sabka Sath, Sabka Gaon, Sabka Vikas".
- The RGSA helps more than 2.55 lakh Panchayati Raj Institutions (PRIs) to develop governance capabilities through inclusive local governance with focus on optimum utilisation of available resources.
- Priority will be given to subjects of national importance that affect the excluded groups the most, e.g. poverty, health services, nutrition, immunization, etc.

effect from 2018-19 across all States/UTs

- This scheme extends to all States and UTs of the country and will also include institutions of rural local government in non-Part IX areas, where Panchayats do not exist.
- It will establish the institutional structure for capacity building of PRIs at the national, state and district level with adequate human resources and infrastructure.
- Panchayats will progressively be strengthened through incentivisation on the basis of nationally important criteria which will encourage competitive spirit among them.
- The funds are not released district-wise/Panchayat-wise under the scheme.
- Under the scheme of Rashtriya Gram Swaraj Abhiyan there is no provision for forming new Panchayats. Formation or reorganization of Panchayats is done by the respective States/ Union Territories as per their requirement.

North Eastern Space Applications Centre (NESAC)

- NESAC Society Meeting was recently held at NESAC, Shillong, Meghalaya
 - NESAC has released North Eastern Spatial Data Repository (NeSDR) with about 950 datasets. These datasets are related to infrastructure, land and water resources, disaster management support inputs.
 - All the States are to take advantage of these data sets by signing MoUs with NESAC for activities such as detecting encroachments, and epidemic planning.
- NESAC, a joint initiative of Department of Space (DOS) and the North Eastern Council (NEC) is a society registered under the Meghalaya Societies Registration Act, 1983.
- The Centre helps in augmenting the developmental process in the region by providing the advanced space technology support.
- The organisation can also provide the required strategic inputs for the entire region for its overall development and strategic planning.
- Union Home Minister is the President of the NESAC Society and also the Chairman of the North Eastern Council (NEC).
 - North Eastern Council is a statutory advisory body constituted under the North Eastern Council Act 1971
 - Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Sikkim (added in 2002)
 - HQ at Shillong, Meghalaya and functions under the Ministry of Development of North Eastern Region (DONER), GOI

National Institutes of Food Technology, Entrepreneurship and Management Bill, 2021

• Through the bill, the two educational institutes, under the Ministry of Food Processing Industries became **Institutions of National Importance (INI).**

- National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Kundali (Haryana)
- Indian Institute of Food Processing Technology, Thanjabur (Tamil Nadu)

In News: Parliament has passed this bill

About Institute of National Importance(INI)

- According to the Ministry of Education, an institute of national importance is an
 institute that "serves as a pivotal player in developing highly skilled personnel
 within the specified region of the country/state".
- The Central Government grants the status of 'Institute of National Importance' to premier higher educational institutions in India through an act of the Parliament.
- The first reference to 'institute of national importance' is given in the Constitution of India, **Seventh Schedule.**
- Currently, there are 130 institutions with the INI tag.

Some of the benefits that INIs enjoy are listed below:

- Functional autonomy to enhance efficiency, quality and accountability
- Increased funding.

- Have a better quality of education imparted, and improved research facilities.
- Faster decision-making capabilities.
- Minimal interference from the political executive.
- Such institutions might be able to provide more scholarships to the students.
- They can also provide more sports facilities, seminars, etc.

Essential Defence Services Bill

In news: The Essential Defence Services Bill was recently introduced by the Parliament.

Key features of the Bill

- It is meant to "provide for the maintenance of essential defence services so as to secure the security of nation and the life and property of public at large and for matters connected therewith or incidental thereto".
- The Bill empowers the government to declare services mentioned in it as essential defence services.
- It also prohibits strike and lockouts in "any industrial establishment or unit engaged in essential defence services"
- It is aimed at preventing the staff of the government-owned ordnance factories from going on a strike. It has a direct bearing on around 70,000 employees of the 41 ordnance factories around the country, who are unhappy with the corporatisation of OFB, fearing that it will impact their service and retirement conditions.

Corporatisation of Ordnance Factory Board

- The Ordnance Factory Board was directly under the Department of Defence Production and worked as an arm of the government. But, in June 2021 the government announced its corporatization.
- As per this plan, 41 factories ammunition and other equipment to the armed forces will become part of seven government owned corporate entities.
- The government has claimed that the move is aimed at improving the efficiency and accountability of these factories. However, many federations announced the launch of indefinite strikes.
- This was countered by the Essential Defence Services Ordinance which was promulgated on June 30, 2021.

No landless farmers in National Farmers Database

- The Central Government's new National Farmers Database will only include landowning farmers for now as it will be linked to digitised land records.
- A data policy is being prepared specifically for the agriculture sector in collaboration with the Ministry of Electronics and Information Technology
- The Government can make use of the database for targeted service delivery with higher efficiency.
- It is the first step for the initiative that would serve as the core of the Agristack
- AgriStack is a collection of technologies and digital databases that focuses on farmers and the agricultural sector.
- AgriStack will create a unified platform for farmers to provide them end to end services across the agriculture food value chain.
- It is in line with the Centre's Digital India programme, aimed at providing a broader push to digitise data in India, from land titles to medical records.
- Each farmer will have a unique digital identification (farmers' ID) that contains personal details,
- Each ID will be linked to the individual's digital national ID Aadhaar.
- Benefits
 - ✓ Problems such as inadequate access to credit and information, pest infestation, crop wastage, can be addressed by use of digital technology
 - ✓ It will increase innovation and investment towards the agricultural sector

Parliamentary Privileges

- In news: The Supreme Court recently held that lawmakers cannot indulge in criminal acts on the Parliament or Assembly floors and then take cover behind the right to free speech.
 - SC refused the Kerala government's plea to withdraw prosecution of top Left Democratic Front (LDF) leaders accused of vandalism and wanton destruction of public property on Assembly floor during a Budget speech in 2015.
 - The SC observed that Parliamentary privileges and immunities are not "gateways" for legislators to claim exemption from the law of the land, especially criminal law.

Parliamentary Privilege

- Parliamentary privilege refers to rights, immunities and exemptions enjoyed by Parliament as an institution and MPs in their individual capacity, without which they cannot discharge their functions as entrusted upon them by the Constitution.
- When any of these rights and immunities are disregarded, the offence is called a breach of privilege and is punishable under law of Parliament.
- A notice is moved in the form of a motion by any member of either House against those being held guilty of breach of privilege

Rules Governing Privilege

- Article 105 mentions two privileges freedom of speech in Parliament and right of publication of its proceedings.
- Rule No 222 in Chapter 20 of the Lok Sabha Rule Book and Rule 187 in Chapter 16 of the Rajya Sabha rulebook governs privilege.
- A member may, with the consent of the Speaker or the Chairperson, raise a
 question involving a breach of privilege either of a member or of the House.
- The rules mandate that any notice should be relating to an incident of recent occurrence and should need the intervention of the House.

Academic Credit Bank

- In News: The Academic Bank of Credit will be rolled out for students in over 290 top institutions from the current academic year 2021-22 onwards.
- Academic Bank of Credit is envisaged as a digital bank that holds the credit earned by a student in any course.
- It is a major instrument for facilitating multidisciplinary and holistic education and multiple entry and exit in higher education.
- All institutions in the top 100 of the National Institutional Ranking Framework as well as those who have achieved an A grade under the NAAC will be allowed to participate in the credit transfer system.
- It will be a bank for academic purposes, on the pattern of commercial banks for financial purposes, with students as academic account holders to whom it shall provide a variety of services including credit verification, credit accumulation, credit transfer or redemption and authentication of academic awards.

Tea Board

In News: The recent circular issued by Tea Board India has been criticised.

- The circular had directed manufacturers to comply with the order of mandatory sale of **50% of the total output through public auctions.**
- In 2001, the government repealed the mandatory routing of tea through auctions in line with the policy of economic liberalisation and free trade. However, this was again amended in 2015.
- According to the Tea Board, its order will make the auction system robust and bring stability to prices. However, it is objected by Tea growers on the grounds
 Tea auctions in India have a finite load- handling capacity.

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- Also, there is no guarantee that the manufacturers will get fair prices to cover even the cost of production.
- o Routing of teas through auction increases the transaction cost too.

About Tea Board

- It is a statutory body under the **Ministry of Commerce**.
- The Board is constituted of 31 members (including Chairman) drawn from Members of Parliament, tea producers, tea traders, tea brokers, consumers, and representatives of Governments from the principal tea producing states, and trade unions.
- The Board is reconstituted every three years.

Functions:

- Rendering financial and technical assistance for cultivation, manufacture and marketing of tea.
- Export promotion
- Research and Development activities
- Extend financial assistance in a limited way to the plantation workers and their wards through labour welfare schemes.
- Collection and maintenance of Statistical data and publication.

Factoring Regulation (Amendment) Bill 2020

In News: The Bill was recently passed by the Lok Sabha. The Bill seeks to widen the scope of entities that can engage in factoring business.

- Factoring is a transaction where an entity (like MSMEs) 'sells' its receivables (dues from a customer) to a third party (a 'factor' like a bank or NBFC) for immediate funds (partial or full).
- Currently, seven non-bank finance companies called NBFC factors do the majority
 of the factoring through the principal business condition
- Key Features of the bill
- **Objective**: The bill seeks to liberalize the participation of non-banking financial companies (NBFCs) in the factoring business.
- Removal of Threshold: The existing law on factoring business enacted in 2011 allowed RBI authorization for NBFCs to remain in factoring business only if it was their principal business, with more than half of their assets deployed and income earned from factoring business. This threshold has been removed => opportunity to more non-bank lenders
- Ease of Doing Business: It also removes the requirement of an entity in this business called factor to report every transaction within 30 days.
- It widens the scope of financiers and to permit other non-banking finance companies also to undertake factoring business and participate on the Trade Receivables Discounting System platform for discounting the invoices of micro, small and medium enterprises.

Significance of the Bill

- Increased number of players is expected to increase the supply of funds available to small businesses.
- This may result in bringing down the cost of funds and enable greater access to the credit-starved small businesses, ensuring timely payments against their receivables.

District Mineral Foundations (DMF)

News: The Centre has taken complete control of the district mineral foundation (DMF)

- They derive their **legal status** from section 9B of Mines and Minerals (Development and Regulation) Act, 1957 & amendment in 2015
- Each DMF is established by the State Governments by notification **as a trust or non-profit body** in the mining operation affected districts.
- Objective of DMF: To work for the interest of the benefit of the persons and areas affected mining related operations in such manner as may be prescribed by the State Government.

funds, negating states' right to sanction or approve any expenditure out of the funds accrued from mandatory contribution from mining lease holders.

- Composition and Functions of the DMF is prescribed by the State Governments taking guidelines from article 244 of Indian Constitution, fifth and sixth schedules, PESA Act, 1996, Forest Rights Act, 2006.
- **Funds**: Every mining lease holder of will pay a fraction of royalty, not exceeding one-third of the royalty, to the DMF as per rates prescribed by Central Govt. This fund will be used for welfare of the people affected in the mining affected areas.
- Revenue Divisional Commissioner or Collector, as may be decided by the Government, shall be its Chairperson.

The Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY)

It will be implemented by the DMFs of the respective districts using the funds accruing to the DMF.

The overall objective of PMKKKY scheme will be

- To implement various developmental and welfare projects/programs in mining affected areas, and these projects/ programs will be complementing the existing ongoing schemes/projects of State and Central Government;
- To minimize/mitigate the adverse impacts, during and after mining, on the environment, health and socio-economics of people in mining districts; and
- To ensure long-term sustainable livelihoods for the affected people in mining areas.

Airports Economic Regulatory Authority of India (AERA) Amendment Bill

In news: AERA Amendment Bill, 2021, was recently passed in Lok Sabha.

- It seeks to amend the Airports Economic Regulatory Authority of India Act, 2008.
- The 2008 Act established the Airport Economic Regulatory Authority (AERA).
- AERA regulates tariffs and other charges (such as airport development fees) for aeronautical services rendered at major airports in India.
- The 2008 Act designates an airport as a major airport if it has an annual passenger traffic of at least 35 lakh. The central government may also designate any airport as a major airport by a notification.
- The amendment Bill adds that the central government may group airports and notify the group as a major airport.

Reservation in Medical Seats

- In news: The Union Health Ministry has announced 27% reservation for the OBCs (Other Backward Classes) and 10% quota for the Economically Weaker Sections (EWS) in the All-India quota (AIQ) scheme for undergraduate and postgraduate medical and dental courses from 2021-22.
- This decision would benefit every year nearly 1,500 OBC students at the undergraduate level (MBBS) and 2,500 such students at the postgraduate level

Background:

- The AIQ was introduced in 1986 under the directions of the Supreme Court to provide for domicile-free merit-based opportunities to students from any State aspiring to study in a medical college located in another State.
- AIQ comprises 15% of the UG seats and 50% of the PG seats in government medical colleges.
- Initially, there was no reservation in the AIQ.
- In 2007, the SC introduced reservation of 15% for SCs and 7.5% for STs in the scheme.
- When the Central Educational Institutions (Reservation in Admission) Act became
 effective that year, providing for uniform 27% reservation to the OBCs, the same
 was implemented in all the Central educational institutions.

General Insurance (Nationalisation) Amendment Bill, 2021

- In news: The said bill was introduced in Lok Sabha
- The Bill will amend the General Insurance Business (Nationalisation) Act, 1972.
- The Bill proposes three amendments.

The first aims to omit the provision (Section 10B) which requires that the Central government should hold not less than 51% of the equity capital in a specified insurer. The second amendment is to insert a new Section 24B which will provide for ending the application of the Act to such a specified insurer on which the Centre ceases to have control. The third amendment is also to insert a new Section 31A, making a director (not a whole-time director), liable only for acts of omission or Commission. Although the Bill allows the government to bring down its shareholding below 51%, it was clarified that this is not a Bill for privatisation. Do you know? As on date, there are four public sector general insurance companies — National Insurance Company Limited, New India Assurance Company Limited, Oriental Insurance Company Limited, and United India Insurance Company Limited. It is not yet decided in which one of the companies the government will lower its shareholding. Information-In news: The Ministry of Social Justice and Empowerment has formulated a I-Monitoring, MES in FY 2021-22. **Evaluation and** Under this scheme, Social Audits are to be conducted for all the schemes of the Social Audit (I-Department starting FY 2021-22. MESA) These social audits are done through Social Audit Units (SAU) of the States and National Institute for Rural Development and Panchayati Raj. Social Audit is the audit of a scheme jointly by the Government and the people, especially by those who are affected by the scheme or its beneficiaries. Benefits: It is a powerful tool to promote transparency, accountability and people's participation in the schemes meant for them. A social audit helps to narrow gaps between vision/goal and reality, between efficiency and effectiveness. **Bhartiya Prakritik** Government is implementing Bhartiya Prakritik Krishi Padhati (BPKP) as a sub Krishi Padhati scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 for the (BPKP) promotion of traditional indigenous practices. The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on biomass mulching; use of cow dung-urine formulations; plant-based preparations and time to time working of soil for aeration. Under BPKP, financial assistance of Rs 12200/ha for 3 years is provided for cluster formation, capacity building and continuous handholding by trained personnel, certification and residue analysis.

Skill Development Programmes of India (Context: 15 July is celebrated as World Youth Skills Day)

Name	Year	Туре	Objective
Industrial Training Centres	1950	Central Sector	To expand and modernize the existing Long-Term
(ITIs)		Training ecosystem in India.	
Pradhan Mantri Kaushal	2015	Central Sector	To provide free skill training avenues to youths of India.
Vikas Yojana (PMKVY)			
National Career Service	2015	Central Sector	To offer free online career skills training through its
Project			National Career Service (NCS) project for job-seekers
			registered with it.

Skills Strengthening for Industrial Value Enhancement (STRIVE)	2016	World Bank assisted- Government of India project	To improve the performance of ITIs. To improve the relevance and efficiency of skills training provided through Industrial Training Institutes (ITIs) and apprenticeships.
Pradhan Mantri YUVA Yojana (Yuva Udyamita Vikas Abhiyan)	2016	Centrally sponsored	To create an enabling ecosystem for Entrepreneurship development through Entrepreneurship education and training; Advocacy and easy access to entrepreneurship support network and Promoting social enterprises for inclusive growth.
Skills Acquisition and Knowledge Awareness for Livelihood (SANKALP)	2018	Centrally Sponsored Scheme collaborated with the World Bank.	District-level skilling ecosystem through convergence and coordination.
Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS)	2019	Central sector	To provide industry apprenticeship opportunities to the general graduates exiting in April 2019 through the National Apprenticeship Promotion Scheme (NAPS).
Atma Nirbhar Skilled Employee Employer Mapping (ASEEM)	2020	4	To help skilled people find sustainable livelihood opportunities.
Skill Management and Accreditation of Training Centres (SMART)		(Tank	It provides a single window IT application that focuses on the accreditation, grading, Affiliation and Continuous monitoring of the Training Centres (TC) in the skill ecosystem.

ECONOMY

World Bank Support to India's Informal Working Class

- The World Bank has approved a USD 500 million loan programme (125 million by IDA & the rest by IBRD) to support India's informal working class to overcome the current pandemic distress.
- The loan has a maturity period of 18.5 years including a grace period of five years.
- The funds will be utilised in social protection programmes for urban informal workers, gig-workers, and migrants.
 - The informal sector is the part of any economy that is **neither taxed nor monitored** by any form of government.
 - It is largely characterized by skills gained outside of a formal education, easy entry, a lack of stable employer-employee relationships, and a small scale of operations.
 - Unlike the formal economy, the informal sector's components are not included in GDP computations

The World Bank Group is a unique global partnership which consists of five development institutions.

- International Bank for Reconstruction and Development (IBRD) provides loans, credits, and grants. IBRD has 189 member countries,
- International Development Association (IDA) provides low- or no-interest loans to low-income countries. IDA has 173 member countries
- The International Finance Corporation (IFC) provides investment, advice, and asset management to companies and governments.
- The Multilateral Guarantee Agency (MIGA) insures lenders and investors against political risk such as war.
- The International Centre for the Settlement of Investment Disputes
 (ICSID) settles investment-disputes between investors and countries. India is
 not a member of ICSID.

Green Hydrogen

According to the International Renewable Energy Agency (IRENA), hydrogen will make up 12% of the energy mix by 2050 Type of hydrogen depend up on the process of its formation:

- **Green hydrogen** is produced by electrolysis of water using renewable energy (like Solar, Wind) and has a lower carbon footprint.
 - Electricity splits water into hydrogen and oxygen.
 - By Products: Water, Water Vapor.
- **Brown hydrogen** is produced using coal where emissions are released to air.
- **Grey hydrogen** is produced from natural gas where the associated emissions are released to the air.
- **Blue hydrogen** is produced from natural gas, where the emissions (CO2) are captured using carbon capture and storage. Most of the time, this CO2 is then transported by a pipeline and stored deep underground, often in salt caverns or depleted oil and gas reservoirs.
- Pink hydrogen is produced by electrolysis of water using nuclear energy
- Yellow Hydrogen where electrolysis is achieved solely through solar power (unlike green which could use a combination of renewable energy sources such as wind or solar).

Purchasing Managers' Index (PMI)

- PMI is a **survey-based measure** that asks the respondents about changes in their **perception** about key business variables as compared with previous month.
- The purpose of the PMI is to provide information about current and future business conditions to company decision makers, analysts, and investors.

In News: India's Manufacturing PMI slipped to 48.1 in June from 50.8 in May, moving below the 50-level separating growth from contraction.

- It is calculated **separately for the manufacturing and services** sectors and then a composite index is also constructed.
- The PMI is a number from 0 to 100.
 - A print above 50 means expansion, while a score below that denotes contraction.
 - A reading at 50 indicates no change.
- If the PMI of the previous month is higher than the PMI of the current month, it represents that the economy is contracting.
- It is usually **released at the start of every month.** It is, therefore, considered a good leading indicator of economic activity.
- PMI is compiled by IHS Markit for more than 40 economies worldwide.
- IHS Markit (HQ: London) is a **global leader in information**, analytics and solutions for the major industries and markets that drive economies worldwide.
- As the official data on industrial output, GDP growth comes much later, PMI helps to make informed decisions at an earlier stage.

Financial Stability Report

In News: RBI

released the 23rd

Stability Report

(FSR).

issue of its Financial

- The FSR which is **published biannually by RBI** reflects the collective assessment of the **Sub-Committee of the FSDC** (headed by the Governor of RBI) on risks to financial stability and the resilience of the financial system.
- The Report also discusses issues relating to development and regulation of the financial sector.

Key Points of July report are

- The impact of the Covid-19 Second-Wave on the balance sheets of Indian banks
 has been less than what was projected before and capital buffers are reasonably
 resilient to withstand future shocks.
- Sustained policy support, benign financial conditions and the gathering momentum of vaccinations are nurturing an uneven global recovery.
- The Gross Non-Performing Asset (GNPA) ratio of India's Scheduled Commercial Banks (SCBs) may climb by the end of 2021-22 to as much as 11.2% under a severe stress scenario, from 7.48% in March 2021.
- The Capital to Risk-Weighted Assets Ratio (CRAR) of SCBs increased to 16.03% and the Provisioning Coverage Ratio (PCR) stood at 68.86% in March 2021.

Financial Stability and Development Council

- FSDC is a non-statutory apex council under the Ministry of Finance constituted by the Executive Order in 2010.
- The Raghuram Rajan committee (2008) on financial sector reforms first proposed the creation of FSDC.
- It is chaired by the Finance Minister and its members include the heads of all Financial Sector Regulators (RBI, SEBI, PFRDA & IRDA), Finance Secretary, Secretary of Department of Economic Affairs (DEA), Secretary of Department of Financial Services (DFS), Secretary of Department of Electronics and IT, Chairperson of IBBI, Revenue Secretary and Chief Economic Adviser.
- The objective of FSDC is to strengthen and institutionalize the mechanism for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development.
- It also intends to monitor macro-prudential supervision of the economy. It will assess the functioning of the large financial conglomerates.
- o The Council can invite experts to its meeting if required.
- o FSDC sub-committee is headed by the Governor of RBI.

Foreign exchange (Forex) Reserves

- Forex reserves are assets held on reserve by a central bank in foreign currencies.
- India's Forex Reserve include:

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In News: As per RBI, India's Forex Reserves surged by \$ 5 billion to \$ 609 billion in the week ended 25th June, 2021.

Foreign Currency Asset	\$ 566 billion	Increase by \$ 4.7 billion
Gold	\$ 36.296 billion	Increase by \$ 0.365 billion
SDR of IMF	\$1.498 billion	
India's reserve position with the IMF	\$ 4.965 billion	Increase by \$1 million

• Forex reserves are **instruments to maintain or manage the exchange rate**, while enabling orderly absorption of international money and capital flows

Special Drawing Rights

- The SDR is an international reserve asset, **created by the IMF** in 1969 to supplement its member countries' official reserves.
- The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies.
- The value of the SDR is calculated from a weighted basket of major currencies including the **US dollar, the euro, Japanese yen, Chinese yuan & British pound.**
- Interest rate on SDRs (SDRi) is the interest paid to members on their SDR holding

Reserve Position in the International Monetary Fund

- A reserve tranche position implies a portion of the required quota of currency each member country must provide to the IMF that can be utilized for its own purposes.
- The reserve tranche is **basically an emergency account that IMF members can access** at any time without agreeing to conditions or paying a service fee.

New Norms for Independent Directors

In news: The
Securities and
Exchange Board of
India (SEBI) has
approved stricter
norms related to
appointment of
independent
directors.

- An Independent director (also sometimes known as an outside director) is a nonexecutive director.
- S/he does not have any kind of relationship (material or financial) with company
- Their role is to take a stand unambiguously and independently to have a check and balance on the whims of majority shareholders that may expose the company to unwarranted risks. This means they usually represent minority stakeholders
- The Companies Act, 2013 has mandated all listed public companies to have at least one-third of the total Directors to be independent.
- Their role requires them to be clinical while businesses expect them to be practical, that's the tight rope they walk on.
- A larger say for independent directors can prevent fraud, mismanagement, and mis-governance.

Key Points of recent SEBI Norms

- Independent directors can be appointed only through a special resolution passed by shareholders (75% of votes in favour to be passed).
- SEBI has also elaborated and strengthened the disclosure requirements for the skills required to be an independent director.
- The nomination and remuneration committee of the board of directors, which
 decides on appointments and compensation, and the audit committee should
 have two-thirds independent directors compared to a simple majority now.
- Also, a listed company will be required to disclose the resignation letter of an independent director.

 Also, there will be a one-year cooling period for an independent director transitioning to a whole-time director in the same company / holding/ subsidiary/ associate company or any company belonging to the promoter group.

SEBI is a statutory body established in accordance with the provisions of the **Securities and Exchange Board of India Act, 1992.** The basic functions of the Sebi is to protect the interests of investors in securities and to **promote and regulate the securities market.**

Two Pillar Plan

In News: India and the majority of the members of OECD-G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) have joined a new two-pillar plan to reform international taxation rules.

- The plan amounted to 130 countries representing more than 90% of global GDP.
- The new framework seeks to address the tax challenges (like profit shifting & treaty shopping) arising from the digitalization of economies.

Pillar One:

- It would re-allocate some taxing rights over MNEs from their home countries to the markets where they have business activities and earn profits.
- According to OECD, more than USD 100 billion of profit are expected to be reallocated to market jurisdictions each year.

Pillar Two:

- It seeks to put a minimum standard tax rate among countries through a global minimum corporate tax rate, currently proposed at 15%.
- This is **expected** to generate an additional USD 150 billion in tax revenues.

Base Erosion and Profit Shifting (BEPS)

- BEPS is a term used to describe tax planning strategies that exploit mismatches and gaps that exist between the tax rules of different jurisdictions.
- It is done to minimize the corporation tax that is payable overall, by either
 making tax profits 'disappear' or shift profits to low tax jurisdictions where it is
 little or no genuine activity.
- In general BEPS strategies are not illegal; rather they take advantage of different tax rules operating in different jurisdictions.
- BEPS is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises (MNEs).
- The BEPS initiative is an OECD initiative, approved by the G20, to identify ways of providing more standardised tax rules globally.

Anti-Dumping Duty

In News: In April 2021, DGTr recommended imposing the duty on "copper and copper alloy flat-rolled products" from China, Korea, Malaysia, Nepal, Sri Lanka and Thailand, after conducting a probe. However, in first week of July,

 Even though Directorate General of Trade Remedies (DGTR) under Ministry of Commerce & industry recommends imposition of duties, it is the Ministry of Finance takes the final call to impose these duties and issues notification for it.
 About Dumping

- Dumping is a process wherein a company (Ex: Chinese Firm X) exports a product (for Ex: to India) at a price that is significantly lower than the price it normally charges in its home (China) market.
- An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are dumped.
 - This is done with the rationale that these products have the potential to undercut local businesses and the local economy.
- According to global trade norms, including WTO, a country is allowed to impose anti-dumping duty to provide a level-playing field to domestic manufacturers.
- The duty is imposed only after a thorough investigation by a quasi-judicial body, such as DGTR (Ministry of Commerce & industry) in India.

government has decided not to impose Antidumping Duty on these products

- While the intention of anti-dumping duties is to save domestic jobs, these tariffs can also lead to higher prices for domestic consumers.
- In the long-term, anti-dumping duties can reduce the international competition of domestic companies producing similar goods.

Different from Countervailing Duty (CVD):

- Countervailing Duties (CVDs) are tariffs levied on imported goods to offset subsidies made to producers of these goods in the exporting country (Ex: China).
- CVDs are meant to level the playing field between domestic producers of a
 product and foreign producers of the same product who can afford to sell it at a
 lower price because of the subsidy they receive from their government

Bhalia Wheat

In News: the first shipment Bhalia variety of wheat was exported to Kenya and Sri Lanka from Gujarat

- Bhalia variety of wheat received **Geographical Indication(GI)** certification in 2011
- This Wheat has high protein content and is sweet in taste.
- This crop is grown mostly across the **Bhal region of Gujarat** which includes Ahmedabad, Anand, Kheda, Bhavanagar, Surendranagar, Bharuch districts.
- This variety is grown in the rainfed condition without irrigation.

Wheat

- Rabi Crop: It is sown in October-December and harvested during April-June.
- Temperature: Between 10-15°C (Sowing time) and 21-26°C (Ripening & Harvesting) with bright sunlight.
- Rainfall: Around 75-100 cm.
- Soil Type: Well-drained fertile loamy and clayey loamy (Ganga-Satluj plains and black soil region of the Deccan).
- Major wheat growing states in India are Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, Rajasthan, Bihar and Gujarat.
- India is the second largest producer after China.
- Other GI products from Gujarat are: wooden printing blocks of Pethapur and others are, furniture made in Sankheda, agates from Khambhat, Kutch embroidery, zari craft from Surat, patola from Patan, bandhani from Jamnagar, and Kesar mangoes from Gir.

Micro ATM



Context: Fino Payments going for IPO. One of its best products is Micro ATM

- A Micro ATM is a device that is used by a million Business Correspondents (BC) to deliver basic banking services.
- The platform will enable Business Correspondents (who could be a local kirana shop owner and will act as 'micro ATM') to conduct instant transactions.
- The micro platform will enable function through low cost devices that will be connected to banks across the country.
- This would enable a person to instantly deposit or withdraw funds regardless of the bank associated with a particular BC.
- This device will be based on a mobile phone connection and would be made available at every BC. Customers would just have to get their identity authenticated (finger print) and withdraw or put money into their bank accounts.
- This money will come from the cash drawer of the BC. Essentially, BCs will act as bank for the customers and all they need to do is verify the authenticity of customer using customers' UID (Ex: Finger print through Aadhar authentication).
- The basic transaction types, to be supported by micro-ATM, are Deposit, Withdrawal, Fund transfer and Balance enquiry.
- Micro ATMs are also card swipe machines through merchant transactions can take place. This machine comes with a **fingerprint scanner** attached to it

Open Network for Digital Commerce

In News: Department for Promotion of Industry and Internal Trade (DPIIT) issued orders appointing an advisory committee for its Open Network for Digital Commerce (ONDC) project that is aimed at curbing "digital monopolies".

