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PRELIMS

CABINET APPROVES REVAMPED DISTRIBUTION SECTOR SCHEME

- The Union Cabinet, chaired by the Prime Minister, Shri Narendra Modi has approved a Reforms-based and Results-linked, Revamped Distribution Sector Scheme.
- The Scheme seeks to improve the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments excluding Private Sector DISCOMs by providing conditional financial assistance to DISCOMs for strengthening of supply infrastructure.
- The assistance will be based on meeting pre-qualifying criteria as well as upon achievement of basic minimum benchmarks by the DISCOM evaluated on the basis of agreed evaluation framework tied to financial improvements.
- Implementation of the Scheme would be based on the action plan worked out for each state rather than a "one-size-fits-all" approach.
- The Revamped Distribution Sector Scheme aims to improve operational efficiencies and financial sustainability, by providing result-linked financial assistance to DISCOMs for strengthening of supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks.

The Scheme would be available till the year 2025-26. REC and PFC have been nominated as nodal agencies for facilitating implementation of the Scheme.

INDIA FLAGS 'GREEN PASS' ISSUE

- India took issue with the European Union's plans to institute a "green pass" from July 1, with government sources warning that India will introduce a "reciprocal policy" only allowing ease of travel for those European countries that recognise Indian vaccines Covishield and Covaxin.
- In a tweet after the meeting, Mr. Jaishankar indicated that he raised the issue of possible restrictions on Indian travellers in the EU if they do not have one of four vaccines approved by the European Medicines Agency (EMA), which include the European-made AstraZeneca vaccine but not the Indian-made Covishield by the Serum Institute of India (SII) or Covaxin by Bharat Biotech.
- The government's statement, made through officials who did not wish to be identified, came even though the European Union had issued a detailed clarification, denying its plan was discriminatory.
- The African Union had also issued a letter of protest over the EU proposal saying that it promoted "inequality" for those from India and "lower-income" countries for whom the Covishield vaccine was the "backbone" of the international COVAX alliance programme.
- The EU had also explained that SII had not applied for the requisite permissions with the EMA, and had promised to consider its case as soon as it applied.
- However, New Delhi now appears to be taking the position that the EMA must consider the Indian-made vaccine by accepting the CoWin certificate, regardless of the applications.
- The government's stand is especially significant since while Covishield has received World Health Organization authorisation, Covaxin is yet to be cleared by the global health body.

INTERNATIONAL TOURISM LOSSES COULD COST $4 TRILLION: UN REPORT

- The collapse of international tourism due to COVID-19 could cost the world at least $4 trillion in terms of global GDP for 2020 and 2021, according to a report from two United Nations (UN) institutions.
- India experienced a 54% drop in tourist arrivals in 2020, according to COVID-19 and Tourism: An Update, a joint report released by the UN Conference on Trade and Development (UNCTAD) and the UN World Tourist Organisation (UNWTO).

- On average, in the absence of any economic stimulus, a drop in tourist sales leads to a 2.5-fold loss in real GDP due to linkages with upstream sectors such as agriculture, according to the study.
- Developing countries could account for 60% of these loses owing to asymmetric vaccine roll-out globally the report said.
- Tourism is likely to pick up faster this summer in North America and Europe where vaccination rates are higher.
- The report recommends quick roll-out of vaccines globally to bring back tourism, including in developing countries. It has commended the European Union's (EU) digital COVID certificate and acknowledges the International Air Transport Association's (IATA) travel pass which includes a vaccine certificate and test results
- Agreed protocols for testing on departure could mean quarantine on arrival is not necessary, the report says.
- The report also recommends socio-economic measures to protect livelihoods. "Workers should be protected rather than specific jobs in declining sectors, for example through training," it says.
- Finally, some tourism-related businesses will not survive even after restrictions are removed, the report says, advising governments to decide which ones to support and for what duration.

BLACK CARBON COULD LEAD TO PREMATURE MORTALITY: STUDY
- Black Carbon has a significant adverse effect on human health and leads to premature mortality, says a new study.
- The study could help in the estimation of future burden of mortality associated with air pollutants more accurately.
- The Indo-Gangetic plain is exposed to black carbon (BC) with serious implications on regional climate and human health.
- However, most of the pollutions-based epidemiological studies essentially relate exposure to particulate mass concentration (PM 10 and/-or PM 2.5) that invariably generalize all particulates with equal toxicity without distinguishing individuals by its source and composition, which genuinely have different health consequences.
- Importantly, the health effects in terms of mortality due to BC aerosol exposure have never been evaluated in India.
- A typical urban pollution hotspot in central Indo-Gangetic Plain (IGP), the town experiences very high aerosol loading and trace gas concentrations throughout the year due to prevalence of a subsidence zone and observed decadal increasing trends both in Aerosol Optical Depth and Black Carbon aerosols.
- Inclusion of BC as a potential health hazard inspires and provides a background for more epidemiological studies to provide evidence of health effects of air pollutants from different parts of India.
- The study could also help estimate the future burden of mortality associated with air pollutants considering the present association and incorporating a growing population rate.
- This will help government and policy-makers for better planning to mitigate the adversity associated with changing climate-air pollution-health nexus.

CABINET CLEARS VIABILITY GAP FUNDS FOR BHARATNET
- The Union Cabinet on Wednesday approved a viability gap funding support of up to ₹19,041 crore for the implementation of the BharatNet project through Public-Private Partnership (PPP) model in 16 States.
- An estimated 3.61 lakh villages, including gram panchayats, would be covered via BharatNet.
- An official release added that the revised strategy will include creation, upgrading, operation, maintenance and utilisation of BharatNet by the concessionaire or the private sector partner, who will be selected by a competitive international bidding process.
- The private sector partner is expected to bring an equity investment and raise resources towards

capital expenditure and for operation and maintenance of the network.

- Extension of BharatNet to all inhabited villages will enable better access to e-services offered by various governments, enable online education, telemedicine, skill development, e-commerce and other applications of broadband, Mr. Prasad said, adding that it would help bridge the digital divide.

CHINA DECLARED MALARIA-FREE BY WHO

- China was officially certified 'malaria-free' by the World Health Organization (WHO) on Tuesday, becoming the second country in the Asia Pacific region to get the tag, after Sri Lanka in 2016.
- China has now maintained zero indigenous malaria cases for four consecutive years, down from an estimated 30 million cases and 300,000 deaths per year in the 1940s.
- Over 10 years ago, the national malaria programme implemented the strategy "tracking infectious sources through surveillance, and response to clear the epidemics" with the 1-3-7 norm.
- The norm sets out clear timelines for diagnosis (one day), confirmation and risk assessment (three days) and action to contain all malaria cases (seven days) to prevent further transmission.
- Over the past 10 years, countries in the Asia Pacific region have almost halved the number of malaria deaths and cases and have made significant gains towards eliminating the disease by 2030.
- However, over two-and-a-half billion people are still at risk, and in some areas, malaria cases continue to rise.

'GNPA RATIO MAY RISE UP TO 11.2% IN FY22'

- The gross non-performing asset ratio (GNPA) of India's scheduled commercial banks (SCBs) may climb by the end of the current fiscal year to as much as 11.2% under a severe stress scenario, from 7.48% in March 2021, the Reserve Bank of India (RBI) said in its Financial Stability Report.
- "Macro stress tests indicate that the GNPA ratio of SCBs may increase... to 9.8% by March 2022 under the baseline scenario; and to 11.22% under a severe stress scenario, although SCBs have sufficient capital, both at the aggregate and individual level, even under stress," the RBI said.
- "The capital to risk-weighted assets ratio of SCBs increased to 16.03% and the provisioning coverage ratio stood at 68.86% in March 2021," the central bank said.
- Going forward, as banks respond to credit demand in a recovering economy, "they will need to reinforce their capital and liquidity positions to fortify themselves against potential balance sheet stress," it added.
- Sustained policy support, benign financial conditions and the gathering momentum of vaccinations were nurturing an uneven global recovery, the RBI noted.
- "On the domestic front, the ferocity of the second wave of COVID-19 has dented economic activity, but monetary, regulatory and fiscal policy measures have helped curtail the solvency risk of financial entities, stabilise markets, and maintain financial stability," it added.
- "The dent on balance sheets and performance of financial institutions in India has been much less than what was projected earlier, although a clearer picture will emerge as the effects of regulatory reliefs fully work their way through," Governor Shaktikanta Das wrote in his foreword to the report.
- Mr. Das observed that even as the recovery was underway, new risks had emerged including "the still nascent and mending state of the upturn, vulnerable as it is to shocks and future waves of the pandemic; international commodity prices and inflationary pressures; global spillovers amid high uncertainty; and rising incidence of data breaches and cyberattacks".
- Sustained policy support and simultaneous increased fortification of capital and liquidity buffers by financial entities was therefore vital.

INDIAN COAST GUARD RESCUES SEVEN FISHERMEN OFF TILLANCHONG ISLAND

- Indian Coast Guard (ICG) located and rescued a distressed fishing boat 'RSN-TWO' with seven crew onboard off the Tillanchong Island, approximately 350 kms south of Port Blair, on July 01, 2021.
- The Maritime Rescue Coordination Centre (MRCC), Port Blair received a distress alert at around 1130

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hrs on June 30, 2021.

- Since the alert was activated from an unregistered Distress Alert Transmitter (DAT), ICG shared the information with the Fisheries authorities which said that the boat, with seven crew onboard, had left Port Blair on June 28, 2021 for fishing.

ABOUT TILLANGCHONG ISLAND=Tillangchong, also known as Tillanchang, is an island and a village in the Nicobar district of Andaman and Nicobar Islands, India.

GOODS EXPORTS TOUCH RECORD $95 BN IN Q1

- With India registering its highest quarterly merchandise exports of $95 billion during the first quarter (April-June) of 2021-22, the country is now eyeing a target of $400 billion in merchandise exports in the current fiscal, Commerce and Industry Minister Piyush Goyal said.
- As per the official data released, the exports rose by 47.34% to $32.46 billion in June, following a strong growth in sectors such as engineering, gems and jewellery and petroleum products.
- However, India was a net importer in June 2021 with a trade deficit of $9.4 billion. Mr. Goyal said as per his discussion with stakeholders, he was confident that the services sector will achieve $350 billion exports by 2025, and may even go up to $500 billion very soon.
- "The positive momentum continues with FDI inflow of $6.24 billion during April 2021, which is 38% higher than April 2020," he said.
- Additionally, he said that the number of start-ups recognised by the Department for Promotion of Industry and Internal Trade (DPIIT) has crossed 50,000 and was spread across 623 districts in India.
- With these start-ups, nearly 1.8 lakh formal jobs have been created by over 16,000 recognised start-ups in 2020-21.

7th EDITION OF INDIAN OCEAN NAVAL SYMPOSIUM (IONS)

- The 7th edition of Indian Ocean Naval Symposium (IONS), a biennial event, was hosted by the French Navy at La Réunion from 28 June to 01 July 2021. Admiral Karambir Singh, Chief of the Naval Staff, Indian Navy, participated virtually in the inaugural session of the event and provided his congratulatory remarks to the Outgoing and Incoming Chairmen.
- IONS, conceived by the Indian Navy in 2008, seeks to enhance maritime cooperation among Navies of the littoral states of the IOR by providing an open and inclusive forum for discussion of regionally relevant maritime issues that would lead to common understanding on the way ahead. 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). France has assumed the Chairmanship on 29 Jun 21 for a two-year tenure.
- During the Symposium, SME presentations were made by French Institute of International Relations - Observatoire du Climat, European Union, Indian Ocean Commission, IFC Singapore, RMIFC Madagascar and EU led Critical Maritime Routes Indian Ocean (CRIMARIO). The Symposium also held panel discussions themed on the three IONS working Groups viz., HADR, Maritime Security and Information Sharing & Interoperability. The Naval Maritime Foundation (NMF) also participated in the Panel Discussion on HADR.
- IONS Conclave of Chiefs (CoC) is the decision-making body at the level of Chiefs of Navies, which meets biennially. 6th IONS and CoC was conducted by Iran Navy in April 2018 at Tehran. Owing to the pandemic, the CoC 2021, will be hosted by French Navy later this year.

UDISE+ REPORT (2019-2020)

- Contemporary Union Education Minister, Shri Ramesh Pokhriyal 'Nishank' today released the Report on United Information System for Education Plus (UDISE+) 2019-20 for School Education in India.

- As per the UDISE+ report 2019-20, Gross Enrolment Ratio at all levels of school education has improved in 2019-20 compared to 2018-19. Pupil Teacher Ratio (PTR) has improved at all levels of school education.
- According to the report, in 2019-20, enrolment of girls from primary to higher secondary is more than 12.08 crore. This is a substantial increase by 14.08 lakh compared to 2018-19. Between 2012-13 and 2019-20, the Gender Parity Index (GPI) at both Secondary and Higher Secondary levels have improved.
- The UDISE+ report shows a remarkable improvement in the number of schools with functional electricity, with functional computers, internet facility in 2019-20 over the previous year.
- Another major improvement is seen in the number of schools with hand wash facility. In year 2019-20, more than 90% schools in India had hand wash facility as compared to only 36.3% in 2012-13.
- The UDISE+ system of online data collection from the schools was developed in the year 2018-19 to overcome the issues related to manual data filling in paper format and subsequent feeding at the block or district level, which was in practice in the UDISE data collection system from 2012-13. The present publication relates to UDISE+ data for the reference year 2019-20.

PLI SCHEME FOR IT HARDWARE MANUFACTURING

- Under the leadership of Prime Minister Shri Narendra Modi and his visionary initiatives like the "Digital India" and "Make in India" programmes, India has witnessed an unprecedented growth in electronics manufacturing in the last five years. The National Policy on Electronics 2019 envisions positioning India as a global hub for Electronics System Design and Manufacturing (ESDM) by focusing on size and scale, promoting exports and enhancing domestic value addition by creating an enabling environment for the industry to compete globally.
- Ministry of Electronics and Information and Technology (MeitY) has approved 14 eligible applicants under the Production Linked Incentive Scheme (PLI) for IT Hardware. PLI Scheme for IT Hardware notified on 3rd March 2021, extends an incentive of 4% to 2%/1% on net incremental sales (over base year of FY 2019-20) of goods under target segments that are manufactured in India to eligible companies, for a period of four years (FY2021-22 to FY 2024-25). The target segments under the PLI Scheme for IT Hardware include Laptops, Tablets, All-in-One Personal Computers (PCs) and Servers. The scheme proposes production linked incentives to boost domestic manufacturing and attract large investments in the value chain of these IT Hardware products.
- While giving approval to eligible applicants under the PLI Scheme,Union Minister for Electronics & IT, Communications, Law and Justice said that PLI scheme has been huge success in terms of the applications received from Global as well as Domestic manufacturing companies. Industry has reposed its faith in India's stellar progress as a world class manufacturing destination and this resonates strongly with Prime Minister's clarion call of AtmaNirbhar Bharat - a self-reliant India. Minister further said that "we are optimistic and looking forward to building a strong ecosystem across the value chain and integrating with the global value chains, thereby strengthening electronics manufacturing ecosystem in the country".

PLANS FOR FREIGHT SMART CITIES

- With growing urbanisation, requirements of rapid economic growth including e-commerce and associated first and last mile freight movements; increasing congestion, noise and sound pollution in the Indian cities is a menace affecting both public health and local economies. The Logistics Division under the Ministry of Commerce and Industry has decided to work in a planned manner to improve the city freight movement.
- The need for focus on city logistics was first discussed with States/UTs during the first National Conference of States on Logistics on 19th January, 2021. Taking this forward, the Logistics Division

has been engaged with subject experts and technical organizations to devise a roadmap for improvement in freight movement in the Indian cities. The roadmap envisions the concept of 'Freight Smart Cities' to improve the efficiency of urban freight and create an opportunity for reduction in the logistics costs.