About

- This is a step in the direction of making e-commerce processes open source, thus creating a platform that can be utilised by all online retailers.
- Making a software or a process open-source means that the code or the steps of that process is made available freely for others to use, redistribute and modify it.
- If the ONDC gets implemented and mandated, it would mean that all e-commerce companies will have to operate using the same processes. This could give a huge booster shot to smaller online retailers and new entrants.
- ONDC "aims at promoting open networks developed on open-sourced methodology, using open specifications and open network protocols, independent on any specific platform. ONDC is expected to digitise the entire value chain, standardise operations, promote inclusion of suppliers, derive efficiency in logistics and enhance value for consumers".

Authorised Economic Operators (AEO) Programme

- In News: The Central Board of Indirect Taxes & Customs (CBIC) has inaugurated the online filing of Authorised Economic Operators (AEO) applications
- AEO is a programme (2007) under the aegis of the World Customs Organization (WCO) SAFE Framework of Standards to secure and facilitate global trade.
- It aims to enhance international supply chain security and facilitate the movement of goods.
- Under this, an entity engaged in international trade is approved by WCO as compliant with supply chain security standards and granted AEO status.
- An entity with an AEO status is considered a 'secure' trader and a reliable trading partner.
- AEO is a voluntary programme.
- The AEO Programme in India was introduced as a pilot project in 2011

Aim of Indian AEO Programme:

- To provide business entities with an internationally recognized certification.
- To recognize business entities as "secure and reliable" trading partners.
- To incentivize business entities through defined benefits that translate into savings in time and cost.
- Secure supply chain from point of export to import.
- Enhanced border clearance.
- Reduction in dwell time and related costs.
- Customs advice/assistance if trade faces unexpected issues with Customs of countries.

India's First Private LNG Facility plant

- In news Minister for Road Transport and Highways inaugurated the country's First Private LNG Facility plant at Nagpur.
- Natural gas is found with petroleum deposits and is released when crude oil is brought to the surface. It can be used as a domestic and industrial fuel.
- In India, Jaisalmer, Krishna Godavari delta, Tripura and some areas offshore in Mumbai have natural gas resources.
- While the world average share of natural gas in the energy basket is 23%, it is only 6% for India.
- However, the government of India has set the target to make it 15% by 2030.
- The Ministry emphasized on the importance of alternate biofuels for diversification of agriculture towards the energy and power sector.
 - Any hydrocarbon fuel that is produced from an organic matter (living or once living material) in a short period of time is considered a biofuel.
 - Biofuels may be solid, liquid or gaseous in nature.

These can be used to replace or can be used in addition to diesel, petrol or other fossil fuels. Also, they can be used to generate heat and electricity.

 Main reasons for shifting to biofuels: Rising prices of oil, benefits farmers and can be locally produced that helps cut down on import dependence of oil.

Retail Direct Gilt Accounts (RDG) scheme of RBI

In news The RBI has announced a scheme under which retail investors will be allowed to open retail direct gilt accounts (RDG) directly with the central bank

- A "Gilt Account" means an account opened and maintained for holding Government securities, by an entity or a person.
- It will provide registered users access to primary issuance of government securities (G-secs) and to NDS-OM (Negotiated dealing system – Order Matching Segment).
 - NDS-OM means RBI's screen based, anonymous electronic order matching system for trading in government securities in the secondary market.
- This will provide **one-stop solution** to facilitate investment in G-secs by individual investors.
- No fee will be charged for opening and maintaining the account with the RBI.
- Non-Resident retail investors eligible to invest in government securities under Foreign Exchange Management Act, 1999 are also eligible under the scheme.

Government Securities (G-Secs)

- G-secs are **debt instruments** issued by the government to borrow money.
- Like bank fixed deposits, g-secs are not tax-free.
- They are generally considered the safest form of investment because they are backed by the government. So, the risk of default is almost nil.
- However, they are subject to fluctuations in interest rates. So, they are not completely risk-free.
- Such securities are short term (treasury bills having maturity period of 91 day, 182 day and 364 day) or long term (Government bonds with maturity of one year or more).
- In India, the Central Government issues both treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDL)
- When Government issues its securities first time (Primary Market) then authorized institutions are allowed to purchase G-secs. These institutions are called Primary dealers which include banks and finance related companies.
- Once these have purchased the G-secs, other institutions such as RBI, Banks,
 NBFCs can purchase these securities in the secondary market
- Few years back, RBI allowed individuals (retail investors) to participate in primary market as well as secondary market but not directly rather through other institutions. But now retail investors will be able to buy directly under RBI's Retail Direct scheme

Inflation

- In News: Inflation remained above 6% in June at 6.3%.
- Growth impulses remained fragile with the second COVID-19 wave hurting the recovery momentum.
- Experts opine that lack of policy support from government (Ex: Cutting oil taxes) to bring down inflation could make RBI reverse its growth supporting approach (low interest rates)
- Consumer durables & capital goods stood out as worst affected sectors in May **Do you know?**
- There are different indices in India like Wholesale Price Index(WPI), Consumer Price Index(CPI) etc which measure inflation rates in India.

	But what we generally find in headlines as inflation rate in India is Inflation rate based on CPI.				
	Context	WPI	СРІ		
	Definition	Amounts to the average	Indicates the average change in		
		change in prices of	the prices of commodities at the		
		commodities at the	retail level.		
		wholesale level.			
	Publishing	Office of Economic Advisor	Central Statistics Office (Ministry		
	office	(Ministry of Commerce &	of Statistics and Programme		
		Industry)	Implementation) & Labour Bureau		
	Commodities	Goods only	Goods and Services both		
	Base Year	2011-12	2012		
	Dasc rear	2011 12	Note: Base Year to be revised.		
Longevity Finance	• In news: Inte	ı ernational Financial Services Ce			
Hub			mend approach towards development		
TIUD		•	mend approach towards development		
		Finance Hub in GIFT IFSC	d by Ma Kaly, Naldata /Dank of		
	-		d by Ms. Kaku Nakhate (Bank of		
			inivasan (former CMD, New India		
		Company).			
		o <mark>nal Financial Services Cent</mark> res			
	established as a unified regulator to develop and regulate financial products,				
		The state of the s	ns in the International Financial		
	Services Centres (IFSCs) in India.				
	'Longevity Finance Hub' will cater to the investment and wealth management				
	needs of the 'silver generation' comprising individuals aged 60 years and older.				
	 Global estimates suggest that there are one billion people in the silver 				
	generation.				
	 Their combined spending power is worth \$15 trillion and the size is ever 				
	expanding.				
	 Development in medicinal science and technology will support extending lifespan 				
	and longevity of the silver generation.				
	It is estimated that by 2040, there will be more members of the silver generation				
	than people under 20.				
	This demographic change will throw open new challenges and opportunities				
	especially in the areas of wealth management, health, insurance, and other				
	investment products, thus necessitating the dedicated Longevity Finance Hub.				
Special Livestock	Aim: To boost growth in the livestock sector and thereby making animal				
Sector Package	husbandry more remunerative to 10 crore farmers engaged in Animal Husbandry				
3	Sector.		,		
In News: Cabinet	 The Central government will spend Rs. 9,800 crore on livestock development over 				
Committee on	the next five years				
Economic Affairs	All the schemes of the Department will be merged into three broad categories as:				
has approved	 All the schemes of the Department will be merged into three broad categories as: Development Programmes: It includes Rashtriya Gokul Mission, National 				
implementation of	Programme for Dairy Development (NPDD), National Livestock Mission (NLM) and				
special livestock	_		rvey (LC & ISS) as sub-schemes.		
sector package		_	as Livestock Health and Disease		
		_			
	· ·	· · · · · · · · · · · · · · · · · · ·	nt Livestock Health and Disease		
		me and National Animal Diseas	_		
		re Development Fund: It includes Development fund (ALUDE)	•		
	intrastructur	e Development Tuna (AHIDF), t	the Dairy Infrastructure Development		

India's Textile Sector

In News: Union Minister of Textiles held an in-depth review of initiatives undertaken by the Ministry of Textiles for giving a boost to the textiles sector. Fund (DIDF), scheme for support to Dairy Cooperatives and Farmer Producer Organizations engaged in Dairy activities

- Textiles & garments industry is labour intensive sector that employs 45 million people in India.
- It is second only to the agriculture sector in terms of employment.
- It contributes **2.3% to Indian GDP**, 7% of Industrial Output, 12% to the export earnings of India and employs more than 21% of total employment.
- India is the **6th largest producer of Technical Textiles** with 6% Global Share, largest producer of cotton & jute in the world.
 - Technical textiles are functional fabrics that have applications in industries such as automobiles, civil engineering and construction,
- India is also the **second largest producer of silk** in the world and 95% of the world's hand woven fabric comes from India.

Major Initiatives by India in textile sector?

- Amended Technology Upgradation Fund Scheme (ATUFS): For technology upgradation of the textiles industry (2015)
- Scheme for Integrated Textile Parks (SITP): To assist small and medium entrepreneurs in the textile industry to clusterize investments in textile parks by providing financial support for world class infrastructure in the parks.
- SAMARTH (Scheme For Capacity Building In Textile Sector): To address the shortage of skilled workers.
- North East Region Textile Promotion Scheme (NERTPS): This is a scheme for promoting textiles industry in the NER by providing infrastructure, capacity building and marketing support to all segments of the textile industry.
- **Power-Tex India:** It comprises new research and development in power loom textiles, new markets, branding, subsidies and welfare schemes for the workers.
- **Silk Samagra Scheme**: It focuses on improving the quality and productivity of domestic silk thereby reducing the country's dependence on imported silk.
- Jute ICARE: This pilot project launched in 2015 is aimed at addressing the
 difficulties faced by the jute cultivators by providing them certified seeds at
 subsidized rates, and by popularizing several newly developed retting
 technologies under water limiting conditions.
- National Technical Textile Mission: It aims to position the country as a global leader in technical textiles and increase the use of technical textiles in the domestic market. It aims to take the domestic market size to USD 40 billion to USD 50 billion by 2024.

Third Periodic Labour Force Survey (PLFS)

In News: The third annual report on Periodic Labour Force Survey (PLFS), conducted by the National Statistical Office(NSO) between July 2019 and June 2020 has been released recently.

Highlights of the third report

- NSO data revealed that labour indicators recorded an all-round improvement in 2019-20 compared with the previous two years.
- The unemployment rate fell to 4.8 per cent in 2019-20. In 2018-19, it stood at 5.8 per cent and 6.1 per cent in 2017-18.
- Worker Population Rate has improved to 38.2% in 2019-20 compared with 35.3% in 2018-19 and 34.7% in 2017-18.
- Labour Force Participation Ratio(LFPR) has increased to 40.1% in 2019-20 from 37.5% and 36.9%, respectively, in the last two years.
- **Gender Based Unemployment Rate:** The Unemployment rate for both male & female fell to 5.1% & 4.2%, respectively, in 2019-20 from 6% & 5.2% in 2018-19.

Periodic Labour Force Survey (PLFS)

 The Periodic Labour Force Survey (PLFS) was launched by the National Sample Survey Organisation (NSSO) in 2017. The objective of PLFS is primarily on two aspects:

- The first is to measure the dynamics in labour force participation and employment status in the short time interval of three months for the urban areas only in the Current Weekly Status (CWS).
- Thus, in every quarter, PLFS will bring out the level and change estimates of the key labour force indicators in CWS viz. Worker- Population Ratio (WPR), Labour Force Participation Rate (LFPR), Unemployment Rate (UR).
- Secondly, for both rural and urban areas, level estimates of all important parameters in both usual status and CWS will be brought out annually.
- ✓ **Labour Force Participation Rate (LFPR):** LFPR is defined as the percentage of persons in the labour force (i.e. working or seeking or available for work) in the population.
- ✓ **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.
- ✓ **Proportion Unemployed (PU):** It is defined as the percentage of persons unemployed in the population.
- ✓ **Unemployment Rate (UR):** The unemployment rate is calculated by dividing the number of unemployed by the number in the labour forces, that is, the sum of employed and unemployed.

External Benchmarks Lending Rate (EBLR)

In News: In a recent RBI report on 'Monetary transmission in India', the share of outstanding loans linked to EBLR increased from as low as 2.4% during September 2019 to 28.5% during March 2021

About Internal Benchmark Lending rate (IBLR)

- Lenders usually have an internal rate, which is the benchmark rate. Interest rates on all loans are linked to it.
- For example, a lender's benchmark rate is 6%.
- It would offer an auto loan 2% higher than the benchmark rate, which will be 8%.
- Similarly, it may provide personal loans at 8% higher than the benchmark rate or at 14%.
- Initially, RBI focused on making the benchmark rate transparent. It introduced different ways to calculate the benchmark rates which are as follows

Prime Lending	Under it, bank loans were priced on the actual cost of
Rate (PLR)	funds.
Used by Banks	
till June 2010	
Base Rate	 Base rate was the minimum interest rate at which
	commercial banks could lend to customers.
Used by Banks	Base rate is calculated on three parameters — the cost
fom	of funds, unallocated cost of resources and return on
June 2010- April	net worth.
2016	Hence, the rate depended on individual banks and they
	changed it whenever the parameters changed.
Marginal Cost of	 It is a benchmark lending rate for floating-rate loans.
Lending Rate	This is the minimum interest rate at which commercial
(MCLR):	banks can lend.
	This rate is based on four components—the marginal cost of
Came into effect	funds, negative carry on account of cash reserve ratio,
from 2016 to Oct	operating costs and tenor premium.
2019	 MCLR is linked to the actual deposit rates. Hence, when deposit rates rise, MCLR rises and lending rates increases.
	deposit rates rise, wich rises and lending rates increases.

 The problem with the IBLR regime was that when RBI cut the repo and reverse repo rates, banks did not pass the full benefits to borrowers.

- Repo rate is the rate at which the RBI lends money to the banks for a short term. Here, the central bank purchases security.
- In the IBLR Linked Loans, the interest rate has many internal variables of Bank which prevented the smooth transmission of RBI's Monetary Policy changes.

About External Benchmark Lending Rate (EBLR)

- RBI mandated the banks to adopt a uniform external benchmark within a loan category, effective 1st October, 2019.
- Four external benchmarking mechanisms:
 - ✓ The RBI repo rate
 - ✓ The 91-day T-bill yield
 - ✓ The 182-day T-bill yield
 - ✓ Any other benchmark market interest rate as developed by the Financial Benchmarks India Pvt. Ltd.
- Banks are free to decide the spread over the external benchmark. However, the interest rate must be reset as per the external benchmark at least once every three months.
- **Significance:** Faster Monetary Transmission + Transparency in Interest rates + Standardisation of fixing interest rate.
- Concerns
 - 28.5% of outstanding loans were linked to EBLR during March 2021.
 - However, still 71.5% of outstanding loans are Internal Benchmark Lending Rate (IBLR- like base rate and MCLR) linked loans, which continues to impede the monetary policy transmission.

Central Bank Digital Currency (CBDC)

 A high-level inter-ministerial committee set up by the Finance Ministry had recommended the introduction of a CBDC with changes in the legal framework including the RBI Act, which currently empowers the RBI to regulate issuance of bank notes.

In news: The Reserve Bank of India is likely to soon start pilot projects to assess the viability of using digital currency to make wholesale and retail payments.

The Central Bank Digital Currency (CBDC)?

- It is a **legal tender** and liability of a nation's central bank in the digital form.
- It is denominated in a sovereign currency and appears on the balance sheet of a nation's central bank.
- CBDC is a digital currency which can be converted/exchanged at par with similarly denominated cash and traditional central bank deposits of a nation.
- At present, central banks of various nations are currently examining the positive implications that a digital currency contributes to financial inclusion, economic growth, technology, innovation and increased transaction efficiencies.

Benefits of CBDC

- Alternative to physical cash
- Instantaneous process: Transacting with CBDC would be an instantaneous process. The need for inter-bank settlement would disappear as it would be a central bank liability handed over from one person to another.
- Reduces cost of currency management: India's fairly high currency-to-GDP ratio
 holds out another benefit of CBDC. Large cash usage can be replaced by CBDC.
 Also, the cost of printing, transporting and storing paper currency can be
 substantially reduced.
- Need of the hour: If the private currencies gain recognition, national currencies with limited convertibility are likely to come under some kind of threat. CBDCs thus become the need of the hour.
- **Volatility**: CBDCs, being the legal tender by Central Bank, will not witness any volatility as in the case of cryptocurrencies.

- Easy tracking of currency: With the introduction of CBDC in a nation, its central bank would be able to keep a track of the exact location of every unit of the currency.
- **Curbing Crime**: Criminal activities can be easily spotted and ended such as terror funding, money laundering, and so forth
- **Scope in Trade**: Foreign trade transactions could be speeded up between countries adopting a CBDC.
- Cryptocurrencies, such as Bitcoin, are digital tokens created by a distributed network or blockchain using cryptographic tools. CBDC are legal tenders by Central Bank.
- o While cryptocurrencies are decentralized, CBDCs are centralized
- Cryptocurrencies offer anonymity, CBDCs would allow central banks to know exactly who holds what.
- CBDCs are also not stablecoins, which are a form of cryptocurrency that is pegged to another asset, for example, Tether. A CBDC would not be pegged to any fiat currency; it would be the fiat currency. A CBDC version of a dollar would be the same as a dollar bill.

Production-Linked Incentive (PLI) Scheme for Specialty Steel

In news: Recently, the Union Cabinet approved the PLI scheme (Central Sector Scheme) for manufacturing Speciality Steel with a budgetary outlay of Rs 6,322 crore over a period of five years from 2023-24

About Speciality Steel

- It is value-added steel, which is made by processing normal finished steel.
- It is done by converting normal finished steel into high value-added steel by way of coating, plating and heat treatment.
- Apart from the automobile sector and specialised capital goods, they can be used in various strategic applications such as defence, space, power etc.
- SS are categorized in various types such as, coated/plated steel products, high strength/wear resistant steel, speciality rails, alloy steel products and steel wires, electrical steel etc.

About PLI Scheme

- It is a scheme that aims to give companies **incentives on incremental sales** from products manufactured in domestic units.
- The scheme invites foreign companies to set up units in India, however, it also aims to encourage local companies to set up or expand existing manufacturing units and also to generate more employment
- It aims to cut down the country's reliance on imports from other countries.
- It was launched in April 2020, for the Large Scale Electronics Manufacturing sector, but later towards the end of 2020 was introduced for 10 other sectors.
- It gave incentives of 4-6% to electronic companies, manufacturing electronic components like mobile phones, transistors, diodes, etc.
- This scheme was introduced in line with India's **Atmanirbhar Bharat** campaign.
- The government aims to make India an integral part of the global supply chain and enhance exports
- And Rs. 1.97 lakh crores have been allocated for this scheme from Financial Year
 2022

Indigenous Deposits of Phosphatic rock

- In News: India to explore Indigenous Deposits of Phosphatic rock
- Currently we are dependent on other countries for raw materials to produce DAP (**Di-ammonium Phosphate**) and (Single superphosphate) SSP primarily.
- India needs to reduce its dependencies on imports.
- In order to achieve that goal, India shall explore indigenous deposits of Phosphatic rock and Potash and make it available to indigenous industries.
- Rock Phosphate is the key raw material for DAP and NPK fertilizers.
- Currently, India is 90% dependent on imports for this raw material.

Gross Environment Product (GEP)

In news: Recently, the Uttarakhand government has announced that it will initiate valuation of its natural resources in the form of GEP

- Volatility in international prices affects domestic prices of fertilizers.
- Import dependence also hinders the progress and development of the agriculture sector in the country and puts extra pressure on our farmers
- GEP is the measure of ecosystem services of any area.
- GEP measures the total annual value of goods and services delivered by ecosystems (forests, water bodies, oceans, and so on) to people in a certain region.
- Term Ecosystem Services was popularised in 1997 by ecological economists like Robert Costanza. According to him, ecosystem services are the benefits human populations derive, directly or indirectly, from ecosystem functions. The definition is still in the process of evolution

Uttarakhand & GEP

- Uttarakhand, through its biodiversity, gives services to the tune of Rs 95,112 crore per year to the nation.
- The state has over 71% area under forests.
- It is also home to the Himalayas and also is the origin point of rivers like Ganga, Yamuna and Sharada as well as home to wildlife reserves like Corbett and Rajaji Tiger Reserves.
- Uttarakhand is a state which provides a lot of environment services and in continuity as a result of which, there is anatural degradation in those services.
- The purpose of introducing GEP is not transparent.
 - Is it a process of simple valuation of a state's ecological wealth, or to assess what part of the GDP it contributes?
 - Is it an attempt to claim a budget from the centre against ecosystem services
 the state provides to the rest of the country and / or a process of providing
 benefits to its own residents.

Lithium Exploration

In news: Geological Survey of India (GSI) has taken up 7 projects on lithium exploration in Arunachal Pradesh, Andhra Pradesh, Chhattisgarh, Jharkhand, Jammu & Kashmir and Rajasthan.

- Lithium (Li), chemical element of Group 1 (Ia) in the periodic table, the alkali metal group, lightest of the solid elements.
- The metal itself—which is soft, white, and lustrous—and several of its alloys and compounds are produced on an industrial scale.
- The most important use of lithium is in rechargeable batteries for mobile phones, laptops, digital cameras and electric vehicles.
- Lithium is also used in some non-rechargeable batteries for things like heart pacemakers, toys and clocks.

Geological Survey of India

- It was set up in 1851 primarily to find coal deposits for the Railways.
- Over the years, it has attained the status of a geo-scientific organisation of international repute.
- **Main function**: Creation and updation of national geo-scientific information and mineral resource assessment.
- **Headquarter:** Kolkata
- Six regional offices: Lucknow, Jaipur, Nagpur, Hyderabad, Shillong and Kolkata.
- Every state also has a state unit.
- Presently, GSI is an attached office to the Ministry of Mines.

Non-Bank PSPs to Join Centralised Payment System

- In news Recently, the RBI allowed non-bank Payment System Providers (PSPs) to participate in Centralised Payment Systems (CPS – RTGS and NEFT), as direct members.
- Presently, only banks and select non-banks such as NABARD and Exim Bank are allowed access to CPS NEFT and RTGS.

Key features

- Allowed in a Phased Manner: In the first phase, PSPs such as Prepaid Payment Instruments (PPIs), card networks and White Label ATM (WLA) operators will be allowed access.
- **Separate IFSC to Non-Banks**: It means allotment of a separate Indian Financial System Code (IFSC) to non-banks, opening a current account with the RBI in its core banking system (e-Kuber) & maintaining a settlement account with the RBI.

What is the Significance?

- Direct access for non-banks to CPS lowers the overall risk in the payments ecosystem.
- Reduction in cost of payments
- Mitigating failure or delay in fund execution
- Increasing efficiency and better risk management



ENVIRONMENT

Conservation of Vultures

In News:

Recently, 150
vultures were seen in
the Valmiki Tiger
Reserve (VTR),
Bihar, which has
prompted a vulture
conservation plan in
the protected region
of VTR.

- Vulture is one of the 22 species of large carrion-eating birds that live predominantly in the tropics and subtropics.
- India is home to 9 species of Vulture namely the Oriental white-backed (CE), Long-billed (CE), Slender-billed (CE), Red-headed (CE), Egyptian (E), Himalayan (NT), Bearded (NT), Cinereous (NT) and the India Griffon (LC).

IUCN Status: CE= Critically Endangered; E= Endangered; NT= Near Threatened; LC= Least Concern

- Vultures are the scavengers who do the work of cleaning up, and keeping the ecosystem healthy.
- Despite feeding on infected carcass, vultures do not get infected. The acids in their stomach are potent enough to kill the pathogen. Thus, the chain of infection is broken.
- It invisibly controls the spread of harmful pathogens causing deadly anthrax, cholera, foot and mouth disease, rabies and distemper.
- Threats: Poisoning from diclofenac that is used as a medicine for livestock; Loss of Natural Habitats due to anthropogenic activities; Food Dearth and Contaminated Food; Electrocution by Power lines.
- Ministry for Environment, Forests and Climate Change launched a Vulture
 Action Plan 2020-25 for the conservation of vultures in the country
- To upscaling conservation four rescue centres will be opened like Pinjore in the north, Bhopal in central India, Guwahati in Northeast and Hyderabad in South India.

Valmiki Tiger Reserve

- Located at the India-Nepal border in the West Champaran district of Bihar.
- It was established in March 1994 under Project Tiger.
- It forms the easternmost limits of the Himalayan Terai forests in India.
- Situated in the **Gangetic Plains bio-geographic zone** of the country, the forest has a combination of bhabar and terai tracts.
- Fauna: Bengal tiger, Indian rhinoceros, black bear, Indian sloth bear, otter,
 Indian leopard, wild dog, buffalo, boar and Indian flying foxes
- Tharu, a scheduled tribe, is the dominant community in this region.
- Other Protected Areas in Bihar:
 - ✓ Bhimbandh Sanctuary
 - ✓ Rajgir Sanctuary
 - ✓ Kaimur Sanctuary
- ✓ Kanwar Jheel Bird Sanctuary
- ✓ Vikramshila Gangetic Dolphin Sanctuary
- ✓ Gautambudha Sanctuary

Fly Ash

In News: NTPC has invited Expression of Interest (EOI) for sale of fly ash, in its endeavour to achieve 100% utilization of fly ash, from the designated plants of

- Fly Ash is a by product from burning of coal in the thermal power generation.
- It is **called fly ash because** it is transported from the combustion chamber by exhaust gases.
- It is collected from the exhaust gases by electrostatic precipitators or bag filters.
- Fly ash includes substantial amounts of silicon dioxide (SiO₂), aluminium oxide (Al2O₃), ferric oxide (Fe2O₃) and calcium oxide (CaO).
- Exhibit **cementitious** properties i.e. hardens when mixed with water.
- It is used in concrete and cement products, road base, metal recovery, and mineral filler among others.
- To promote the use of Fly Ash bricks in building construction, NTPC has set up Fly Ash brick manufacturing Plants at its Coal based Thermal Power Plants.

the Middle East and other regions.

- As per the MoEF&CC directives, National Thermal Power Corporation (NTPC) stations must keep at least 20% of total Fly Ash produced in reserve for the issue to Fly Ash brick/blocks/tiles manufacturers and issuing Fly Ash free of cost to them.
- Even state governments have come out with their Fly ash utilization policies, e.g. Maharashtra was the first state to adopt the policy.
- A web portal for monitoring of fly ash generation and utilization and a mobile based application titled "ASHTRACK" has been launched by the Government.

Threats

- Fly ash particles are toxic air pollutants. They can trigger heart disease, cancer, respiratory diseases and stroke.
- When combined with water they cause leaching of heavy metals in ground water. It also pollutes the soil, and affects the root development system of trees.

Harit Dhara: Anti-Methanogenic Feed Supplement

In News: Indian Council of Agricultural Research (ICAR) has developed an antimethanogenic feed supplement 'Harit Dhara' (HD), which

can cut down cattle

methane emissions by 17-20% and can

also result in higher

milk production.

Methane Production in Cattle:

- Ruminant livestock cattle, sheep, buffalo, goats, deer and camels have a
 fore-stomach (or rumen) containing microbes called methanogens, which are
 capable of digesting coarse plant material and which produce methane as a byproduct of digestion (enteric fermentation): this methane is released to the
 atmosphere by the animal belching (act of expelling air from the stomach
 through the mouth)
- Cattle, buffaloes, sheep and goats in India emit an estimated 9.25 to 14.2 million tonnes (mt) of methane annually (Global total is 90 mt-plus from livestock)
- Some feed additives can inhibit the microorganisms that produce methane in the rumen and subsequently reduce methane emissions. These feed additives can be synthetic chemicals (antibiotics), natural supplements and compounds, such as tannins and seaweed or fats and oils.

About Harit Dhara(HD)

- HD decreases the population of protozoa microbes in the rumen, responsible for hydrogen production and making it available to the archaea (structure similar to bacteria) for reduction of CO2 to methane.
- HD is made from tannin-rich plant-based sources. Tropical plants containing tannins, bitter and astringent chemical compounds, are known to suppress or remove protozoa from the rumen.
- Fermentation after using HD will help produce **more propionic acid**, which provides more energy for lactose (milk sugar) production and body weight gain.

King Cobra



In News: A king cobra (Ophiophagus hannah), was sighted in the recently declared Tillari conservation reserve, Maharashtra

- They are one of the most venomous snakes on the planet and the longest of all venomous snakes.
- Their venom is not the most potent among venomous snakes, but the amount of neurotoxin they can deliver in a single bite—up to two-tenths of a fluid ounce is enough to kill 20 people, or even an elephant.
- They are the only snakes in the world that build nests for their eggs, which they guard ferociously until the hatchlings emerge.
- **Habitat:** Mainly in rain forests and plains of India, southern China, and Southeast Asia. Also comfortable in a variety of habitats, including forests, bamboo thickets, mangrove swamps, high-altitude grasslands, and in rivers.
- IUCN Status: Vulnerable; CITES: Appendix-II;
- Wildlife Protection Act, 1972: Schedule II
- Threat: Deforestation, International pet trade, Persecution by humans for skin, food, and medicinal purposes.

Deaths Due to Hazardous Chemical

In News: According to latest estimates by WHO deaths due to exposure to hazardous chemicals worldwide rose 29% in 2019 from what they were in 2016.

- A hazardous chemical is a chemical that has properties with the potential to do harm to human or animal health, the environment, or capable of damaging property.
- They are frequently used in the workplace as raw materials, solvents, cleaning agents, catalysts, and for a number of other functions.

There are many international chemical conventions restricting or even banning the production, use, and trade of certain hazardous chemicals

- Stockholm Convention on Persistent Organic Pollutants (POPs).
- **Rotterdam Convention** on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- **Basel Convention** on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
- The **Chemical Weapons Convention (CWC)** is an arms control treaty prohibiting the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons by States Parties.
- The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the compounds.
- India is a signatory to all the above conventions.