- During the consultative meeting chaired by Minister of State for Commerce and Industry ShHardeep Singh Puri on freight smart cities held on 02 July 2021, the logical next step was taken where issues were discussed with technical details, and specific examples of cities that have progressed in this area were shared.
- On this occasion, ShHardeep Singh Puri launched the website on 'Freight Smart Cities' and also released a handbook outlining 14 measures that can be taken to improve urban freight. Shri Puri appreciated the extensive participation of nearly 300 stakeholders.
- Under the Freight Smart Cities initiative, city-level logistics committees would be formed. These committees would have related government departments and agencies at the local level, state and from the reacted central ministries and agencies. These would also include private sector from the logistics services and also users of logistics services. These committees would co-create City Logistics Plans to implement performance improvement measures locally.

ODISHA GOVT. CONSTRUCTS 10,000 RAINWATER HARVESTING STRUCTURES

- Odisha has come up with more than 10,000 rainwater harvesting structures (RWHS) to facilitate water conservation and groundwater recharge in 114 towns in less than three-month time before onset of south-west monsoon.
- A State-wide campaign on the theme 'Catch the Rain: Where it Falls and When it Falls' was launched on April 15 across all urban local bodies under Mukhyamantri Karma Tatpara Abhiyan Yojana (MUKTA), an urban wage employment scheme for migrant labourers.
- The Housing and Urban Development (HUD) department has selected 15,000 sites for RWHS. "As of now 10,176 RWHS have been completed.
- The department expected to achieve the figure of 12,000 by July 10," said the State government in a statement. Annual rainfall in Odisha varies from 1200 mm to 1800 mm making it a water surplus State.
- "Though the average rainfall in Odisha is measured as 1,400 mm, its spatial distribution is uneven and erratic. The State receives about 76% of rainfall between the period of mid-June and mid-September and receives the remaining 24% of the rainfall throughout the year," the government said.
- The State has both coastal region and high land. "There is ample scope to arrest the surface runoff where it fall using contour techniques. The best possible option is to tap the runoff through construction of RWHS, there by addressing the key challenge of water scarcity in urban areas of the State," it said.

NIPUN BHARAT

- Union Minister for Education, Shri Ramesh Pokhriyal 'Nishank' today virtually launched a National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat), for ensuring that every child in the country necessarily attains foundational literacy and numeracy by the end of Grade 3, by 2026-27.
- The launch of NIPUN Bharat marks an important step undertaken by the Department of School Education and Literacy, among a series of measures taken for implementation of the National Education Policy 2020 that was released on 29th July 2020.
- This Mission, which has been launched under the aegis of the centrally sponsored scheme of Samagra Shiksha, will focus on providing access and retaining children in foundational years of schooling;

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teacher capacity building; development of high quality and diversified Student and Teacher Resources/Learning Materials; and tracking the progress of each child in achieving learning outcomes.
- The vision of NIPUN Bharat Mission is to create an enabling environment to ensure universal acquisition of foundational literacy and numeracy, so that every child achieves the desired learning competencies in reading, writing and numeracy by the end of Grade 3, by 2026-27.
- NIPUN Bharat will be implemented by the Department of School Education and Literacy and a five-tier implementation mechanism will be set up at the National- State- District- Block- School level in all States and UTs, under the aegis of the centrally sponsored scheme of Samagra Shiksha.

PROJECT BOLD

KVIC's Unique Project BOLD to Boost Tribals' Income and Bamboo-based Economy in Rajasthan
- A unique scientific exercise serving the combined national objectives of reducing desertification and providing livelihood and multi-disciplinary rural industry support has been initiated by Khadi and Village Industries Commission (KVIC).
- **The project named "Bamboo Oasis on Lands in Drought" (BOLD)** is the first of its kind exercise in India which was launched today from the tribal village Nichla Mandwa in Udaipur, Rajasthan.
- Project BOLD, which seeks to create bamboo-based green patches in arid and semi-arid land zones, is aligned with Prime Minister Shri Narendra Modi's call for reducing land degradation and preventing desertification in the country.
- The initiative has been launched as part of KVIC's "Khadi Bamboo Festival" to celebrate 75 years of independence "Azadi ka Amrit Mahotsav".
- KVIC is set to replicate the Project at Village Dholera in Ahmedabad district in Gujarat and Leh-Ladakh region by August this year.
- KVIC has judiciously chosen bamboo for developing green patches.
- Bamboos grow very fast and in about three years' time, they could be harvested.Bamboos are also known for conserving water and reducing evaporation of water from the land surface, which is an important feature in arid and drought-prone regions.

'HARIT DHARA'- ANTI-METHANOGENIC FEED SUPPLEMENT

- Cattle, buffaloes, sheep and goats in India emit an estimated 9.25-14.2 million tonnes of methane annually – a sizable proportion of the around 90 mt methane emitted by livestock across the world. This is a cause for serious concern, given that methane is a very potent greenhouse gas.
- With this in mind, an **Indian Council of Agricultural Research (ICAR) institute has developed an anti-methanogenic feed supplement, called 'Harit Dhara'.**
- When given to bovines and sheep, it not only cuts down their methane emissions by 17-20 per cent, but also results in higher milk production and bodyweight gain.
- Methane is produced by animals having rumen, in the first of their four stomachs, where the plant material they eat – cellulose, fibre, starch and sugars – gets fermented or broken down by microorganisms prior to further digestion and nutrient absorption.
- Carbohydrate fermentation leads to production of CO_2 and hydrogen. These are used as substrate by archaea – microbes in the rumen with structure similar to bacteria – to produce methane, which the animals then expel through burping.
- Harit Dhara acts by decreasing the population of protozoa microbes in the rumen, responsible for hydrogen production and making it available to the archaea for reduction of CO_2 to methane.
- Tropical plants containing tannins – bitter and astringent chemical compounds – are known to suppress or remove protozoa from the rumen.
- The 2019 Livestock Census showed India's cattle population at 193.46 million, along with 109.85

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million buffaloes, 148.88 million goats and 74.26 million sheep.

- Being largely fed on agricultural residues – wheat/paddy straw and maize, sorghum or bajra stover – ruminants in India tend to produce 50-100% higher methane than their industrialised country counterparts that are given more easily fermentable/digestible concentrates, silages and green fodder.

OPEC'S NEW OUTPUT PACT PROPOSAL

- The latest round of meetings among the OPEC+ group of oil-exporting countries has stalled as the UAE has pushed back proposals making an increase in crude oil supply conditional on an extension to an output agreement.
- Another round of discussions between OPEC+ countries scheduled for Monday was reportedly called off as key players failed to make any progress in resolving key issues.
- The OPEC+ group ran into sharp criticism from developing economies, including India, for deliberately maintaining low supply levels to raise prices.
- Petroleum Minister Dharmendra Pradhan had even said the high price of crude oil was slowing down the economic recovery of developing economies post the pandemic.
- In April, OPEC+ agreed to gradually increase crude production as prices reached $64.5 per barrel including a phased end to Saudi Arabia's 1 million barrel per day cut in production by July.
- According to the UAE's official news agency, Emirates News Agency, the UAE agreed that there was a need to increase crude oil production from August, but did not agree to a condition by the OPEC Joint Ministerial Monitoring Committee (JMMC) that the two-year production agreement be extended by six months.
- If the UAE and other OPEC+ nations do not reach an agreement to increase production in August, expected relief in the form of lower crude oil prices could be delayed.
- India is currently facing record-high prices of petrol and diesel, with pump prices of the former exceeding Rs 100 per litre in 13 states and Union Territories.
- High crude prices have led to Indian oil marketing companies hiking the price of petrol by about 19.3 per cent and that of diesel by about 21 per cent since the beginning of 2021.

52ND IFFI TO BE HELD FROM 20TH-28TH NOVEMBER 2021 IN GOA

- Hon'ble Minister of Information and Broadcasting Shri Prakash Javadekar released the regulations and poster for the 52nd edition of the International Film Festival of India (IFFI). The festival will be held in Goa from 20th -28th November 2021.
- The International Film Festival of India (IFFI) is reckoned as one of Asia's oldest and India's biggest international film festivals. The 52nd edition of IFFI will be held in a hybrid format considering the success of the 51st edition in January 2021. The Festival is being organized by the Directorate of Film Festivals (DFF), Ministry of Information and Broadcasting, Government of India in collaboration with the State Government of Goa and the Indian Film Industry.
- On the occasion of the birth centenary of the maestro of Indian cinema Shri Satyajit Ray, this time the Directorate of Films Festivals, Ministry of I&B, will pay a tribute through a Special Retrospective at the IFFI. Also, in recognition of the auteur's legacy, the "Satyajit Ray Lifetime Achievement Award for Excellence in Cinema" has been instituted from this year to be given at the IFFI every year starting from this year.

MATSYA SETU

- Union Minister for Fisheries, Animal Husbandry and Dairying, Shri Giriraj Singh, launched the Online Course Mobile App "**Matsya Setu**".

- The app was developed by the ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar, with the funding support of the National Fisheries Development Board (NFDB), Hyderabad. The online course app aims to disseminate the latest freshwater aquaculture technologies to the aqua farmers of the country.
- **Matsya Setu** app has species-wise/ subject-wise self-learning online course modules, where renowned aquaculture experts explain the basic concepts and practical demonstrations on breeding, seed production and grow-out culture of commercially important fishes like carp, catfish, scampi, murrel, ornamental fish, pearl farming etc.
- Better Management Practices to be followed in maintaining the soil & water quality, feeding and health management in aquaculture operations were also provided in the course platform.
- This app can also be an important tool to disseminate the latest information on different schemes among the stakeholders, especially fishers, fish farmers, youth and entrepreneurs across the country, assist them and facilitate ease of doing business. He expressed confidence that the app will serve as a wonderful platform for the farmers for learning.

GST MOP-UP IN JUNE FALLS BELOW ₹1 LAKH CR

- Goods and Services Tax (GST) collections in June fell to ₹92,849 crore from ₹1.02 lakh crore in May, marking the first time after eight months that indirect tax collections fell below the ₹1 lakh crore mark.
- The gross GST revenue collected in the month of June' 2021 is**₹92,849 crore** of which CGST is **₹16,424 crore**, SGST is **₹20,397,** IGST is **₹49,079 crore** (including **₹25,762 crore** collected on import of goods) and Cess is **₹6,949 crore** (including **₹809 crore** collected on import of goods).
- While lockdowns aimed at curbing the second wave of COVID-19 hit economic activity and moderated GST revenues in June, the Union Finance Ministry said the collections were 2% higher than a year ago and would improve from this month.
- "During May 2021, most of the States/UTs were under either complete or partial lockdown due to COVID," the Ministry said, citing a 30% fall in e-way bill generation in May from April's numbers.

MISHRI VARIETY OF CHERRIES FROM KASHMIR EXPORTED TO DUBAI

- In a step towards boosting horticultural crops exports, a first commercial shipment of Mishri variety of luscious cherries from Kashmir valley has been exported to Dubai from Srinagar. APEDA assisted the shipment of cherries to Dubai by MS Desai Agri-Food Private Limited, a venture company of MS Innoterra, Dubai.
- Mishri variety of Cherries are not only taste delicious but also contain vitamins, minerals and plant compound with health benefits.
- The union territory of Jammu and Kashmir produces more than 95% of the total country's production of commercial varieties of cherries in the country. It produces four varieties of cherry — Double, Makhmali, Mishri and Italy.
- Prior to the shipment, the cherries were harvested, cleaned and packed by APEDA registered exporter while the technical inputs were provided by the Sher-e-Kashmir University of Agricultural Science and Technology of Kashmir.
- APEDA-National Referral Laboratory at National Research Centre for Grapes, Pune provided support for ensuring food safety and quality in the shipment, which would help create brand for cherries especially in the Middle East countries.
- For ensuring exports of quality agricultural produce which adhere to global standards, APEDA has also initiated awareness programme on National Programme on Organic Production and ISO-17065

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requirements for the officials of Union Territory of Jammu and Kashmir. The purpose of such programme was to acquaint officials of the UTs with the third-party certification system for organic products as well as international trade of organic products.

EXCESS IRRIGATION OVER NORTHERN INDIA & SHIFTING OF MANSOON

- Climate researchers have discovered that excess irrigation over northern India shifts the September monsoon rainfall towards the north-western part of the subcontinent increases widespread weather extremes over Central India.
- These meteorological hazards expose the vulnerable farmers and their crops to risks of failure.
- The study which establishes that monsoon precipitation is sensitive to the choice of irrigation practices in South Asia can help plan agricultural practices in this region.
- South Asia is one of the most heavily irrigated regions of the world, largely using groundwater, and its major summer crop is paddy which is cultivated in water flooded fields.
- Hence it was pertinent to study how such practices can influence the monsoons which form the fulcrum of this agro-based economy.
- The research published in the journal 'Geophysical Research Letters' recently showed that monsoon precipitation is sensitive to the choice of irrigation practices in South Asia.
- In another study, Prof. Subhankar Karmakar from IDPCS, IIT Bombay, and his research group identified for the first time that risks for rice and wheat have increased in the recent decade, with wheat at a two-fold higher magnitude than rice. The study followed the Assessment Report 5 of IPCC definition to quantify 'Risk' and has been published in 'Environmental Research Letters.'
- Increasing crop risk is predominantly driven by the decreasing number of farmers, and the wheat risk is also attributed to increasing minimum temperatures during the crop growing season.
- This study provided compelling evidence indicating that the hydro-climatic hazards related to precipitation extremes and drought are specifically alarmingly increasing the crops risk as compared to temperature extremes.
- Another finding obtained from this study was extreme rainfall in recent decades in Central India has been increasing, and this is also caused by an increase in irrigation and consequent increase in evapotranspiration (the sum of evaporation from the land surface plus transpiration from plants).

SETTING UP OF ADVISORY COUNCIL FOR OPEN NETWORK FOR DIGITAL COMMERCE (ONDC)

- Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry has initiated a project on Open Network for Digital Commerce (ONDC). The task has been assigned to Quality Council of India (QCI).
- ONDC aims at promoting open networks developed on open sourced methodology, using open specifications and open network protocols independent of any specific platform. ONDC is expected to digitize the entire value chain, standardize operations, promote inclusion of suppliers, derive efficiencies in logistics and enhance value for consumers.
- An advisory council comprising nine members including National Health Authority CEO RS Sharma and Infosys non-executive chairman Nandan Nilekani.

MINISTRY OF CO-OPERATION

- In a historic move, a separate 'Ministry of Co-operation' has been created by the Modi Government for realizing the vision of 'Sahkar se Samriddhi'.
- This ministry will provide a separate administrative, legal and policy framework for strengthening the cooperative movement in the country.
- It will help deepen Co-operatives as a true people based movement reaching upto the grassroots.
- In our country, a Co-operative based economic development model is very relevant where each member works with a spirit of responsibility.

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- The Ministry will work to streamline processes for 'Ease of doing business' for co-operatives and enable development of Multi-State Co-operatives (MSCS).

RAJASTHAN TO DEVELOP CORRIDOR CONNECTING 3 TIGER RESERVES

- After the Centre's nod for creation of the Ramgarh Vishdhari sanctuary, the Rajasthan government is hoping to develop a tiger corridor connecting three tiger reserves passing through districts including Sawai Madhopur, Kota and Bundi.
- "Happy to sanction one more tiger Sanctuary, Ramgarh Vishdhari Sanctuary which will link Ranthambore Tiger Reserve in the Northeast & Mukundra Hills Tiger Reserve on the southern side.
- Increasing numbers of Tigers and other apex predators certify our robust biodiversity," Union Minister for Environment, Forest and Climate Change, Prakash Javadekar had tweeted.
- While the Ranthambore Tiger Reserve at present has a population of more than 65 tigers, the Mukundra reserve is presently left with just one big cat, after a series of deaths inside the reserve.