Black Panther



In News: Black Panther Spotted in Navegaon-Nagzira Tiger Reserve, Maharashtra

- Leopards (Panthera Pardus) are either light colored (pale yellow to deep gold or tawny) with black rosettes or with black fur.
- The melanistic leopards, which are either all-black or very dark in coloration, are known as black panthers.
- It is a **color variant of spotted Indian leopards**, reported from densely **forested** areas of south India.
- Black coat coloration is attributed to the expression of recessive alleles in leopards and dominant alleles in jaguars. In each species, a certain combination of alleles stimulates the production of large amounts of the dark pigment melanin in the animal's fur and skin.
- Habitat: Mainly in Southwestern China, Burma, Nepal, Southern India, Indonesia, and the southern part of Malaysia. In India they can be spotted in the states of Karnataka, Tamil Nadu, Kerala, Maharashtra etc
- IUCN Status: Vulnerable; CITES: Appendix-I;
- Wildlife Protection Act, 1972: Schedule I

Zika Virus Disease

In news Recently, Zika Virus Disease (ZVD) was reported for the first time in Kerala.

- Zika virus is a mosquito-borne flavivirus that was first identified in Uganda in 1947 in monkeys. It was later identified in humans in 1952 in Uganda
- ZVD is caused by a virus transmitted primarily by Aedes mosquitoes (AM), mainly Aedes aegypti. This is the same mosquito that transmits <u>dengue</u>, chikungunya and yellow fever.
- **Transmission**: From mother to fetus during pregnancy, through sexual contact, transfusion of blood and blood products, and organ transplantation.
- Symptoms:
 - Fever, rash, conjunctivitis, muscle and joint pain, malaise or headache.
 - Most people with Zika virus infection do not develop symptoms.

 Zika virus infection during pregnancy can cause infants to be born with microcephaly (smaller than normal head size) and other congenital malformations, known as congenital Zika syndrome. Treatment: There is no vaccine or medicine for Zika. The focus is on relieving symptoms and includes rest, rehydration and acetaminophen for fever and pain
 The virus, initially isolated in 1932, is an alpha herpes virus enzootic in macaques of the genus Macaca. B virus is the only identified old-world-monkey herpesvirus that displays severe pathogenicity in humans. The infection can be transmitted via direct contact and exchange of bodily secretions of monkeys and has a fatality rate of 70 - 80 per cent. Macaque monkeys commonly have this virus, and it can be found in their saliva, feces (poop), urine (pee), or brain or spinal cord tissue. The virus may also be found in cells coming from an infected monkey in a lab. B virus can survive for hours on surfaces, particularly when moist. Humans can get infected if they are bitten or scratched by an infected monkey; get an infected monkey's tissue or fluid on broken skin or in eyes, nose, or mouth; scratch or cut oneself on a contaminated cage or other sharp-edged surface or get exposed to the brain (especially), spinal cord, or skull of an infected monkey. Currently, there are no vaccines that can protect against B virus infection. Till date, only one case has been documented of an infected person spreading B virus to another person.
 Norovirus is a group of highly contagious viruses that cause vomiting and diarrhoea. It is also called the winter vomiting bug. People infected with norovirus can shed billions of virus particles, but only a few of them can make people sick. Norovirus can infect a person who consumed contaminated food or water or touched a contaminated surface and then put unwashed hands in the mouth. A person coming in direct contact with an infected person can also get infected. The virus spreads in the same way as human viruses enter the human body.
 In news: For the first time a reference-grade whole genome sequence of a highly salt-tolerant and salt-secreting true-mangrove species, Avicennia marina, was reported. The genomic resources generated in the study will pave the way for researchers to study the potential of the identified genes for developing drought and salinity tolerant varieties of important crop species of the coastal region that is significant for India. About Avicennia marina It is found in all mangrove formations in India. It is a salt-secreting and extraordinarily salt-tolerant mangrove species that grows optimally in 75% seawater and tolerates >250% seawater. It is among the rare plant species, which can excrete 40% of the salt through the salt glands in the leaves, besides its extraordinary capacity to exclude salt entry to the roots. Mangroves are a unique group of species found in marshy intertidal estuarine

- pneumatophores (blind roots) to overcome the respiration problem in the anaerobic soil conditions.
- Succulent Leaves
- Sunken Stomata
- complex salt filtration system
- adapted to the low oxygen (anoxic) conditions of waterlogged mud.
- Stilt roots
- Mangroves exhibit Viviparity mode of reproduction. i.e. seeds germinate in the tree itself (before falling to the ground).
- Mangroves occur worldwide in the tropics and subtropics, mainly between latitudes 25° N and 25° S because they require high solar radiation to filter saline water through their roots.

India's First Cryptogamic Garden

- In news Recently, India's first cryptogamic garden was inaugurated in the Chakrata town of Dehradun, Uttarakhand.
 - The garden will be housing nearly 50 species of lichens, ferns and fungi (collectively known as Cryptogamae)
- A cryptogam is a plant that reproduces with the help of spores.
- The word "Cryptogamae" implies 'hidden reproduction', referring to the fact that they do not produce any reproductive structure, seed, or flower.
- Due to this, they are called "flowerless" or "seedless plants" or 'lower plants'.
- They need a moist environment to survive.
- These are present in aquatic and terrestrial places.
- Algae, bryophytes, lichens, ferns and fungi are the best-known groups of cryptogams.
- Plant kingdom can be divided into two sub-kingdoms viz. Cryptogams and phanerogams.
- Cryptogams consist of seedless plants and plant-like organisms whereas phanerogams consist of seed-bearing plants.
- Phanerogams are further divided into two classes i.e. gymnosperms(naked seeds) and angiosperm (seeds protected by fruit)

New Global Biodiversity Framework

In news: A new Global Biodiversity Framework by The United Nations Convention on Biological Diversity (CBD) was recently released.

- It is a new framework that will guide actions worldwide through 2030, to preserve and protect nature and its essential services to people.
- Aim: To spur urgent and transformative action by Governments and all of society to contribute to the objectives of the Convention on Biological Diversity, its Protocols, and other biodiversity related multilateral agreements, processes and instruments.
- The framework is built around a **theory of change** which recognizes that urgent policy action globally, regionally and nationally is required to transform economic, social and financial models.
- The trends that have exacerbated biodiversity loss will stabilize in the next 10 years (by 2030) and allow for the recovery of natural ecosystems in the following 20 years, with net improvements by 2050 to achieve the Convention's vision of "living in harmony with nature by 2050".

The four goals of the new framework (to be achieved by 2050) are

- ✓ To halt the extinction and decline of biodiversity.
 - The rate of extinctions should reduce at least tenfold
 - The risk of species extinctions across all taxonomic and functional groups should reduce by half
 - Genetic diversity of wild and domesticated species should be maintained by at least 90%
- ✓ To enhance and retain nature's services to humans by conservation.

- ✓ **To ensure** fair and equitable benefits to all from use of genetic resources.
- ✓ To close the gap between available financial and other means of implementation

The framework has **21 action-oriented targets** for urgent action over the decade to 2030, which includes:

- Ensure at least 30% of land and sea areas globally are conserved through systems of protected areas.
- Prevent or reduce the rate of introduction and establishment of invasive alien species by 50%.
- Reduce nutrients lost to the environment by at least half, **pesticides** by at least two thirds, and eliminate discharge of **plastic waste**.
- Use ecosystem-based approaches to contribute to mitigation and adaptation to climate change
- Redirect, repurpose, reform or eliminate incentives harmful for biodiversity in a just and equitable way, reducing them by at least \$500 billion per year.
- Increase international financial flows to developing countries by at least \$10 billion per year

Global Conservation Assured | Tiger Standards (CA | TS)

In news: In a recently held event, the 14 Tiger Reserves in India received the accreditation of the Global Conservation Assured | Tiger Standards (CA|TS).

About Conservation Assured | Tiger Standards (CA|TS)

- Officially launched in 2013, it sets minimum standards for effective management of target species and encourages assessment of these standards in relevant conservation areas.
- CA|TS is a set of criteria which allows tiger sites to check if their management will lead to successful tiger conservation.
- CA|TS has been agreed upon as accreditation tool by the global coalition of Tiger Range Countries (TRCs) and has been developed by tiger and protected area experts

The 14 accredited tiger reserves are:

- Assan: Manas, Kaziranga and Orang
- Madhya Pradesh: Satpura, Kanha and Panna

in the wild, with a popular slogan 'T X 2'.

- Maharashtra: Pench
- Bihar: Valmiki Tiger Reserve
- Uttar Pradesh: Dudhwa,
- West Bengal: Sunderbans
- Kerala: Parambikulam
- Karnataka: Bandipur Tiger Reserve
- Tamil Nadu: Mudumalai and Anamalai Tiger Reserve.

International Tiger Day

In news International Tiger Day is celebrated on July 29 every year to raise awareness about the dwindling population of the Tiger.
It is the anniversary of the agreement of Saint Petersburg Tiger Summit in

Protection Status of Tiger in India

Russia in 2010.
At the Petersburg Tiger Summit in 2010, leaders of 13 tiger range countries resolved to do more for the tiger and embarked on efforts to double its number

Indian Wildlife (Protection) Act, 1972: Schedule I. • It was declared by representatives that the tiger populated countries would make efforts to double the tiger population by the year 2022.

Tiger Conservation and India

IUCN Red List:
Endangered.

CITES: Appendix I.

- India is the land of royal tigers and current tiger population stands at 2967 which is 70% of the global tiger population.
- Madhya Pradesh has the highest number of tigers at 526, closely followed by Karnataka (524) and Uttarakhand (442).
- The National Tiger Conservation Authority (NTCA) has launched the M-STrIPES (Monitoring System for Tigers – Intensive Protection and Ecological Status), a mobile monitoring system for forest guards.
- The Project Tiger, launched way back in 1973, has grown to more than 50 reserves amounting to almost 2.2% of the country's geographical area.



SOCIAL ISSUES

Trafficking in Persons Report

- It is released by the **US State Department**. It is world's most comprehensive resource of governmental anti-trafficking efforts.
- It is also U.S. Government's principal diplomatic tool to engage foreign governments on human trafficking.
- **Human trafficking** involves the illegal transport of individuals by force or deception for the purpose of labour, sexual exploitation, or activities in which others benefit financially.

The countries are designated on the three-tier system

- Tier 1 countries: Fully comply with the Trafficking Victims Protection Act(TVPA US's law on human trafficking) minimum standards. Ex: USA, UK, Australia, Bahrain and South Korea.
- Tier 2 countries do not fully comply with TVPA's minimum standards but are making significant efforts towards it (Ex: India)
- **Tier 3 countries** whose governments **do not fully comply** with the minimum standards and are not making significant efforts to do so.

Key findings of the 2021 Report

- According 2021 report, the Covid-19 pandemic has resulted in an increase in vulnerability to human trafficking and interrupted existing anti-traffic efforts
- India has not met the minimum standards to eliminate trafficking. The efforts made by the government are inadequate.
- Chinese government is engaged in widespread forced labour including through the continued mass arbitrary detention of more than one million Uyghurs, ethnic Kazakhs, ethnic Kyrgyz, and other Muslims.

Measure taken by India to tackle Trafficking

- Article 23 prohibits human trafficking and begar (forced labour without wage)
- Article 24 forbids employment of children below the age of 14 years in dangerous jobs like factories and mines.
- Section 370 and 370A of IPC provide for comprehensive measures to counter the menace of human trafficking Sections 372 and 373 dealing with selling and buying of girls for the purpose of prostitution.
- The Immoral Traffic (Prevention) Act, 1956 (ITPA) is the premier legislation for prevention of trafficking for commercial sexual exploitation.
- **State Governments** have also enacted specific legislations to deal with the issue (e.g. **The Punjab Prevention of Human Smuggling Act, 2012).**
- Anti-Trafficking Nodal Cell was set up in Home Ministry in 2006.
- Anti Human Trafficking Unit (AHTU): Union Home Ministry provided funds for establishing it for many districts. Primary role is law enforcement and liaising with other concerned agencies for care & rehabilitation of victims

Drop in Open Defecation: Wash Report

- In News: According to a new report by the Wash Institute (NGO with HQ in Tamil Nadu), India was responsible for the largest drop in open defecation since 2015, in terms of absolute numbers.
- WASH stands for the interrelated areas of Water, Sanitation and Hygiene.
- WHO WASH Strategy 2018-25 has been developed in response to Member State Resolution (WHA 64.4) and the 2030 Agenda for Sustainable Development (SDG 3: Good Health and Well Being, SDG 6: Clean Water and Sanitation).

Open Defecation:

- It refers to the practise whereby people go out in fields, bushes, forests, open bodies of water, or other open spaces rather than using the toilet to defecate.
- It poses a serious threat to the health of children (vulnerability to diseases)
- It exposes women to the danger of physical attacks and encounters such as snake bites.
- Within India, open defecation had been highly variable regionally since at least 2006 but **by 2016** open defecation had **decreased in all states**, with the largest drops seen in **Himachal Pradesh and Haryana**.
- **Between 2016 and 2020,** the **global population** with access to safely managed drinking water at home increased to **74%, from 70%.**

Malaria Free China

In news: The World Health Organization (WHO) has declared China as "malaria-free".

- It is a result of a seven decade-long, multi-pronged health strategy that was able to entirely eliminate indigenous cases for four straight years.
- 40 countries and territories have been granted a malaria-free certification from WHO

 including, most recently, El Salvador (2021), Algeria (2019), Argentina (2019),
 Paraguay (2018) and Uzbekistan (2018) [India is not yet Malaria free]

About Malaria

- Malaria is a life threatening mosquito borne blood disease caused by plasmodium parasites.
- It is predominantly found in the tropical and subtropical areas of Africa, South America as well as Asia.
- The parasites spread through the bites of infected female Anopheles mosquitoes.
- **Symptoms:** Fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness.
- It is preventable as well as curable.
- According to the World Malaria Report, 2020 (by WHO) the number of malaria cases worldwide in 2019 was around 229 million, with 4,09,000 lives lost to it.

China's Malaria Strategy

- The efforts began in the early 1950s starting with a multi-pronged approach of providing anti-malarial medicines while targeting mosquito breeding grounds and using insecticide spraying.
- **The 523 Project**: It led to the discovery of artemisinin in the 1970s. Artemisinin is the core compound of antimalarial drugs available today.
- **Insecticide-treated Nets**: In the 1980s, China began using insecticide-treated nets widely, distributing 2.4 million nets by 1988.
- **1-3-7 Strategy**: The strategy refers to:
 - o A one-day deadline to report a malaria diagnosis,
 - o Confirming a case and determining the spread by the third day, and
 - Measures taken to stop the spread by the seventh day, along with continued surveillance in high-risk areas.
- Leveraging Global Fund: With assistance from the Global Fund to Fight AIDS,
 Tuberculosis and Malaria starting in 2003, China "stepped up training, staffing, laboratory equipment, medicines and mosquito control."

Kappa and Lambda Variant of Covid-19

- Kappa & Lambda variants have been labelled as Variants of Interest by WHO.
- This means that the genetic changes involved are predicted or known to affect transmissibility, disease severity, or immune escape.
- It is also an acknowledgement of the fact that the variant has caused significant community transmission in multiple countries and population groups

Kappa Variant

• Kappa was first detected in India.

 More than 3,500 of the close to 30,000 cumulative samples submitted by India to the GISAID initiative are of this variant. GISAID is a public platform started by the WHO in 2008 for countries to share genome sequences

Lambda Variant (LV)

- It was **first identified in Peru** in December 2020. It is the dominant variant in the South American country with 81% samples found to be carrying it.
- It has at least seven significant mutations in the spike protein (the Delta variant has three)
- The LV has **greater infectivity than the Alpha and Gamma variants** (known to have originated in the UK and Brazil respectively).
- India has not yet reported any case of LV

Variant of Concern (VoC)

- A variant for which there is evidence of an increase in transmissibility, more severe disease (e.g., increased hospitalizations or deaths), significant reduction in neutralization by antibodies generated during previous infection or vaccination, reduced effectiveness of treatments or vaccines, or diagnostic detection failures.
- There are four Alpha, Beta, Gamma and Delta which have been designated as "variants of concern", and are considered a bigger threat.
- These were all recently named after letters of the Greek alphabet to avoid linkage with the country of their origin that had been happening until then.

Gender Self-Identification

- Recently, the Spanish government approved a draft bill that would allow anyone over the age of 14 to legally change gender without a medical diagnosis or hormone therapy.
- Currently, for someone to change their gender in official records, the law first requires two years of hormone therapy and a psychological evaluation

India and Transgenders

- NALSA Case, 2014 SC declared Transgender as Third Gender
- Navtej Singh Johar Case, 2018 Decriminalized Section 377
- Transgender Persons Act, 2019

Transgender Persons Act, 2019

- Definition of a Transgender Person: The Act defines a transgender person as one whose gender does not match the gender assigned at birth.
- Certificate of Identity: The Act states that a transgender person shall have the right to self-perceived gender identity.
 - A certificate of identity can be obtained at the District Magistrate's office and a revised certificate is to be obtained if sex is changed.
- o Right of residence with parents and immediate family members.
- The Act prohibits discrimination against a transgender person in various sectors such as education, employment, and healthcare etc.
- Seeks to establish Natonal Council for Transgender persons.
- **Punishment:** It states that the offences against transgender persons will attract imprisonment between six months and two years, in addition to a fine.

Child Soldier Recruiter List

- In News: The US has added Pakistan and 14 other countries to a Child Soldier Recruiter List that identifies foreign governments having government-supported armed groups that recruit or use child soldiers.
 - Child Soldier refers to any person below 18 years of age who has been, recruited or used by an armed force or armed group in any capacity.

- It includes but is not limited to children, boys and girls who are used as fighters, cooks, porters, spies or for sexual purposes (Paris Principles on the Involvement of Children in Armed Conflict 2007).
- The US Child Soldiers Prevention Act -2008 (CSPA) requires the publication in the annual Trafficking in Persons (TIP) report a list of foreign governments that have recruited or used child soldiers.
- The CSPA prohibits the US government from providing military assistance, including money, military education and training, or direct sales of military equipment, to countries that recruit and use child soldiers.
- The recruitment or use of children below the age of 15 as soldiers is prohibited by both the UN Convention on the Rights of the Child (CRC) and the additional protocols to the Geneva Conventions

India

- India is party to the Convention on the Rights of the Child (CRC)
- Article39 (f) states that children are given opportunities and facilities to develop in a
 healthy manner and in conditions of freedom and dignity and that childhood and
 youth are protected against exploitation and against moral and material
 abandonment.
- The Indian Penal Code criminalises the recruitment or use in hostilities of persons under-18 years by state armed forces or non-state armed groups.
- Adults of age over 18 years are recruited in the Central Armed Police Forces

PM-CARES for Children scheme

• In news The government has introduced a portal to all the States and Union Territories for children orphaned by COVID-19. Any citizen can inform the govt. regarding a child eligible for support under this scheme through the portal

Key Features of the Scheme are:

Corpus of Rs. 10 Lakh:

- A corpus of Rs. 10 lakh will be allocated to each of these children from the PM CARES fund
- It will provide a monthly stipend from 18 years of age.
- On attaining 23 years, he/she will get the corpus amount.

Education to the Children (under 10 years):

- Ensure admission to Kendriya Vidyalayas/ private schools.
- PM CARES will pay for the uniform textbooks and notebooks
- If the child is admitted in a private school the fees as per the RTE norms will be provided

Education to the Children (11-18 years):

- The child will be given admission in any Central Government Residential School
- In case the child is to be continued under the care of **guardian**, he/she will be given admission in the nearest Kendriya Vidyalaya/private school

Higher education:

- Provision of either a scholarship equivalent to the tuition fees/ educational loans.
- Interest on the loan will be paid by the PM-CARES fund.

Health Insurance:

- All children will be enrolled as a beneficiary under Ayushman Bharat Scheme
- The premium amount will be paid by PM-CARES till a child turns 18.

Gatekeeper Model to prevent Suicides

In news: In order to prevent suicides triggered by mental health issues in prisons across the country, the National Institute of Mental Health and Neuro Sciences (NIMHANS), Bengaluru, has recommended the "Gatekeeper Model".

• NIMHANS is an Institute of National Importance.

• The Bangalore Prison Mental Health Study has pointed to the prevalence of mental illness and substance use disorder in about 80% of the prison population.

About the Gatekeeper Model

- In the "Gatekeeper Model" selected inmates, trained to identify prisoners at risk of suicide, would refer them to treatment or supportive services.
- NIMHANS has issued a set of guidelines on the management of mental health issues of the prisoners and prison staff.
- It was important to regularly assess Prisoners with mental disorders for severity of suicidal risk and also put on regular and supervised medication.
- The NIMHANS advisory said the concept of a 'Buddy System' social support through trained prisoners called "buddies" or "listeners" — was found to have a good impact on the well-being of suicidal prisoners.

Salwa Judum

- Salwa Judum (meaning "Peace March" or "Purification Hunt" in Gondi language) was a militia that was mobilised and deployed as part of anti-insurgency operations in Chhattisgarh.
- It was aimed at countering Naxalite violence in the region.
- The militia, consisting of local tribal youth, received support and training from the Chhattisgarh state government.
- It has been outlawed and banned by a Supreme Court order. SC declared the militia to be illegal and unconstitutional, and ordered its disbanding.
- However, it continues to exist in the form of Armed Auxiliary Forces, District Reserve Group and other vigilante groups.

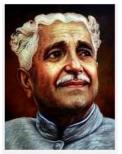


CULTURE AND HISTORY

Kalbeliya Dance

- In News: Recently, due to Covid-19-Pandemic an app called chendavia is gaining popularity among the students of kalbeliya dance
- Kalbeliya dances are an expression of the Kalbelia community's traditional way of life.
- It is associated with a Rajasthani tribe of the same name.
- It was included in the United Nations
 Educational, Scientific and Cultural Organizations (UNESCO) list of Intangible
 Cultural Heritage (ICH) in 2010.
- Once professional snake handlers, Kalbelia community today evoke their former occupation in music and dance that is evolving in new and creative ways.
- Today, women in flowing black skirts dance and swirl, replicating the movements
 of a serpent, while men accompany them on the khanjari percussion instrument
 and the poongi, a woodwind instrument traditionally played to capture snakes.
- The dancers wear traditional tattoo designs, jewellery and garments richly embroidered with small mirrors and silver thread.
- Kalbelia songs disseminate mythological knowledge through stories, while special traditional dances are performed during Holi, the festival of colours.
- The songs also demonstrate the poetic acumen of the Kalbelia, who are reputed to compose lyrics spontaneously and improvise songs during performances.
- Transmitted from generation to generation, the songs and dances form part of an oral tradition for which no texts or training manuals exist.
- Other Traditional Folk Dances of Rajasthan: Gair, Kachchhi Ghodi, Ghoomar, Bhavai, etc

Kuvempu Award 2020



Kuvempu (1904-94)

In News:

Recently, Odia poet Dr. Rajendra Kishore Panda has been selected for the Kuvempu Rashtriya Puraskar (award) 2020. Dr. Panda is a poet & novelist from Odisha. He has published 16 poetry collections
 & a novel. He was presented the Sahitya Akademi Award in 1985.

About Kuvempu Award

- Award in memory of Kannada poet laureate Kuvempu. He is widely regarded
 as the greatest Kannada poet of the 20th century. He was the first Kannada writer
 to be decorated with the Jnanpith Award for his version of the Ramayana
 titled 'Sri Ramayana Darshanam.'
- Kuvempu award is given annually to a writer who has contributed in any of the languages recognised by the Constitution of India.
- The award carries a cash award of Rs. 5 lakh, a silver medal and a citation.

Jnanpith Award

- Highest literary award in India
- Only to Indian Citizen
- English + 8th Schedule Languages
- Cash award of Rs. 11 lakhs, a citation & a bronze replica of Vagdevi (Saraswati)
- Sponsored by the Bharatiya Jnanpith.
 - Literary and research organization, based in New Delhi founded in 1944 by Sahu Jain family. Other awards by this trust are Murtidevi Award & Navlekhan Award (for young Hindi writers)

Sahitya Akademi Awards

Indian Soldiers in Italy: World War II	 Second-highest literary honour after the Jnanpith award. Established in 1954 24 awards annually: 22 languages in 8th Schedule + English + Rajasthani Equal number of awards to literary translations from and into the languages of India. Conferred annually by Sahitya Akademi, India's National Academy of letters Estd. by Govt. of India to preserves & promote literature through awards Ministry of Culture Also undertakes Literary exchange programme with various countries to promote Indian literature beyond India In News: The Indian Chief of Army Staff (COAS) will inaugurate an Indian Army Memorial in the Cassino town of Italy during an official visit to the U.K. and Italy. The memorial commemorates over 3,100 Commonwealth servicemen who took part in the effort to liberate Italy in World War II (1939-1945) 900 Indian soldiers were also commemorated on this memorial. The Indian Army was the largest volunteer force during WWII, with over 2.5 million (more than 20 lakh) Indians participating. These troops fought the Axis powers (Germany, Italy and Japan) as part of the
	Allies
Silambam	 It is an ancient weapon-based martial art that emerged in Tamil Nadu region Sillappadikkaram and many other works of Sangam literature mentions about the practice and it dates back to 2ndcentury BC Weapons Used: Bamboo (main weapon), Maru- a thrusting weapon which is made from horns of deer, Aruva (sickle), Savuku (a whip), Vaal (curved sword), Kuttu Katai (spiked knuckle duster) Other Martial Arts of India Kalaripayattu- Kerala Mardani Khel- Maharashtra Pang Lhabsol- Sikkim Musti Yudha- Uttar Pradesh Pari Khanda- Bihar Thag Ta- Manipur Choliya- Uttarakhand
Ashadhi Bij	 It is the Kutchi New Year. This Hindu New Year is observed in the Kutch region in Gujarat. It is observed on the second day of the Shukla Paksha or waxing phase of moon in Ashada month. Ashadi Beej is mostly a traditional affair and is a celebration of rains. During Ashadhi-beej, farmers check the moisture in the atmosphere to help predict which crop would do best in coming monsoon.
National Archives of India (NAI)	 In News: Culture Minister said the National Archives' records related to freedom fighters would be digitised within a year as a part of the commemoration of 75 years of Independence next year. NAI is an Attached Office under the Ministry of Culture. It was established in 1891 at Kolkata as the Imperial Record Department. Following the transfer of the capital from Calcutta to Delhi in 1911, the present building of NAI was constructed in 1926 in Delhi. There are over 50 lakhs files/documents presently in the holdings in the National Archives of India.
Prahallada Nataka	 It is a traditional play native to the Indian state of Odisha. The musical-drama tells the story of Vishnu's man-lion avatar, Nrusingha or Narasimha, and is based on a text by Raja Ramakrusna Chhotaraya, King of

	 Jalantara, a small kingdom in former southern Odisha, now in the Srikakulam district of Andhra Pradesh Raja Ramakrishna Chottaray, the last king of Jalantar, a small princely state on the Odisha-Andhra border, was instrumental in the creation of Prahllad Natak, which is locally known as Raja Nata (the dance of the king). It is a unique confluence of elements of Indian classical and folk theatre traditions like Yakshagana of Karnataka or Ankia Bhaona of Assam. The play that revolves round the story of demon-king Hiranyakashipu, his son Prahlad and Narasimha, the half-lion and half-man incarnation of Vishnu, was written by Gourahari Parichha, a prominent court poet and musician, at the insistence of Raja Ramakrishna.
Palaeolithic Cave Paintings in NCR	 Archaeologists have discovered cave paintings in a rocky and forested corner of Haryana that they believe belong to the Upper Palaeolithic age. Rock art and open-air ceremonial sites were also found.
	 The Upper Paleolithic Age 40,000 -10,000 years ago The caves are nestled amid a maze of quartzite rocks in the Aravalli mountain ranges, near a patch of primary forest, a holy grove called Mangar Bani The paintings are in continuation with the Soanian culture which has been found in Shivalik hills, Narmada and Aravallis.
	 Cave paintings comprised images of human figurines, animals, foliage, and geometric. The caves and the paintings themselves are reminiscent of Bhimbetka in Madhya Pradesh, which is home to the oldest known cave art in India, dating back to the Mesolithic Age (around 10,000 years ago).
	 However, these Mangar cave art is 20,000-40,000 years old. The findings, therefore, could potentially make the paintings one of the oldest cave arts in India Most of the paintings are ochre. Stone age paintings generally use red and ochre colours. Stones of these colour used to be available locally and inhabitants crushed the stones for preparing the colour for painting
Kanwar Yatras	 The Kanwar Yatra is a pilgrimage organised in the Hindu calendar month of Shravana (Saavan). Saffron-clad Shiva devotees generally walk barefoot with pitchers of holy water from the Ganga or other holy rivers. In the Gangetic plains, the water is taken from pilgrimage sites such as Haridwar, Gaumukh and Gangotri in Uttarakhand, Sultanganj in Bihar, and Prayagraj,
	 Ayodhya or Varanasi from Uttar Pradesh. Devotees carry the pitchers of holy water on their shoulders, balanced on decorated slings known as Kanwars. The water is used by the pilgrims to worship Shiva lingas at shrines of importance. An important festival with similarities to the Kanwar yatra in North India, called the Kavadi festival, is celebrated in Tamil Nadu, in which Lord Muruga is worshipped.
Historic Urban Landscape Project	 In news Madhya Pradesh has launched UNESCO's 'Historic Urban Landscape' project for Gwalior and Orchha cities of State. The development and management plan of these cities will be prepared by UNESCO. All aspects including history, culture, food, lifestyle, economic development, community development will be included in it. These places will now be jointly developed by UNESCO, Government of India and Madhya Pradesh by focusing on their historical and cultural improvement.