EXPORTS OF GI CERTIFIED BHALIA WHEAT FROM GUJARAT BEGINS

- In a major boost to wheat exports, the first shipment of Geographical Indication (GI) certified Bhalia variety of wheat was exported today to Kenya and Sri Lanka from Gujarat.
- o The GI certified wheat has high protein content and is sweet in taste.
- o The crop is grown mostly across Bhal region of Gujarat which includes Ahmadabad, Anand, Kheda, Bhavanagar, Surendranagar, Bharuch districts.
- o The unique characteristic of the wheat variety is that grown in the rainfed condition without irrigation and cultivated in around two lakh hectares of agricultural land in Gujarat.The Bhalia variety of wheat received GI certification in July, 2011.

This initiative is expected to give boost wheat exports from India. In 2020-21, the wheat exports from India witnessed a significant growth of 808 % to Rs 4034 crore from Rs 444 crore reported in the previous fiscal. In US dollar terms, the wheat exports rose by 778% to $ 549 million in 2020-21.

GI CERTIFIED MADURAI MALLI AND OTHER FLOWERS EXPORTED

GI certified Madurai Malli and other flowers exported to USA & Dubai from Tamil Nadu
- For ensuring that Indians living abroad get supplies of fresh flowers to deities at home and temples, consignments of Geographical Indications (GI) certified Madurai malli and other traditional flowers such as button rose, lily, chamanthi and marigold were exported today to USA and Dubai from Tamil Nadu.
- Jasmine (Jasminum Officinale) is one of the most popular flowers foundacross the world. The scent of Jasmine is synonymous with the plendour ofMadurai's Meenakshitemple, Madurai has emerged as a major market for the malligai grown inits neighbourhood, and has evolved into the 'jasmine capital' ofIndia.

DBT-BIRAC SUPPORTED START UP BLACKFROG TECHNOLOGIES

- DBT-BIRAC supported startup Blackfrog Technologies has developed Emvolio, a portable, battery-powered medical-grade refrigeration device that improves the efficiency of the immunization by strictly maintaining pre-set temperature for up to 12 hours, thus enabling the safe and efficient transportation of vaccines to the last mile.
- Emvólio has a 2-litre capacity, enabling it to carry 30-50 vials, the standard for a daylong immunization campaign.
- The device also includes continuous temperature monitoring, location tracking, state-of-charge indication, communication with headquarters via live-tracking, and vital statistics for improved coverage.
- Blackfrog is an ISO-13485 certified manufacturer of medical devices, and Emvólio has been designed

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in accordance with WHO-PQS E003 standards.

- Emvólio's patented technology ensures that all contents in the cold chamber are blanketed in strictly temperature-controlled air.
- The underlying refrigeration mechanism is solid-state cooling with a smart PID (Proportional Integral Derivate) controller, which guarantees precise temperature maintenance without the risk of noxious refrigerant leakage or cross-contamination.
- The lack of motors/compressors or any moving parts enables low-maintenance operation. The unique design of Emvólio promises uniform cooling and minimal freeze-thaw cycles.
- Due to its ability of the device to strictly maintain the temperature between 2°C and 8°C for up to 12 hours in the field, the device is being used as a platform for delivery of vaccines and all other biologicals like blood, serums, viral culture.
- The innovation solves the current challenge of last-mile vaccine delivery as currently iceboxes, which have no mechanism for temperature control and regulation, are being used.
- The absence of temperature control and regulation in iceboxes also poses the risk of accidental freezing and thawing, rendering the temperature-sensitive vaccines inefficacious.

WWF-UNEP REPORT: 35% OF TIGER RANGES OUTSIDE PROTECTED AREAS

- A new report by WWF and UNEP has found that 35 per cent of India's tiger ranges currently lie outside protected areas.
- The report, A Future for All – A need for Human-Wildlife Coexistence, examined increasing human-wildlife conflict, and has found that marine and terrestrial protected areas only cover 9.67 per cent globally.
- With most of these protected areas disconnected from each other, many species depend on human-dominated spaces for their survival, and shared landscapes.
- Protected areas play an increasingly important role for the survival of key species such as large predators and herbivores, says the report.
- Apart from India's tigers, 40 per cent of the African lion range and 70 per cent of the African and Asian elephant ranges fall outside protected areas, finds the report.
- Conflict between people and animals, from China's wandering elephants raiding farms for food and water to wolves preying on cattle in Idaho, USA, is one of the main threats to the long-term survival of some of the world's most emblematic species, the report said.
- In India, data from the Ministry of Environment, Forests and Climate Change shows that over 500 elephants were killed between 2014 and 2015 and 2018 and 2019, most related to human-elephant conflict.
- During the same period, 2,361 people were killed as a result of conflict with elephants. Global wildlife populations have fallen an average of 68 per cent since 1970.
- India faces an increasing challenge of human wildlife conflict, which is driven by development pressures and an increasing population, high demand for land and natural resources, resulting in loss, fragmentation, and degradation of wildlife habitats.
- "These pressures intensify the interactions between people and wildlife because they often share living space without a clear demarcation of boundaries," said the report.

GIS ENABLED LAND BANK GAINING POPULARITY

- The India Industrial Land Bank (IILB) is a GIS-based portal - a one-stop repository of all industrial infrastructure-related information – connectivity, infra, natural resources & terrain, plot-level information on vacant plots, line of activity, and contact details.
- Currently, the IILB has approximately 4000 industrial parks mapped across an area of 5.5 lakh hectare of land, serving as a decision support system for investors scouting for land remotely.
- The system has been integrated with industry-based GIS systems of 17 states to have details on the portal updated on a real-time basis and will achieve pan-India integration by December 2021.

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DBT-NIBMG CREATES WORLD'S FIRST DATABASE OF GENOMIC VARIANTS OF ORAL CANCER

- DBT-National Institute of Biomedical Genomics (NIBMG), Kalyani an Autonomous Institute funded by the Department of Biotechnology, Government of India has created a database of genomic variations in oral cancer; the first of its kind in the world. NIBMG has made this database publicly-accessible.
- dbGENVOC is a browsable online database of GENomic Variants of Oral Cancer and is a free resource.
- First release of dbGENVOC contains (i) ~24 million somatic and germline variants derived from whole exome sequences of 100 Indian oral cancer patients and whole genome sequences of 5 oral cancer patients from India, (ii) somatic variation data from 220 patient samples drawn from the USA and analyzed by TCGA-HNSCC project and (iii) manually curated variation data of 118 patients from recently published peer-reviewed publications. Variants were identified by the community approved best practice protocol and annotated using multiple analytic pipeline.
- dbGENVOC is not just a catalogue of genomic variants, it has a built-in powerful search engine. It also allows a reasonable extent of statistical and bioinformatic analysis to be carried out online, including identifying variants in associated altered pathways in oral cancer.
- The repository, which will be updated annually with variation data from new oral cancer patients from different regions of India and southeast Asia, has the potential to support advances in oral cancer research and will be a major step in moving forward from simply cataloguing variants to gain insight into their significance.
- Oral cancer is the most prevalent form of cancer among men in India, largely fuelled by tobacco-chewing. Tobacco-chewing causes changes in the genetic material of cells in the oral cavity. These changes (mutations) precipitate oral cancer. Research to identify those genetic mutations that drive oral cancer are ongoing. Such driver mutations may be variable across populations

NEW SOLAR THERMAL COMPONENTS TESTING FACILITY AT HYDERABAD

- A newly established Concentrated Solar Thermal (CST) based test rig facility at Hyderabad can help the growing solar industry in India to test capability and performance of solar thermal components like solar receiver tubes, heat transfer fluids, concentrating mirrors.
- The facility set up by the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), an autonomous institute of the Department of Science & Technology (DST), will validate solar thermal components such as solar receiver tubes, heat transfer fluids, concentrating mirrors, and AR coated glass tubes, etc. of the CST system in field conditions.
- It will validate the indigenous components by parallelly comparing the performance (heat gain and heat loss properties) of the standard components with varying the operating parameters (e.g., flow rates of Heat Transfer Fluids (HTFs) operating temperature, pressures, etc.) and different DNI (Direct Normal Irradiance) conditions.
- The development of solar thermal technologies for low and medium-temperature applications requires much attention of indigenous solar thermal components manufacturing facilities and cost-effective engineering designs because most of the solar thermal companies import solar thermal components, particularly from China and Europe.
- In this regard, ARCI is working on the development of cost-effective solar receiver tubes, anti-reflective (AR) coated glass covers, nanostructured material-based thermic fluids, and durable reflective mirrors to enhance the performance and cutting down the cost of the solar thermal systems in India.

- ARCI's test rig facility provides the performance of indigenously developed solar thermal components in real-field operating conditions, thus attracting greater interest from the industries.

- The parabolic-trough test rig facility has features for simultaneous testing of standard and indigenous solar receiver tubes. It has a thermic fluid-based closed-loop system which can operate between 50 to 350°C temperature range. It can conduct heat gain studies in real-field conditions with the actual measurement of solar irradiance condition and has an electrical heater support for measuring the actual heat loss of solar receivers at different operating temperatures.

GI CERTIFIED FAZIL MANGO SHIPPED TO BAHRAIN

- India has expanded its footprint of mango exports to the newer countries this season, notwithstanding logistical challenges posed by COVID19 pandemic. In a major initiative which would boost **mango export potential from the eastern region especially to middle eastcountries, a consignment of Geographical Identification (GI) certified Fazil mango variety sourced from Malda district of West Bengal was exported to Bahrain.**The consignment of Fazil mango was exported by APEDA registered DM enterprises, Kolkata and imported by Al Jazira group, Bahrain.
- APEDA has been initiating measures to boost mango exports from the non-traditional regions and states. It has been conducting virtual buyer-seller meets and festivals to promote mango exports.
- This shipment to Bahrain comes a few days after APEDA organized a mango promotion programme at Doha, Qatar where nine varieties of mangoes including GI certified from West Bengal & Uttar Pradesh were displayed at the stores of importer Family Food Centre.
- The nine varieties which were exported includes GI certified Khirsapati (Malda, West Bengal), Lakkhanbhog (Malda, West Bengal), Fazli (Malda, West Bengal), Dusshheri (Malihabad, Uttar Pradesh) and Amrapali and Chausa (Malda, West Bengal) and Langda (Nadiya, West Bengal).
- While most of the states in India have mango plantations, Uttar Pradesh, Bihar, Andhra Pradesh, Telangana, Karnataka have a major share in total production of the fruit.Alphonso, Kesar, Totapuri and Banganpalli are leading export varieties from India. Mango exports primarily take place in three forms: fresh mango, mango pulp, and mango slice.

HAL SET TO DELIVER FIRST BATCH OF 3 LCH

- Hindustan Aeronautics Limited (HAL) is gearing up to deliver the first batch of three Light Combat

Helicopters (LCH) to the Indian Air Force (IAF) once acceptance tests are completed.
- These are part of the 15 Limited Series Production (LSP) helicopters approved for the Army and the IAF.
- The IAF has put forward a requirement for 65 LCH and the Army for 114 helicopters. Of the 15 LSP helicopters, 10 are for the IAF and five for the Army.
- The LCH, the lightest attack helicopter in the world weighing 5.5 tonnes, has been designed and developed by the HAL to meet the specific and unique requirements of the Indian armed forces and can operate at heights of 12,000 feet.
- The Army Aviation operates smaller utility helicopters but does not have attack helicopters in its fleet and has for some time pitched for attack helicopters of its own to operate with its strike Corps.
- The attack helicopter fleet is operated by the Air Force which provides close air support to the Army.
- The IAF operates the older Mi-25 and Mi-35 Russian attack helicopters which are in the process of being phased out and has inducted 22 AH-64E Apache attack helicopters from the U.S.
- The Army will also start receiving the Apache attack helicopters from early 2023 onwards, six of which have been contracted under an estimated $800-mn deal from the U.S. in February 2020.
- Presently, the Army has 90 Advanced Light Helicopters (ALH) and 75 Rudra, weaponised ALH, helicopters in service which are indigenously designed and developed by the HAL in addition to around 160 older Cheetah and Chetak utility helicopters which are in need of urgent replacement.

BIHAR'S KESARIA BUDDHA STUPA WATERLOGGED
- The world-famous Kesaria Buddha stupa in east Champaran district of Bihar is waterlogged following floods in some parts of the district after heavy rainfall in the catchment areas of river Gandak in neighbouring Nepal.
- The stupa, located about 110 km from the State capital Patna, has a circumference of almost 400 feet and stands at a height of about 104 feet.
- The first construction of the nationally protected stupa is dated to the 3rd century BCE.
- It is regarded as the largest Buddhist stupa in the world and has been drawing tourists from across several Buddhist countries.
- The stupa's exploration had started in the early 19th century after its discovery led by Colonel Mackenzie in 1814.
- Later, it was excavated by General Cunningham in 1861-62 and in 1998 an ASI team led by archaeologist K.K. Muhammad had excavated the site properly.
- The original Kesaria stupa is said to date back to the time of emperor Ashoka (circa 250 BCE) as the remains of an Ashokan pillar was discovered there.
- The local people call the stupa "devalaya," meaning "house of gods".

INDIA AIMS TO TARGET OVER 100 BILLION "BLUE ECONOMY"

India Aims to Target over 100 Billion "Blue Economy" Through Deep Ocean Mission and Ocean Resources – Minister Dr. Jitendra Singh (GS 3)
- Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said that in the years to come, India aims to target over 100 billion "Blue Economy" through its Deep Ocean Mission (DOM) and ocean resources.
- "Deep Ocean Mission'' planned by the Ministry of Earth Sciences will be carried out in collaboration with Indian Space Research Organisation(ISRO) and it will be a major step in the direction of integrating and bringing together the efforts of the different streams of science operating under different Ministries in the government, he said.
- In addition, Dr Jitendra Singh said, the "Deep Ocean Mission" will also have far-reaching benefits for the common man.
- For example, it could help in providing clean drinking water and explore the avenues of desalination of water as well as extracting minerals from the ocean belt.

INDIA TO DISPLAY RELICS OF ST. KETEVAN

- Almost 400 years after she was murdered in present day Iran, relics of St. Queen Ketevan that were found in Goa in 2005 are likely to be put on display in India as well as her native Georgia, according to Archaeological Survey of India (ASI) officials.
- On July 10, External Affairs Minister S. Jaishankar handed over one part of the relics to Georgia as a gift from India.
- According to senior ASI officials with knowledge of the matter, parts of the bone of the right arm were found at St. Augustine Church in Old Goa in 2005.
- Queen Ketevan was killed in 1624 in Shiraz for not converting to Islam and parts of her remains were brought to Goa by Augustinian monks.
- Revered as a martyr, her relics remained lost till 2005 as the St. Augustine Church collapsed in 1842, another official said. A DNA analysis by the CSIR-Centre for Cellular and Molecular Biology, Hyderabad, confirmed their authenticity in 2013.

LAUNCH OF BHIM–UPI IN BHUTAN

- While speaking on the occasion, Smt. Sitharaman said that the services have started in Bhutan under India's neighbourhood first policy and India is proud of our achievement and feel pleasure in sharing it with our valued neighbour.
- The Finance Minister said that BHIM UPI is one of the brightest spot and an achievement for digital transactions in India during the time of COVID-19 pandemic with more than 100 million UPI QRs have been created in last 5 years and BHIM UPI in 2020-21 has processed 22 billion transactions worth value Rs 41 lakh crore.
- The Finance Minister of Bhutan, Mr Lyonpo Namgay Tshering, thanked and appreciated the Government of India for the launch of BHIM-UPI services in Bhutan and added that the bond between the two countries has become stronger each passing day.
- With today's launch of BHIM-UPI in Bhutan, the payment infrastructures of the two countries are seamlessly connected and will benefit a large number of tourists and businessmen from India who travel to Bhutan each year.
- This will enhance the ease of living and ease of travelling through cashless transactions at the touch of a button.
- Bhutan is the first country to adopt UPI standards for its QR deployment, and the first country in our immediate neighbourhood to accept mobile based payments through the BHIM App.