Gwalior and Orchha in MP were included in the list of UNESCOs world heritage cities under its urban landscape city programme in December 2020. **Gwalior**: It was established in the 9th century and ruled by Gurjar Pratihar Rajvansh, Tomar, Baghel Kachvaho and Scindias. Orchha: It is popular for its temples and palaces and was the capital of the Bundela kingdom in the 16th century. About the 'Historic Urban Landscape' Approach: It was adopted in 2011 at UNESCO's General Conference. UNESCO defines HUL approach as an integrated approach towards managing heritage resources found within dynamic and evolving environments. HUL acknowledges the interconnections within a city, which occur between the built and natural environments, the tangible and intangible values, as well as within the cultural and social practices of a community. The approach addresses the policy, governance and management concerns involving a variety of stakeholders, including local, national, regional, international, public and private actors in the urban development process. **UNESCO Delists** Liverpool (in England) was added to UNESCO's World Heritage List in 2004 for its **Liverpool of Its** architectural beauty and in recognition of its role as one of the world's most **World Heritage** important ports during the 18th and 19th centuries. **Status** Reason for Removal: New buildings including a football stadium undermine the attractiveness of its Victorian docks and were destroying the heritage value of its waterfront. The over development would irreversibly damage the heritage of the historic port. Other delisted sites Wildlife sanctuary in Oman in 2007. Reason: poaching and habitat loss. Dresden Elbe valley in Germany in 2009. Reason: A four-lane motorway bridge was built over the river. **UNESCO** declares The Ramappa Temple showcases craftsmanship of Kakatiya dynasty. Kakatiya Ramappa It is Shiva Temple that lies in Mulugu district, Telangana. **Temple a World** The temple is named after the sculptor Ramappa, who built it, and is perhaps the Heritage site only temple in South India to be named after a craftsman who built it. Marco Polo, during his visit to the Kakatiya empire, allegedly called the temple "the brightest star in the galaxy of temples **Kakatiya Dynasty** The Kakatiya dynasty ruled from Warangal (Telangana) from CE 1083-1323. Known for the construction of a network of tanks for irrigation and drinking water and thereby gave a big boost to the overall development of the region. Hundreds of Hindu temples were built under the patronage of Kakatiya kings like Ganapati Deva, Rudrama Devi and Prataparudra of Kakatiya dynasty. Examples: (1) Thousand Pillar Temple or Rudreshwara Swamy Temple, Telangana. It is a star-shaped, triple shrine (Trikutalayam) dedicated to Vishnu, Shiva and Surya. (2) Ramappa Temple, Warangal, Telangana; (3) Golconda Fort in Hyderabad, Telangana **Dholavira: India's** Dholavira is proto-historic Bronze Age urban settlement pertaining to the **40th UNESCO** Harappan Civilization **World Heritage Site** Dating from the 3rd to mid-2nd millennium BCE. 6th largest of more than 1,000 Harappan sites discovered so far, The property comprises two parts: a walled city and a cemetery to the west of the city. The walled city consists of a fortified Castle with attached fortified Bailey and Ceremonial Ground, and a fortified Middle Town and a Lower Town.

	 A series of reservoirs are found to the east and south of the Citadel.
	 Urban planning, with its preconceived city planning; Multi-layered fortifications
	Extensive use of stone as a building material.
	 Planned city with planned and segregated urban residential areas based on possibly differential occupational activities, and a stratified society.
	 Technological advancements in water harnessing systems, water drainage system, - aimed to Conserve water
	 Unlike other Harappan antecedent towns normally located near to rivers and perennial sources of water, the location of Dholavira in the island of Khadir was strategic to harness different mineral and raw material sources (copper, shell, agate-carnelian, steatite, lead, banded limestone, among others) and to facilitate internal as well as external trade to the Magan (modern Oman peninsula) and Mesopotamian regions.
Keeladi	In News: Every season of excavation at the Keeladi archaeological site has
	unearthed ring wells, an indicator of the advanced water conservation technology
	that existed over 2,000 years ago
	Keezhadi (also as Keeladi) excavation site is a pre-Sangam (Iron age) settlement.
	 This is a large-scale excavation carried out in Tamil Nadu after the Adichanallur archaeological site.
	The settlement lies on the bank of the Vaigai River and it reflects the ancient culture of Tamil people.
	This place is considered to be Pandyan dynasty's city called "Perumanalur", the pioneer of literature.
Irulas	 Irula, also known as Iruliga, are a Dravidian ethnic group inhabiting the Indian states of Tamil Nadu, Kerala and Karnataka.
	 A scheduled tribe, their population in this region is estimated at around 200,000 people.
	 Traditionally, the main occupation of the Irulas has been snake, rat catching and honey collection.
	 They also work as labourers (coolies) in the fields of the landlords during the sowing and harvesting seasons or in the rice mills.
	 Fishing and cattle farm is also a major occupation.

GEOGRAPHY & PLACES IN NEWS

Heat Dome

In News:

Recently, the Pacific
Northwest and some parts of Canada recorded temperatures around 47 degrees, causing a "historic" heat wave. This is a result of a phenomenon referred to as a "heat dome".

- A heat wave is a period of abnormally high temperatures, more than the normal maximum temperature that lasts for more than two days.
- Heat waves **typically occur between March and June**, and in some rare cases even extend till July.
- The **western Pacific ocean's temperatures** have increased in the past few decades and are **relatively more than the temperature in the eastern Pacific.**



Heat dome phenomenon begins when there is a strong change (or gradient) in ocean temperatures.

- Convection => Warm rises & starts moving towards east => Northern shifts of the
 jet stream trap the air and move it toward land, where it sinks, resulting in heat
 waves.
- Hot air attempts to escape but high pressure pushes it down
- Heat domes also blocks out the clouds which provide some relief from heat
- Impacts of heat domes: Heat stroke, heat exhaustion, sunburn and heat rashes; dry out vegetation, damage crops, and result in droughts; can also act as fuel to wildfires and Increase in energy demand (AC & Cooler)

Discrete Auroras of Mars

Context: UAE's
Hope spacecraft
has captured
images of
glowing
atmospheric
lights in the Mars
night sky, known
as discrete
auroras.

Auroras on Earth:

- An Aurora is a display of light in the sky caused when charged particles ejected from the Sun's surface - called the solar wind - enter the Earth's atmosphere.
- The typical aurora is caused by collisions between charged particles from space with the oxygen and nitrogen in Earth's upper atmosphere (transfer of energy makes them excited leading to light emission)
 - makes them excited leading to light emission)

 They commonly occur at **high northern and southern latitudes**, less frequent at midlatitudes, and very seldom seen near the equator.
- While **usually a milky greenish color**, auroras can also show red, blue, violet, pink, and white. These colors appear in a variety of continuously changing shapes.
- Auroras are **not just something that happens on Earth.** If a planet has an atmosphere and magnetic field, they probably have auroras.

Discrete Auroras of Mars:

- Unlike auroras on Earth, which are seen only near the north and south poles, **Discrete Auroras (DA) on Mars are seen all around** the planet at night time.
- These DAs are traced out where **energetic particles excite the atmosphere** after being funneled down by a patchy network of crustal **magnetic fields that originate from minerals** on the surface of Mars.



Studying Martian auroras is important for scientists, for it can offer clues as to why the Red Planet lost its magnetic field and thick atmosphere— among the essential requirements for sustaining life **How Martian Auroras are Different from that of Earth?** Unlike Earth, which has a strong magnetic field, the Martian magnetic field has largely died out. This is because the molten iron at the interior of the planet - which produces magnetism - has cooled. However, the Martian crust, which hardened billions of years ago when the magnetic field still existed, retains some magnetism. So, in contrast with Earth, which acts like one single bar magnet, magnetism on Mars is unevenly distributed, with fields strewn across the planet and differing in direction and strength. These disjointed fields channel the solar wind to different parts of the Martian atmosphere, creating "discrete" auroras over the entire surface of the planet as charged particles interact with atoms & molecules in the sky– as they do on Earth. **Guindy National** It is located in the heart of Chennai's metropolitan area. Park: Tamil It is one of the last remnants of the tropical dry evergreen forests of the Coromandel Nadu About 22 acres of the Guindy National Park has been carved out into a park known as the Children's Park for ex-situ conservation. Fauna: Black bucks, spotted deers, jackals, varieties of snakes, over 100 species of birds and over 60 species of butterflies. Guindy Snake Park is next to Guindy National Park. It gained statutory recognition as a medium zoo from the Central Zoo Authority (CZA) in 1995. Other Protected Areas in Tamil Nadu: ✓ Gulf of Mannar Marine National Park (21 Islands) ✓ Mukurthi National Park ✓ Mudumalai National Park **Vembanad Lake** • Vembanad Lake is the largest lake in Kerala and the longest Lake in India. The lake has its source in four rivers, Meenachil, Achankovil, Pampa and Manimala In News: Kerala It is separated from the Arabian Sea by a narrow barrier island and is a popular houseboats in backwater stretch in Kerala. Vembanad Lake Vallam Kali (i.e Nehru Trophy Boat Race) is a Snake Boat Race held every year in the are about to month of August in Vembanad Lake. begin soon amid It is the **second-largest Ramsar site in India** only after the Sundarbans a robust The **Kumarakom Bird Sanctuary** is located on the east coast of the lake. vaccination In 2019, Willingdon Island, a seaport located in the city of Kochi, was carved out of drive. Vembanad Lake. Outstanding features of this lake is the 1252 m long saltwater barrier, Thannermukkon, which was built to stop saltwater intrusion into Kuttanad. Tillari Reserve Tillari is a reserve in western ghats, is the seventh wildlife corridor in Maharashtra state to be declared as a 'conservation reserve'. It connects Mahadei sanctuary in Goa and Bhimgad in Karnataka. It has semi-evergreen forest, tropical moist deciduous forests, and a number of unique trees, butterflies, and flowers. **Conservation Reserves in India** Conservation reserves and community reserves are terms denoting protected areas of the country which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and

reserved and protected forests.

They are designated as such if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if part of the lands are privately owned.

- These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002
- These categories were added because of reduced protection in & around existing or proposed protected areas due to private ownership of land.

Navegaon-Nagzira Tiger Reserve (NNTR)

- It is situated in Gondia and Bhandara districts of Maharashtra.
- Strategically, it is located in the heart of central Indian Tiger landscape which contributes almost one sixth of the total tiger population of the country
- It was designated as the 46th Tiger Reserve of India in December 2013.
- NNTR has connectivity with the major tiger reserves in Central India like,
 - Kanha and Pench tiger reserve in Madhya Pradesh,
 - Tadoba-Andhari Tiger reserve in Maharashtra,
 - Indravati Tiger Reserve in Chhattisgarh,
 - Indirectly with the Kawal and Nagarjuna Sagar in Telangana and Andhra Pradesh and, Achanakmar Tiger reserve in Chhattisgarh.
 - It is also connected to important tiger bearing areas like Umred-Karhandla sanctuary and Brahampuri Division (Maharashtra).
- The major forest type is "Southern Tropical Dry Deciduous Forest". Few thorny plants are also found and Bamboo occurs in abundance.
- Other Protected Areas in Maharashtra:
 - ✓ Sahyadri Tiger Reserve.
 - ✓ Melghat Tiger reserve.
 - ✓ Great Indian Bustard Sanctuary.
- ✓ Karnala Bird Sanctuary.
- ✓ Sanjay Gandhi National Park.
- Pench National Park.

Kanchenjunga Biosphere

In news: In a recent publication by the Botanical Survey of India (BSI) it was reported that Sikkim the smallest State with less than 1% of India's landmass, is home to 27% of all flowering plants found in the country.

• Sikkim is a part of the Kanchenjunga biosphere landscape

About Kanchenjunga Biosphere

- Khangchendzonga Biosphere Reserve which is located in Sikkim is one of the highest ecosystems in the world, reaching elevations of 1, 220 metres above sea-level.
- The biosphere has different altitudinal ecosystems, varying from sub-tropic to Arctic, as well as natural forests in different biomes, that support an immensely rich diversity of forest types and habitats.
- World's third highest peak, **Mt. Khangchendzonga**, is situated within the Park.
- Numerous lakes and glaciers, including the 26 km long **Zemu Glacier** are a part of the Biosphere reserve.
- Khangchendzonga National Park (KNP) was designated a World Heritage Site in 2016 under the 'mixed' category (Mixed heritage sites contain elements of both natural and cultural significance).
- The Khangchendzonga Biosphere Reserve in Sikkim, surrounding the world's third
 highest peak Mount Khangchendzonga, has been added to UNESCO's World
 Network of Biosphere Reserves, making it the 11th biosphere in India to be included
 in the network.
- Its location bordering Nepal, Tibet (China) and in close proximity of Bhutan offers unique opportunities for joint collaboration and conservation of biodiversity with neighbouring countries.
- Increasing unregulated tourism, lack of awareness about the landscape and shortage of staff are some of the key challenges in maintaining the reserve's sanctity

Lemru Elephant It is a proposed Elephant Reserve in Chhattisgarh. Reserve Lemru is one of two elephant reserves planned to prevent human-animal conflict in the region, with elephants moving into Chhattisgarh from Odisha and Jharkhand. The area proposed under the reserve is part of the Hasdeo Aranya forests, a very diverse biozone that is also rich in coal deposits. Badalkhol Tamorpingla, the other elephant reserve measuring 1048.30 sq km, was notified in September 2011. **Sunderbans** Sundarbans is a vast contiguous mangrove forest ecosystem in the coastal region of Bay of Bengal spread over India and Bangladesh on the delta (world's largest) of the Ganges, Brahmaputra and Meghna rivers. It contains the world's largest mangrove forests. It is the only mangrove forest in the world inhabited by tigers. **Sundarbans Tiger Reserve** was created in 1973. Sundarbans National Park, established in 1984, constitutes a core region within the tiger reserve. It was designated a **UNESCO World Heritage site** in 1987. Sunderbans was designated as a **Biosphere Reserve by UNESCO** in 2001. Sundarban Wetland, India was recognised as the 'Wetland of International Importance' under the Ramsar Convention in January 2019. **Karlapat Wildlife** Located in Kalahandi district, Odisha. Sanctuary It lies within the Eastern Highlands moist deciduous forests ecoregion. Flora: Sal, Bija, Asan, Harida, Amala, Bahada and Bamboo and varieties of medicinal Kumbhalgarh Located in the Rajsamand District of Rajasthan, the sanctuary extends across the Wildlife Aravalli Range. Sanctuary It is part of the Khathiar-Gir dry deciduous forests ecoregion. It was considered for the reintroduction of the Asiatic lion. **Barnadi Wildlife** In News: One of Assam's smallest wildlife sanctuaries could be the newest home of the Sanctuary tiger in the State. Barnadi wildlife sanctuary is situated on the foothills of Himalayas bordering Bhutan in the north and in Udalguri district & Baksa District of Assam. This sanctuary is named after the river Bornadi which flows on its western border **Kandla Port** Kandla, Gujarat has become the first Green SEZ. It has Achieved CII's IGBC (Indian Green Building Council) Green Cities Platinum Rating. **Indian Green Building Council?** The Indian Green Building Council (IGBC), part of the Confederation of Indian Industry (CII) was formed in the year 2001. Vision: "To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025". The council offers a wide array of services such as developing new green building rating programmes, certification services and green building training programmes. The council also organises Green Building Congress, its annual flagship event on green buildings. The council is committee-based, member-driven and consensus-focused. All the stakeholders of the construction industry participate in the council activities through local chapters. The council also closely works with several State Governments, Central Government, World Green Building Council, bilateral multi-lateral agencies in promoting green building concepts in the country.

Mishri variety of cherries

- In News: In a step towards boosting horticultural exports, the first commercial shipment of Mishri variety of cherries from the Kashmir valley has been exported to Dubai from Srinagar.
- The Union territory of Jammu and Kashmir produces more than 95% of the total country's production of commercial varieties of cherries. It produces four varieties of cherry — Double, Makhmali, Mishri and Italy.
- Mishri variety of cherries not only taste delicious but also contain vitamins, minerals and plant compounds with health benefits.

Do You Know?

 In Jammu and Kashmir, four districts – Pulwama, Budgam, Srinagar and Kishtwar – grow saffron. Among the four, Pulwama district's Pampore has earned the title of Kashmir's "saffron town" for growing the best quality saffron.

King Chilli 'Raja Mirchi



- In News: A consignment of 'Raja Mircha' also referred as king chilli from Nagaland was today exported to London via Guwahati under assistance from APEDA.
- King Chilli is considered as the world's hottest based on the Scoville Heat Units
- The chilli from Nagaland is also referred as Bhoot Jolokia and Ghost pepper. It got GI certification in 2008.
- Exporting fresh King Chilli posed a challenge because of its highly perishable nature.
- In 2021, APEDA has facilitated exports of Jackfruits from Tripura to London and Germany, Assam Lemon to London, Red rice of Assam to the United States and Leteku 'Burmese Grape' to Dubai

Kanjeevaram Silk Sari: Tamil Nadu

 In news National award winning artisan weaver, B Krishnamoorthy, has created a repository with samples of all the designs, patterns and motifs traditional to Kanjeevaram silk sari weaving, preserving fine pieces for next generation.

About Kanjeevaram Sarees:

- Traditionally, the Kanjeevaram is a sari that is usually handwoven in mulberry silk and has pure gold or silver zari that renders it a festive quality.
- Originating from the village 'Kanchipuram' in Tamil Nadu, Kanjeevaram is considered the queen of silk sarees.
- The temple architecture of south India and especially around Kanchipuram has historically served as a mood board for design inspiration for the traditional Kanjeevaram motifs.
- One can spot motifs such as the mythical creature called the Yali (an elephant-lion fusion), the Ganda Berunda (a two-headed majestic mythical bird) and the ubiquitous temple border called reku.
- It traces its long and rich history from the Chola Dynasty
- Kanchipuram silk has also received GI Tag in 2005-06.

Madurai Malli

- In News: For ensuring that Indians living abroad get supplies of fresh flowers to deities at home and temples, consignments of Geographical Indication (GI) certified Madurai malli and other traditional flowers such as button rose, lily, chamanthi and marigold were exported to the USA and Dubai from Tamil Nadu.
- Madurai Malli is the Jasmine flower, known for its strong and powerful, mysteriously attractive & seductive fragrance.
- This is a very old traditional flower and it has a botanical name "Jasminium".
- It is mainly cultivated in the district of Madurai and the neighboring places of Madurai like Theni, Sivaganga, Virudhunagar and Dindigul.
- Jasmine is one of the most popular flowers found across the world.
- The scent of Jasmine is synonymous with the splendour of Madurai's Meenakshi Temple.

	Madurai has emerged as a significant market for the malligai grown in its
	neighbourhood and has evolved into India's 'jasmine capital'.
Hydro projects	Pulichintala Project
in News	 It is a multipurpose project serving irrigation needs, hydro power generation and flood control. It is a crucial irrigation facility for farmers of four coastal districts of West Godavari, Krishna, Guntur and Prakasam where irrigation facility for 13 lakh acres. It is located in Guntur district near the Krishna River.
	Nagarjuna Sagar Dam
	It is a masonry dam across the Krishna River at Nagarjuna Sagar which straddles the border between Nalgonda district in Telangana and Guntur district in Andhra Pradesh.
	Srisailam Dam
	 It is constructed across the Krishna River in Kurnool district, Andhra Pradesh near Srisailam temple town and is the 2nd largest capacity working hydroelectric station in the country.
	Polavaram Project
	• It is an under construction multi-purpose irrigation project on the Godavari River in the West Godavari District and East Godavari District in Andhra Pradesh.
	Pattiseema Lift Irrigation Project
	It is a river interlinking project which connects Godavari River to Krishna River
Bagram Air Field	 In News: After nearly 20 years, the U.S. military left Bagram Airfield. Bagram Airfield-BAF also known as Bagram Air Base was the largest U.S. military base in Afghanistan.
	It was the epicentre of its war to oust the Taliban and hunt down the al-Qaeda perpetrators of the 9/11 terrorist attacks on America.

INTERNAL SECURITY

Global Cybersecurity Index (GCI)

- Released by International Telecommunication Union (ITU).
- India has ranked 10th (score of 97.5/100) in GCI 2020 by moving up 37 places.
- 1st –US; 2nd UK & Saudi Arabia; 3rd Estonia
- GCI is based on **Five Parameters of Cyber security:** Legal measures, technical measures, organisational measures, capacity development and cooperation
- o ITU is UN Specialized agency, headquartered in Geneva, to facilitate international connectivity in communications networks.
- It allocates global radio spectrum and satellite orbits, develops the technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide.
- Recently, India got elected as a member of ITU Council for another 4-year term
 from 2019 to 2022. India has remained a regular member since 1952
- **Budapest Convention on Cybercrime** is an international treaty that seeks to address Internet and computer crime by harmonizing national laws, improving investigative techniques, and increasing cooperation among nations. It came into force on 1st July 2004. **India is not a signatory to this convention**

National Maritime Security Coordinator (NMSC)

• In News: The government is likely to appoint NMSC two decades after the Kargil Group of Ministers' recommendation to ensure cohesive and quicker decision-making among multiple organisations that are handling maritime issues in India.

About NMSC

- The maritime security coordinator will work under the NSA and will be the principal adviser to the government on the maritime security domain.
- The NMSC will head the National Maritime Commission (NMC), which will coordinate
 with all organisations such as the Indian Navy, the Indian Coast Guard (ICG), the
 shipping ministries and the ports. The security coordinator is likely to report to the
 National Security Advisor (NSA)
- Objective: Setting up the National Maritime Security Coordinator (NMSC) aims to create an interface between the civilian and military maritime domains to enhance India's security architecture and energy security.

Need for National Maritime Security Coordinator

- Experts say that the Navy, Coast Guard, and state maritime boards tend to work in silos with overlapping jurisdictions and are constantly at odds with each other.
- Historically, India has suffered from sea blindness with land-based security doctrines.
- Over 70% of Indian trade, including crude oil, is transported through the sea, and the protection of sea shipping lanes is important to the security of India.
- The Indian government is also clearing the Deep Ocean Mission for the blue water economy. So strengthening maritime security is required to protect our projects.
- As per security experts, China is moving towards a sea-based security doctrine and is penetrating into the Indian Ocean through Pakistan and Myanmar.
- The post of NMSC thus gains importance for maritime and energy security.

New generation of Akash surface-to-air missile

- In news A new generation of Akash surface-to-air missile was successfully flight-tested on by the DRDO from an integrated test range off the Odisha coast in a boost to air defence capabilities.
 - The new variant of the Akash missile (Akash-NG) has a slightly better range compared to the original version that can strike targets at a distance of around 25 km.

 During the test, the missile demonstrated high manoeuvrability required for neutralising fast and agile aerial threats.

About Akash Missile System

- Akash is India's first indigenously produced medium range Surface to Air missile that can engage multiple targets from multiple directions.
- Manufactured by: Defence Research and Development Organisation (DRDO)
- The all-weather missile can engage targets at a speed 2.5 times more than the speed of sound and can detect and destroy targets flying at low, medium and high altitudes.
- The Akash missile system has been designed and developed as part of India's 30year-old Integrated guided-missile development programme (IGMDP) which also includes other missiles like Nag, Agni, Trishul and Prithvi.
- The nuclear-capable missile can fly at a speed of up to Mach 2.5 (nearly 860 m/s) at a maximum height of 18 km.
- It can strike enemy aerial targets from a distance of 30 km.

Unique features of Akash:

- It can be **launched from mobile platforms** like battle tanks or wheeled trucks. It has nearly 90% kill probability.
- The missile is supported by the indigenously developed radar called 'Rajendra' that
 can handle highly-manoeuvring multiple targets from multiple directions in group or
 autonomous mode.
- The missile is reportedly cheaper and more accurate than USA's Patriot missiles due to its solid-fuel technology and high-tech radars.

Exercise INDRA-21

- In news: The 12th Edition of Indo-Russia joint military Exercise INDRA will be held at Volgograd, Russia in August 2021.
- The exercise will entail conduct of counter terror operations under the United Nations mandate by a joint force against international terror groups.
- The INDRA series of exercises began in 2003 and was conducted as a bilateral naval exercise alternately between the two countries. However, the first joint Tri-Services Exercise was conducted in 2017.
- The last joint, tri-services exercise between India and Russia was conducted in India in December 2019. It was held simultaneously at Babina (near Jhansi), Pune, and Goa.

Shekatkar Committee

The Committee of Experts (CoE) constituted by the Ministry of Defence under the chairmanship of Lt Gen (Retd) DB Shekatkar to recommend measures to enhance combat compatibility and rebalance defence expenditure of the armed forces.

Measures recommended by the Committee and taken up for the implementation include:

- Optimisation of Signals Establishments to include Radio Monitoring Companies, Corps Air Support Signal Regiments, Air Formation Signal Regiments, Composite Signal Regiments and merger for Corps Operating and Engineering Signal Regiments.
- Restructuring of repair echelons in the Army to include Base Workshops, Advance Base Workshops and Static/Station Workshops in the field Army.
- Redeployment of Ordnance echelons to include Vehicle Depots, Ordnance Depots and Central Ordnance Depots apart from streamlining inventory control mechanisms.
- Better utilisation of Supply and Transportation echelons and Animal Transport Units.
- Closure of Military Farms and Army Postal Establishments in peace locations.
- Enhancement in standards for recruitment of clerical staff and drivers in the Army. Improving the efficiency of the National Cadet Corps.

SCIENCE & TECHNOLOGY

National Forensic It is the world's first and only University dedicated to Forensic, behavioral, **Science University** cybersecurity, digital forensics, and allied Sciences. (NFSU) • It was established by the Government of India through Act, 2020 with the objective of fulfilling the acute shortage against the increasing demand for forensic experts in the country and around the world. The Act establishes the Gujarat Forensic Sciences University (GFSU), Gandhinagar (established under the GFSU Act, 2008) and the Lok Nayak Jayaprakash Narayan National Institute of Criminology and Forensic Sciences, New Delhi, as a University called the NFSU at Gujarat. It has the status of an Institution of National Importance (under guidance of Ministry of Home Affairs, GoI) Methane in the In News: NASA's Cassini spacecraft had detected an unusually high concentration of **Moons of Saturn** methane, along with carbon dioxide and dihydrogen, in the moons (Titan and Enceladus) of Saturn by flying through their plumes (in 2017). It found that Titan has methane in its atmosphere and Enceladus has a liquid ocean with erupting plumes of gas and water. An international research team has used new statistical methods to understand if methanogenesis or methane production by microbes could explain the molecular hydrogen and methane **About Methanogens:** Most of the methane on Earth has a biological origin. Microorganisms called methanogens are capable of generating methane as a metabolic by product. They do not require oxygen to live and are widely distributed in nature. They are found in swamps, dead organic matter, and even in the human gut. They are known to survive in high temperatures and simulation studies have shown that they can live in Martian conditions. Methanogens have been widely studied to understand if they can be a contributor to global warming. Possibility of Methanogens on Enceladus: Methane could be formed by the chemical breakdown of organic matter present in Enceladus' core. • Hydrothermal processes could help the formation of carbon dioxide and Enceladus' hydrothermal vents could be habitable to Earth-like microorganisms (Methanogens). New source of Scientists have for the first time detected gravitational waves – ripples in the gravitational waves fabric of space-time – produced by the collision of a neutron star and a black hole.

rate of our universe.

detectors on Earth.

This finding confirms that there are neutron star-black hole systems and will help answer many questions about the cosmos, from star formation to the expansion

Gravitational waves are produced when celestial objects collide and the ensuing energy creates ripples in the fabric of space-time which carry all the way to

This is the first-time scientists have seen gravitational waves from a neutron star and a black hole Previous gravitational wave detections have spotted black holes colliding, and neutron stars merging but not one of each.

Soil-less agriculture

- In news A former naval officer who is an expert in soil-less agriculture has been carrying out campaign, 'Mission Turmeric 2021'
 - It aims to begin an "orange revolution" by teaching people to cultivate turmeric in shade houses in grow bags (large porous containers made of high density polyethylene) packed with coco-peat (made from the pith of the coconut husk) instead of soil.
 - The method resulted in better yield with **higher Curcumin content.**
 - Curcumin is a bright yellow phenolic compound in Turmeric known for its potential to fight cancer.
- Soilless culture is defined as any method of growing plants without the use of soil as a rooting medium
- In soil-less agriculture, such as hydroponics, micro and macro nutrients that have been pre-mixed into a water reservoir, along with high levels of oxygen, are delivered efficiently to the plant roots.

Advantages of Soilless Agriculture

- Faster growth
- Extreme decrease in water and nutrient use
- Controlled Environment Agriculture (CEA): CEA is a method of agriculture that
 optimizes the temperature, humidity, airflow, and light within the growing
 environment of a farm.
- **Location**: The farm is closer to the consumer, decreasing the carbon footprint of delivery and increasing the freshness of the product.
- Requires less space to grow

Challenges of Soilless agriculture

- Soil-less agriculture cannot be treated as a magic solution.
- Besides the high initial investment, the method requires practice in order to succeed.
- Growers need to manage the various parameters more meticulously as compared to soil-based cultivation.
- And despite the good results, there is no premium pricing for the produce from hydroponics
- The complex role played by soil in ecosystem cannot be discounted & hence Soil less agriculture cannot be a replacement

NASA's VIPER Mission

In news NASA has announced that it will launch its Volatiles Investigating Polar Exploration Rover (VIPER) in 2023

Objectives:

- To explore the **Moon's South Pole** region.
- Help create lunar resource maps.
- Evaluate the concentration of water as well as other potential resources on its surface.
- To understand if it is possible for human life to sustain there, by using locally available resources.
- VIPER's findings will inform "future landing sites under the **Artemis program** by helping to determine locations where water and other resources can be harvested" to sustain humans over extended stays.

About Artemis Program

During the Artemis program, NASA will land the first woman and first person of color on the Moon, using innovative technologies to explore more of the lunar surface than ever before.

- NASA will collaborate with other commercial and international partners and establish sustainable exploration for the first time.
- Then, the learning from Moon exploration will enable NASA to take the next giant leap sending astronauts to Mars.

Floating Solar Power Plants

- In News: NTPC has commissioned India's largest Floating Solar of 10 MW (ac) on the reservoir of Simhadri Thermal Power Plant, Andhra Pradesh
- **Floating Solar Plants** refers to the deployment of photovoltaic panels on the surface of water bodies.