NTPC TO SET UP INDIA'S SINGLE LARGEST SOLAR PARK AT RANN OF KUTCH

- NTPC Renewable Energy Ltd , a 100% subsidiary of NTPC, has received the go-ahead from Ministry of New and Renewable Energy (MNRE) to set up 4750 MW renewable energy park at Rann of Kutch in Khavada, Gujarat.
- This will be India's largest solar park to be built by the largest power producer of the country.
- As a part of its green energy portfolio augmentation, NTPC Ltd, India's largest energy integrated company aims to build 60 GW Renewable Energy Capacity by 2032.
- Currently, the state owned power major has an installed capacity of 66 GW across 70 power projects with an additional 18 GW under construction.
- Recently, NTPC has also commissioned India's largest Floating Solar of 10 MW (ac) on the reservoir of Simhadri Thermal Power Plant, Andhra Pradesh. An additional 15 MW (ac) would be commissioned by August 2021.
- Further, a 100 MW Floating Solar Project on the reservoir of Ramagundam Thermal Power Plant, Telangana is in the advanced stage of implementation.

LADAKH AND LAHDC TO SET UP COUNTRY'S FIRST GREEN HYDROGEN MOBILITY PROJECT

- Union Cabinet Minister for Power and New and Renewable Energy , Shri R.K . Singh congratulated NTPC , Maharatna PSU under Ministry of Power for signing a MoU with UT of Ladakh and LAHDC to

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setup the country's first Green Hydrogen Mobility project, strengthening PM Shri Narendra Modi's vision to ensure a carbon free economy based on renewable sources and green hydrogen.

- He said that it is a matter of pride for all of us that Leh is soon to become India 's first city to implement a green hydrogen based mobility project with zero emission.
- REL, a 100% subsidiary of NTPC, signed a MoU with Union Territory of Ladakh, today, to set up the country's first green Hydrogen Mobility project in the region.
- The signing of the MoU was also marked with the inauguration of NTPC's first solar installations in Leh in form of solar trees and a solar car port.
- The MoU will enable NTPC to help Ladakh develop a carbon free economy based on renewable sources and green hydrogen.
- This is also in line with the Prime Minister's vision of a 'carbon neutral' Ladakh. LG mentioned that he would like Ladakh to become a hydrogen state and is happy to partner with NTPC to achieve this long term goal.
- NTPC has planned to ply 5 hydrogen buses, to start with, in the region and the company will be setting up a solar plant and a green hydrogen generation unit in Leh towards this end. This will put Leh as the first city in the country to implement a green hydrogen based mobility project. This would be zero emission mobility in true sense.

COMMERCE MINISTER BATS STRONGLY FOR INDIA & THE DEVELOPING WORLD AT WTO

- Minister of Commerce & Industry, Consumer Affairs and Food & Public Distribution and Textiles, Shri Piyush Goyal today spoke strongly for the rights of developing countries at the Ministerial meeting of the WTO on the crucial fisheries subsidy negotiations.
- The meeting was attended by Ministers and Ambassadors from other WTO members and the DG WTO Dr. Ngozi.
- Delivering a strong statement on behalf of India, Shri Goyal stated that India is very keen to finalize the agreement because irrational subsidies and overfishing by many countries is hurting Indian fishermen and their livelihood.
- He expressed his disappointment that the Membership is still short of finding the right balance and fairness in the agreement.
- The minister also emphasized Prime Minister Modi's thrust to promote fishing sector and protect small fishermen.
- Shri Goyal cautioned that we should not repeat the mistakes made during the Uruguay Round three decades ago that allowed unequal and trade-distorting entitlements for select developed country Members, particularly in agriculture.
- These unfairly constrained less developed members who did not have the capacity and resources to support their industry or farmers then.
- Shri Goyal expressed concern that any unbalanced or unequal agreement now would bind us into current fishing arrangements, which may not meet future requirements.
- He pointed out that it is essential that big subsidizers take greater responsibility to reduce their subsidies and fishing capacities, in accordance with the principles of 'Polluter Pays' and 'Common but Differentiated Responsibilities'.
- Highlighting that protection of environment is ingrained in the Indian ethos for ages and has been repeatedly stated by our Prime Minister, Shri Goyal urged that India is committed to conclude the negotiations, as long as it provides for balancing current and future fishing needs, preserving space for equitable growth in fishing capacities in future, and an effective S&DT without any imbalances.

RAKSHA MANTRI LAUNCHES AI POWERED GRIEVANCE MANAGEMENT APPLICATION

- Raksha Mantri Shri Rajnath Singh launched an Artificial Intelligence (AI)-powered grievance management application in New Delhi on July 15, 2021, developed by Ministry of Defence with the

help of IIT-Kanpur.Minister of State (Independent Charge) for Personnel, Public Grievances & Pensions Dr Jitendra Singh graced the occasion.

- This is the first AI based system developed to improve grievance redressal in the Government. The AI tool developed as part of the initiative has capability to understand the content of the complaint based on the contents therein.
- As a result, it can identify repeat complaints or spam automatically.
- Based on the meaning of the complaint, it can categorise complaints of different categories even when key words normally used for such search are not present in the complaint.
- It enables geographical analysis of complaints in a category including analysis of whether the complaint was adequately addressed or not by the concerned office.
- Easy user-friendly search enables user to formulate his own queries/categories depending on management requirements and seek performance results based on the query.
- Given that lakhs of complaints are received on CPGRAMS portal of DARPG, this application will have great use in understanding the nature of complaints, geographies from where they emanate and policy changes which can be introduced to create systemic improvements to address these grievances.

GIRA SARABHAI PASSES AWAY

- Gira Sarabhai, co-founder of the renowned National Institute of Design (NID) in Ahmedabad and a pioneer of design education in India, passed away.
- She played a crucial role in setting up several other institutions and contributed immensely in the field of art and architecture.
- With her brother Gautam Sarabhai, she founded the NID and prepared its academic curricula, which laid the foundation for design education in the country.
- Another notable institution both Gira and Gautam were involved in setting up was the Calico Museum, one of India's most famous private museums.

'NO WORK ON MEKEDATU SANS CWMA NOD'

- The Centre has given its assurance that Karnataka will not be allowed to carry out any construction on the Mekedatu dam project on the Cauvery river until its Detailed Project Report (DPR) is approved by the Cauvery Water Management Authority (CWMA), according to members of an all-party delegation from Tamil Nadu who met Jal Shakti Minister Gajendra Singh Shekhawat .
- Earlier this month, Karnataka Chief Minister B.S. Yeddyurappa unilaterally announced plans to go forward with the long-pending project, exacerbating Tamil Nadu's concerns that their farmers further downstream will be affected.
- "The State [of Karnataka] submitted its pre-feasibility report first and having studied it, CWC [or Central Water Commission] granted permission for the development of DPR in 2018. It was a conditional permission and the number one condition was that the DPR will only be accepted and considered further if it comes with the approval of CWMA.
- All stakeholder States are members of CWMA," he said, adding that the DPR was submitted online in 2020 and last discussed at the CWMA's virtual meeting two months ago.
- Karnataka and Telengana representatives urged that further discussions be held when the CWMA is able to meet in person, as it is a sensitive issue, added the Minister.

CENTRE NOTIFIES PURVIEW OF KRISHNA, GODAVARI BOARDS

- Seven years after their constitution under the provisions of the Andhra Pradesh Reorganisation Act, the Centre has notified the purview of Krishna and Godavari River Management Boards (KRMB and GRMB) transferring the operation of all projects, including hydel generation, in the two river basins in Andhra Pradesh and Telangana to the boards, effective from October 14.
- The notification assumes significance in the backdrop of escalation in the dispute between the two

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States over project works and hydel generation at Srisailam, Nagarjunasagar and Pulichintala reservoirs. While Andhra Pradesh has been demanding notification of the boards' purview for long, Telangana has been opposing it on the premise that handing over operation of projects without clarity on water share of the two States won't serve the purpose.

REJUVENATION OF 6 POLLUTED RIVER STRETCHES IN UTTARAKHAND

- The Director General, National Mission for Clean Ganga (NMCG), Shri Rajiv Ranjan Mishra chaired the 36th Executive Committee meeting of NMCGand approved new projects for rejuvenation of 6 polluted river stretches in Uttarakhand.
- The proposals from State Mission, Uttarakhand for these polluted stretches have been under review by NMCG and were finalised and taken up for consideration by the EC today.
- The project shall cover the 6 polluted river stretches in the Kumaon region. Out of the rest 3 polluted stretches, project of Ganga at Jagjeetpur, Haridwar has already been commissioned and on the remaining two, Namami Gange projects are already under execution.
- With this project, all the polluted stretches in the state of Uttarakhand have been covered under pollution abatement projects.
- An important and progressive feature of the project is comprehensive sludge management arrangements and provision for co-treatment of septage in all these STPs.
- As per the report of CPCB identifying polluted stretches of the rivers in the country, there were a total of 9 polluted stretches in Uttarakhand state and 6 of them were in district Udham Singh Nagar on various tributaries or small rivers such as Bhela, Dhela, Kichha, Nandor, Pilankha and Kosi and 02 (Two) stretches were on Rispana-Bindal and Suswa, which are being covered in the I&D Rispana_Bindal project which is under execution under the Namami Gange Programme, while 01(One) stretch was on main river Ganga (downstream Jagjeetpur) already covered by the Jagjeetpur STP project.

AUTOMATED TRAIN TOILET SEWERAGE DISPOSAL SYSTEM

Automated Train Toilet Sewerage Disposal System - A Cost-effective Alternative To Bio-toilets
- An automated technology for collection of toilet waste which is easy to maintain and seven times cheaper alternative to the bio-toilets, developed by an Indian scientist, can be used to maintain the toilet system of the Indian Railways.
- Existing Bio toilets use anaerobic bacteria for converting human waste to gas, but that bacteria can't decompose plastic and cloth materials dumped into toilets by passengers.
- Hence maintenance and removing of such non decomposed materials inside the tank is difficult.
- The technology developed with support from the Advanced Manufacturing Technologies programme of the Department of Science & Technology (DST), aligned with the 'Make in India' initiative has been granted five National patents and is in the testing phase.
- The automated system consists of three simple steps--the septic tank (which is placed under the track, i.e., train line) top cover gets opened when train approaches to the septic tank place by using Radio Frequency Identification (RFID) sensor and reader placed at Engine and septic tank position respectively, sewerage material in toilet tanks is dropped into the septic tank when they are mutually synchronized, and finally the septic tank cover gets closed when train departs away from it.
- The collected sewerage material from train toilets is segregated such that human waste is stored in one tank, and other materials such as plastic materials, cloth materials, and so on are stored in another tank.
- The human waste is further processed separately to convert into usable material. The plastic and cloth materials are processed separately.
- This technology has been developed targeting the Indian Railways specifically with the aim of cost reduction and to obviate the necessity of time-consuming anaerobic bacteria generation.

- In contrast with Bio toilets which cost one lakh per unit, the new technology brings down the cost to Fifteen thousand rupees only.

DISCOVERED IN FARIDABAD: PREHISTORIC CAVE PAINTINGS

Discovered in Faridabad: Prehistoric cave paintings that could be almost 1 lakh years old
- Archaeologists in Haryana have estimated that a prehistoric site Faridabad's Mangar Bani hill forest, from where cave paintings were discovered recently, may be up to a lakh years old.
- "On the basis of tool topology, it can be said that the date of prehistoric habitation at the site may be from about 1,00,000 to about 15,000 years ago.
- But we have also found evidence of later habitation, even up to 8th-9th century AD," said Banani Bhattacharyya, Deputy Director of Haryana Archaeology & Museums Department.
- "It can be said that it may be one of the biggest Palaeolithic sites in the Indian subcontinent, where stone age tools were recovered from different open air sites as well as from rock shelters."
- "Some of the caves have rock art while others have paintings, but only a few of the paintings are in good condition, the others have deteriorated.
- The art includes what appear to be symbols, markings, some are drawings that are very old, but what exactly it is, only the archaeology department will be able to tell," he said.
- "This site is very promising as these cave paintings may even be compared with the world famous Bhimbetka cave paintings.
- In the near future, we will carry out trial trench digging, document and map all rock shelters and open-air sites.
- Carbon radio dating and accelerator mass spectrometry techniques will be used to date the cave paintings.
- With cooperation of other departments, Mangar Bani forests will be comprehensively developed as a pre-historic eco-forest.
- This also underscores the need to keep such pockets in NCR areas out of the reach of land sharks and unmindful development," said Khemka.

11.82 % MORE WHEAT PROCURED IN COMPARISON TO LAST YEAR

- Current Marketing Season RMS 2021-22 has concluded in most of wheat procuring States and till now (upto 07.07.2021) a quantity of 433.32 LMT of Wheat has been procured (which is all time high, as it has exceeded previous high 389.92 LMT of RMS 2020-21) against the last year corresponding purchase of 387.50 LMT.
- About 49.16 Lakh farmers have already been benefitted from the ongoing RMS procurement operations with MSP value of Rs. 85,581.02 Crore.

Wheat Proc.during RMS 2021-22 (upto 07.07.2021) and corresponding Proc. during RMS 2020-21 (In LMT)
387.50 — RMS 2020-21
433.32 — RMS 2021-22

Wheat MSP and Farmer Benefitted (Upto 07.07.2021) in RMS 2021-22
8558102 — MSP Value (Rs. In Lakh)
4916424 — No of Farmers Benefitted
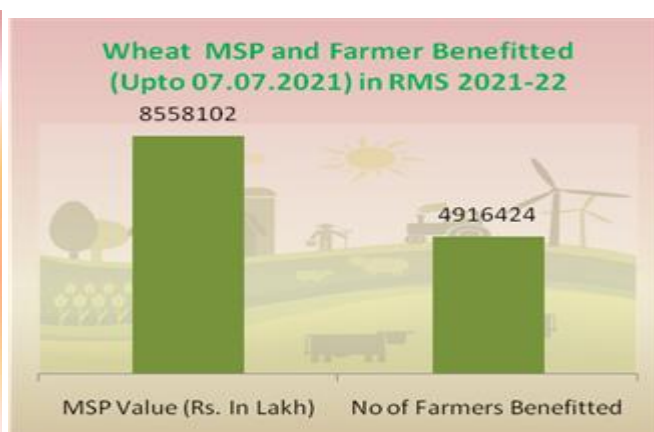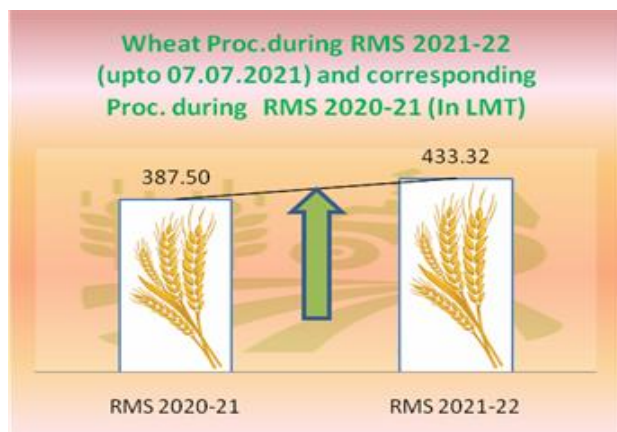
PM GREETS PEOPLE ON THE OCCASION OF ASHADHI BIJ, THE KUTCHI NEW YEAR

The Prime Minister, Shri Narendra Modi has greeted the people on the auspicious occasion of Ashadhi Bij, the Kutchi New Year.In a tweet, the Prime Minister said, "Kutchi New Year-on Ashadhi Bij my lakhs of wishes to the Kutchi brothers and sisters.