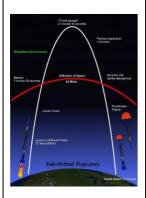
Advantages of Floating Solar Power Plants

- Address Land Acquisition Issues: Floating solar plants balance high population density and competing uses for available land.
- **Cooling Effect**: The bodies of water exert a cooling effect, which improves the performance of solar photovoltaic panels by 5-10%.
- Reduced grid interconnection costs, reduced water evaporation, improved water quality, and reduced algal blooming.

Challenges:

- Expensive
- Degradation and Corrosion: The installation is at risk of degradation and corrosion due to moisture
- Developing floating solar projects requires a thorough understanding of waterbed topography and its suitability for setting up anchors for floats.

Suborbital Flight



- In news Recently, a six person crew on Virgin Galactic's VSS Unity spaceship undertook a brief trip to the "edge of space" which is known as Suborbital Flight.
 - Sirisha Bandla, an astronaut born in India, was a part of the crew. She was the third woman of Indian origin to go to space after Kalpana Chawla and Sunita Williams.
 - Virgin Galactic is a British-American spaceflight company, operating in the USA.
- An object traveling above atmosphere at a horizontal speed of ~28,000 km/hr (orbital velocity or escape velocity) or more goes into orbit around the earth
 - Such a satellite would be accelerating towards the Earth due to gravity, but its horizontal movement is fast enough to offset the downward motion so that it moves along a circular path.
- Suborbital flights are the one where the velocity of rocket system doesn't reach the escape velocity to put it into orbit. As a result, it will instead follow a parabolic trajectory, looping up and then back down again.

New Shephard rocket system

- In news Amazon CEO Jeff Bezos came back to earth after a 10-min flight to space on Blue Origin's New Shepard spacecraft.
- The astronauts experienced three to four minutes of zero-gravity and travelled above the **Kármán Line**, the internationally-recognised boundary of space.

About New Shepard Rocket System

- It is a rocket system that has been designed to take astronauts and research payloads past the Karman line.
- The idea is to provide easier and more cost-effective access to space meant for purposes such as academic research, corporate technology development, entrepreneurial ventures and space tourism among others.

- The system is built by Blue Origin, Private Space Company based out in USA.
- New Shephard has been named after astronaut Alan Shephard, the first American to go to space.
- It offers flights to space over 100 km above the Earth and accommodation for payloads.
- The system is a fully reusable, vertical takeoff and vertical landing space vehicle

Lightning

Context: Recently, thirty people were killed in separate incidents of lightning in various parts of India. Lightning is the biggest contributor to accidental deaths due to natural causes.

• Lightning is the process of occurrence of a **natural 'electrical discharge of very short duration and high voltage** between a cloud and the ground or within a cloud', accompanied by a bright flash and sound, and sometimes thunderstorms.

How does lightning occur?

- It is a result of the difference in electrical charge between the top and bottom of a cloud.
- As water vapour moves upwards in the cloud, it condenses into water due to decreasing temperatures. A huge amount of heat is generated in the process, pushing the water molecules further up.
- As they move to temperatures below zero, droplets change into small ice crystals.
 As they continue upwards, they gather mass, until they become so heavy that they start descending.
- It leads to a system where smaller ice crystals move upwards while larger ones come down. The resulting collisions trigger release of electrons, in a process very similar to the generation of electric sparks.
- The moving free electrons cause more collisions and more electrons leading to a chain reaction.
- The process results in a situation in which the top layer of the cloud gets positively charged while the middle layer is negatively charged.
- In little time, a huge current, of the order of lakhs to millions of amperes, starts to flow between the layers.
 - It produces heat, leading to the heating of the air column between the two layers of cloud. It is because of this heat that the air column looks red during lightning.
 - The heated air column expands and produces shock waves that result in thunder sounds.
- The **Earth is a good conductor of electricity.** While electrically neutral, it is relatively positively charged compared to the middle layer of the cloud. As a result, an estimated 20-25% of the current flow is directed towards the Earth. It is this current flow that results in damage to life and property.

Do You Know?

- Lightning Conductor is a device used to protect buildings from the effect of lightning.
 - If lightning hits the structure, it will preferentially strike the rod and be conducted to ground through a wire, instead of passing through the structure, where it could start a fire or cause electrocution.
- Lightning incidents is directly related to the climate crisis, and the availability of more moisture over land due to global warming.
 - An increase of one degree Celsius would increase the frequency of lightning strikes by 12%, warned California University in a study published 2015.

Cloud Computing

In news Google Cloud announced

• Simply put, cloud computing is the delivery of computing services—including servers, storage, databases, networking, software, analytics, and intelligence—over the Internet ("the cloud")

expanding its footprint in India with its second 'Cloud Region' in the country

- It is the pool of shared resources such as networks, servers, storage, applications, and services that can be provided to the consumer rather than the consumer managing them on her own which is costly and time-consuming.
- Rather than owning their own computing infrastructure or data centres, companies or individuals can rent access to storage (or application or services) from a cloud service provider.
- Advantages
 - Low capital expenditure
 - Flexible resources
 - o Economies of scale
 - Improved disaster recovery and reliability

Edge Computing

- Edge computing is a **distributed IT architecture** in which client data is processed at the periphery of the network, as close to the originating source as possible.
 - o It doesn't mean the cloud will disappear. It means the cloud is coming to you.
 - o It **means** running fewer processes in the cloud and moving those processes to local places, such as on a user's computer or an edge server.
- In edge computing data is analysed locally, closer to where it is stored, in realtime without latency.
- Edge Computing allows data from internet of things devices to be analysed at the edge of the network before being sent to the data centre or cloud
- The global edge computing market is forecasted to reach more than \$ 8 Billion by 2025 valued growing at more than 32% between 2019-2025.

UV-C technology

In news Ultraviolet-C or UV-C Disinfection Technology will soon be installed in Parliament for the "mitigation of airborne transmission of SARS-COV-2".

- UV radiation is the portion of the Electromagnetic spectrum between X-rays and visible light.
- The most common form of UV radiation is sunlight, which produces three main types of UV rays: UVA, UVB and UVC.
- UVA rays have the longest wavelengths, followed by UVB, and UVC rays which have the shortest wavelengths.
- While UVA and UVB rays are transmitted through the atmosphere, all UVC and some UVB rays are absorbed by the Earth's ozone layer.
- Most of UV rays you come in contact with are UVA with a small amount of UVB.

Utility of UV rays

- UV radiations are normally used to kill microorganisms.
- Particularly, UV-C, also known as Ultraviolet germicidal irradiation (UVGI) is a
 disinfection method that uses short-wavelength ultraviolet light to kill or
 inactivate microorganisms by destroying their nucleic acids and disrupting their
 DNA, leaving them unable to perform vital cellular functions and stops their
 replication.
- UVGI is **used in a variety of applications**, such as food, air, and water disinfection.
- UVC lamps used for disinfection purposes may pose potential health and safety risks depending on the UVC wavelength, dose, and duration of radiation exposure.
- Direct exposure of skin and eyes to UVC radiation from some UVC lamps may cause painful eye injury and burn-like skin reactions.

Some **UVC lamps generate ozone.** Ozone inhalation can be irritating to the airway. However, studies have shown that far-UVC light (207–222 nm) does not harm mammalian skin as they have a very limited range and cannot penetrate through the outer dead-cell layer of human skin About the UV-C air duct disinfection system Developed by CSIR-CSIO (Central Scientific Instruments Organisation). The system is designed to fit into any existing air-ducts and the UV-C intensity can be calibrated according to the existing space. The virus will get deactivated in any aerosol particles by the calibrated levels of UV-C light. It can be used in auditoriums, malls, educational Institutions, AC buses, and in railways. Mercury's iron Scientists had argued that hit-and-run collisions with other bodies during the heart formation of our solar system resulted in much of Mercury's rocky mantle being removed, leaving behind the big, dense, metal core inside. **In news:** A study by But new research reveals that Sun's magnetism is the reason for this and not the researchers from collisions. the University of The researchers developed a model showing that the density, mass and iron Maryland disputes content of a rocky planet's core are influenced by its distance from the Sun's the prevailing magnetic field. hypothesis on why There is a gradient in which the metal content in the core drops off as the four Mercury has a biginner planets of our solar system get further from the Sun. sized core relative The current work explains this by showing that the distribution of raw materials in to its mantle (the the early forming solar system was controlled by the Sun's magnetic field. layer between its The new model shows that during the early formation of our solar system, when core and crust). the young Sun was surrounded by a swirling cloud of dust and gas, grains of iron were drawn toward the centre by the Sun's magnetic field. When the planets began to form from clumps of that dust and gas, planets closer to the sun incorporated more iron into their cores than those further away. **Al Powered** In news Recently, the Defence Minister launched an Artificial Intelligence (AI) powered grievance management application. Grievance Management This project is the first of its kind initiative of the Government for using AI, data **Application** science and Machine Learning techniques in grievance redressal. It is a citizen centric reform. **Developed by:** Ministry of Defence (MoD) with the help of IIT-Kanpur. It will automatically handle and analyse the complaints of the people and thus reduce human intervention, save time and bring more transparency in their disposal. Significance: This application will help in understanding the nature of complaints, and policy changes which can be introduced to create systemic improvements to address these grievances. The success of this project in MoD will pave the way for extension of this application across other Ministries.

TA moon wobble is a cyclical shift in the moon's orbit, it is a regular swaying

It was first reported in 1728 and happens every 18.6 years.

(Oscillation) in the moon's orbit.

Moon's Wobble

Effect

In News: Moon "Wobble" is seen as a driving force behind Coastal Flooding in 2030s by NASA.

- The moon wobble impacts the gravitational pull of the moon, and therefore, indirectly influences **the ebb and flow of tides** on the Earth.
- Each wobble cycle has the power to amplify and suppress the tides on Earth.
 - During half of the Moon's orbit of 18.6 years, the Earth's regular tides are suppressed i.e. high tides are lower than normal and low tides higher than normal (Current situation).
 - In the other half, the effect is reversed, which is called the tide-amplifying phase of the Moon.

Concerns

- The lunar cycle is expected to shift again by mid-2030, and in the coming phase, the tides will **amplify once again.**
- The upcoming changes in the lunar cycle will pose a serious threat, as the amplified high tides **coupled with the rising sea levels** will make the risk of flooding far greater across all coastal regions of the globe.
- It raises the baseline, and the more the baseline is raised, the smaller the weather event to cause flooding.
- The high tide-associated floods—also known as nuisance floods or sunny day floods—may occur in clusters that could last for months or even for longer periods.
- The combination of the Moon's gravitational pull, rising sea levels, and climate change will continue to exacerbate coastal flooding across the world

Sero Survey

Key Findings of Fourth National Sero Survey

- Two-thirds of India's population have antibodies against the coronavirus.
- 67.6% of adults were seropositive, while more than 62% of adults were unvaccinated.
- About 400 million of India's 1.4 billion people did not have antibodies.
- Sero studies popularly known as sero survey examines how many people in a population have been infected with COVID-19
- Sero survey broadly indicates following things;
 - ✓ The percentage of the population exposed to the virus.
 - ✓ Which groups are more exposed or have had higher rates of infection
 - ✓ How infection rates are progressing in a particular area.

How is Sero Survey Done?

- The blood serum (fluid part of plasma) of a group of individuals is examined for antibodies (not the virus itself) that are developed in response to virus exposure.
- Seropositive=> Presence of antibodies => exposed to Coronavirus
- Everybody cannot be tested, only a few people chosen at random are tested. The results are an estimate of the proportion of people who were infected in the past

NEA Scout: NASA's New Spacecraft

• In News: National Aeronautics and Space Administration (NASA) has announced that its new spacecraft, named Near-Earth Asteroid Scout or NEA Scout, has completed all required tests and has been safely tucked inside the Space Launch System (SLS) rocket.

About NEA Scout

- It is a miniaturized spacecraft, known as a **CubeSat.**
- Its main mission is to fly by and collect data from a near-Earth asteroid.
 - It will take about two years to cruise to the asteroid and will be about 93 million miles away from Earth during the asteroid encounter.
- It is one of several payloads that will hitch a ride on **Artemis I**, which is expected to be launched in November, 2021.

- Artemis I is the first in a series of increasingly complex missions that will enable human exploration to the Moon and Mars.
- NEA Scout launches to the Moon in 2021 with a fleet of other small satellites aboard Artemis 1.
- At the Moon, NEA Scout will deploy its 86-square-meter solar sail and slowly spiral out of lunar orbit.
- It will travel to a near-Earth asteroid and perform a slow fly-by, capturing up-close images of the surface.
- The images gathered by NEA Scout will **provide critical information** on the asteroid's physical properties such as orbit, shape, volume, rotation, the dust and debris field surrounding it, plus its surface properties.

Unique about NEA Scout

- It will also be America's first interplanetary mission using a special solar sail propulsion.
- So far, spacecraft have been using solar energy to power them and execute critical functions. This will be the first time that a spacecraft uses solar energy as wind to generate thrust and move forward.
- The spacecraft will pave the way for the Solar Cruiser, which will use a sail 16 times larger when it flies in 2025.

Gamma-ray burst

In news A group of astronomers have detected a very short, powerful burst of highenergy radiation that lasted for about a second and had been racing toward Earth for nearly half the present age of the universe.

- The burst detected by NASA's Fermi Gamma-ray Space Telescope on August 26, 2020, turned out to be one the shortest gamma-ray burst(GRB) caused by the death of a massive star.
- From India, The Inter-University Centre for Astronomy and Astrophysics, Pune (IUCAA), National Centre for Radio Astrophysics Tata Institute of Fundamental Research, Pune (NCRA) and IIT Mumbai also participated in this work.
- The burst emitted 14 million times the energy released by the entire Milky Way galaxy over the same amount of time, making it one of the most energetic short-duration GRBs ever seen.

About Gamma Ray Bursts (GRBs)

- GRBs are the most powerful events in the universe, detectable across billions of light-years.
- Astronomers classify them as long or short based on whether the event lasts for more or less than two seconds.
- They observe long bursts in association with the demise of massive stars, while short bursts have been linked to a different scenario.
- This recent identification of GRBs showed for the first time that a dying star can produce short bursts too.
- When a star much more massive than the Sun runs out of fuel, its core suddenly collapses and forms a black hole.
- As matter swirls toward the black hole, some of it escapes in the form of two
 powerful jets that rush outward at almost the speed of light in opposite
 directions.
- Astronomers only detect a GRB when one of these jets happens to point almost directly toward Earth.

Russia's Nauka

• Nauka, meaning "science" in Russian, is the biggest space laboratory Russia has launched to date.

In News: Nauka was launched from the Baikonur Cosmodrome in Kazakhstan on July 21 using a Proton rocket. It is scheduled to be integrated with the ISS on July 29.

- It will replace Pirs, a Russian module on the International Space Station (ISS) used as a docking port for spacecraft and as a door for cosmonauts to go out on spacewalks.
- Now, Nauka will serve as the Russia's main research facility on the space station.
- Nauka is 42 feet long and weighs 20 tonnes.
- It is also bringing to the ISS another oxygen generator, a spare bed, another toilet, and a robotic cargo crane built by the European Space Agency (ESA).
 - The ISS has been in space since 1998.
- It is a result of cooperation between the five participating space agencies that run it: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada).
- The ISS circles the Earth in roughly 93 minutes, completing 15.5 orbits per day.
- The ISS serves as a microgravity and space environment research laboratory in which scientific experiments are conducted in astrobiology, astronomy, meteorology, physics, and other fields.

Intranasal Vaccine

- In news: In another two to two-and-a-half months, Bharat Biotech is going to have significant data on its intranasal COVID-19 vaccine whose clinical trials are under way.
 - New vaccine being developed by Hyderabad based Bharat Biotech is BBV154 –
 A novel adenovirus vectored, intranasal vaccine for COVID-19
- Intranasal vaccine is a vaccine administered to a person via the nose and does not require a needle.

Benefits of Intranasal Vaccine

- It promises to be more effective, since it is expected to generate immune responses at the site of infection (respiratory mucosa)
- Non-invasive, Needle-free.
- Ease of administration does not require trained health care workers.
- Elimination of needle-associated risks (injuries and infections).
- High compliance (Ideally suits for children's and adults).
- Scalable manufacturing able to meet global demand. It can produce 100 million doses a month.

Geo-imaging satellite "EOS-03"

In news: Geoimaging satellite"EOS-03"is scheduled for launch in the third quarter of 2021 by ISRO.

- EOS-03 is Earth Observation Satellite that would enable near-real time monitoring of natural disasters like floods & cyclones.
- Earth observation is the gathering of information about Earth's physical, chemical and biological systems.
- Other earth observation satellites launched by ISRO include RESOURCESAT- 2, 2A, CARTOSAT-1, 2, 2A, 2B, RISAT-1 and 2, OCEANSAT-2, Megha-Tropiques, SARAL and SCATSAT-1, INSAT-3DR, 3D, etc.
- EOS-03 is capable of imaging the whole country 4-5 times daily.
- In addition to natural disasters, EOS-03 would also enable monitoring of water bodies, crops, vegetation conditions, forest cover changes etc.

Delta Variant as contagious as Chicken Pox

About Delta variant

- SARS-CoV-2 Delta variant, also known as lineage B.1.617.2, is a variant of lineage B.1.617 of SARS-CoV-2, the virus that causes COVID-19.
- It was first detected in India in late 2020.
- The WHO named it the Delta variant on 31 May 2021.

In news: According to the United States Centers for Disease

Key findings

• Delta variant probably causes more severe disease than past strains.

Control and	A review of findings from other countries shows that each person with Delta			
Prevention	infects on average eight others, making it as transmissible as chickenpox but still			
(CDC) document,	less than measles.			
the Delta variant of	The breakthrough cases in vaccinated individuals may be as transmissible as			
the coronavirus is as	unvaccinated cases. Also, the breakthrough infections in vaccinated people are			
contagious as	highly contagious.			
chickenpox.	 A breakthrough infection occurs when someone who is fully vaccinated 			
	contracts the virus. Such infections are to be expected with any vaccines since			
	they are never 100 percent effective at blocking infection			
	Vaccine efficacy estimates vary across countries, but the CDC estimates the risk of			
	severe disease or death is reduced 10-fold or greater in the vaccinated person,			
	while risk of infection is reduced three-fold or greater.			
Hardware Wallet	Each digital asset is linked to a cryptographic password called a 'private key' to			
	allow users to access it. This key safeguards cryptocurrencies from theft and			
	unauthorised access.			
	A hardware wallet is a cryptocurrency wallet which stores the user's private keys			
	(critical piece of information used to authorise outgoing transactions on the			
	blockchain network) in a secure hardware device.			
	 The main principle behind hardware wallets is to provide full isolation between 			
	the private keys and your easy-to-hack computer or smartphone.			
	 The asset owner, with the help of a secure hardware wallet, can access the 			
	private key to buy and sell crypto assets from anywhere. Most hardware wallets			
	allows users to manage multiple accounts; some even allow users to connect to			
	their Google or Facebook accounts.			
	 Hardware wallets and physical devices act like cold storage for confidential keys. 			
	The passwords are protected by a PIN , making it difficult for hackers to extract			
	private keys as the information is not exposed to the Internet.			
	Hardware wallets are often stored in a protected microcontroller and cannot be			
	transferred out of the device, making them secure.			
	 Their isolation from the Internet also mitigates the risk of the assets being 			
	compromised. Moreover, it does not rely on any third-party app.			

INTERNATIONAL RELATIONS

LEAF (Lowering Emissions by Accelerating Forest Finance) Coalition

- LEAF Coalition was announced at the Leaders Summit on Climate, 2021.
- LEAF coalition will be one of the largest ever public-private efforts to
 protect tropical forests and intend to mobilize at least USD 1 billion in financing to
 countries committed to protecting their tropical forests.
- LEAf is a collective of the governments of the USA, United Kingdom and Norway.
- As it is a public-private effort, thus also supported by transnational corporations (TNCs) like Unilever plc, Amazon.com, Nestle, Airbnb etc.
- A country willing to participate would need to fulfil certain predetermined conditions laid down by the Coalition.
- LEAF is a step towards concretising the aims and objectives of the Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism.
 - REDD+ was created by UNFCCC to achieve climate change mitigation by incentivizing forest conservation.
- Tropical forests are massive carbon sinks and by investing in their protection, public and private players are likely to stock up on their carbon credits.

Indian Ocean Naval Symposium (IONS)

In News: Recently, the 7th edition of IONS was hosted by the French Navy at Réunion island.

- It is a biennial event which was conceived by the Indian Navy in 2008.
- The IONS is a voluntary and inclusive initiative that brings together navies of Indian
 Ocean Region littoral states to increase maritime co-operation and enhance
 regional security.
- It also serves to develop an effective response mechanism and humanitarian assistance and disaster relief (HADR)against natural disasters
- The chairmanship of IONS has been held by India (2008-10), UAE (2010-12), South Africa (2012-14), Australia (2014-16), Bangladesh (2016-18) and Islamic Republic of Iran (2018-21).
- IONS includes 24 member nations that touch or lie within the Indian Ocean Region (IOR), and 8 observer nations.
- Members include: Bangladesh, India, Maldives, Pakistan, Seychelles, Sri Lanka and <u>United Kingdom</u> (British Indian Ocean Territory), Iran, Oman, Saudi Arabia and United Arab Emirates, <u>France</u> (Reunion), Kenya, Mauritius, Mozambique, South Africa, and Tanzania, Australia, Indonesia, Malaysia, Myanmar, Singapore, Thailand and Timor-Leste.

Significance of IONS to India

- Strengthening and deepening the relations with the Indian Ocean littoral states;
- Establishing its leadership potential and aspirations of being a net-security provider; and
- Fulfilling India's vision of a rules-based and stable maritime order in the IOR.
- Consolidating its sphere of influence from the Straits of Malacca to Hormuz
- Counter-balancing the increasing presence of China in the region.

Lower Arun Hydro Electric Project (LAHEP)

In News: An MoU has been signed for execution of 679 MW Lower Arun Hydro Electric Project in **Nepal** between Satluj Jal Vidyut Nigam (SJVN)(PSU under Ministry of Power) & Investment Board of Nepal (IBN) in Kathmandu Nepal.

- LAHEP, located in Nepal, will not have any reservoir or dam and will be a tail race development of 900 MW Arun3 HEP. The project will have four francis type turbines. On completion it will generate 2970 million units of electricity/annum.
- The project has been allocated to SJVN for 25 years on Build Own Operate Transfer basis and is scheduled to be completed in four years.

This is the second project awarded to SJVN in Nepal, the first one being the 900 MW Arun 3 Hydro Electric Project in Sankhuwasabha District. **Grand Ethiopian** In News: Ethiopia has started the second phase of filling GERD reservoir on the Renaissance upper Blue Nile, which raised tensions from Sudan and Egypt Dam's (GERD) • The Nile, Africa's longest river, has been at the center of a decade-long complex dispute involving several countries that are dependent on the river's waters. • Ethiopia began the construction of the GERD in 2011 on the Blue Nile. - This 145-meter-tall hydropower project is **Africa's biggest dam project** and will have lasting impacts on its longest river- Nile. - Blue Nile is a tributary of the Nile river and it carries about two-thirds of the river's water volume and most of the silt. Egypt, which lies downstream, has objected to the construction of the dam and **proposed a longer** timeline for the project. It does not want the water level of the Nile to dramatically drop as the reservoir fills with water in the initial stages. Sudan has also been involved due to its location. The Nile is an important water source in the region so there are concerns that this dispute may evolve into a full-fledged conflict between Egypt and Ethiopia. Recently, the USA has stepped in to mediate. **India Rejects** In news: Recently, the Ministry of External Affairs rejected the OIC's proposal to **Organisation of** assist a dialogue between India and Pakistan. Islamic OIC offered to arrange a meeting between India and Pakistan and proposed to send Cooperation's a delegation to Jammu & Kashmir (OIC) Proposal Pakistan has repeatedly sought to raise the Kashmir issue at OIC OIC is the second largest intergovernmental organization after the United Nations (UN) with a membership of 57 states. Headquarters: Jeddah, Saudi Arabia; Established in 1969 It is the collective voice of the Muslim world According to its charter, the OIC aims to preserve Islamic social and economic values; promote solidarity amongst member states; increase cooperation in social, economic, cultural, scientific, and political areas; uphold international peace and security; advance education, particularly in the fields of science and technology. OIC expresses solidarity with conflict-hit Muslim regions such as Palestine, Iraq, Afghanistan, Syria and Bosnia, as well as with the peoples of the Turkish Cypriot state, Kosovo and Jammu and Kashmir. There are OIC permanent delegations to the UN and the EU. India had expressed its desire to be a member in the OIC during its formation in 1969. But this was bitterly opposed by Pakistan. Istanbul The Council of Europe established the Istanbul Convention, a human rights treaty, **Convention on** with the aim to prevent and prosecute all forms of violence against women, violence against promote gender equality and ensure protection and rehabilitation of women who women are victims of violence. The treaty was opened for ratification in May 2011. **News:** Turkey has The convention aims at prevention of violence, victim protection and to end the pulled out of impunity of perpetrators. Istanbul

Convention on The Istanbul Convention is the first legally-binding instrument which "creates a violence against comprehensive legal framework and approach to combat violence against women" women and is focused on preventing domestic violence, protecting victims and prosecuting accused offenders. **Global Peace** In News: India has been ranked 135th whereas Pakistan is placed on 150th position Index (GPI) in the 2021 Global Peace Index of 163 nations, according to the 15th edition of the Global Peace Index (GPI) announced by the Institute for Economics and Peace (IEP). • GPI is a report produced by the Institute for Economics & Peace (IEP) which measures the relative position of nations' and regions' peacefulness. The GPI is developed in consultation with an international panel of peace experts from peace institutes and think tanks with data collected and collated by the Economist Intelligence Unit. **India and Nepal** India & Nepal gave authorization to all cargo train operators to utilize the Indian **Rail Trade boost** railway network to carry all containers bound for Nepal. Letter of Exchange (LoE) between officials of India & Nepal was also signed. After this LoE, all kinds of cargoes in all categories of wagons that can carry freight on Indian Railways network within India can also carry freight to and from Nepal **Benefits of the LoE** This liberalization will allow market forces to come up in the rail freight segment in Nepal. Likely to increase efficiency and cost-competitiveness, eventually benefiting the Nepalese consumers. Move will reduce transportation costs for automobiles and certain other products whose carriage takes place in special wagons. Another milestone in India's efforts to enhance regional connectivity under the "Neighbourhood First" policy. **BRICS** BRICS is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China and South Africa. BRICS does not exist in the In news: form of organization, but it is an annual summit. All BRICS countries BRICS was not invented by any of its members. In 2001, Goldman Sachs' Jim have agreed to O'Neill authored a paper called "Building Better Global Economic BRICs", pointing the STI-led BRICS out that future GDP growth in the world would come from China, India, Russia and Innovation Cooperation Significantly, the paper didn't recommend a separate grouping for them, but made Action Plan (2021the case that the G-7 should include them 24) proposed by The paper further that BRIC economies combined would outstrip the western India during the dominated world order before 2039. 12th Meeting of In 2006, leaders of the BRIC countries met on the margins of a G-8 (now called G-7 **BRICS S&T** with expulsion of Russia) summit in St. Petersburg, Russia, and BRIC was formalised Steering that year. Committee. The global **financial crisis of 2007-08** reinforced the idea as BRIC countries had been relatively unscathed in the market collapse. Common ground for the members was built by ensuring that no bilateral issues were brought up in the forum. BHIM-UPI in Bhutan is the first country to adopt **UPI standards** for its QR deployment, and the **Bhutan** first country in our immediate neighbourhood to accept mobile based payments through the BHIM App. In news: Union India and Bhutan have already enabled interoperability in acceptance of Rupay Minister of cards in each other's countries. Finance &

Corporate Affairs along with the Finance Minister of Bhutan jointly launched BHIM–UPI in Bhutan.

• **Benefit**: Smooth connectivity between two countries will benefit a large number of tourists and businessmen from India who travel to Bhutan each year.

Unified Payments Interface (UPI)

- UPI is a payment system. launched in April 2016 by National Payments Corporation of India(NPCI), that allows money transfer between any two bank accounts by using a smartphone.
- UPI allows a customer to pay directly from a bank account to different merchants, both online and offline, without the hassle of typing credit card details, IFSC code, or net banking/wallet passwords.
- It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience.

National Payments Corporation of India (NPCI)?

- It is an umbrella organisation for operating **retail payments and settlement systems** in India.
- It is an initiative of the Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007.
- It has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of Companies Act 1956 (now Section 8 of Companies Act 2013).
- In 2016 the shareholding was **broad-based to 56 member banks** to include more banks representing all sectors.
- Along with UPI, Other systems include National Automated Clearing House (NACH), Immediate Payment Service (IMPS), Aadhaar enabled Payment System (AePS), Bharat Bill Payment System (BBPS), RuPay, FASTag etc.

China Starts Carbon Trading Scheme

- Carbon Trading is a market-oriented mechanism to reduce GHG emissions
- A carbon credit is a permit that allows the company that holds it to emit a certain amount of carbon dioxide or other greenhouse gases.
- One credit permits the emission of a mass equal to **one ton of carbon dioxide**.
- The carbon credit is one half of a so-called "cap-and-trade" program, also commonly known as Carbon Trading
- Companies that pollute are awarded credits that allow them to continue to pollute up to a certain limit.
- Meanwhile, the company may sell any unneeded credits to another company that needs them - Known as Carbon Trading
- Private companies are thus doubly incentivized to reduce greenhouse emissions.
 - First, they will be fined if they exceed the cap.
 - Second, they can make money by saving and reselling some of their emissions allowances.
- The underlying theory is simple. If one party can't stop emitting CO2, it can ask another to emit less so that, even as the first carries on producing CO2, the total amount of carbon in the atmosphere is reduced.
- Companies can meet their climate targets by purchasing credits for their current emissions
- The intention is to **reduce the number of credits over time**, thus incentivizing companies to find innovative ways to reduce GHG emissions.
- Over the next three to five years, the market is set to expand to seven additional high-emissions industries: petrochemicals, chemicals, building materials, iron and steel, nonferrous metals, paper, and domestic aviation.