1 LAKH VILLAGES AND 50 THOUSAND GRAM PANCHAYATS BECOME 'HAR GHAR JAL'

- To translate the Prime Minister Shri Narendra Modi's vision of providing clean tap water to every household in the country by 2024, Jal Jeevan Mission,working with speed and scale.
- It achieved a milestone of providing tap water supply to every household in 1 lakh villages across India, in a short period of 23 months.
- At the launch of this ambitious programme, out of 18.94 Crore rural households in country, only 3.23 Crore (17%) had tap water connections.
- Despite Covid-19 pandemic and lockdown disruptions, Jal Jeevan Mission provided 4.49 Crore tap water connections during 23 months and has also made 50 thousand Gram Panchayats 'Har Ghar Jal' by providing tap water supply to every household in these panchayats.
- tap water supply has reached to 7.72 Crore (40.77%) households. Goa, Telangana, Andaman & Nicobar Islands and Puducherry have achieved 100% tap water supply in rural areas and has become 'Har Ghar Jal'.
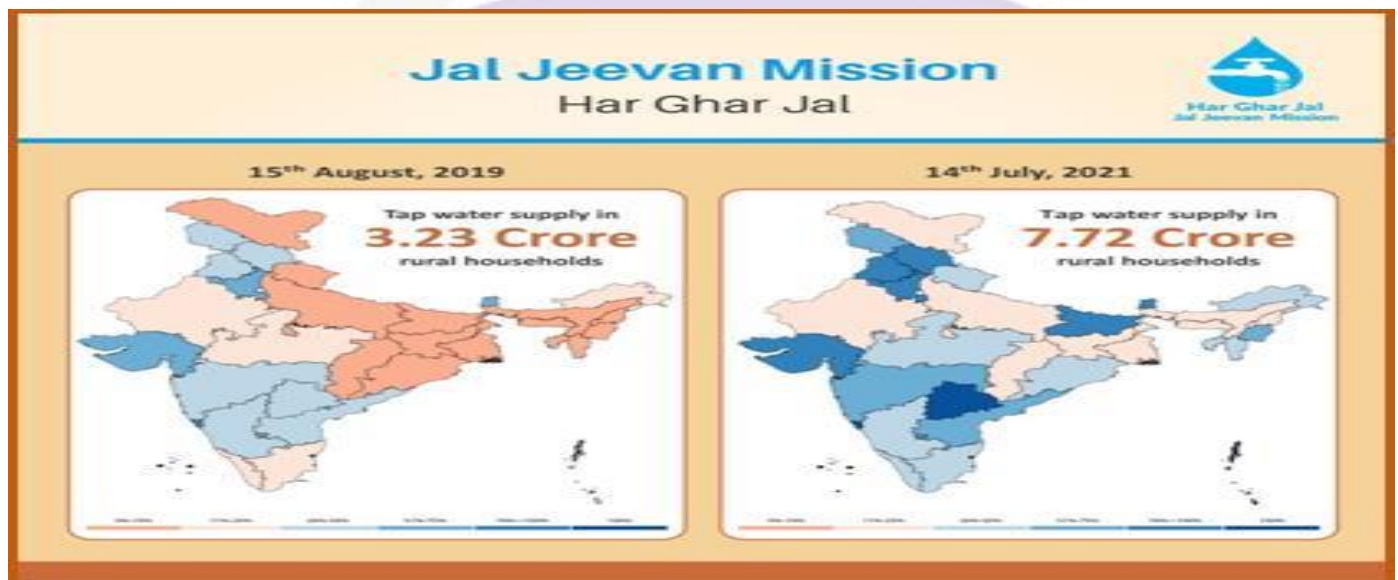
- Following the principle of Prime Minister's vision of 'SabkaSaath, Sabka Vikas, Sabka Vishwas', the motto of the Mission is that 'no one is left out' and every household in a village should be provided with tap water connection. At present, 71 districts, 824 blocks, 50,309 Gram Panchayats and 1,00,275 villages have achieved the target of 'Har Ghar Jal'.
- Announced by the Prime Minister, Shri Narendra Modi on 15th August 2019, in a paradigm shift from earlier water supply programmes, Jal Jeevan Mission focuses on water service delivery rather than providing mere water supply infrastructure. Under JJM, aim is to ensure that every household irrespective of its socio-economic condition, has tap water supply. The JJM is built on the principle of 'no one is left out' ensuring poorest of the poor, weaker and marginalized sections of society - those unserved so far, get assured potable tap water supply in their homes.

Jal Jeevan Mission is a 'bottom up' approach, where community plays a vital role starting from planning to implementation, management, operation & maintenance. To achieve this, State Government has to

undertake support activities like strengthening the Village Water & Sanitation Committee (VWSC)/ Pani Samiti.

EXERCISE 'SHIELD'

- A Tri Nation Table Top Anti-Narcotics & Maritime Search and Rescue exercise (Exercise Shield) between Maldives National Defence Force, Sri Lanka Navy and Indian Navy was conducted in virtual mode for the first time on 14 and15 Jul 21 with Indian Navy as the lead agency. The exercise was coordinated by Maritime Warfare Centre (MWC), Mumbai.
- Anti-Narcotic Operations and Maritime Search and Rescue are the important issues that were deliberated by the participants who share a unique geographic location, sitting astride the major shipping routes of the Indian Ocean Region (IOR).
- The exercise was focused at enhancing maritime security cooperation and mutual understanding, exchange of best practices/procedures for countering common trans-national maritime crimes such as narcotics smuggling, evolving modalities for exchanging information/intelligence and to assist each other in Maritime Search and Rescue.
- All agencies enthusiastically participated in the exercise and shared their experiences and best practices.

INDIAN NAVY ACCEPTS FIRST BATCH OF TWO MH-60R MULTI ROLE HELICOPTERS (MRH)

- Indian Navy accepted the first two of its MH-60R Multi Role Helicopters (MRH) from US Navy in a ceremony held at Naval Air Station North Island, San Diego on 16 Jul 21. The ceremony marked the formal transfer of these helicopters from US Navy to Indian Navy,
- MH-60R helicopters manufactured by Lockheed Martin Corporation, USA is an all-weather helicopter designed to support multiple missions with state of the art avionics/ sensors. 24 of these helicopters are being procured under Foreign Military Sales from the US Government. The helicopters would also be modified with several India Unique Equipment and weapons.
- The induction of these MRH would further enhance Indian Navy's three dimensional capabilities. In order to exploit these potent helicopters, the first batch of Indian crew is presently undergoing training in USA.

FRAMEWORK FOR SETTING UP AND OPERATING ITFS

- The International Financial Services Centres Authority (IFSCA) has been set up vide IFSCA Act, 2019 to develop and regulate the financial products, financial services and financial institutions in the International Financial Services Centres (IFSCs). Towards this end, IFSCA has issued a framework for Setting up and operating International Trade Finance Services Platform ('ITFS') for providing Trade Finance Services at International Financial Services Centres ('IFSCs').

- The framework will enable Exporters and Importers to avail various types of trade finance facilities at competitive terms, for their international trade transactions through a dedicated electronic platform viz, ITFS. This will help in their ability to convert their trade receivables into liquid funds and to obtain short term funding.

- This framework will provide an opportunity to the participants to avail trade finance facilities for trade transactions such as Export Invoice Trade Financing, Reverse Trade Financing, Bill discounting under Letter of Credit, Supply Chain Finance for Exporters, Export Credit (Packing Credit), Insurance/ Credit Guarantee, Factoring and any other eligible product, on the ITFS platform.

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GOVERNMENT TO SET UP A WORLD-CLASS 'INDIAN INSTITUTE OF HERITAGE'

- The government has decided to set up the 'Indian Institute of Heritage' at Noida, Gautam Buddha Nagar.
- This will impact higher education and research in the field related to rich Indian heritage and its conservation leading to Masters and Ph.D courses in History of Arts, Conservation, Museology, Archival Studies, Archaeology, Preventive Conservation, Epigraphy and Numismatics, Manuscriptology etc. as well as conservation training facilities to in-service employees and the students of the Indian Institute of Heritage.
- The Institute is being set up as Deemed to be University by integrating Institute of Archaeology (Pt. Deendayal Upadhyaya Institute of Archaeology), School of Archival Studies under National Archives of India, New Delhi, the National Research Laboratory for Conservation of Cultural Property (NRLC), Lucknow, National Museum Institute of History of Art, Conservation and Museology (NMICHM) and Academic Wing of Indira Gandhi National Centre for the Arts (IGNCA), New Delhi. These shall become various schools of Institute.
- Indian Institute of Heritage will be a world-class university that would focus on the conservation and research in India's rich tangible heritage, while offering research, development and dissemination of knowledge, excellence in the education of its students and activities associated with heritage that contribute to the cultural, scientific and economic life of India.
- This would be a standalone Institution of its type in the country.

INDIA EMERGES AS 5TH LARGEST FOREX RESERVES HOLDER IN THE WORLD

- With India's forex reserves at $608.99 billion as on June 25, 2021 stood, India has emerged as the fifth largest foreign exchange reserves holder in the world after China, Japan, Switzerland and Russia. Giving more details, the Minister said that RBI takes regular steps for diversification of forex reserves by scaling up operations in forex swap and repo markets, acquisition of gold and exploring new markets/products, while adhering to safety and liquidity standards.
- Variation in India's forex reserves is primarily the outcome of RBI's intervention in the foreign exchange market to smoothen exchange rate volatility, valuation changes due to movement of US dollar against other international currencies in the reserve basket, movement in gold prices, interest earnings from deployment of foreign currency assets and inflow of aid receipts.
- The Minister further stated that a current account deficit, accompanied by increasing foreign exchange reserves, reflects a surplus on the balance of payments i.e., the magnitude of the net capital inflows exceeds the volume of the current account deficit. In 2020-21, India's balance of payments recorded surplus in both current account and capital account which contributed to the increase in foreign exchange reserves during the year.

PROGRESS IN DOUBLING FARMER INCOME

- The strategy adopted by the Government for increasing the income is (i) higher volume of output through higher productivity (ii) lower cost of production and (iii) higher real remunerative returns on the farmers' produce.
- In case of production the farmers have been registering higher productivity across all segments of Agriculture.
- There has been record growth in total output of food grains, oilseeds, horticulture, milk and so on.
- The annual production under various sectors has increased appreciably as seen at the end of the year 2020-21.
- Major emphasis has been on post-harvest management, which is helping farmers in getting better returns on their produce.
- These include e-NAM, new state marketing Act, direct trade, contract farming, FPOs, agri-logistics, food processing and so on besides healthier procurement operations.
- Government's emphasis on robust procurement of agricultural produce has also ensured better

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returns to farmers and served as an incentive.

- In addition to increases in procurement of paddy & wheat through FCI, the quantum of procurement of pulses & oilseeds has leap frogged since 2014-15.
- Under the new procurement scheme called PM-AASHA, NAFED has been procuring much more than before.
- PM-KISAN is an ongoing and continuous Scheme. The entire responsibility of identification of beneficiaries rests with the State / UT Governments.
- An exclusive web-portal www.pmkisan.gov.in has been launched for the Scheme. The financial benefits are released to the beneficiaries on the basis of the data of farmers prepared and uploaded by them on the PM-KISAN web-portal.
- The data uploaded by the State/UT Governments undergoes three levels of validation.
- Data that passes all three levels of validation is then processed for the release of benefits.
- Any data that is found incorrect is sent back to the respective States/UTs for correction.

DRDO INDIGENOUSLY DEVELOPS HIGH STRENGTH BETA TITANIUM ALLOY

- Defence Research and Development Organisation (DRDO) has indigenously developed a High Strength Metastable Beta Titanium Alloy containing Vanadium, Iron and Aluminium, Ti-10V-2Fe-3Al on industrial scale for applications in aerospace structural forgings.
- It has been developed by Defence Metallurgical Research Laboratory (DMRL), a premier Hyderabad based laboratory of DRDO.
- These alloys are already being used by many developed nations in recent times as beneficial substitute for the relatively heavier traditional Ni-Cr-Mo structural steels to achieve weight savings.
- The excellent forgeability of high strength-to-weight ratio Ti-10V-2Fe-3Al alloy facilitates manufacture of intricately configured components for aerospace applications with potential for significant weight savings.
- Some of the components which may be forged from this alloy include slat/flap tracks, landing gear, and drop link in landing gear – among several others.
- The high strength beta titanium alloys are unique due to their higher strength, ductility, fatigue, and fracture toughness – making them increasingly attractive for aircraft structural applications.
- Furthermore, their relatively lower lifetime cost, owing to superior corrosion resistance in comparison to steels, is an effective trade-off to justify the use of this expensive material in India too.

DRDO SUCCESSFULLY FLIGHT-TESTS INDIGENOUSLY DEVELOPED MPATGM

- In a major boost towards AatmaNirbhar Bharat and strengthening of Indian Army, Defence Research and Development Organisation (DRDO) successfully flight-tested indigenously developed low weight, fire and forget Man Portable Antitank Guided Missile (MPATGM) on July 21, 2021.
- The missile was launched from a man portable launcher integrated with thermal site and the target was mimicking a tank.
- The missile hit the target in direct attack mode and destroyed it with precision.
- The test has validated the minimum range successfully.
- All the mission objectives were met. The missile has already been successfully flight tested for the maximum range.
- The missile is incorporated with state-of-the-art Miniaturized Infrared Imaging Seeker along with advanced avionics.

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- The test brings the development of indigenous third generation man portable Anti-Tank Guided Missile close to completion.

LAST BLAST OF SELA TUNNEL'S ESCAPE TUBE CONDUCTED BY DG BORDER ROADS

- The last blast of the escape tube of under-construction Sela Tunnel was conducted by Director General Border Roads (DGBR) Lt Gen Rajeev Chaudhry through video conferencing from New Delhi on July 22, 2021.
- This breakthrough will facilitate faster completion of Sela Tunnel by undertaking simultaneous activities in two tubes i.e.,a two-way tube of 1,555 meters and an escape tube of 980 meters, besides 8.8 kms of approach roads.
- On completion, Sela Tunnel will be the longest bi-lane road tunnel in the world at an altitude above 13,000 feet.
- This unique tunnel constructed using the latest New Austrian Tunneling Method (NATM), is much below the snow line allowing all weather travel without the challenges of snow clearance.
- **The Sela Tunnel will prove to be a boon for the people of Tawang** as it will reduce travel time and ensure speedier movement across the Sela Pass.
- **It will play a crucial role in the development of not just Arunachal Pradesh**, but the entire North-East.In case of natural calamities and adverse weather, it can prove to be a vital link for evacuation of personnel.

USE OF A BLEND OF 12 PERCENT AND 15 PERCENT ETHANOL

Use of A Blend of 12 percent and 15 percent Ethanol in Gasoline as Automotive Fuels Facilitated

- Ministry has notified G.S.R. 439(E) dated 28-06-2021 to facilitate use of a blend of 12 percent and 15 percent ethanol in gasoline as automotive fuels.
- Comments and objections have been solicited from concerned stakeholders.
- The target date for achieving 20 percent ethanol blending with petrol has been advanced by five years to 2025 to minimise pollution and reduce dependence on import.
- NITI Aayog has prepared a roadmap for Ethanol Blending India 2020-25.
- Government is encouraging the use of electric vehicles and vehicles operating on alternative fuels by providing incentives.

Recent government support=The entrepreneurs/project proponents are free to set up ethanol plants in any part of the country without seeking any formal approval from the Government of India. However, various statutory clearances from States/ Ministry of Environment Forest and Climate Change (MoEF&CC)/State Pollution Control Boards (SPCBs), etc. are required to be obtained during the course of setting up of the ethanol plant. Besides, DFPD is implementing scheme for extending interest subvention @ 6% p.a. or 50% of the interest charged by the banks whichever is lower, for 5 years including 1 year moratorium period.

STATE COMMISSION FOR PROTECTION OF CHILD RIGHTS

- State Commissions for Protection of Child Rights (SCPCRs) have been set up in all the States and Union Territories except the two newly constituted UTs of Jammu & Kashmir and Ladakh.
- As per Section 13 of the Commission for Protection of Child Rights Act, 2005, NCPCR has been mandated to take inquire into cases of violation of child rights and recommend initiation of proceedings in such cases.
- Regular follow-up is done for ensuring timely redressal of complaints. The Commission also conducts inspection visits and research studies, based on complaints received.

RISE IN EXTREME RAINFALL EVENTS

- Amid the revival of monsoon since the second week of July, there has been a significant variation in rainfall across the country.

- Several parts of the western Konkan coast and the southern peninsula were witnessing instances of extreme rainfall. According to the India Meteorological Department data on the regional distribution, the 'South Peninsula' received 29% more rain than normal during the period June1-July 23.
- In the same period, northwest and central India witnessed a 10% and 2% deficit respectively and northeast India a 14% deficit, though this region has a higher base rainfall than other regions.
- The frequency and strength of cyclones over the Arabian Sea has increased in the past two decades.
- There is a 52% increase in the frequency of cyclones over the Arabian Sea from 2001 to 2019 and an 8% decrease over the Bay of Bengal compared with the period 1982-2002, when historically most cyclones have been in the Bay of Bengal, according to a study published in Climate Dynamics.
- Even the duration of cyclones has increased by 80%. More cyclones were bringing in more moisture from the Arabian Sea and contributing to extreme rainfall events.

NATIONAL POLICY FOR RARE DISEASES, 2021

- National Policy for Rare Diseases, 2021 (the Policy) has been finalized and put in public domain.
- The Policy aims at lowering the incidence and prevalence of rare diseases based on an integrated and comprehensive preventive strategy encompassing awareness generation, premarital, post-marital, pre-conception and post-conception screening and counselling programmes to prevent births of children with rare diseases, and within the constraints on resources and competing health care priorities, enable access to affordable health care to patients of rare diseases.
- Financial support up to Rs. 20 lakhs under the Umbrella Scheme of Rashtriya Arogaya Nidhi shall be provided by the Central Government for treatment, of those rare diseases that require a one-time treatment (diseases listed under Group 1).
- State Governments can consider supporting patients of such rare diseases that can be managed with special diets or hormonal supplements or other relatively low-cost interventions Keeping in view the resource constraints, and a compelling need to prioritize the available resources to get maximum health gains for the community/population, the Government will endeavour to create alternate funding mechanism through setting up a digital platform for voluntary individual and corporate donors to contribute to the treatment cost of patients of rare diseases.
- Voluntary crowd-funding for treatment: Keeping in view the resource constraint and competing health priorities, it will be difficult for the Government to fully finance treatment of high-cost rare diseases.
- The gap can however be filled by creating a digital platform for bringing together notified hospitals where such patients are receiving treatment or come for treatment, on the one hand, and prospective individual or corporate donors willing to support treatment of such patients.

NEARLY 72% OF FINANCIAL TRANSACTIONS OF PSBS DONE THROUGH DIGITAL CHANNELS

The Government has taken a number of steps to facilitate digital banking, doorstep banking services and digital lending platforms.
1. Initiation of digital lending has been made contactless through **PSBloansin59minutes.com**, using triangulation of credit bureau, income-tax and goods and services tax (GST) data, to provide online in principle approval for MSME loans.
2. Online bill discounting for MSMEs has been enabled on a competitive basis through Public Sector Banks (PSBs) onboarding onto the Trade Receivables Discounting System (TReDS) platform and the proportion of online discounted bills has grown rapidly.
3. Government's 'Jeevan Pramaan' initiative for pensioners has enabled senior citizen pensioners the facility to update their annual life certificate online.
4. Under the Government-initiated PSB Reforms Agenda,—

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- Enhanced access to Mobile and Internet banking has been enabled through an increase in the **average number of services offered (43)**, **customer-friendly features (135)** and **regional language customer-interface (8)**;
- End-to-end automated digital lending has been introduced in larger PSBs for unsecured personal loans (in five PSBs), loans to micro-enterprises ("Shishu Mudra", in five PSBs) and renewals of loans to micro, small and medium enterprises (in three PSBs);
- **Digital retail loan request initiation** through digital channels has been enabled in all the seven large PSBs, with **retail disbursements from loan requests** so initiated in the financial year (FY) 2020-21 amounting to **Rs. 40,819 crore**;
- **Customer-need-driven, analytics-based credit offers have been given an impetus, resulting in Rs. 49,777 crore of fresh retail loan disbursements** by the seven larger PSBs in the financial year (FY) 2020-21.As a result, **nearly 72% of financial transactions of PSBs are now done through digital channels, with doubling of customers active on digital channels from 3.4 crore in FY2019-20 to 7.6 crore in FY2020-21, and the share of financial transactions undertaken through home and mobile channels has increased from 29% in FY2018-19 to 76% in FY2020-21.**

5. PSB Alliance, an initiative of all PSBs and Indian Banks' Association, has launched doorstep banking services for all customers, including senior citizens, through call centre (1800-121-3721 and 1800-103-7188), web portal (https://psbdsb.in/ and https://doorstepbanks.com/) mobile app (Google Play Store). At present 13 services are being offered in 100 cities across the country, which include cash withdrawal or deposit, pick-up of cheque or demand draft or pay order etc., pick-up of cheque-book requisition slip, pick-up of income-tax forms no. 15G/15H, pick-up of income-tax/GST challan, and delivery of tax deduction at source (TDS) and Form-16 certificates for income-tax purposes.

ROSCTL EXTENDED TILL 31ST MARCH 2024 AT EXISTING RATES

- The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi ji has given its approval for continuation of Rebate of State and Central taxes and Levies (RoSCTL) with the same rates as notified by Ministry of Textiles vide Notification dated 8th march 2019, on exports of Apparel/Garments (Chapters-61 & 62) and Made-ups (Chapter-63) in exclusion from Remission of Duties and Taxes on Exported Products (RoDTEP) scheme for these chapters. The scheme will continue till 31st March 2024.
- The other Textiles products (excluding Chapters-61, 62 & 63) which are not covered under the RoSCTL shall be eligible to avail the benefits, under RoDTEP along with other products as finalised by Department of Commerce from the dates which shall be notified in this regard.
- Continuation of RoSCTL for Apparel/Garments and Made-ups is expected to make these products globally competitive by rebating all embedded taxes/levies which are currently not being rebated under any other mechanism. It will ensure a stable and predictable policy regime and provide a level playing field to Indian textiles exporters. Further, it will promote startups and entrepreneurs to export and ensure creation of lakhs of jobs.
- Just one year after launch of RoSCTL the pandemic set in and it has been felt that there is a need to provide some stable policy regime for the exporters. In the textiles industry, buyer places long term orders and exporters have to chalk out their activities well in advance, it is important that the policy regime regarding export for these products should be stable.

EIGHT NEW ROUTES LAUNCHED TO BOOST REGIONAL AERIAL CONNECTIVITY

- Shri JyotiradityaScindia, Union Minister of Civil Aviation, said "I would like to congratulate the people of Madhya Pradesh, Maharashtra and Gujarat on the commencement of the new flight operations.

Besides, additional flights between the Delhi-Jabalpur route will also commence from July 18 onwards, and Khajuraho-Delhi-Khajuraho flights from October 2021 onwards. We are committed to bolster regional air connectivity and take the Prime Minister's vision of Ude Desh ka Aam Naagrik (UDAN) to greater heights!"

- The airlines M/S SpiceJet will commence operations on these 8 new routes: Gwalior-Mumbai-Gwalior, Gwalior-Pune-Gwalior, Jabalpur-Surat-Jabalpur, and Ahmedabad-Gwalior-Ahmedabad route.
- Gwalior is one of the first airports of Madhya Pradesh to be connected with the UDAN route and further enhancements in the air traffic led to the advent of additional regional routes. Gwalior is now well connected with Bengaluru, Hyderabad, Kolkata, & Jammu as UDAN routes and Mumbai, Pune, & Ahmedabad as non-UDAN routes. The city is famous for its historical buildings like- Gwalior Fort, SaasBahu Temple, Tomb of Mohammad Ghaus, PhoolBagh, Gujari Mahal Museum, TeliKaMandir, Gwalior Zoo, Moti Mahal & Jai Vilas Palace. The new routes will boost the aerial connectivity of Gwalior, the tourism city of Madhya Pradesh with the trade hubs of India, Maharashtra & Gujarat, and further improve economic activity.
- The commencement of these routes fulfils the objectives of the Ministry of Civil Aviation to enhance the regional connectivity of the Tier-2 & Tier-3 cities with the metro cities of the country. With the flag-off, Jabalpur airport (Madhya Pradesh) is now connected with Bangalore, Hyderabad, & Pune as non-UDAN routes & with Bilaspur as UDAN route. Jabalpur is the administrative and educational centre of Madhya Pradesh. Home to Dhuandhar Falls, Madan Mahal Fort, Balancing Rock, Bargi Dam, GurudwaraGwarighat Sahib, and Dumna Nature Reserve Park, the city is also a major tourist hub.
- Inauguration of these routes achieves the aim of the Sab Uden Sab Juden initiative under the UDAN scheme to strengthen the established aerial network of the country while providing a catalyst to the local economy & tourism.

STATUS OF GREEN NATIONAL HIGHWAY CORRIDOR PROJECT

The Government had signed loan agreement with the World Bank to develop Green National Highway Corridors (GNHCP). The project include Upgradation of about 781 km length of various National Highways passing through the states of Rajasthan, Himachal Pradesh, Uttar Pradesh and Andhra Pradesh. Out of total length of 781 km, work on 287.96 km having Civil Cost of Rs. 1664.44 cr. has been awarded. The schedule date of completion is December, 2025.

G. KISHAN REDDY CHAIRED THE BRICS TOURISM MINISTERS' MEETING

- Minister for Tourism Shri G. Kishan Reddy chaired the BRICS Tourism Ministers' meeting on 13 July, 2021, as part of India's BRICS chairship. The Ministers of all the member countries viz. Brazil, Russia, India, China and South Africa participated in the meeting.
- India organized the BRICS Tourism Ministers' Meeting as an effective means to promote tourism cooperation among BRICS countries. The meeting reviewed the intra BRICS Tourism cooperation. The significant aspect of the meeting was the adoption of the Ministers' Communique, an outcome document on cooperation and promotion of tourism between the BRICS countries.
- To promote tourism for the future, it was recognized that BRICS alliance for Green Tourism can accelerate the recovery and development of tourism on sustainable lines.

RAMAPPA TEMPLE GETS WORLD HERITAGE TAG

- In a major diplomatic triumph, the 13th century Ramappa temple in Palampet, Telangana, was declared as a UNESCO World Heritage Site.
- At the ongoing online meeting of the World Heritage Committee (WHC) in Fuzhou, China, the decision

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was reached after a consensus, with Norway opposing the inscription while Russia led an effort for the immediate inscription of the temple at 4.36 p.m. IST.

- The nomination for a World Heritage Site for the Ramappa and Kakatiya temples was made in 2014. The site was in the reckoning for inscription in 2020 but the WHC meeting was delayed by the COVID-19 pandemic.
- Built by Racherla Senapati Rudrayya, a general of Kakatiya king Ganapatideva, in the 13th century, the main temple is flanked by the collapsed structures of the Kateshwarayya and Kameshwarayya temples in Palampet, about 220 km from Hyderabad.
- The temple, known for its exquisite craftsmanship and delicate relief work, is a savvy blend of technical know-how and materials of its time.
- The foundation is built with the "sandbox technique", the flooring is granite and the pillars are basalt.
- The lower part of the temple is red sandstone while the white gopuram is built with light bricks that reportedly float on water.

INDIAN SCIENTISTS DISCOVER MATERIALS THAT SELF-REPAIR MECHANICAL DAMAGES

- New materials may soon make it possible for damaged electronic components, such as in space crafts, to mend themselves.
- The materials recently developed by scientists can repair their own mechanical damages with the electrical charges generated by the mechanical impact on them.
- Keeping such necessities in mind, researchers from the Indian Institute of Science Education and Research (IISER) Kolkata, teaming up with IIT Kharagpur, have developed piezoelectric molecular crystals that repair themselves from mechanical damages without need for any external intervention.
- Piezoelectric crystals are a class of materials that generate electricity when it undergoes a mechanical impact.
- The piezoelectric molecules developed by the scientists called bipyrazole organic crystals recombine following mechanical fracture without any external intervention, autonomously self-healing in milliseconds with crystallographic precision.
- In these molecular solids, due to the unique property of generating electrical charges on mechanical impact, the broken pieces acquire electrical charges at the crack junction, leading to attraction by damaged parts and precise autonomous repair.
- This research supported by the Department of Science and Technology, GoI via Swarnajayanti Fellowship to CM Reddy and Science and Engineering Research Board (SERB) research grants has been published in the journal 'Science' recently

THE GREAT INDIAN BUSTARDS OF KUTCH: THEIR HABITATS, EXISTENTIAL THREAT

- The Central government informed the Rajya Sabha that there were no Great Indian Bustards (GIB) in Kutch Bustard Sanctuary (KBS) in Gujarat's Kutch district as on January 1 this year.
- GIBs are the largest among the four bustard species found in India, the other three being MacQueen's bustard, lesser florican and the Bengal florican.
- GIBs' historic range included much of the Indian sub-continent but it has now shrunken to just 10 per cent of it.
- Among the heaviest birds with flight, GIBs prefer grasslands as their habitats. Being terrestrial birds, they spend most of their time on the ground with occasional flights to go from one part of their habitat to the other.
- They feed on insects, lizards, grass seeds etc. GIBs are considered the flagship bird species of grassland and hence barometers of the health of grassland ecosystems. The GIB population in India had fallen to just 150. Of them 128 birds were in Rajasthan, 10 in Kutch district of Gujarat and a few in Maharashtra, Karnataka and Andhra Pradesh.
- Pakistan is also believed to host a few GIBs. Due to the species' smaller population size, the International Union for Conservation of Nature (IUCN) has categorised GIBs as critically endangered,

thus on the brink of extinction from the wild.

- Scientists of Wildlife Institute of India (WII) have been pointing out overhead power transmission lines as the biggest threat to the GIBs.
- Coincidentally, Kutch and Thar desert are the places which have witnessed creation of huge renewable energy infrastructure over the past two decades, leading to installation of windmills and construction of power lines even in core GIB areas.
- Change in landscape by way of farmers cultivating their land, which otherwise used to remain fallow due to frequent droughts in Kutch, and cultivation of cotton and wheat instead of pulses and fodder are also cited as reasons for falling GIB numbers.
- In 2015, the Central government launched the GIB species recovery programme. Under the programme, the WII and Rajasthan forest department have jointly set up conservation breeding centres where GIB eggs harvested from the wild are incubated artificially and hatchlings raised in controlled environment.
- Till last year, nine eggs had hatched successfully and the plan is to create a population which can act as insurance against the threat of extinction and release the third generation of these captive-bred birds into the wild.

'21.5 MN LOST JOBS IN TOURISM SECTOR'

- With the tourism industry among the hardest hit due to the pandemic, it is estimated that about 21.5 million people working in the sector lost their jobs during the nine-month period from April 2020-December 2020, as per the data shared by the government on Tuesday.
- In a written reply to the Rajya Sabha, Tourism Minister G. Kishan Reddy said a significant number of jobs were lost in the tourism sector once the lockdown was implemented.
- "About 14.5 million jobs during Q1, 5.2 million during Q2 and 1.8 million jobs during Q3 were expected to have been lost as compared to an estimated 34.8 million jobs in the pre-pandemic period of 2019-20 [direct jobs]," he said. Mr. Reddy said this was one of the key findings of the study done by the National Council of Applied Economic Research for the Ministry of Tourism to assess the extent of losses to the sector.
- As per the report, due to overall economic slowdown during 2020-21, tourism economy or tourism direct gross value added (TDGVA) saw a fall of 42.8% in April-June 2020, 15.5% in July-September 2020 and a fall of 1.1% in October-December 2020.
- According to the data compiled by the Ministry of Tourism, domestic tourist visits during the calendar year 2019 stood at 2,321.98 million while those in 2020 stood at 610.21 million.