	 Rather than be subject to the absolute caps on emissions in other trading programs, Chinese companies will start off with allowances that use benchmarks based on previous years' performances which can be traded by negotiation or auction.
Violence in South Africa	 In news Recently, Riots and looting in South Africa have left more than 70 people dead, hurt thousands of businesses and damaged major infrastructure. It is the worst civil unrest since the end of white minority rule in 1994. Reason for Recent Violence Protests began over calls for release of former president Jacob Zuma, who served the country from 2009-18 and is facing corruption charges. While the violence may have been spurred on by the imprisonment of Jacob Zuma, it's being fanned by underlying problems of unemployment and poverty amid a raging pandemic and failing economy.
New QUAD	 In news: USA, Afghanistan, Pakistan and Uzbekistan have agreed in principle to establish a new quadrilateral diplomatic platform focused on enhancing regional connectivity. Parties agree that peace and regional connectivity are mutually reinforcing The parties intend to cooperate to expand trade, build transit links, and strengthen business-to-business ties Afghanistan's strategic location has for a long time been touted as a competitive advantage for the country. Located at the heart of the historic Silk Road, Afghanistan was long the crossroads of commerce between Asian countries connecting them to Europe, and enhancing religious, cultural, and commercial contacts. The formation of the new quad group is important amid China's desire to extend its Belt Road Initiative (BRI) to Afghanistan.
G7's Build Back Better World (B3W) Initiative	 The G7 countries are the UK, Canada, France, Germany, Italy, Japan and the US. B3W aims to address the infrastructure investment deficit in developing and lower income countries - the space which has been increasingly captured by China through 2,600 BRI projects with trillions of dollars of investment. B3W initiative will provide a transparent infrastructure partnership to help narrow about \$40 trillion needed by developing nations by 2035. This infrastructure plan is being led by the United States. However, the announcement is yet to be made about how exactly the plan would work or how much capital it would ultimately allocate. It calls for spending hundreds of billions of dollars in collaboration with the private sector while adhering to climate standards and labour practices
Fit for 55 Package: EU	 Recently, the European Commission launched a blizzard of draft legislation proposing measures for cutting the bloc's greenhouse gas emissions by 55 per cent (compared to 1990 levels) by 2030 Key Takeaways of Package It introduces a globally unprecedented carbon border adjustment mechanism (CBAM) for pricing imported carbon. It includes a major overhaul of the Emissions Trading System (ETS) to extend carbon pricing to shipping, aviation, transport, and buildings. Ban sales of new fossil-fuel cars after 2035; Increase the binding target of renewable sources in the EU's energy mix to 40% (from 32% earlier) and improve energy efficiency by 36% (from 32.5% earlier) by 2030.

- Public funds will be used to help build **charging stations every 60 kilometers, on major highways,** a move that will encourage sales of electric cars.
- It will also help finance a network of hydrogen fueling stations.
- It has set a target to enhance the EU's sink capacity to 310 million tonnes of CO₂ equivalent, which it hopes will be achieved through specific national targets by member countries.
- A new "social climate fund" is proposed to help vulnerable households disproportionately affected by higher fossil fuel prices, offering "temporary" income support and longer-term investment.
- Fit for 55 Package could put Europe at the forefront of new technologies like electric car batteries, offshore wind generation or aircraft engines that run on hydrogen.
- Collectively, the EU's 27 nations are a significant contributor to global greenhouse gas emissions, accounting for some 3.5bn tonnes of CO2 equivalent in 2019 behind only China, the US and India.

China-led South Asian Initiative

- Recently, Bangladesh has invited India to join the China-led South Asian initiative for Covid-19 vaccines and poverty alleviation.
- The initiative includes the creation of the China-South Asian Countries Emergency Supplies Reserve, and a Poverty Alleviation and Cooperative Development Centre set up in China.

About China-South Asian Initiative

- Members: China, Afghanistan, Bangladesh, Nepal, Pakistan and Sri Lanka.
- India, Bhutan and the Maldives are the other SAARC countries that are not part of this initiative.
- China's game plan: China has different kinds of strategic, maritime, political and ideological interests with different South Asian nations so it is increasing its engagements with each country on equal footing to counterbalance India. China is also building ports, roads & power stations as part of its Belt and Road Initiative.
- India's Stand: Given continuing tensions over Chinese PLA aggression at the Line of Actual Control in Ladakh, India's stand is that other bilateral relations cannot move ahead without a resolution of the boundary stand-off.

Nord Stream 2 pipeline

• **Context:** The US, which had opposed Nord Stream-2 pipeline has now signalled its approval for the project by signing deal with Germany

Nord Stream 2 pipeline

- In 2015, the Russian energy major Gazprom and five other European firms decided to build Nord Stream 2, valued at around \$11 billion.
- The 1,200-km pipeline will run from **Russia to Germany through the Baltic Sea**, and will carry 55 billion cubic metres of gas per year.
- The under-construction pipeline will run along with the already completed **Nord Stream 1 system**, and the two together will supply an aggregate of 110 billion cubic metres of gas to Germany per year.
- Nord Stream 2 pipeline falls in the territory of EU members Germany and Denmark, and is about 98% complete
- Since it was first planned, Nord Stream 2 has drawn criticism from the US, as it believes that the project would increase Europe's dependence on Russia for natural gas.
- It was also opposed by Ukraine (support of US) as it feels that once Nord Storm 2 is completed, Russia could bypass the existing Ukrainian pipeline (connecting Russia & Europe), and deprive it of lucrative transit fees of around \$3 billion/year.

	 On the other hand, Germany has solidly stood behind the completion of Nord Stream 2, despite opposition from allies like US, with the German government insisting that it is a commercially beneficial project.
	 The US-Germany deal lays out that if Russia attempts to use energy as a political weapon or commit further aggressive acts against Ukraine, then Germany will undertake actions, including sanctions, against Russia The agreement also requires Germany to "utilise all available leverage" to extend
	by 10 years the current Russia-Ukraine gas transit agreement, which expires in 2024.
	 Germany should contribute at least \$175 million to a new \$1 billion "Green Fund for Ukraine" that aims at improving the country's energy independence.
Exercise Cutlass Express	 Indian Naval Ship Talwar is participating in Exercise Cutlass Express 2021, being conducted along the East Coast of Africa.
Express	 The exercise is an annual maritime exercise conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean.
	 Indian Navy is participating in the exercise in a 'trainer role'. The 2021 edition of the exercise involves participation of 12 Eastern African countries, US, UK, India and various international organisations like International Maritime Organisation (IMO), UN Office on Drugs and Crime (UNODC), Interpol, EU Naval Force (EUNAVFOR), Critical Maritime Routes Indian Ocean (CRIMARIO). The exercise is designed to assess and improve combined maritime law
	 enforcement capacity, promote national and regional security and increase interoperability between the regional navies. India's Information Fusion Centre – Indian Ocean Region (IFC-IOR) is also
	 participating in the exercise. India's participation is in accordance with India's stated policy towards maritime cooperation in the Indian Ocean region and vision SAGAR (Security and Growth for All in the Region).
USA to end its combat Mission in	 U.S. President Joe Biden and Iraqi PM Mustafa al-Kadhimi sealed an agreement recently formally ending the U.S. combat mission in Iraq by the end of 2021
Iraq	 There are currently 2,500 U.S. troops in Iraq focusing on countering the remnants of ISIS. However, American forces will still operate in an advisory role.
	 The U.S. role in Iraq will shift entirely to training and advising the Iraqi military to defend itself.
The UN Tax Committee	 It consists of 25 experts from developed and developing countries and sets norms on various aspects of international taxation and helps with their execution. However, the committee is not a political body, meaning that it consists of experts who represent themselves, not their countries.
	 It guides countries' efforts to advance stronger and more forward-looking tax policies adapted to the realities of globalized trade and investment, an increasingly digitalized economy and worsening environmental degradation.
	 It assists countries in their efforts to prevent double or multiple taxation as well as non-taxation, broaden their tax base, strengthen their tax administrations, and curb international tax evasion and avoidance.
	 The UN Tax Committee fosters international cooperation on domestic and international tax matters.

• It works closely with observers from government, civil society, business and academia, to develop guidance and encourage an inclusive setting of norms and policies.



MISCELLANEOUS

Sir Chettur Sankaran Nair



In News: A biopic on Sir Chettur Sankaran Nair will be produced. It will be based on the book, 'The case that shook the empire' written by Raghu Palat and Pushpa Palat in 2019.

• Born in the year 1857 in Mankara village of Malabar's Palakkad district (Kerala)

- Known for being a passionate advocate for social reforms and a firm believer in the self-determination of India.
- He was an acclaimed lawyer and judge in the Madras High Court.
- In 1897, he became the **youngest president of the INC** in the history of the party till then, and the **only Malayali to hold the post ever.**
- In 1902, Lord Curzon appointed him a member of the Raleigh University Commission.
- In 1904, he was appointed as Companion of the Indian Empire by the King-Emperor and in 1912 he was knighted.
- In 1915, he became part of the Viceroy's Council, put in charge of the education portfolio.
- In 1919, as part of the Viceroy's Executive Council, he played an important role in the expansion of provisions in the Montagu-Chelmsford reforms.
- When the massacre of Jallianwala Bagh (13th April, 1919) happened, he resigned from the Viceroy's Council in protest.
- In his book 'Gandhi and Anarchy', he spelt out his critique of Gandhi's methods
 especially those of non-violence, civil disobedience and non-cooperation. He
 believed that any of these movements was destined to lead to riots and
 bloodshed.
- In the same book, he accused Lieutenant-Governor of Punjab, Michael O'Dwyer for being responsible for the atrocities at the Jallianwala Bagh massacre. For this he faced a defamation trial filed by Michael O'Dwyer in England. Though Nair lost the case, the trial had a resounding impact on the British empire in India
- In *Budasna v Fatima (1914)* Madras HC, he passed a radical judgement when he ruled that those who converted to Hinduism cannot be treated as outcastes. In a few other cases, he upheld inter-caste and inter-religious marriages.

Swami Vivekananda



In News: 4th July is observed as the death anniversary of Swami Vivekananda

- He was born as Narendranath Datta on 12th January, 1863.
- National Youth Day is held every year to observe the birth anniversary of Swami Vivekananda.
- In 1893, upon the request of Maharaja Ajit Singh of the Khetri State, he took the name 'Vivekananda.'
- He preached 'neo-Vedanta', an interpretation of Hinduism through a Western lens, and believed in combining spirituality with material progress.
- Laid the greatest emphasis on education for the regeneration of our motherland.
- Advocated a man-making character-building education.
- Best known for his speech at the World Parliament of Religion in Chicago in 1893.
- Spelt out the **four pathways of attaining moksha** from the worldly pleasure and attachment in his books Raja-yoga, Karma-yoga, Jnana-yoga and Bhakti-yoga.
- Subhas Chandra Bose had called Vivekananda the "maker of modern India."
- He was the chief disciple of the 19th-century mystic Ramakrishna Paramhansa and established the **Ramakrishna Mission in 1897.**
- In 1899, he **established the Belur Math**, which became his permanent abode.

MAINS FOCUS

Vaccine Hesitancy & Mandatory Vaccination

Context: In the wake of Vaccine Hesitancy, three high courts in the country have set off a much needed legal debate around the feasibility of Statemandated persuasive measures to boost inoculation rate.

• In 2015, WHO defined vaccine hesitancy as a "delay in acceptance or refusal of vaccination despite the availability of vaccination services".

Chief reasons for Vaccine Hesitancy

- Misinformation
- Lack of trust in safety and efficacy of the vaccine
- Fear of side-effects
- Socio-political notions
- Inconvenience of getting vaccinated
- Absence of incentives

Courts on Mandatory Vaccination

Meghalaya high court disapproves coercion

- Meghalaya government had made it mandatory for shopkeepers, vendors, local taxi drivers and others to get themselves vaccinated before they can resume their businesses. This was challenged before the high court.
- Meghalaya high court has declared that mandatory vaccination affects an individual's right, choice and liberty significantly more than affecting the general public, and impinges upon the autonomous decision of an individual human being of choosing not to be vaccinated
- It encouraged the state government to sensitise people in order to facilitate informed decision making particularly in a situation where the beneficiaries are skeptical, susceptible and belonging to vulnerable/marginalised section of the society.

Gauhati high court underlines fundamental rights

- The Gauhati high court held that restrictions imposed by the Mizoram government on movement and work of persons who are yet to get vaccinated for Covid-19 are unconstitutional and arbitrary.
- Such restrictions are violation of right to earn livelihood and right to equality (both unvaccinated & vaccinated with first dose can be infected by virus)

Madras high court bats for public health

- The Madras high court has set about to examine whether a person can refuse to get vaccinated as a matter of right when he or she can prove to be a threat to public health.
- The court left the matter for a detailed examination at an appropriate stage while it implored the state government to try and persuade persons with awareness campaigns

What are the arguments for making Vaccination Mandatory?

- **Public Health:** In the larger public interest, vaccination can be made compulsory since those not vaccinated are threats to others' rights to life.
- Right to Life supersedes Right to Freedom: Right to self-determination or bodily autonomy are aspects of right to privacy which is inferior to the right of life of other people.
- Within Domain of Government: It is within the authority of the Centre and states to make vaccination compulsory since the Constitution arms them with the status of parens patriae (parents of the nation).
- No need of incentive: There cannot be a bigger incentive than the government giving vaccines free to citizens where their lives can be saved

Right to Education(RTE) Act- Subversion of Quota by Private Schools

- The Act makes education a fundamental right of every child between the ages of 6 and 14 and specifies minimum norms in elementary schools.
- It requires all private schools to reserve 25% of seats to children (to be reimbursed by the state as part of the public-private partnership plan).
- It had a clause for "No Detention Policy" which has been removed under The Right of Children to Free and Compulsory Education (Amendment) Act, 2019.
- It lays down the norms and standards related to:
- Pupil Teacher Ratios (PTRs)
- Buildings and infrastructure
- School-working days
- Teacher-working hours.
- The RTE Act has successfully managed to increase enrolment in the upper primary level (Class 6-8).
- Stricter infrastructure norms resulted in improved school infrastructure, especially in rural areas
- More than 3.3 million students secured admission under 25% quota norm under RTE.

One of the primary Issue: Only about 1/3rd of the seats available via RTE are filled each year, which indicates that 2/3rd of the seats go empty

Some of the loopholes that have weakened the estimated impact of RTE Act:

1. Lack of Participation by States

- There are many states where schools haven't introduced the Act in its spirit and made seats accessible to children.
- The centralised nature of the Act led to state governments not playing an active role.

2. No provision of a cluster-wise list of potential schools for beneficiaries

• The Act assumes that beneficiaries would understand its fine print and get their children admitted to schools on their own.

 Many beneficiaries have no idea about the existence of the Act. Even though there is both demand and supply, there is no awareness of the supply.

3. Non-standard quality of admission tests for students across the grade level

- The schools have been given instructions on admitting students under the RTE quota through their regular process of admission tests.
- However, schools conduct separate admission tests for RTE quota seats, where difficulty level of test is high that leads to rejection of applicants
- This has become another tool for systemic exclusion

4. Lack of a mechanism to measure the learning outcomes of children who have availed RTE

- RTE quota students who are often put in separate sections are largely ignored or given up on under the pretext of being difficult kids
- The focus has been so intent on enrolment that there was no observation of the quality of learning for RTE quota students in private schools

5. Lack of a dynamic dashboard that updates the status of reserved seats in each school

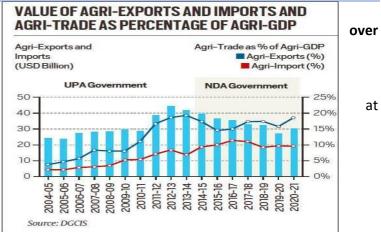
- In the absence of a dynamic dashboard, monitoring is delayed and inefficient.
- The beneficiaries have no idea about the extent of the impact made by RTE so far.
- Everything about the output of the policy remains ambiguous and therefore checks and measures are ineffective when no dynamic data shows regular updates.

Agri Exports

\$41.8 **Context:** Agri-exports touched billion in FY 2020-21, registering a growth of 18% the previous year.

Amongst the various agri-commodity exports,

- Rice ranks first 17.7 million tonnes valued \$8.8 billion, roughly 21% of the total value of agriexports.
- Marine products \$6 billion 14.3%
- Spices \$4 billion 9.5%
- bovine (buffalo) meat -- \$3.2 billion 7.6%
- Sugar -- \$2.8 billion -6.6%
- **Concerns**
- **Sustained Growth:** There are concerns whether this high growth rate of 18% can be sustained over a longer period.
- **Short of Target:** Agri-exports have remained lower than the level reached in FY2013-14 (\$43.3 billion). Also, exports fall short of \$60 billion target that the Union government set out to achieve by 2022.
- Environmental sustainability concerns about water intensive crops rice and sugar which constitute substantial part (27.6%) of country's agriexport basket.
- Disputes at WTO: The export subsidy given by the government to clear excessive domestic stocks of sugar has led many other sugar-exporting countries like Australia, Brazil and Thailand to register a case against India at the WTO, which India may find difficult to defend.
- Water being exported: In 2020-21, India exported 7.5 million tonnes of sugar, implying that at least 15 billion cubic metres of water was exported through sugar alone. This is cause of concern as India is already a water stressed country.



Increased Carbon Footprint: Rise accounts for 21% of total value of agri-exports. One should be concerned that rice cultivation contributes to more than 18% of the GHG emission generated from agriculture.

Protectionist in Imports:

Way Ahead

- Farmers may be incentivised and rewarded to save water, switch from paddy and sugar to other less water guzzler crops, and reduce the carbon footprint.
- We need to produce more from every drop of water. Farming practices such as alternate wetting drying (AWD), direct-seeded rice (DSR) and micro-irrigation will have to be taken up on a war footing.
- Food Processing value addition & increased income
- An export-led strategy also needs to minimise logistics costs by investing in better infrastructure and logistics

Integrated Theatre Commands

• **Context:** Chief of Defence Staff General Bipin Rawat held a meeting with the Vice Chiefs of the armed forces and government representatives from multiple ministries and proposed the model of the integrated theatre commands — both within the Services and outside, as it involves paramilitary forces as well.

Present Structure of our armed forces

- As of now, the three forces have 17 commands between Army, Navy & Airforce
- Even if these commands operate in the same region, they are not co-located, and their areas of operational responsibility are not necessarily the same.

Army	Seven commands	Northern, Eastern, Southern, Western, Central, Southwestern and Army Training Command (ARTRAC).
Navy	Seven commands	Western, Eastern, Southern, Southwestern, Central, Training, and Maintenance commands.
Air Force	Three commands	Western, Eastern and Southern, of which Southern is largely about training.
	Andaman and Nicobar Command	 It is tri-Service command It is headed by rotation by officers from the three Services
	Strategic Force Command,	 It is tri-Service command It is responsible for India's nuclear assets.

What are integrated theatre commands?

- In the simplest words, it is a **unified command** under which all the resources of the Army, the Navy and the Air Force are pooled, depending on the threat perception.
- The commands could be **geographical** like looking at a border with a particular country or **functional**, like training.
- Theatre commands enhances jointness among the forces, and also reduces duplication of resources.
- Several nations in the world have theatre commands, including the United States and China. The Andaman & Nicobar Command in India is an example of theatre command.

The proposed commands are:

- Maritime Theatre Command, which will take care of all the maritime security needs of the country on both the eastern and the western seaboards, and will include air strike assets and amphibian forces of the Army.
- Air Defence Command, which will be mandated with air defence across the country and beyond. The fighter jets will have reconnaissance and surveillance assets as well.
- Two or three land-based commands are proposed. If there are two commands, there will be one each for India's borders with China and Pakistan.
- There is also a proposal to have another command looking at India's borders with Pakistan and China in Jammu and Kashmir, and Ladakh, given the unique territory and security needs of the country in that region.

- Functional tri-Services commands: Apart from these theatre commands, the following functional commands are also mooted
- **Logistics Command,** which will have the logistics of all the Services under one person.
- Training and Doctrine Command, so that all Services work under a common doctrine and have some basic common training.
- Each of these commands will have the needed assets from all the three forces. Operational control over all of those assets, regardless of the force, will lie with the commander of that theatre.
- The presence of Theatre commander would leave the Service chiefs with no direct control over their assets operationally.
- This does not mean the roles of Chiefs will be made redundant. Now they will have the core tasks to Raise, Train and Sustain their respective forces.

- Also, as each chief will be a member of the COSC, and an expert of his/her domain, his or her inputs will be necessary for all operational decisions.
- Chiefs of Staff Committee (COSC) includes the three Service chiefs, and is headed by the CDS as its permanent chairman.

While the Army and the Navy are on board with the proposal, the **Air Force has certain reservations.**

- Dangers of Air Force becoming Adjunct to Army & Navy: Air Force does not want the Air Force chief to lose operational control of Air assets.
- Air Force is concerned that all of its assets might be divided within these integrated theatres.
- **Deliberation before Fomalisation:** Also, it is better that such objections and dissenting opinions come out now before the structure is formalised.

Need to first Come up with National Security Strategy

- Despite seven decades of Independence, India still does not have a clearly articulated national security strategy.
- Only such a strategy can define the types of contingencies the military is expected to address and define the structures required for the conduct of synergised operations.
- An intellectual exercise while developing National Security Strategy may well result in identifying air power as the lead element.
- Thus, CDS should have pursued drawing up of such overarcing strategy rather than rushing through integrating forces.

Future Conflicts requires empowered Air Force

• Defence Programme post-1962 was based on the assumption that China posed the major

threat and that the IAF be made capable of assuming some of the Army's deterrence capability

- Even during recent border clashes with China, the clear intent to use combat air power, as against 1962, has significantly contributed in deterring China.
- IAF does not wish to see its limited resources frittered away in fighting frontal defensive battles by a land force commander with little expertise in employment of air power.

Structural Gaps remains unaddressed

- Theatre or any lower structure requires an institutionalised higher defence organisation, which has been sadly missing since the Defence Committee of the Cabinet (DCC) became defunct in the 1950s
- CDS, as the permanent chairman of the Chiefs of Staff Committee (CoSC), would also exercise operational control of the theatre/functional commands, a move that is unlikely to be palatable to the politico-bureaucratic leadership.
- Therefore, it is better to address these structural issues before moving ahead with integrated theatre commands

Conclusion

• Prudence demands that instead of ramming down such structures without adequate deliberations and discussions with all stakeholders, we first evolve appropriate military strategies in a nuclear backdrop in concert with the political objectives.

Dowry

• **Context:** Recently, a young woman from Kerala named Vismaya Nair was found dead in her house. Her parents accused the husband of torturing her for dowry

Issues

- The practice of Dowry as condemnable as sati or child marriage, continue to thrive.
- The **bride** is **now** a **commodity**, handed over as a package, bundled up with gold, white goods, a car and a piece of land
- **Dowry Prohibition Act** was passed 60 years ago and yet the practice continues in new forms.
- Despite **rising education levels**, weddings continue to be lavish, with brides' parents often taking loans and nearly bankrupting themselves

Measures to be taken going forward to deal with menace of Dowry

1. Financially Empowering Women

- The larger context for the practice of dowry is the poor presence of women in the workforce, and their consequent lack of financial independence.
- Women should therefore be supported to take up jobs and have independent incomes

2. Women friendly Government Investment

- Financially empowering women means government should expand childcare and safe public transport, reduce discrimination in hiring, and create affirming workplace environments.
- States should look at gender-disaggregated data across the life cycle birth, early childhood, education, nutrition, livelihood, access to healthcare, etc to address gender inequality.

3. Interventions in Family & Schools

- At home, men should share domestic work and care responsibilities.
- Teachers and textbooks mould beliefs and values.
- Boys and girls should be systematically sensitized on the core value of gender equality.
- Families should report domestic violence/abuse at first instance, instead of sending battered women back to husband's home fearing "what society will say"

4. Administrative Changes

- Decentralising Marriage registrations to panchayat secretaries. Incentivising Mass marriages
- The "head of the family" is assumed to be male by default; husband and wife should be defined as joint heads
- Laws and regulations should be screened to remove gender bias, replacing words like "manpower" with gender-neutral equivalents.

5. Social Change using Celebrity Effect

- Accepting dowry should be made a social stigma, and all generations should be addressed. Get superstars to endorse this along with their soap and soft drink endorsements.
- Simple, inexpensive, dowry-less marriages should be normalised, rather than Bollywood-style extravaganzas

Conclusion

• By actively spreading awareness and displaying solidarity, governments & civil society can play a powerful role in building a more equal society.

Fresh challenges to Federalism

• **Context:** Tamil Nadu State re-introducing the term Union into the public discourse and other States pushing back against increased fiscal centralisation.

Issues with Indian Federalism

- Coalition Politics yielded little results for federalism: Fiscal and administrative centralisation persisted despite nearly two decades of coalition governments. Ex: Aadhar, NFSA, GST, MGNREGA.
- Electoral Pragmatism undermining Federalism: The contingencies of electoral politics

have created significant impediments to creating a political consensus for genuine federalism. Ex: Toppling coalition government by misusing Governor & Central agencies

• Federalism diluted under garb of Nationalism: Union governments have diluted with federalism in the grammar of development and

nationalism. Ex: One nation - one market, one ration card, one grid.

- **Misreading Federalism:** In present context, federalism risks being equated with regionalism and a narrow parochialism that is anti-development and anti-national.
- Centralisation at State Level: Also, most regional parties have failed to uphold principles of decentralisation in their own backyard. This shows that States themselves are not following the spirit of Federalism.
- Silence of States on other State's Federal issues: For ex: downgrading J&K status, NCT of Delhi (Amendment) Act, 2021 that undermined Federalism hardly witnessed protest by parties that were not directly affected by these.
- **Divergence among States**: Growing divergence between richer (Southern & Western) and poorer States (Northern & Eastern), remains an important source of tension in inter-State relations that has become a real impediment to collective action amongst States.
- **Dilution of Fiscal Federalism**: The Union's response, in the wake of fiscal crisis unleased by Pandemic, has been to squeeze revenue from States by increasing cesses (not shareable with States) that is against federal spirit.
- Conclusion
- Beyond principles, a renewed politics of federalism is an electoral necessity. No coalition has succeeded, in the long term, without a glue that binds it. Forging a political consensus on federalism can be that glue.

Draft Cinematograph (Amendment) Bill 2021

Key features of Bill

- Age-based certification: It proposes to divide the existing categories (U, U/A and A) into further age-based groups: U/A 7+, U/A 13+ and U/A 16+.
- **Provision against piracy:** At present, there are no enabling provisions in Cinematography Act to check film piracy. The draft bill includes penal provision for piracy.
- Validity of Certificate: It proposes to certify films for perpetuity. Currently a certificate issued by the CBFC is valid only for 10 years.
- Revisional powers of the Union Govt.: It empowers Union government to order a 're-examination' of an already certified film if there are complaints against it.

Concerns

• Government as Super Censor: Revisional powers of Union govt. will effectively make it supreme power over cinema exhibition in the country

- Freedom of Speech: The encroachment of the central government on creative independence, in mandating what films can be produced and consumed, potentially endangering freedom of expression and weakens the scope of a mature democracy.
- Increasing Regulatory role of Govt.: The Cinematograph (Amendment Bill) 2021, subsequent restrictions on OTT platforms and the abolishment of the FCAT only add further fuel to the fire.
- Not a broken system: The Central Board of Film Certification (CBFC) has a robust mechanism for film certification and there is no need to fix something that is not broken.
- **Public Consultation:** The government has not provided enough time (only 14 days) for meaningful consultation and the proposed changes ignore suggestions of reports by two committees of experts on CBFC reform.

Conclusion

• The global cinematic trend seems to be moving close to meaningful, nuanced cinema and series, beyond the purview of sanitised and glamorised big Hollywood and Bollywood blockbusters. We might be taking a step or two backward now with such rules

Q.) Two-pillar plan by OECD-G20 to reform international taxation rules is considered as landmark agreement in international financial coordination. Critically Analyse.

• OECD, on July 1, issued a statement indicating consensus amongst 130 nations (out of

139 participants) on a "two-pillar plan to reform international taxation rules.

• The signatories of the plan amounted to 130 countries and jurisdictions representing more than 90% of global GDP.

Pillar One

- It will ensure a **fairer distribution of profits** and taxing rights among countries with respect to the largest MNEs, including digital companies.
- It would re-allocate some taxing rights over MNEs from their home countries to the markets where they have business activities and earn profits, regardless of whether firms have a physical presence there.

Pillar Two

• It seeks to put a floor on competition over corporate income tax, through the introduction of a **global minimum corporate tax rate** that countries can use to protect their tax bases.

Implications of Two Pillar proposals

- It will provide much-needed revenue support to governments.
- Increased revenues enable governments to invest in essential public services, infrastructure and the measures necessary to help optimize the strength and the quality of the **post-COVID recovery**
- The new framework seeks to address the tax challenges arising from the digitalisation of economies.
- It seeks to address concerns over crossborder profit shifting and bring in subject-to-tax rule to **stop treaty shopping**.
- It is aligned with India's stand which had strongly advocated greater taxing rights to source or market jurisdictions
- Given the insights Indian policy-makers have gained from participating in these deliberations, it is expected that the law-makers will **unveil a refined** and nuanced direct taxation law.

Concerns

- Design of the two pillars: The complex rules presuppose applying formulas to data relating to global business revenue of the MNE group. This has made experts sceptical on the pragmatic success of these proposals
- Need for real-time information sharing: Furthermore, its application requires real-time information sharing and conjoint implementation by the tax-authorities across the globe. There are doubts if such shared tax-assessment can be achieved in practice.
- **Limited 'scope' of these pillars**: By design, the two pillars cover a small class of taxpayers—MNEs which have a global turnover above 20 billion euros and net profitability above 10% for Pillar One.
- **Domestic Laws under pressure:** India accepting the two-pillar solution implies it being under pressure to undo its new international tax measures, particularly the equalisation levy.
- North-South Politics: There are genuine doubts on how far the developed countries will be sympathetic to allow market economies greater taxation rights, which is the crux of the ongoing negotiations.
- The outcome appears to be uncertain given no economist has been able to precisely estimate the revenue figures for each jurisdiction or for India.