FIRST SHORT DURATION GAMMA-RAY BURST DETECTED FROM A STELLAR COLLAPSE

Indian astronomers' part of team spotting first short duration gamma-ray burst from a stellar collapse
- A group of astronomers have detected a very short, powerful burst of high-energy 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 for the record books – the shortest gamma-ray burst (GRB) caused by the death of a massive star.
- 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.
- The identification of this short event GRB which involved several scientists across the world, including

Dr. Shashi Bhushan Pandey from Aryabhatta Research Institute of Observational Sciences (ARIES), an institute of the Department of Science and Technology (DST), as well as scientists from other Indian institutions, showed for the first time that a dying star can produce short bursts too.

- 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.
- "We already knew some GRBs from massive stars could register as short GRBs, but we thought this was due to instrumental limitations. Now we know dying stars can produce short bursts, too," said Bin-bin Zhang at Nanjing University in China and the University of Nevada, Las Vegas.
- "Such a discovery has helped to resolve the long-standing issues related to gamma-ray bursts. Also, this study triggers to re-analyse all such known events to constrain number densities better," Dr. Pandey explained.

TWO PROJECTS HAVE BEEN SANCTIONED UNDER RAMAYANA CIRCUIT.

Ramayana Circuit is one of the identified thematic circuit of 'Swadesh Darshan' scheme: Shri G. Kishan Reddy
- Ramayana Circuit is one of the identified thematic circuit of 'Swadesh Darshan' scheme of the Ministry of Tourism under which 2 projects have been sanctioned. The Ministry has also sanctioned projects under Buddhist, Tirthankar, Krishna and Spiritual Circuits.
- In addition, the Ministry of Tourism provides financial assistance to State Governments / Union Territory Administrations for integrated development of identified pilgrimage and heritage destinations under 'National Mission on Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD)' scheme.

DHOLAVIRA IN GUJARAT ON UNESCO WORLD HERITAGE LIST
- The Harappan city of Dholavira, in present-day Gujarat, was named the 40th Indian site on UNESCO's World Heritage list.
- UNESCO's announcement came just days after another site, Ramappa Temple in Telangana, was admitted to the list.
- "The ancient city of Dholavira is one of the most remarkable and well-preserved urban settlements in South Asia dating from the 3rd to mid-2nd millennium BCE (Before Common Era).
- Discovered in 1968, the site is set apart by its unique characteristics, such as its water management system, multi-layered defensive mechanisms, extensive use of stone in construction and special burial structures," UNESCO said.
- A range of artefacts of copper, shell, stone, jewellery, terracotta and ivory had been found at the site.
- "The two newly inscribed World Heritage Sites offer great insight into the knowledge and ways of life of earlier societies, customs, and communities," UNESCO said.

CHANDRAYAAN-3 IS LIKELY TO BE LAUNCHED DURING THIRD QUARTER OF 2022

- Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said that Chandrayaan-3 is likely to be launched during third quarter of 2022 assuming normal work flow henceforth. In a written reply to a question in the Lok sabha, he said, realization of Chandrayaan-3 is in progress.
- The realization of Chandrayaan-3 involves various process including finalization of configuration, subsystems realization, integration, spacecraft level detailed testing and a number of special tests to evaluate the system performance on earth.

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- The realization progress was hampered due to COVID-19 pandemic.
- However, all works that were possible in work from home mode were taken up even during lockdown periods.
- Chandrayaan-3 realization resumed after commencement of unlock period and is in matured stage of realization.

KING CHILLI 'RAJA MIRCHA' FROM NAGALAND EXPORTED TO LONDON FOR THE FIRST TIME

- In a major boost to exports of Geographical Indications (GI) products from the north-eastern region, a consignment of 'Raja Mircha' also referred as king chilli from Nagaland was today exported to London via Guwahati by air for the first time.
- The consignment of King Chilli also considered as world's hottest based on the Scoville Heat Units (SHUs). The consignment was sourced from Tening, part of Peren district, Nagaland and was packed at APEDA assisted packhouse at Guwahati.
- The chilli from Nagaland is also referred as Bhoot Jolokia and Ghost pepper.
- It got GI certification in 2008. Nagaland King Chilli belongs to genus Capsicum of family Solanaceae.
- Naga king chilli has been considered as the world's hottest chilli and is constantly on the top five in the list of the world's hottest chilies based on the SHUs.
- APEDA would continue to focus on the north eastern region and has been carrying out promotional activities to bring the North-Eastern states on the export map.
- 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.

SPACE ACTIVITIES BILL IS UNDER ACTIVE CONSIDERATION OF THE GOVERNMENT

- Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said thatthe Space Activities Bill is under active consideration of the Government which will include aspects pertaining to regulation and promotion of private players in space sector.
- In a written reply to a question in the Rajya Sabha today, he said, Government is in the process of creating an ecosystem to encourage more private participation in indigenous production of space technologies, services and devices.
- Government of India has announced space sector reforms in June 2020. The Indian National Space Promotion and Authorization Centre (IN-SPACe) was created as an independent nodal agency under the Department of Space with the mandate of promoting, handholding, licensing, authorization and monitoring of private space activities in India.
- Access to Department of Space (DOS) facilities and expertise are extended to private entities to support their space activities. Announcement of Opportunities were done offering challenges in new domains of space technology.
- Government of India is encouraging transfer of technologies developed in the field of space to Indian industries.Apart from this, Government of India is bringing in new sector policies and guidelines and also revising existing policies.
- IN-SPACe which is under creation will have Safety and Security Directorate to ensure security of ISRO installations when allowing access to private entities.
- Public consultations were done and the relevant Departments and Ministries were consulted.

CHOLA IDOLS AMONG 14 ART WORKS TO BE RETURNED BY AUSTRALIA

- - The National Gallery of Australia (NGA) on Thursday announced that it would return 14 works of art from its Asian art collection to India.
- - The works being repatriated include 13 objects connected to art dealer Subhash Kapoor through his antique shop 'Art of the Past' in New York, and one acquired from art dealer William Wolff.
- - They include six bronze or stone sculptures, a brass processional standard, a painted scroll and six photographs.

- - Three other sculptures, also sourced from 'Art of the Past', have been removed from the collection. After research to identify their place of origin, they will be repatriated, the NGA said.
- The Indian High Commissioner to Australia, Manpreet Vohra, welcomed the decision by the Australian government and the NGA to return the art works. The works being returned are: child-saint Sambandar, dancing child-saint Sambandar of 12th century belonging to Chola dynasty, processional standard [alam], from Hyderabad, arch for a Jain shrine (11th-12th century), seated Jina, 1163 from Mount Abu region, Rajasthan, the divine couple Lakshmi and Vishnu [Lakshmi Narayana] (11-12th century), and Durga Mahisasuramardini, from Gujarat.

92.8% RATION CARDS HAVE BEEN SEEDED WITH AADHAAR OF BENEFICIARIES

- The Union Minister of State for Consumer Affairs, Food and Public Distribution, Sadhvi Niranjan Jyoti in a written reply to a question in Lok Sabha informed that So far, at the national level about 92.8% ration cards have been seeded with Aadhaar of beneficiaries.
- 28 States/UTs have completed the Aadhaar seeding of respective ration cards.
- Further, Aadhaar seeding of ration cards is progressing slowly in other 8 States/UT of Jharkhand (97.5%), Mizoram (97%), Ladakh (94.7%), Nagaland (86%), West Bengal (79.8%), Arunachal Pradesh (59.7%), Assam (18%) and Meghalaya (16.5%) due to multiple process in Aadhaar generation and their delivery to beneficiaries besides other reasons including technical for seeding with ration cards database.

ACCESS TO POWER SUPPLY UNDER SAUBHAGYA

- Government of India launched the Pradhan Mantri Sahaj Bijli Har Ghar Yojana – Saubhagya in October, 2017 with the objective to achieve universal household electrification for providing electricity connections to all willing un-electrified households in rural areas and all willing poor households in urban areas in the country by March, 2019.
- All households were reported electrified by the States, except 18,734 households in Left Wing Extremists (LWE) affected areas of Chhattisgarh as on 31.03.2019.
- Subsequently, seven States namely Assam, Chhattisgarh, Jharkhand, Karnataka, Manipur, Rajasthan and Uttar Pradesh had reported that around 19.09 lakh un-electrified households, identified before 31.03.2019, which were unwilling earlier but have expressed willingness to get electricity connection.
- All these seven States have reported 100% household's electrification as on 31.03.2021. A total of 2.817 crore households have been electrified since the launch of Saubhagya, up to 31.03.2021.

USE OF E-NAM PLATFORM BY FARMERS

- During FY 2020-21, total 37.73 lakh farmers & during FY 2021-22 (till 30th June 2021) total 8.78 lakh farmers have used National Agriculture Market (e-NAM) platform to sell their agricultural produces.
- The major crops which are traded on e-NAM platform by farmers are paddy, wheat, cotton, chilli, soyabeans, maize, potato, chana, tomato, groundnut, mustard seeds, gaur seeds, onion, turmeric, arhar (tur/ red gram), bajra, moong whole (green gram), castor seed, lentil (masur), sweet lemon etc.
- e-NAM is a virtual platform integrating physical wholesale mandis/ markets of different States/ Union Territories (UTs) to facilitate online trading of agriculture and horticulture commodities through transparent price discovery method to enable farmers to realize better remunerative prices for their

produce. So far, 1000 Agricultural Produce Market Committees (APMCs) markets have been integrated in 18 States and 03 UTs. e-NAM platform has no provision to capture prices of non e-NAM mandis. The price of agricultural produce is dependent mainly on the supply, demand, climatic conditions, location of market from production area and quality of the produce etc.

BHARTIYA PRAKRITIK KRISHI PADHATI (BPKP)

- Government is implementing Bhartiya Prakritik Krishi Padhati (BPKP) as a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 for the 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.
- As of now, an area of 4.9 lakh ha is covered in 8 states and Rs. 4980.99 lakh has been released. Telangana has not taken up natural farming so far under BPKP programme.

KANDLA BECOMES FIRST GREEN SEZ

- Kandla SEZ (KASEZ) was awarded IGBC Platinum Rating today. KASEZ is the First Green SEZ to achieve the IGBC Green Cities Platinum Rating for Existing Cities.
- The efforts of KASEZ team were applauded especially noting the fact that this was accomplished in Bhuj region where water conservation and afforestation are critical interventions. This was major achievement and is part of activities envisaged under the commitment of the Government to the Green SEZs Mission as part of celebrations marking India@75 - Azadi ka Amrut Mahotsav. It may be noted that Government of India working towards ensuring environmentally sustainable development through a series of measures and efforts that encompass many Ministries.
- IGBC Platinum rating has been awarded for 'Green master planning, policy initiatives and implementation of green infrastructure' by CII's Indian Green Building Council (IGBC).
- The recognition is set to pave way for all the other SEZs in the country to emulate the green initiative and efforts of Kandla SEZ.

IIT ROPAR DEVELOPS FIRST-OF-ITS-KIND OXYGEN RATIONING DEVICE - AMLEX

- To increase the life of medical oxygen cylinders three fold, the Indian Institute of Technology, Ropar has developed a first-of-its-kind Oxygen Rationing Device – AMLEX that supplies a required volume of oxygen to the patient during inhalation and trips when the patient exhales CO2. This process saves oxygen which otherwise unnecessarily get wasted.

- So far, during exhalation, the oxygen in the oxygen cylinder/pipe is pushed out along with the exhaled CO2 by the user. This leads to wastage of a large volume of oxygen in long run. In addition to this, a large volume of oxygen escapes from the openings of the mask to the environment in the resting period (between inhalation and exhalation) due to continuous flow of life saving gas in the mask. As we have seen the demand of medical oxygen has jumped manifold amid the second wave of Covid-19, the device would help in stopping the unwanted wastage of the same.

- "The device can operate on both portable power supply (battery) as well as line supply (220V-50Hz)", said Director, IIT, Ropar, Prof. Rajeev Ahuja.

"Made specifically for oxygen cylinders, AMLEX can be easily connected between oxygen supply line and the mask worn by the patient. It uses a sensor which senses and successfully detects inhalation

and exhalation of the user in any environmental condition", said Dr Sahani. This ready to use device works with any commercially available oxygen therapy masks having multiple openings for air flow.

NISHTHA FOR CONTINUOUS PROFESSIONAL DEVELOPMENT OF THE TEACHERS

- Due to COVID-19 challenges and in order to provide continuous professional development opportunities to the teachers at the elementary level, MOE Department has launched NISHTHA online using DIKSHA platform in October 2020. Around 24 lakh teachers have completed NISHTHA online training at elementary level by June, 2021.
- Under NISHTHA, a module on integrating ICT in teaching, learning and assessment has been introduced. Further, NCERT initiated a webinar series from April, 2020 focussing on orientation of teachers, students and other stakeholders on use of various ICT tools, digital initiatives and emerging trends in educational technology, cyber safety and security.
- Assessment is in-built in every Module and Online Certificates are automatically generated for participants after completion of the course. Module 1 of NISHTHA is specifically on 'Curriculum, Learner Centred Pedagogy, Learning Outcomes and Inclusive Education', wherein the pedagogies for achieving the learning outcomes for all children have been specified, namely, role of teachers in creating inclusive classrooms and Teacher's skills- accept and address diversity, gender sensitive education, inclusion in teaching of different subjects and assessment for inclusive environment.
- Further, it also includes content on assistive technologies, digital resources for DIVYANG children etc. NCERT has developed guidelines on specific goal of developing teaching-learning e-content for Children with Special Needs. At Present the following contents in English and Hindi Medium in the form of Text, Video and Sign Language are available on DIKSHA Platform for the benefit of the Learners.

TOTAL POWER GENERATION FROM NON-FOSSIL FUEL SOURCES REACHES 39%

- Government of India had set a target of 1,75,000 MW installed capacity from renewable sources by the year 2022 which includes 1,00,000 MW from Solar, 60,000 MW from Wind, 10,000 MW from Biomass and 5000 MW from Small Hydro.
- As on 30.06.2021, the total capacity of Renewable Energy installed: under installation and under tied was 96.95 GW. This does not include large Hydro, which is also renewable. As on 30.06.2021, the total power generation capacity installed from non-fossil fuel sources was 150.06 GW; which is 39% of the total installed capacity.
- Therefore, India is well in its way to achieving, and surpassing its nationally determined contribution (NDC) target which was 40% capacity by non-fossil-fuel sources by 2030.
- Further, to promote the renewable energy sources, the following steps have been taken:
- Waiver of inter-State transmission charges on transmission of the electricity generated from the solar and wind sources, for projects to be commissioned upto 30th June 2025.
- Green energy corridors have been developed to evacuate power from the Renewable Energy Sources.
- Renewable Purchase Obligation Trajectory has been notified with the objective of creating renewable power capacity of 175 GW by year 2022.

EXERCISE INDRA-21

- 12th Edition of Indo-Russia joint military Exercise INDRA 2021 will be held at Volgograd, Russia from 01 to 13 August 2021. The exercise will entail conduct of counter terror operations under the United Nations mandate by a joint force against international terror groups.

- 250 personnel from both the nations will form part of the exercise. The Indian Army contingent comprising of a Mechanised Infantry Battalion underwent rigorous training at different locations in India to refine their drills for participation in the joint exercise.
- Exercise INDRA-21 will further strengthen mutual confidence and interoperability between the Indian & Russian Armies and enable sharing of best practices between the contingents of both the countries.
- The exercise will be yet another milestone in strengthening security cooperation and will serve to reinforce the longstanding bond of friendship between India and Russia.