Conclusion

• It is a step in right direction, however the devil lies in the details and counties must negotiate so that outcomes are fair to everyone

Right to repair

Context: Recently, countries around the world have been attempting to pass effective 'right to repair' laws.

What is right to repair movement?

- When electronic appliances become old or face issues, consumers are left at the mercy of manufacturers who make repairs inaccessible for most, by dictating who can fix your device and making it an **inordinately expensive affair**.
- The tech giant has long been criticised for allowing repairs of its devices only by authorised technicians and not providing spare parts or manuals on how to fix its products
- Also, Corporates are promoting the culture 'planned obsolescence' — which means that devices are designed specifically to last a limited amount of time and to be replaced
- In this backdrop, activists and organisations around the world have been advocating for the **right of consumers** to be able to repair their own electronics and other products as part of the 'right to repair' movement.
- The movement traces its roots back to the very dawn of the computer era in the 1950s.
- The goal of the movement is to get companies to make spare parts, tools and information on how to repair devices available to customers and repair shops to increase the lifespan of products and to keep them from ending up in landfills.
- The Right to Repair electronics refers to government legislation that is intended to allow consumers the ability to repair and modify their own consumer electronic devices, where otherwise the manufacturer of such devices require the consumer to use only their offered services.

Benefits of Right to Repair

- Avoids wastage of resources: Without Right to Repair, there will be wastage of natural resources causing immense pressure on the environment. It will help reduce the vast mountain of electrical waste (e-waste) that piles up each year on the continent.
- **Boosts Local Economy**: Right to repair advocates also argue that this will help boost business for small repair shops, which are an important part of local economies.

- Reduces Prices of Repair: If a manufacturer has monopoly on repairs, then prices rise exponentially and quality tends to drop. Repair manual in the market will bring down the cost of offering such a service.
- **Circular Economy:** It will contribute to circular economy objectives by improving the life span, maintenance, re-use, upgrade, recyclability and waste handling of appliances.
- **Durable devices:** Some believe manufacturers of electronic devices may even start making their products more durable and long lasting.

Large tech companies, including Apple, Microsoft, Amazon and Tesla, have been **lobbying against the right to repair.**

- Misuse & compromise on safety: Their argument is that opening up their intellectual property to third party repair services or amateur repairers could lead to exploitation and impact the safety and security of their devices.
- Tesla, for instance, has fought against right to repair advocacy, stating that such initiatives threaten data security and cyber security.
- These companies are constantly claiming that they are working towards greater durability themselves, hence there is no need of such legislations.

Do You Know?

- Earlier this month, the UK government introduced right-to-repair rules with the aim of extending the lifespan of products by up to 10 years.
- Manufacturers of products like washing machines, TVs and refrigerators are required to make spare parts available to people purchasing electrical appliances.
- The new legislation gives manufacturers a two-year window to make the necessary changes to abide by the new legislation.
- However, it does not cover all electrical appliances. It includes dishwashers, washing machines, refrigeration appliances and televisions. Smartphones and laptops, however, have been excluded.

UP's Population Policy

UP's Population Policy aims at:

- Decreasing the total fertility rate from 2.7 to 2.1 by 2026 and 1.7 by 2030.
- Increase modern contraceptive prevalence rate from 31.7% to 45% by 2026 and 52% by 2030.
- Increase male methods of contraception use from 10.8% to 15.1% by 2026 and 16.4% by 2030.
- Decrease maternal mortality rate from 197 to 150 to 98, and infant mortality rate from 43 to 32 to 22, and under 5 infant mortality rate from 47 to 35 to 25.
- The State's policy also aims at increasing the life expectancy from 64.3 to 69 by 2030 and child sex ratio (0-6 years) from 899 to 919 by 2030.

To achieve this, a new piece of legislation- **UP Population** (Control, Stabilization, and Welfare) **Bill** 2021- 30 has been drafted.

Key Provisions of the UP Population Bill are

1. Incentives to govt. employee:

- Upon voluntary sterilisation of self or spouse after the second child, a government servant can receive two additional increments during the period of service, subsidy on property purchase from government bodies, housing loans at softer terms, rebates on utility charges, maternity/paternity leave of 12 months, 3% additional contribution from govt. to NPS.
- For sterilisation post one-child, there is free healthcare and insurance for the child, free education up to graduation, scholarship if the child is a girl, etc.
- 2. Incentive to non-govt. persons: For those who are not government employees and still contribute towards keeping the population in check, benefits like rebates in taxes on water, housing, home loans etc. will be provided.
- **3. Financial Incentive:** BPL couples adopting the one-child policy will get lumpsum money from the government.
- **4. Disincentives:** A person who breaches the two-child norm will be debarred from securing the benefit of any government-sponsored welfare scheme and will be disqualified from applying to any State government job.
- **5. Election Qualification Norm:** It proposes that any citizen who "violates" a two-child policy be barred from contesting local bodies polls

- **6. Awareness:** State government to introduce population control as compulsory subject in all secondary schools. Awareness and extensive programmes would be held among those communities, cadres and geographical areas that have a higher fertility rate
- **7. Applicability**: The provision of this legislation shall apply to a married couple where the boy is not less than 21 years of age and the girl is not less than 18.
- **8. Non-Coercive:** The policy will be voluntary it will not be enforced upon anyone
- **9. Dedicated Fund**: The Uttar Pradesh government plans to set up a state population fund to implement the measures.

Concerns

- These recommendations are rooted in a culture of coercion because making welfare conditional is a form of coercion
- A policy or law that arms governments with more powers over citizens is erroneous for a fundamental reason: India is not being threatened by a "population explosion". Rather, India is naturally witnessing Population decline.
- TFR has declined from 3.4 in 1994 to 2.2 in 2015. Even in populous UP, the TFR has fallen an impressive 1.1 points to 2.7 in the span of a decade without the state's coercive measures
- An already **skewed sex ratio** may be compounded by families aborting a daughter in the hope of having a son with a view to conforming to the two-child norm.
- Coercion to have certain number of children can lead to **demographic distortion**.
- **Right to Privacy** among other things also includes liberty over intimate personal choices such as those governing reproduction.

Conclusion

- The success of India's southern states in containing population growth indicates that economic growth as well as attention to education, health and empowerment of women work far better to disincentivise larger families than punitive measures.
- Government must go beyond demographic targets and focus instead on guaranteeing a right to reproductive freedom, as enunciated in

International Conference on Population and Development Programme of Action, 1994

India Out campaign in Maldives

Context: The Indian High Commission in the Maldives has sought government action and greater security following what it calls "recurring articles and social media posts **attacking the dignity of the High Commission**" and diplomats posted in the country.

- 'India Out' campaign in Maldives had started sometime last year as on-ground protests in the Maldives and later widely spread across social media platforms under the same hashtag.
- It is **not related to people-to-people conflict** (Indian diaspora) but is discontent on close relationship between Maldivian government & India.

What factors have led to such anti-India sentiments in Maldives?

1. Domestic Politics

- The anti-India sentiment didn't just sprout overnight last year, but is nearly a decade old and can be traced back to when Abdulla Yameen Abdul Gayoom became president in 2013.
- He used anti-India sentiments for his political mobilization and started tilting China.
- India-Maldives relations deteriorated during Yameen's rule from 2013-18.
- Ibrahim Mohamed Solih who became President in 2018 has restored Maldives close ties with India.

2. Controversy over India's helicopter gift

- Two Dhruv Advanced Light Helicopters (ALF) that were given by India to the Maldives in 2010 and in 2015.
- Both of these were used for ocean searchand-rescue operations, maritime weather surveillance and for airlifting patients between islands.
- Yameen's party PPM tried to portray that by gifting these helicopters, India was creating military

presence in the country because they were military choppers.

- This twisting of situation by political party further whipped up anti-India sentiments as Madives Citizens considered it as affront to their Sovereignty.
- However, Ibrahim Mohamed Solih after he assumed office in 2018 extended the stay and use of these choppers in the country.

3. Opaqueness in India-Maldives relationship

- A recurring complaint in Social Media is the lack of transparency in agreements being signed between the Ibrahim Solih government and India.
- Most of the 'India Out' campaign wouldn't have arisen had these bilateral agreements been publicly discussed in the Maldives Parliament.
- But the ruling government and the defence ministry saying that these agreements are confidential has further led to suspicions fuelling India Out Campaign

4. Perception of interference in Domestic Affairs

- India being a big neighbour, there are unsubstantiated perceptions & allegations on Indian Diplomats stationed in Maldives interfering in Domestic affairs.
- Such misinformation is also one of the factor for anti-India campaigns

Conclusion

- The mobilising of ordinary citizens through the 'India Out' campaign doesn't bode well for India.
- So India has to work on perception management in the Maldives and need to earn the good will of the people

Empowering Local Bodies

Context: The Covid-19 pandemic has taught us an important lesson that decentralisation is key to successful prevention, detection and management of diseases in urban areas.

- While municipalities across India are closely involved one way or another in the fight against Covid-19, they are mostly taking instructions from state governments, either directly or through district collectors.
- A recent audit report of CAG on the audit of implementation of the 74th CAA in Karnataka has lessons for most states

The following observations and recommendations in the report pertaining to Karnataka that have national implications

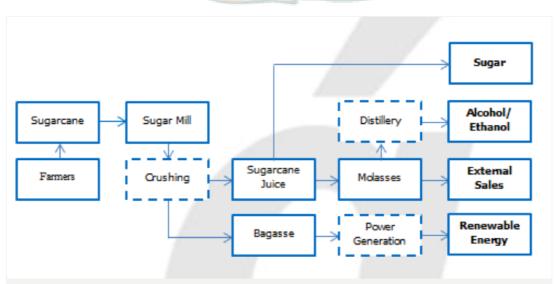
- The **decentralisation of functions** in cities is more formal than real. While 17 out of the 18 functions supposed to be handled by ULBs have been devolved under state municipal acts, ULBs have full authority only over three.
- **Elections**, though due in 23 ULBs, were not held, and 210 out of 280 ULBs did not have a functioning council. The absence of an elected council is a mockery of democracy.
- Indian Constitution envisaged the **establishment of Ward Committees** as a means to enhance the role of citizens in urban governance. None of the 10 city corporations except Bengaluru had constituted them at the time of the audit.

- **Metropolitan Planning Committee** whose role is to prepare a draft development plan for the metropolitan region as a whole should be constituted and made effective
- **State Finance Commissions** need to be constituted on time and their recommendations implemented effectively. There is a nine-year delay so far in implementing SFC recommendations.
- State parastatals have undermined the status of ULBs as democratically-elected local self-governments.
- Limitations on the ability of ULBs to raise revenues need to be removed urgently. Arrears in water charges more than doubled to over Rs 200 crore by 2018-19
- ULBs need to **present realistic budgets.**There was a significant variance in the range of 2398 per cent between budgets and actuals.
- ULBs need greater authority to approve works. City councils can only approve projects that cost up to a paltry Rs 2 crore
- ULBs need full power over their **human resources**. Of the 56,000 sanctioned staff strength, there is 31 per cent vacancy, of which 53 per cent are in Grades A to C.

Conclusion

• As this audit report reveals, too little has been done so far in 27 years and far more needs to be done urgently to implement 74th CAA in letter and spirit.

Sugar reforms



On an average, 95 kg of sugar and 10.8 liters of ethanol can be produced from 1 tonne of sugarcane.

1. Beginning of Decontrol in 2013

- The decontrol focussed on the sugar side of the business. It allowed **sugar mills to sell whatever quantity** they wanted at a time and price of their choice.
- Supply of **levy sugar at discounted prices** to the government for distribution through **PDS** was also ended.
- However, the controls on the sugarcane side remained and it continues even today with government fixing the price of sugarcane

2. New variety of sugarcane (CO 238) in 2016-17

- This was developed for use in Uttar Pradesh (UP) which delivered significantly **higher yield** (30 tonne per acre against 22 tonne from earlier varieties) and even **higher recovery** (sucrose content was 11.5 per cent as against earlier 9.5 per cent).
- Considering that UP produces bulk of India's sugarcane, its share in the country's sugar output rose to 40 per cent from 25 per cent.
- This made India a consistently surplus sugar producer.

3. Surplus Management

- Today, production exceeds domestic consumption by 60 lakh tonne and the focus has shifted to managing the surplus.
- This necessitated government to reintroduce monthly sale quota and fixed minimum selling price for sugar to ensure the cash-strapped sugar mills do not flood the domestic market with sugar. That kept the local prices stable.
- To liquidate excess stock of sugar, it announced export subsidies.
- Without subsidies Indian exports are unviable as cost of producing sugar (thanks to high cane price) is way above the international sugar price.
- This was promptly **contested by other countries in the WTO**. India has been allowed to continue with the subsidies till December 2023. The fear is what will happen post-2023.

4. Boosting Ethanol Production & using it as tool to manage surplus

• India's ethanol programme — blending ethanol with petrol for use as auto fuel, was first announced in 2003.

- Ethanol blending offers multiple benefits —
- Improve sugar mills' cash flow
- Ensure better prices for farmers
- Enhance India's energy security
- Reduce pollution.
- It never took off for multiple reasons —
- Poor pricing of ethanol supplied for blending
- Periodic shortages of sugar
- Competing demand from potable alcohol sector
- The Modi government revived the programme by fixing attractive prices for ethanol that oil marketing companies (OMCs) procured for blending. This motivated the sugar mills to produce ethanol.
- The government then allowed sugar mills to produce ethanol from earlier stages of sugar production (sugarcane juice & B-Molasses) rather than just C-Molasses.
- More importantly, it also offered higher prices for ethanol produced from cane juice and B-Molasses (to compensate mills for reduction in sugar output).
- These measures not only enhanced ethanol availability but also helped in tackling the sugar surplus.
- In 2019-20 sugar season (October-September), 8 lakh tonnes of what would have been sugar output was converted into ethanol. The plan is to convert the entire sugar surplus of 60 lakh tonnes into ethanol in the next 2-3 years.
- In case the sugar production drops in a particular year, the government can reduce direct conversion of sugarcane juice to ethanol by lowering its procurement price. Ethanol, thus, is proving to be a good tool to manage the sugar surplus.

Conclusion

- To make the Indian sugar industry truly selfreliant, just one step remains — freeing up cane pricing.
- Sugarcane price fixed by the government today has little correlation to the realisation from end products. This inflicts huge losses on the mills and causes cane arrears to build.

- A solution is available. The Rangarajan Committee has suggested a formula to fix cane price factoring in the price of sugar and other by-products
- In case the cane price, arrived by the formula, drops below what the government

considers as a reasonable payment, it can bridge the gap from a dedicated fund created for the purpose and a cess can be levied to build up the fund.

RBI Ban on Mastercard

- **Context:** Reserve Bank of India (RBI) has recently banned Mastercard from issuing new debit and credit cards to customers in India with effect from July 22.
- To be sure, these restrictions are only on Mastercard's new cards and not the existing ones held by customers.

Reason for Ban: Mastercard which is U.S. card-issuer has failed to comply with the local data storage rules announced by RBI in 2018.

- Mastercard was storing customers' data on servers located outside the country and also failing to erase from overseas servers the Indian leg of the transactions data within 24 hours as mandated.
- A certain part of the data on transactions processed has been moved to India and Mastercard is using that as a defence, but the RBI wants **end-to-end stored locally in the country**.
- The card network may also have been non-compliant with RBI's requirement to appoint a domestic auditor certified by the country's nodal cybersecurity agency—Indian Computer Emergency Response Team (CERT-in)—to conduct its external compliance audit

What is the need for local data storage?

- Experts believe that **customer privacy** and **national security** are genuine concerns that need to be taken seriously.
- Governments may also believe that mandating foreign companies to set up local infrastructure can **boost their local economies.**
- Governments mandate data localisation in order to **favour local companies** to foreign ones.
- China, for example, has used its cybersecurity laws to discriminate against foreign companies. A similar trend may be playing out in India with the Centre's emphasis on **economic selfsufficiency.**
- However, many also believe that data localisation rules are too stringent and they could simply be used by governments as **tools of economic protectionism**.

What are the objections raised by these companies?

- Corporates also argue that formal international laws to govern the storage of digital information across borders may be sufficient to deal with these concerns.
- In 2018, Mastercard had launched a complaint with the U.S. government that PM Modi was actively promoting Indian cards like RuPay and that it was affecting the business of foreign card companies

What lies ahead?

- Business Impacted: Indian banks that are currently enrolled in the Mastercard network are expected to make alternative arrangements with other card companies. The process is expected to take a few months, and their card business is expected to take a significant hit meanwhile.
- Benefits Domestic Card Companies: The RBI's data localisation policy, as it burdens foreign card companies, may end up favouring domestic card issuers like RuPay. The ban on American Express and Diners Club earlier this year benefited the Indian card network RuPay.
- Benefits Competitors: Mastercard owns about one-third of the market share in India, and the RBI's ban is likely to significantly benefit its competitors.
- Impacts other foreign companies: Visa, a foreign company which dominates card payments in India, may come under regulatory pressure in the near future.
- Hurts Competition in Long Term: Thus, the card payments sector may end up being restricted to a few domestic companies, which in turn can lead to reduced competition. This could mean higher costs and lower quality services for customers.
- Continued Ambiguity on Data Ownership: Additionally, Information about spending patterns and other customer data can be monetised by companies in a variety of ways. With

no clear rules on who owns customer data and to what extent, conflicts over data ownership are likely to continue for some time.

RBI Circular, 2018

- In order to ensure better monitoring, it is important to have **unfettered supervisory access to data** stored with these system providers as also with their service providers / intermediaries/ third party vendors and other entities in the payment ecosystem. It has, therefore, been decided that:
- All system providers shall ensure that the entire data relating to payment systems operated by them are **stored in a system only in India**. This data should include the **full end-to-end transaction** details / information collected / carried / processed as part of the message / payment instruction. For the foreign leg of the transaction, if any, the data can also be stored in the foreign country, if required.
- System providers shall ensure compliance of (i) above within a period of six months and report compliance of the same to RBI latest by Oct 15, 2018.
- System providers shall **submit the System Audit Report (SAR)** on completion of the requirement at (i) above. The audit should be conducted **by CERT-IN empaneled auditors** certifying completion of activity at (i) above. The SAR duly approved by the Board of the system providers should be submitted to the Reserve Bank not later than December 31, 2018.

Project Pegasus

Context: A global collaborative investigative project has discovered Israeli spyware Pegasus was used to target thousands of people across the world. In India, at least 300 people are believed to have been targeted.

What is Pegasus?

- Built and marketed by Israeli company NSO, Pegasus is a software that infects devices & spies on the victim by transferring data to master server in an unauthorised manner.
- Pegasus is ostensibly marketed for surveillance of "serious crimes and terrorism".
- It is made available only to military, law enforcement and intelligence agencies from countries with good human rights records.

How does it work?

- Pegasus, in the very basic form, can infect devices that are connected to the internet. Some updated versions can also infect phones even without the victim clicking on any links or messages.
- Most spyware and stalkerware apps disguise themselves as anti-theft applications that can be used to track stolen or lost devices.
- While viruses and malware can be detected by anti-virus software, spyware & stalkerware apps disguise themselves as useful and send out stolen data to central servers without the knowledge of users.

• The software can, based on instructions from a remote server, automatically turn on the camera and the microphone and look into chats, access the calendar and read SMS-es and emails.

Issues:

- Scale of usage: The allegations here are not new. What is new is the scale of the targeting of innocent people that's allegedly taking place. Nearly 200 reporters from 21 countries have their phone numbers on this list.
- Attack on Dissidents: It reflects a disturbing trend with regard to the use of hacking software against dissidents and adversaries. In 2019 also, Pegasus software was used to hack into HR & Dalit activists.
- Endangers Safety of journalists: In the absence of privacy, the safety of journalists, especially those whose work criticises the government, and the personal safety of their sources is jeopardised.
- Violation of Fundamental Rights: The very existence of a surveillance system, whether under a provision of law or without it, impacts the right to privacy and the exercise of freedom of speech (Article 19) and personal liberty (A-21).

- **Declining Press Freedom:** World Press Freedom Index produced by Reporters Without Borders has ranked India 142 out of 180 countries in 2021 (India's ranked 133 in 2016)
- Leads to Self-Censorship: The perceived danger, founded on reasonable suspicion that surveillance may happen, itself impacts their ability to express, receive and discuss such ideas.
- Dangers of Mass Surveillance: As spyware becomes more affordable and interception becomes more efficient, there will no longer be a need to target specific individuals. Everyone will be potentially subject to state-sponsored mass surveillance.
- **Weak Legislative Protection**: The proposed legislation related to the personal data protection of

Indian citizens fails to consider surveillance while also providing wide exemptions to government authorities.

Way Ahead

- The need for judicial oversight over surveillance systems in general, and judicial investigation into the Pegasus hacking in particular, is essential.
- Only the judiciary can be competent to decide whether specific instances of surveillance are proportionate, whether less onerous alternatives are available, and to balance the necessity of the government's Security objectives with the rights of the impacted individuals

Communication surveillance in India takes place primarily under two laws

- Telegraph Act deals with interception of calls
- IT Act was enacted to deal with surveillance of all electronic communication

1. Telegraph Act

Section 5(2) of **The Indian Telegraph Act, 1885**, states that the government can intercept a "message or class of messages" on certain situatinos

- Certain situations the interests of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states or public order, or for preventing incitement to the commission of an offence.
- $_{\odot}$ These are the same restrictions imposed on free speech under Article 19(2) of the Constitution.
- Significantly, even these restrictions can be imposed only when there is a condition precedent the occurrence of any public emergency, or in the interest of public safety.

The operational process and procedures for Interception

- The procedures appear in Rule 419A of the Indian Telegraph Rules, 1951.
- Rule 419A was added to the Telegraph Rules in 2007 after the verdict in the *People's Union for Civil Liberties (PUCL) vs Union of India* case in 1996, in which the Supreme Court said telephonic conversations are covered by the right to privacy, which can be breached only if there are established procedures.
- Under Rule 419A, surveillance needs the sanction of the **Home Secretary at the Central or State level**, but in "unavoidable circumstance" can be cleared by a Joint Secretary or officers above, if they have the Home Secretary's authorisation.
- In the **K.S. Puttaswamy vs Union of India** verdict of 2017, the Supreme Court further reiterated the need for oversight of surveillance, stating that it should be legally valid and serve a legitimate aim of the government.
- The court also said the means adopted should be proportional to the need for surveillance, and there should be procedures to check any abuse of surveillance.

2. Information Technology Act, 2000

- Section 69 of the IT Act, 2000 deals with electronic surveillance.
- It facilitates government "interception or monitoring or decryption of any information through any computer resource" if it is in the interest of the "sovereignty or integrity of India, defence of India, security

of the State, friendly relations with foreign States or public order" or for preventing or investigating any cognizable offence.

- The procedure for electronic surveillance as authorised by Section 69 is detailed in the 2009 rules which are broader in its scope.
- Section 69 the IT Act adds another aspect that makes it broader interception, monitoring and decryption of digital information "for the investigation of an offence".
- Significantly, it dispenses with the condition precedent set under the Telegraph Act that requires "the occurrence of public emergency of the interest of public safety" which widens the ambit of powers under the law.

Conclusion

So, for a Pegasus-like spyware to be used lawfully, the government would have to invoke both the IT Act and the Telegraph Act.

India must directly engage with Taliban 2.0

In News: With the withdrawal of the United States from Afghanistan in process, India's Afghan policy is at a major crossroads; to safeguard its civilian assets there as well as to stay relevant in the unfolding 'great game' in and around Afghanistan.

- India had poured in **development assistance** worth well over \$3 billion, under the protective umbrella of the US presence. These was intended **to gain goodwill of Afghans** and to promote good relationship between governments.
- There was no part of Afghanistan that was untouched by India's assistance 400-plus projects undertaken in all 34 of Afghanistan's provinces.
- SALMA DAM, ZARANJ-DELARAM HIGHWAY, THE AFGHAN PARLIAMENT, POWER INFRA, HEALTH INFRA, TRANSPORTATION, CAPACITY BULIDING

What has been the recent actions of India in Afghanistan?

- India has 'temporarily' closed its consulate in Kandahar and evacuated its diplomats and Indo-Tibetan Border Police (ITBP) personnel stationed there.
- This follows the suspension of operations in the Indian consulates in Jalalabad and Herat. India has only its Embassy in Kabul and the consulate in Mazar-e-Sharif.
- In other words, New Delhi has decided to **ramp down its civilian presence** in the war-torn country, bracing for a full-blown civil war.
- It shows that betting only on the government in Kabul was a big mistake.
- It also shows that India realises the threat Taliban poses to Indian assets and presence in Afghanistan.

Has India's Policy towards Taliban changed in the recent past?

- India has been steadily abandoning its strict policy towards the Taliban over the past few years.
- In 2018, India sent a 'non-official delegation' of two retired diplomats to Moscow for a conference that had Taliban & other regional countries
- In Sep 2020, India's External Affairs Minister (EAM) joined the inaugural session of the intra-Afghan (Taliban & Afghan government) negotiations in Doha
- Latest reports indicated that India has started reaching out to the Taliban through back channel Diplomacy, which was indirectly confirmed by EAM
- Overall, we can say that India's approach to Taliban has been half-hearted, half-embarrassed and ideologically-hesitant

What are the reasons that has kept India's engagement with Taliban Slow & Half-hearted?

Doesn't want to upset Afghan Government:

- If New Delhi chooses to engage the Taliban directly, it could make Afghanistan President Ashraf Ghani, thus far India's trusted partner, uneasy.
- This could potentially nudge him to look towards China and the Shanghai Cooperation Organisation (SCO) for national security and personal political survival.

Dilemma of whom to Talk to in Taliban

- New Delhi faces difficulty as to whom to talk to within the Taliban given that it is hardly a monolith
- New Delhi may have little access to the fighters on the ground in Afghanistan. So, the only option might be the Doha-based Taliban negotiators.

Moral Principles cautioning against the rush to engage

- Taliban faced global criticism, including from India, in its earlier avatar for its conservative & anti-Democratic Policies.
- Due to lack of evidence about whether Taliban is a changed outfit today, New Delhi might not want to court the Taliban so soon.
- More so, there is little clarity about what the Taliban's real intentions are going forward and what they would do after ascending to power in Kabul.

Pakistan Factor

• There is this possibility of Pakistan acting out more aggressively against India in Kashmir if India were to establish deeper links with the Taliban.

Why India should engage with the Taliban more proactively and openly?

- Accepting the reality: Taliban, one way or another, is going to be part of the political power in Afghanistan, and most of the international community are going to recognise/negotiate/do business with the Taliban. Non-engagement with Taliban might lead to India being left out in the country.
- Pakistan Factor: The less proactive the Indian engagement with the Taliban, the stronger Pakistan-Taliban relations would become, which is against India's interest in the region.
- Political Need of Taliban: Taliban today is looking for regional and global partners for recognition and legitimacy especially in the neighbourhood. Also, to balance its neighbour

Pakistan, Taliban might be looking for India as its strategic partner.

- To ensure security of India's civilian assets: It makes neither strategic nor economic sense to withdraw from Afghanistan after spending over \$3 billion by India in developmental aid. Therefore, India needs to engage with Taliban to ensure security of its civilian assets.
- **Geographical Necessity**: India's lack of direct physical access to Afghanistan. So Indian government has to engage with the Power that rules the country to have smooth economic relationship & access to Central Asia
- To shape regional destiny: If India is not proactive in Afghanistan at least now, Russia, Iran, Pakistan and China will emerge as the shapers of Afghanistan's political and geopolitical destiny, which for sure will be detrimental to Indian interests there.
- Opening up the congested north-western frontier: Backchannel talks and consequent ceasefire with Pakistan, political dialogue with the mainstream Kashmiri leadership, secret parleys with Taliban all indicate that New Delhi is opening up its congested north-western frontier. Proactive engagement of the Taliban will provide this effort with more strategic heft.
- Engagement is not endorsement: Open engagement of the Taliban is neither tolerating nor accepting the condemnable atrocities committed by the Taliban.

Conclusion

- In the end, India's engagement with the Taliban may or may not achieve much, but non-engagement will definitely hurt Indian interests
- So New Delhi must forget the demons of IC-814 (the December 1999 hijacking) from its collective memory and engage with the Taliban 2.0

 there is no need to be secretive or embarrassed about it.

Assam- Mizoram dispute

In News: Firing on the inter-state boundary left at least six Assam policemen dead and over 50 individuals injured.

- The boundary between the two states, which runs 165 km today, has a history dating back to the time when Mizoram was a district of Assam and known as **Lushai Hills.**
- Boundary demarcations in 1875 and 1933, particularly the second one, are at the heart of the dispute.
- The **1875 demarcation**, notified on August 20 that year, derived from the Bengal Eastern Frontier Regulation (BEFR) Act, 1873. It differentiated **Lushai Hills from the plains of Cachar in Assam's Barak Valley.** This was done in consultation with Mizo chiefs, and it became the basis for the Inner Line Reserve Forest demarcation in the Gazette two years later.
- The **1933 demarcation** marks a boundary between **Lushai Hills and Manipur**, beginning at the tri-junction of Lushai Hills, Cachar district and Manipur. The Mizos do not accept this demarcation on the ground that their chiefs were not consulted this time.
- The boundary line was pushed farther and farther south of the Inner Line of 1875, depriving the Mizos of the gentle slopes and flat lands for the convenience of outside settlers (mainly Bangladeshiss) brought by British
- The dispute has been simmering since Mizoram became a Union Territory in 1972 and then a state in the 1987. The two states signed an agreement that status quo should be maintained at no-man's land set up in the boundaries.
- While Assam sees its claimed boundary as transgressed, Mizoram cites unilateral moves by Assam inside Mizoram territory.

Assam has had boundary problems with all its northeastern neighbours, except Manipur and Tripura that had existed as separate entities.

• State Reorganisation Post Independence: The primary reason is that the other

States, which were all part of Assam during the British rule, have contested the boundaries since they separated from Assam and became full-fledged States over a period of time (Nagaland Statehood in 1963; Meghalaya, Tripura & Manipur Statehood in 1971; Arunachal Pradesh & Mizoram Statehood in 1987)

- Constitutional Solution Vs Historical grounds: Assam has accepted several recommendations of border commissions set up by the Supreme Court, but other States have been sticking to "historical boundaries" that go back to the period before 1826, when the British annexed undivided Assam and included the hills as its provinces.
- Issue of Nagaland: The Nagaland government has been insisting that a 16-point agreement of 1960, which led to the creation of Nagaland, also included "restoration" of all Naga territories that had been transferred out of the Naga Hills after the British annexed Assam in 1826.
- Issue of Meghalaya: Meghalaya has challenged the Assam Reorganisation Act of 1971, claiming that two blocks in Assam's Karbi Anglong district belonged to the erstwhile United Khasi and Jaintia Hills created in 1835.

Way Forward

- **Burden borne by common man:** The border residents will continue to bear the brunt of the unrest unless an acceptable solution is arrived at.
- **Joint patrolling** by police personnel of both the States with Central forces along the inter-State border.
- Maintaining Peace & Order: Apart from drawing up the standard operating procedure for guarding the contentious boundary, state governments need to strengthen coordination between the Superintendents of Police of the border districts for prompt action against criminals and antisocial activities that add to the border tension.

Landslide in Himachal Pradesh

In News: Recent tragic death of nine tourists in a landslip in Kinnaur district of Himachal Pradesh.

- Reason: Extraordinarily heavy rains in the State recently, left the hill slopes unstable and causing floods in built-up areas
- A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Landslides are a type of "mass wasting," which denotes any down-slope movement of soil and rock under the direct influence of gravity
- Slope movement occurs when forces acting down-slope (mainly due to gravity) exceed the strength of the earth materials that compose the slope.
- Landslides are caused due to three major factors: geology, morphology, and human activity.
- **Geology** refers to characteristics of the material. The earth or rock might be weak or fractured, or different layers may have different strengths and stiffness.
- Morphology refers to the structure of the land. For example, slopes that lose their vegetation to fire or drought are more vulnerable to landslides.
- Vegetation holds soil in place, and without the root systems of trees, bushes, and other plants, the land is more likely to slide away.
- **Human activity** which include agriculture and construction increase the risk of a landslide.

Issues

- Himalayan landscape is susceptible to landslides. Formed due to the collision of Indian and Eurasian plates, the northward movement of the former puts continuous stress on the rocks, rendering them weak and prone to landslides and earthquakes (high seismicity region). This, combined with steep slopes, rugged topography, high seismic vulnerability, and rainfall, make a deadly cocktail.
- Reckless exploitation of resources: Big hydroelectric projects (source of green power) and large-scale construction activity involving destruction of forests and damming of rivers in this

region alter several aspects of ecology rendering the region vulnerable to the effects of extreme events such as cloudbursts, flash floods, landslides and earthquakes.

- **Bitter Reality:** Himalayan States may be entering a phase of irreversible decline because of losses to their ecology and frequent disasters may become inevitable.
- Administration Neglect: Relaxation of COVID protocols led to restarting of Tourist activities in Himachal Pradesh State. Unfortunately, there was not enough vigil against travel to risky areas

Way Ahead

- The mishap shows the fragility of the ecology of the Himalayan States. Governments cannot continue to disregard for the fragile topography and climate-sensitive planning
- It is important to have early warning and better weather forecast systems, and a transboundary coalition of Himalayan States to share and disseminate knowledge about the mountains.
- Also, it is critical to review the area's present status and draw up a sustainable plan that respects the specific requirements of this fragile region and the impact of the climate crisis.
- Mitigation:
- Restriction on the construction and other developmental activities such as roads and dams in the areas prone to landslides.
- Limiting agriculture to valleys and areas with moderate slopes.
- Control on the development of large settlements in the high vulnerability zones.
- Promoting large-scale
 afforestation programmes and construction of
 bunds to reduce the flow of water.
- Terrace farming should be encouraged in the northeastern hill states where Jhumming (Slash and Burn/Shifting Cultivation) is still prevalent.

Floods in Europe

- **Context:** A month's rain poured in just 24 hours in the worst-affected areas of Germany and Belgium. This caused multiple rivers to burst their banks and flood parts of the two countries as well as the Netherlands (managed well), Luxembourg and Switzerland.
- It is believed that these areas of Europe have not witnessed such heavy rainfall for more than a century.
- The floods & the subsequent efforts by authorities bore uncanny resemblance to what **Kerala experienced in August 2018.**
- These extreme & unpredictable events are attributed to **Climate Change**

How Climate Change is causing frequent floods?

- More CO2 the world emits into the atmosphere, the warmer will be the air temperature.
- Warmer air holds more moisture and results in excess rainfall, which leads to flooding.
- Additionally, increasing temperatures at the poles result in **slower movement of storms** in the mid-latitudes. As a result, storms linger longer at a specific place.
- The combination of a **slow-moving storm** and the presence of surplus moisture in the atmosphere results in intense rainfall in one location within a short period of time.
- The advanced flood warning system of Germany did forecast heavy rains and the possibility of floods. But local authorities were unable to respond rapidly enough and communicate the warnings to the wider population.
- The rain and floods happened so fast that there was **no time to evacuate all residents to safety** and fully deploy the formidable rescue and relief infrastructure that they possessed.

What did the Netherlands do right in dealing with the floods?

- The Dutch have gone **beyond their conventional dependence on dikes, dams, walls** and gates to protect themselves from floods.
- Their current disaster resilience mantra is to live with water, build with nature and make room for the river.

- They champion creating adequate space for rivers to overflow by
- Protecting floodplains from human interference & human activities
- Deepening riverbeds
- Creating alternate channels for excess water.
- After two major floods in 1993 and 1995, the Dutch embarked on several projects to widen riverbanks and reshape the areas around rivers.
- Also, Superior organisation, better preparedness, advanced flood management system and centuries of experience has helped the Netherlands to manage floods better.

Way Ahead for India as well as other countries

- Learning from the Dutch model of "live with water, build with nature and make room for the river"
- Mapping Risk areas: Flood-prone areas should be identified, and projects initiated on an urgent basis to create room for rivers.
- Increasing Drainage capacity of rivers and canals by creating more room for the water to flow. This involves removing obstructions and encroachments from existing water channels, the proper maintenance of such channels and creating additional channels for water to flow.

Storage of Excess Rainwater: Low-risk areas such as playgrounds, maidans, or agricultural fields should be earmarked to store excess rainwater.

- Drains must be built for diverting water into these storage units.
- This will relieve the stress on the existing drainage infrastructure.
- The stored water can later be discharged back into the drainage channel once the high water subsides.

Strengthen Disaster Preparedness: In the short term, strengthened disaster readiness, planning and preparation will help us deal with sudden, intense rain and consequent floods

• While national and State disaster management authorities have grown in experience, competence and professionalism, there is need for a higher degree of coordination and preparation across all levels of government.

• Practice drills need to be conducted in floodprone areas.

Modifying Warning Messages: We need to test the effectiveness of flood warnings. The warnings should be in local languages and in simple terms.

 Rather than forecast the millimetres of rain expected, conveying specific information regarding the extent of damage to property and life would likely encourage affected communities to remain alert and respond quickly.

MGNREGA- Payments Issue

- Scheme under Mahatma Gandhi National Rural Employment Guarantee Act, 2006
- MGNREGA is one of the largest work guarantee programmes in the world.
- **Objective:** The primary objective of the scheme is to guarantee 100 days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work at the statutory minimum wage.
- Legal Right to Work: The scheme provide legal provisions for appeal in the case, work is not provided or payments are delayed.
- At least one-third of beneficiaries have to be women.
- Wages must be paid according to the statutory minimum wages specified for agricultural labourers in the state under the Minimum Wages Act, 1948.
- The Ministry of Rural Development (MRD) is the implementation body
- Within 15 days of submitting the application or from the day work is demanded, wage employment will be provided to the applicant.
- Right to get unemployment allowance in case employment is not provided within fifteen days of submitting the application or from the date when work is sought.
- **Decentralised planning:** There is an emphasis on strengthening the process of decentralisation by giving a significant role in Panchayati Raj Institutions (PRIs) in planning and implementing these works.
- MGNREGA works address the climate change vulnerability and protect the farmers from such risks and conserve natural resources.
- The scheme is funded by the central government which bears the full cost of unskilled labour and 75% of the cost of material for works undertaken under this law.
- The central and state governments audit the works undertaken under this act through annual reports prepared by CEGC (Central Employment Guarantee Council) and the SEGC (State

Employment Guarantee Councils). These reports have to be presented by the incumbent government in the legislature.

• The scheme has also diminished wage volatility and the gender pay gap in labour.

Payment System in MGNREGA

- Under the Act, workers should get wages within 15 days of completion of work failing which they are entitled to compensation for delays. The MGNREGA payment process consists of two stages.
- Stage 1: State's responsibility Funds' Transfer Order (FTO) with worker details is digitally sent to the GoI by the panchayat/block + must be completed in 8 days after work is completed.
- Stage 2: Gol then processes the FTOs and transfers wages directly to the workers' accounts + Entirely Gol's responsibility + must be completed within seven days after Stage 1.

Payment Issues with MGNREGA

- Delay in Processing & Payment: The Gol took 26 days on average to process the transactions in the second stage. Also, only 26% of the transactions of April-June 2021 were credited within the stipulated seven-day period by the Gol.
- Violation of Court Orders: In 2018, SC gave strong orders reprimanding the GoI for not paying compensation for the delay it was causing. Three years hence, the GoI continues to violate the Act and court orders.
- Delays during start of year: The inordinate delays in paying wages are being observed at the beginning of the financial year, when the programme is meant to be flush with funds.
- Delay despite progress in Digital Payment ecosystem: India boasted 4,355 crore digital retail transactions (completed within minutes/24 hrs) in 2020-21 as per RBI data. In comparison, MGNREGA

transactions, which are only 1.6% in the volume of these, get routinely delayed

- Unaccountability of delayed payments: These delays were completely unaccounted for as they were not reflected in the MGNREGA MIS.
- Lacks feedback: The digital payments system of MGNREGA has been a laboratory of many experiments since 2012. However, there is no mechanism to get feedback from workers to evaluate the robustness of these systems.
- Segregating Payment by Caste:
- On March 2, the GoI issued a circular to change the payment system so that payments can be made separately based on the caste of workers (SC, ST and "Others").
- The payment segregation order by Gol was designed to assess how much the SC/ST communities benefited from MGNREGA.
- While the objective is good, experimenting with payment architecture without sufficient debate raises concerns (fear of erosion of Universality of MGNREGA) especially when the same data can easily be calculated after the wage payments are completed.

MORE IN BABAPEDIA

Issue/Analysis	Application/Value Add/ Think
Topic: India and Religion	GS-I- Society
Context: Pew Research Centre Report, Religion and India: Tolerance	
and Segregation, based on serious survey data with almost 30,000	
respondents.	
Key takeaways from the Survey	Do You Know?
Overwhelmingly religious country, across all religions. This is	
also true of every dimension of religion from ritual observance to	Between 2007 and 2019, the world
social identity, belief and practice. High degree of religiosity that	had generally become less religious
seems not to decline with education or class.	(exception was India); 43 out of the
• Respect for other religion is very high: 80 per cent of Hindus	49 countries studied showed a
and 79 per cent of Muslims say that respecting other religions is a	marked decline in religion.
very important part of their religious identity;	
• The religious sensibilities are similar: The numbers of those	
believing in the doctrine of karma is identical amongst Hindus and	
Muslims.	
Segmented toleration: India is committed to an ideology of	
toleration but practices segmented toleration: Each community has its	
place so long as each stays in its place. For example: 63% Hindus and	
70% Muslims oppose Inter-caste & Inter-religious marriages	
Food & Religion: Food practices remain the strongest marker	
of religious observance: Eating beef or eating pork is just about the	
only thing that two-thirds of your co-religionists believe will disqualify	
you from that religion.	
Language, Religion & Nationalism: Sixty-four per cent Hindus	
think being a Hindu/or identification with Hindi is necessary for being	
a good Indian.	(8)
Religion in Politics: Two-thirds of members of all communities Thirds it is fine for no liking to got antongled with religion.	W
think it is fine for politicians to get entangled with religion.	Conclusion
The overall picture of India in the survey is of a religious country, ideologically committed to religious diversity, but exclusionary and	Conclusion
segmented in its toleration.	
segmented in its toleration.	

Issue/Analysis	Application/Value Add/ Think
Topic: Globalisation and India	GS-II-International
Context: Some of the traditional forms of globalisation (the free movement of goods, money, people, etc) are in partial retreat, but globalisation is evolving as new agendas come into focus. New Agendas shaping Globalisation Phase-II that may not be beneficial to India are:	Introduction
 1. Controlling Climate Change Though India is an enthusiastic implementer of the Paris Agreement of 2015, it will get no assistance (financial or technical) to 	

switch to new technologies and give up old ones like coal-based	What are India's pledges in Paris
energy.	Climate Accord?
At the same time, the countries responsible for much of the	
historical emission of carbon gases get a free pass	
2. Taxation of global companies	
The new international corporate taxation regime that is being	
worked on stipulates a minimum rate of tax to be paid in the country	
where revenue is generated.	
India should be happy with this, but the primary beneficiaries	
of the new regime, when it comes into effect, will be the wealthy	
countries.	
3. Vaccine Supply & Health as Global Public Good	Should Government use Vaccine
Even on the international supply of vaccines, the numbers	supply (India is largest producer of
agreed on at the recent meeting of the rich club of G7 countries are	vaccines) as part of its diplomatic
unremarkable	tool?
But India's push for a patent waiver on Covid vaccines awaits	
attention	
4. Growth of social media platforms.	What is your opinion on Social
The giant tech companies that dominate the field have had a	Media? Does it empower you? Or is it
free run but have increasingly come up against sovereign state power,	a distraction?
including in India.	Mail us your opinions to
This should be a fit case for the setting of global rules for a	team@iasbaba.com
global business (new form of global collaboration)	
Given the rise of powerful autocratic states (China, Russia,	
Turkey etc), it will be a difficult challenge.	
The old globalisation was essentially good for India. The new	Conclusion
globalisation could be a mix of good and bad news.	

Issue/Analysis	Application/Value Add/ Think
Topic: Inclusion of Petrol & alcohol in GST	GS-III- Economy
Context: It is the general perception from 2017 that petroleum	Introduction
products will be brought under GST and the prices will reduce once	ω
they are included under GST.	
Arguments for Inclusion of Petroleum in GST	
 As of date, the maximum rate of GST is 28% and cess as 	
applicable.	
 As petroleum products are not currently under GST's ambit 	
presently VAT and Excise is imposed on it and are collected at around	
150% of the price of petrol.	
 Inclusion of Petroleum in GST will drastically bring down the 	
prices of petrol & diesel.	
• Since petroleum is not included in GST, there is an increase in	
the overall cost due to the non-allowance of set-off on inputs.	
Arguments against inclusion of Petroleum in GST	Same arguments & counter
 Implementing this decision has a far-reaching impact on the 	arguments apply for alcohol as well.
State and Central governments' revenue.	
 States not only fear losing taxation revenue but also losing 	
taxation rights. This will further takeaway the powers of State to have	
flexibility in designing their budgets.	

Four years have passed however petroleum products and alcohol are still outside the ambit of GST. It is high time there is a debate among various stakeholders on whether it should be included or not.

Conclusion

More interesting analysis & issues discussed in Babapedia

Topic: Social Security for Informal Workers

Context: On June 29, the Supreme Court finally delivered its judgment on the plight of the migrant labour

- First, it recognised that there was largescale exclusion of migrant informal workers from existing schemes due to the lack of their registration and outdated eligibility lists.
- Second, it mandated that the portal for registration of all informal/migrant workers should be fully operational before July 31......

Topic: Global financing of climate change

Issues

- Privatising the profits and universalising pollution: The cost towards mitigation and adaptation of climate change is largely borne by the government and people and profits are appropriated by the business.
- Inadequate Attention to Mitigation: 93% of the total public and private finances flow to mitigation activities while adaptation activities receive less than 7%.
-

Topic: China-Africa: Learning & Opportunity for India

Analysing Chinese engagement with Africa

- Biggest Economic Partner: China.....
- Relocation Site for Chinese Firms: Chinese-built industrial...
- Learning Experience: Chinese ...

Topic: Democratic Quad vs China's Quad

Context: Even as the sherpas of the Quad democracies — the USA, India, Japan and Australia — prepare for a summit of the top leaders in Washington later this year, a rival quadrilateral grouping is in the making This rival QUAD consists of China, Russia,

Topic: Fake News

Pakistan and Iran.....

Definition: Fake news is disinformation that has no basis in reality, but is presented as fact.

Consequences of Fake News on History

- India's diversity & conflicts that are rooted in historical claims will get intensified if the related fake news are not contextually analysed and challenged. This leads to further widening of fault lines in the society.
- Fake news which gets propagated with being challenged impairs the world view of youngsters & stunts their scientific thinking capabilities.....

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It is **organized** in a manner that making notes and **revision** becomes very effective.

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Practice MCQs

Q.1) Which of the following is <u>NOT</u> a component of Current Account?

- a) Trade in Goods
- b) Foreign Direct Investments
- c) Trade in Services
- d) Remittances

Q.2) With reference to Global Cybersecurity Index 2020, released recently, consider the following statements:

- 1. It is released by International Telecommunication Union.
- 2. India ranked below China and Pakistan in global cyber security.
- 3. CERT-IN is the nodal agency in India to deal with cyber security threats.
- 4. International Telecommunication
 Union is an autonomous
 organisation and has observer status
 with the United Nations.

Which of the above statements is/are correct?

- a) 1 and 3 only
- b) 2, 3 and 4 only
- c) 3 and 4 only
- d) 1, 2, 3 and 4

Q.3) Introduction of GST recently completed four years. In this reference consider the following statements:

- GST was introduced in India to brought efficiencies in direct tax compliance.
- 2. The GST Council is a joint forum of the centre and the states headed by the Prime Minister.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.4) Kalbeliya is a folk dance of:

- a) Karnataka
- b) Uttarakhand
- c) Rajasthan
- d) Manipur

Q.5) With reference to LEAF coalition, seen recently in news, consider the following statements:

- It is a collective of the United States, United Kingdom and Norway governments
- 2. It is a step towards concretising the aims and objectives of the Montreal Protocol.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.6) Recently, the Supreme Court agreed to hear plea seeking President's Rule in West Bengal. In this reference consider the following statements:

- 1. During President's rule the Parliament can delegate the power to make laws for the state to the President or to any other authority specified by him in this regard.
- 2. A law made by the Parliament or president or any other specified authority continues only till the proclamation of President's rule is in force in the state.

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.7) Which of the following are the member countries of Indian Ocean Naval Symposium?

- 1. Australia
- 2. Mozambique
- 3. Japan
- 4. Madagascar
- 5. France

Choose the correct answer from the codes given below:

- a) 1, 2, 3 and 4 only
- b) 2, 3 and 5 only
- c) 1, 2 and 5 only
- d) 2, 3, 4 and 5 only

Q.8) Which of the following is NOT a Ramsar Site?

- a) Sasthamkotta Lake
- b) Paravur Lake
- c) Vembanad Lake
- d) Ashtamudi Lake

Q.9) Consider the following statements regarding "Project BOLD", seen recently in news:

- 1. It is launched by the Ministry of Micro, Small & Medium Enterprises.
- The objective is to provide sustained employment for traditional industry artisans and rural entrepreneurs.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.10) With reference to 'Istanbul Convention', seen recently in news, consider the following statements:

- 1. It is a convention on preventing and combating violence against women and domestic violence.
- 2. It is a legally-binding instrument.
- 3. India is a party to this convention.

Which of the above statements is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

Q.11) "Harit Dhara" seen in news is:

- a) Biofertilizer to enhance growth and yield of the plant
- b) New species belonging to the genus of the coffee family
- c) Anti-methanogenic feed supplement for cattle
- d) Project of National Highways Authority of India to create green corridor along the highways

Q.12) With reference to NIPUN Bharat Mission, launched recently, consider the following statements:

- 1. It is launched as part of National Education Policy 2020.
- 2. It aims to cover the learning needs of children in the age group of 6 to 14 years.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.13) With reference to Anti-Dumping Duties consider the following statements:

- 1. These are tariffs levied on imported goods to offset subsidies made to producers of these goods in the exporting country.
- 2. Directorate General of Trade Remedies is the apex organization in India for carrying out investigations and recommending the amount of anti-dumping duty.

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.14) Tillari Conservation Reserve, seen recently in news, is located in:

- a) Andaman and Nicobar group of Islands
- b) Lakshadweep group of Islands
- c) Western Ghats
- d) Eastern Ghats

Q.15) Grand Ethiopian Renaissance Dam (GERD) is being built on the River:

- a) Orange
- b) Congo
- c) Zambezi
- d) Nile

Q.16) Which part of Indian Constitution deals with Co-operatives?

- a) Part IX
- b) Part IX-A
- c) Part IX-B
- d) Part IX-C

Q.17) Which of the following are the qualifications laid down by the Constitution for the appointment of the Governor?

- 1. He should not belong to the state where he is appointed.
- 2. While appointing the governor, the president is required to consult the chief minister of the state concerned.

Choose the correct answer from the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.18) Recently, revenue deficit grant was released to several states by the Centre. In this context consider the following statements regarding revenue deficit:

- 1. It deals only with the government's revenue receipts and revenue expenditures.
- 2. It leads to reduction in the government assets.

3. It leads to recessionary situation in the economy.

Which of the above statements is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

Q.19) Which of the following statements is/are correct regarding RBI Retail Direct scheme?

- 1. The objective of this scheme is to facilitate investment in government securities by institutional investors.
- 2. It will give registered users access to primary issuance of government securities.

Choose the correct answer from the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.20) Recently, a new global framework for managing nature through 2030 was released. In this context consider the following statements:

- 1. It is released by UN Convention on Biological Diversity.
- 2. It includes the target of 50% of greater reduction in the rate of introduction of invasive alien species by 2030.
- 3. It sets the goal to halt the extinction and decline of biodiversity by 2050.

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.21) Recently, India's first cryptogamic garden was inaugurated. In this context consider the following statements:

- 1. Cryptogams consist of seed-bearing plants.
- 2. Cryptogams require dry conditions to survive.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.22) The term 'suborbital flight' is sometimes seen in news. Consider the following statements regarding that:

- 1. In suborbital flight the spacecraft reaches a horizontal velocity of more than 28000 km/hr.
- 2. Satellites require suborbital trajectory in order to orbit Earth.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.23) With reference to International Financial Services Centres Authority (IFSCA), consider the following statements:

- It is a unified authority for the development and regulation of financial products, financial services and financial institutions at the International Financial Services Centre (IFSC) in India.
- 2. GIFT IFSC is the maiden international financial services centre in India.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.24) Hydrogen produced using electricity generated from nuclear energy is known as:

- a) Pink Hydrogen
- b) Green Hydrogen
- c) Blue Hydrogen
- d) Grey Hydrogen

Q.25) Consider the following statements regarding District Mineral Fund (DMF):

- Mines and Minerals (Development and Regulation) Amendment Act,
 2015 mandated every state government to set up a DMF.
- 2. Funds accruing to the DMF are used to implement Pradhan Mantri Khanij Kshetra Kalyan Yojana.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.26) "Fit for 55" legislation, seen recently in news, is launched by:

- a) UNESCO
- b) European Union
- c) UNEP
- d) World Bank

Q.27) What is the effect of increase in Inflation in an economy?

- a) Purchasing power of a currency decreases
- b) Purchasing power of a currency increases
- c) Lower cost of living
- d) Acceleration in economic growth

Q.28) With reference to "Fit for 55 Package" initiative consider the following statements:

- 1. It calls for member states of United Nations to cut their output of greenhouse gases by 55% by 2030.
- 2. The initiative includes Carbon Border Adjustment Mechanism which would impose tariffs on imported products based on the greenhouse gas emissions associated with them.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.29) Consider the following:

- 1. STRIVE
- 2. UDAY
- 3. SANKALP
- 4. ASEEM

Which of the above are the skill development schemes of the government of India?

- a) 1 and 2 only
- b) 2 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

Q.30) Which of the following country is **NOT** a part of Amazon River Basin?

- a) Brazil
- b) Colombia
- c) Ecuador
- d) Argentina

Q.31) Which of the following are the tributaries of river Krishna?

- a) Koyna, Musi and Warna
- b) Penganga, Maner and Sabri
- c) Wardha, Manjra and Pravara
- d) Kabini, Suvarnavathi and Bhavani

Q.32) With reference to cyber crime, consider the following statements:

- 1. Pegasus is a spyware developed in China which is used to spy on people without their consent.
- 2. India is signatory to the Budapest convention, an international treaty seeking to address cyber crimes.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.33) Consider the following protected areas:

- 1. Manas
- 2. Bannerghatta
- 3. Keoladeo

Which of the above is/are declared Tiger Reserves?

- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

Q.34) With reference to midday meal scheme, consider the following statements:

- 1. Ministry of Consumer Affairs, Food and Public Distribution is the nodal agency for the implementation of this scheme.
- 2. It envisages to provide cooked meal with 450 calories to every child at primary level and 700 calories at upper primary level.

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.35) Which of the following items is/are included in State list according to 7th Schedule of Indian Constitution?

- 1. Public order
- 2. Police
- 3. Criminal Law

Choose the correct answer from the codes given below:

- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

Q.36) The monsoon session of Parliament has begun recently. In this context consider the following statements:

- 1. The maximum gap between two sessions of Parliament cannot be more than three months.
- 2. An adjournment terminates a sitting of Parliament for an indefinite period.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.37) With reference to NEA Scout, seen recently in news, consider the following statements:

- 1. It is a CubeSat developed by ISRO.
- 2. Its main mission is to fly by and collect data from a near-Earth asteroid.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.38) SMILE scheme has been launched by the government of India with an objective of:

- a) Assisting disabled people in the procurement of affordable, advanced, scientifically developed, aid and equipments.
- b) Assisting the manual scavengers for their rehabilitation in alternative professions.
- Providing physical aids and assisted living devices for all senior citizens belonging to BPL category.
- d) Ensuring comprehensive rehabilitation of persons engaged in Begging

Q.39) With reference to Adarsh Smarak Scheme, consider the following statements:

- 1. It is a scheme for development of theme based tourist circuits in the country.
- 2. It is a scheme of the Ministry of Tourism.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both2 and 2
- d) Neither 1 nor 2

Q.40) Consider the following statements regarding 'Historic Urban Landscape' project:

- 1. It is an initiative of UNESCO.
- 2. In India this project is being implemented in collaboration with the Ministry of Tourism.
- 3. Varanasi and Ajmer are the cities selected under this project.

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.41) Which of the following statements is/are correct regarding Mangrove ecosystem in India?

- 1. Mangroves occur worldwide mainly between latitudes 30° N and 30° S.
- 2. Mangroves are viviparous.
- 3. 80% of mangrove forests in India occur in West Bengal, Karnataka and Goa.

Choose the correct answer from the codes given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.42) Avicennia marina, seen recently in news, is:

- a) Tree belonging to the genus of coffee family
- b) New species of seaweed
- c) Salt tolerant mangrove species
- d) New species of wild Sun Rose

Q.43) Consider the following statements:

- 1. India is the second-largest tea producer in the world.
- 2. India is ranked fourth in terms of tea exports.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.44) "Nord Stream 2 Pipeline" is a system of offshore natural gas pipelines running under:

- a) Black Sea
- b) Baltic Sea
- c) Mediterranean Sea
- d) Celtic Sea

Q.45) Which of the following is/are the criteria on the basis of which a site is designated as the UNESCO World Heritage Site?

- 1. A site which represent a masterpiece of human creative genius.
- 2. A site which represents significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems.

Choose the correct answer from the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.46) Consider the following statements regarding Indian Green Building Council (IGBC):

- 1. It is a division of the Indian Bureau of Energy Efficiency.
- IGBC Green Cities rating system is a voluntary and consensus based programme.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.47) "Nauka", seen recently in news, is:

- a) Scorpene class submarine of Indian Navy
- b) Seawolf class submarine of United States Navy
- c) Space laboratory launched by Russia
- d) Ground-based missile-defense radar of Israel

Q.48) Shreya Singhal Judgement by Supreme Court, often seen in news is related to which of the following?

- a) Right to Privacy
- b) Right to Public Protest
- c) Online Free Speech
- d) Transgender Rights

Q. 49) Which of the following are the duties of Competition Commission of India?

- 1. Eliminate practices having adverse effect on competition
- 2. Promote and sustain competition
- 3. Protect the interests of consumers
- 4. Ensure freedom of trade in the markets of India

Select the correct answer from the code given below

- a) 1,2 and 3 only
- b) 1,3 and 4 only
- c) 2,3 and 4 only
- d) 1,2,3 and 4

Q.50) Consider the following statements on Jal Jeevan Mission

- It is a Central Sector Scheme implemented by Prime Minister's Office
- 2. It envisages supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections by 2024.
- 3. It includes providing functional tap connection to Schools, Anganwadi centres, GP buildings, Health centres, wellness centres and community buildings in rural areas.
- 4. It focuses only on supply-side management of water

Which of the above statements given above are *incorrect*?

- a) 1,2 and 3 only
- b) 1,3 and 4 only
- c) 1 and 4 only
- d) 2 and 4

Answer Key – July Monthly Magazine MCQs

- 1. B
- 2. A
- 3. D
- 4. C
- 5. A
- 6. A
- 7. C
- 8. B
- 9. A
- 10. B
- 11. C
- 12. A
- 13. B
- 14. C
- 15. D
- 16. C
- 17. D
- 18. B
- 19. B
- 20. D
- 21. D
- 22. D
- 23. C
- 24. A
- 25. C

- 26. B
- 27. A
- 28. B
- 29. C
- 30. D
- 31. A
- 32. D
- 33. A
- 34. B
- 35. B
- 36. D
- **37**. B
- 38. D
- **39**. D
- 40. C
- 41. A
- 42. C
- 43. C
- 44. B
- 45. C
- 46. B
- 47. C
- 48. C
- 49. D
- 50. C

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