DRDO SUCCESSFULLY FLIGHT-TESTS SURFACE-TO-AIR MISSILE AKASH-NG

- Defence Research & Development Organisation (DRDO) successfully flight-tested the New Generation Akash Missile (Akash-NG), a surface-to-air Missile from Integrated Test Range (ITR) off the coast of Odisha on July 21, 2021. The flight trial was conducted from a land-based platform with all weapon system elements such as Multifunction Radar, Command, Control & Communication System and launcher participating in deployment configuration.
- The missile system has been developed by Defence Research & Development Laboratory (DRDL), Hyderabad in collaboration with other DRDO laboratories. The launch was witnessed by the representatives of Indian Air Force. In order to capture flight data, ITR deployed a number of Range stations like, Electro Optical Tracking System, Radar and Telemetry.
- The flawless performance of the entire weapon system has been confirmed by complete flight data captured by these systems. During the test, the missile demonstrated high manoeuvrability required for neutralising fast and agile aerial threats.
- Once deployed, the Akash-NG weapon system will prove to be a force multiplier for the air defence capability of the Indian Air Force. Production agencies Bharat Electronics Limited (BEL) and Bharat Dynamics Limited (BDL) also participated in the trials.

NIFTEM AND IIFPT BECAME INSTITUTIONS OF NATIONAL IMPORTANCE

- Parliament has passed the National Institutes of Food Technology, Entrepreneurship and Management Bill, 2021. The Bill was unanimously passed by the Loksabha, which was earlier cleared by the Rajya Sabha on 15th March this year.
- Union Minister for Food Processing Industries Shri Pashupati Kumar Paras said this is a historic day as with the passing of this bill, our two educational institutes, National Institute of Food Technology Entrepreneurship and Management (NIFTEM)Kundali (Haryana) and Indian Institute of Food Processing Technology(IIFPT)Thanjabur (Tamil Nadu) under the Ministry of Food Processing Industries became Institutions of National Importance (INI).
- Shri Paras expressed his gratitude to Prime Minister Shri Narendra Modi, Parliamentary Affairs Minister Shri Pralhad Joshi and all the Members of Parliament and senior officials of the Ministry for this landmark step, which will provide these Institutes Greater Autonomy, so that they can start new and innovative courses, as well as help them to attract excellent faculty and students. He said, Global standards can also be adopted in academic and research work.
- The Minister said, these institutes will have curricular provision related to food processing areas e.g. cold chain technology, food bio nanotechnology which can help in filling the technological gap. He said, now they can open new centres anywhere in the country and abroad. Along with this, giving them the status of Institute of National Importance (INI) will also pave the way for the creation of skilled manpower.

DIVYA NAYAN-A PERSONAL READING MACHINE FOR VISUALLY IMPAIRED

- Union Minister of State (Independent Charge) Science & Technology Dr Jitendra Singh said DivyaNayan is a personal reading machine for visually impaired developed by CSIR-Central

Scientific Instruments Organisation (CSIO), Chandigarh where any printed or digital document can be accessed in the form of speech output. The device is available to the visually impaired individuals and institutions through an online registration and booking portal.

- The Minister said that based on the principle of contact scanning, it can analyse a multi column document and provide seamless reading. User can place the device over the document to be read and manually scan it. The reading device uses language dependent optical character recognition to convert the image into text and a text to speech converter, further converts the text into audio. Audio files are stored in the machine and can be listened back.
- The device is handheld, standalone, portable, completely wireless and IoT enabled. It is currently available in Hindi, English, Bengali, Telugu, Tamil, Kannada, and Punjabi but is further compatible for other Indian and foreign languages. It has interfaces such as USB, Bluetooth, Wifi, LAN, Headphone etc.

PRODUCTION-LINKED INCENTIVE (PLI) SCHEME FOR SPECIALTY STEEL

- Union Cabinet, chaired by the Prime Minister, Shri Narendra Modi, approved the Production Linked Incentive (PLI) Scheme for specialty steel. The duration of the scheme will be five years, from 2023-24 to 2027-28.With a budgetary outlay of ₹6322 crores,
- The scheme is expected to bring in investment of approximately ₹40,000 crores and capacity addition of 25 MT for speciality steel. The scheme will give employment to about 5,25,000 people of which 68,000 will be direct employment.
- Speciality steel has been chosen as the target segment because out of the production of 102 million tonnes steel in India in 2020-21, only18 million tonnes value added steel/speciality steel was produced in the country.
- Apart from this out of 6.7 million tonnes of imports in the same year, approx. 4 million tonnes import was of specialty steel alone resulting in FOREX outgo of Approx. Rs. 30,000 crores.
- By becoming Aatmanirbhar in producing speciality steel, India will move up the steel value chain and come at par with advanced steel making countries like Korea and Japan.

Specialty steel is value added steel wherein normal finished steel is worked upon by way of coating, plating, heat treatment, etc to convert it into high value added steel which can be used in various strategic applications like Defence, Space, Power, apart from automobile sector, specialized capital goods etc.

The five categories of specialty steel which have been chosen in the PLI Scheme are:

A. Coated/Plated Steel Products
B. High Strength/Wear resistant Steel
C. Specialty Rails
D. Alloy Steel Products and Steel wires
E. Electrical Steel

PM TO LAUNCH DIGITAL PAYMENT SOLUTION E-RUPI

- Prime Minister Shri Narendra Modi will launch e-RUPI, a person and purpose specific digital payment solution on 2nd August 2021.
- Prime Minister has always championed digital initiatives. Over the years, several programmes have been launched to ensure that the benefits reach its intended beneficiaries in a targeted and leak-proof manner, with limited touch points between the government and the beneficiary. The concept of electronic voucher takes forward this vision of Good Governance.

- e-RUPI is a cashless and contactless instrument for digital payment. It is a QR code or SMS string-based e-Voucher, which is delivered to the mobile of the beneficiaries. The users of this seamless one-time payment mechanism will be able to redeem the voucher without a card, digital payments app or internet banking access, at the service provider.
- It has been developed by National Payments Corporation of India on its UPI platform, in collaboration with the Department of Financial Services, Ministry of Health & Family Welfare and National Health Authority.
- e-RUPI connects the sponsors of the services with the beneficiaries and service providers in a digital manner without any physical interface. It also ensures that the payment to the service provider is made only after the transaction is completed.
- Being pre-paid in nature, it assures timely payment to the service provider without involvement of any intermediary.

2,25,153 GPS HAVE ADOPTED E-GRAMSWARAJ

- The Government has been implementing eGramSwaraj under e-Panchayat Mission Mode Project, as a part of Digital India Program, in the country to revamp the functioning of Panchayats.
- eGramSwaraj addresses various aspects of Panchayat functioning viz. planning, accounting, budgeting including online payments through eGramSwaraj-PFMS Interface for services delivered.
- As on date, 2,53,716 Gram Panchayat Development Plans for FY 2021-22 have been prepared. 2,25,153 GPs have adopted eGramSwaraj for the purpose of accounting in the current year 2021-22.
- Further, 2,24,671 Panchayati Raj Institutions have onboarded eGramSwaraj-PFMS Interface for carrying out online transactions. During 2020-21, 1,54,091 Gram Panchayats have done online payments worth cumulative of Rs. 48,299 crores (including all the onboarded schemes) through eGramSwaraj- PFMS Interface.

PMFME

- The Central Government, in partnership with the State Governments, has launched "PM Formalisation of Micro food processing Enterprises (PMFME) Scheme" for providing financial, technical and business support for upgradation of micro food processing enterprises in the country.
- The scheme is operational for a period of five years from 2020-21 to 2024-25 with an outlay of Rs 10,000 Crore.Support to upgrade existing units or setting up of new micro units for individuals is provided through a credit linked grant @ 35% with maximum grant of Rs.10 lakhs. The Scheme also provides support to food processing units of SHGs/ FPOs/ Cooperatives for credit linked subsidy@35%, Seed Capital to SHGs, Incubation Centre, Common Infrastructure, Marketing & Branding and Capacity Building. Two lakh micro food processing units will be directly assisted with credit linked subsidy, capacity building and marketing & branding support.
- In 2020-21, against the Budget of Rs. 398.69 crore, expenditure incurred was Rs.398.43 crore including Letter of Authorizations. For 2021-22, BE is Rs. 500 crore and expenditure of Rs.104.80 crore has been incurred so far.
- For implementing the new centrally sponsored scheme, various preparatory steps have been taken by Central Government and States/ UTs, that included setting up of institutional mechanism, hiring of technical specialists to support the micro enterprises, preparing of training architecture, training of trainers at various levels, involving banks in the scheme for sanction of credit for upgradation of micro unit, identification of micro units for providing support under the scheme and providing hand holding support to them for upgradation and availing of the credit.

COVID BEEP

Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said Government is taking steps to undertake the production of COVID BEEP on a large scale. In a statement laid on the table of the Loksabha in reply to a question, the Minister said that **COVID BEEP is India's first indigenous, cost effective, wireless physiological parameters monitoring system for COVID-19 patients,** developed by ESIC Medical College Hyderabad in collaboration with Electronics Corporation of India Ltd. (ECIL) and Department of Atomic Energy.

IMPLEMENTATION OF PRADHAN MANTRI KHANIJ KSHETRA KALYAN YOJANA

- As per the Information available with Ministry of Mines, District Mineral Foundations (DMFs) have been constituted in 600 districts in 22 States. All these States have incorporated PMKKKY guidelines into their DMF Rules.
- The overall objective of PMKKKY scheme will be (a) 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; (b) to minimize/mitigate the adverse impacts, during and after mining, on the environment, health and socio-economics ofpeople in mining districts; and (c) to ensure long-term sustainable livelihoods for the affected people in mining areas.
- The Mines and Minerals (Development and Regulation) Amendment Act, 2021which came into effect on 28.03.2021 further empowers the Central Government to issue directions to the State Governments with respect to composition and functions of DMF.
- Accordingly Central Government issued order on 23.04.2021 to all the States to include MPs,MLAs and MLCs in the Governing Council in the larger public interest.
- Moreover, Ministry of Mines issued order dated 12.7.2021 to ensure that the fund available in DMF shall not be transferred/spent to any fund or purposes other than as prescribed under MMDR Act.

GENERAL STUDIES-1

JUVENILE JUSTICE (CARE AND PROTECTION OF CHILDREN) AMENDMENT BILL 2021

Parliament Passes Juvenile Justice (Care and Protection of Children) Amendment Bill 2021 (GS 1)
- The Juvenile Justice (Care and Protection of Children) Amendment Bill, 2021, which seeks to amend the Juvenile Justice Act, 2015, was passed in the Rajya Sabha, today. The bill was introduced in the Parliament by the Government in the Budget session this year. It was passed in Lok Sabha on 24.03.2021.
- While introducing the bill, Smt. Smriti Zubin Irani, Union Minister for Women and Child Development stressed upon the necessity for entrusting District Magistrates with the responsibility of care and protection of vulnerable children in light of the prevailing inadequacies in the system.
- She recounted the commitment of the Parliament towards prioritising India's children above all issues.
- The amendments include authorizing District Magistrate including Additional District Magistrate to issue adoption orders under Section 61 of the JJ Act, in order to ensure speedy disposal of cases and enhance accountability.
- The District Magistrates have been further empowered under the Act, to ensure its smooth implementation, as well as garner synergized efforts in favour of children in distress conditions. As per the amended provisions of the Act, any Child Care Institutions shall be registered after considering the recommendations of the District Magistrate.

- The DM shall independently evaluate the functioning of District Child Protection Units, Child Welfare Committees, Juvenile Justice Boards, Specialized Juvenile Police Units, Child care Institutions etc.
- The eligibility parameters for appointment of CWC members have been redefined.
- Criteria for disqualification of the CWC members has also been introduced to ensure that only the persons capable of rendering quality service with requisite competence and integrity are appointed to CWC.
- Presently there are three categories (petty, serious and heinous) defined under the Act which are referred to, while considering the cases of children in conflict with law.
- However, it was observed that some of the offences do not strictly fall under any of these categories.
- It has been decided that offences where the maximum sentence is more than 7 years imprisonment but no minimum sentence has been prescribed or minimum sentence of less than 7 years is provided, shall be treated as serious offences within this Act.
- Several difficulties faced in implementation of various provisions of the Act have also been addressed and Suitable amendments to remove these difficulties arising in the interpretation of various provisions of the Juvenile Justice (Care and Protection of Children) Act, 2015 and to clarify the scope of certain provisions of the Act have also been introduced.

INTENSITY OF SEVERE CYCLONIC STORMS INCREASING IN THE NORTH INDIAN

Intensity of severe cyclonic storms increasing in the North Indian Ocean region due to atmospheric parameters related to global warming (GS 1 Geography)
- The intensity of severe cyclonic storms in the North Indian Ocean region has shown an increasing trend in the past four decades, says a recent study by Indian Scientists.
- The increasing intensity of severe cyclonic storms with major socioeconomic implications was due to atmospheric parameters like higher relative humidity, especially at mid atmospheric level, weak vertical wind shear as well as warm sea surface temperature (SST). This indicates the role of global warming in bringing about this increasing trend.
- The impact of global warming due to climate change and its effect on extreme weather events such as frequency and high-intensity tropical cyclones formed over global ocean basins is a matter of concern.
- High-intensity cyclones have become more frequent in the North Indian Ocean, causing significant risk and vulnerability to the coastal regions.
- Findings from the study indicated that strong mid-level relative humidity (RH), positive low-level relative vorticity (RV), weak vertical wind shear (VWS), warm sea surface temperature (SST), and suppressed outgoing longwave radiation (OLR) are responsible for the increased tropical cyclone activity in the North Indian Ocean.
- It was found that RH, RV, VWS are distinct during pre-monsoon seasons of La Niña, and that favors the genesis of severe cyclone formation over this region.
- Environmental variables such as SST, wind streamlines, Vertical Velocity, and Specific Humidity exhibited comparable contributions towards cyclogenesis during both El Niño and La Niña phases.
- Investigation of the role of additional parameters such as water vapour and zonal Sea Level Pressure gradients revealed the possible linkage of La Niña years on increased severity of tropical cyclones.
- The study reported an increased amount of water vapour content in the troposphere, and during the past 38 years at 1.93 times as compared to the base year 1979. During the past two decades (2000-2020), the La Niña years experienced almost double the number of intense cyclones compared to the El Niño years.
- Besides, during La Niña years, the positional shifts in average cyclogenesis of intense cyclones in Bay of Bengal are analogous with the observations for the western North Pacific Ocean basin.
- An increasing trend in the climatological distribution of water vapour content was also seen during these years, with peaks localized over the Andaman Sea and North China Sea regions in conjunction with the increased frequency of severe cyclones.

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ROAD TO DEMOGRAPHIC DISTRESS

GS1: Issues related to the Population Growth

Context:

Here we talk about the impact of the Draft UP Population bill 2021.

What's Happening?

- Recently the UP Law Commission released the draft UP Population (Control, Stabilization & Welfare) Bill 2021 & also UP state govt unveiled a new population policy.
  - The overall objective of the proposed law is the welfare of the people of the state by promoting the two-child norm.
- Similarly, Assam has embarked new Population policy that is meant to help the development of the minority community in Assam.
- All population control laws including UPs start with a noble objective before it starts listing the incentive & disincentives.
  - However, for a long time in India, the carrot and stick approach to population control has been in vogue.

Need for Population Control laws:

- Since 1968, the idea of a population explosion has been something many policy-makers have been afraid of.
- Many expert's predictions of the 1960s about the huge impacts of population explosion on India has failed because the success of the Green Revolution made India self-sufficient in food grains & prevented famines.
  - However, the fear of overpopulation was primarily due to poverty & its associated impacts.
- The exploding population notion is deeply ingrained in society & the idea of restricting couples from having more children keeps cropping up as a policy solution.
  - It seems logical that the population will stop growing if all couples have fewer children.
- In India, the Successive NFHS rounds indicated that family size has declined considerably across the states even in UP.
  - However, the population is still growing despite a decline in the fertility rate.
  - The reason for it unlike in the past, population growth is not due to couples having more children but because India has many more young couples today.

Counters to Population Control Bills:

- The argument that controlling population will increase the natural resource base is also faulty because:
  - It is more important to review consumption pattern because rich consume more natural resources & contributes more GHGs emissions than the poor.
  - While these control laws aim to target the poor.
- The draft bill that aims to regulate the whole ambit of govt benefits through the two-child norm have made two miscalculations in implementing the law.
  - Primarily, the draft proposes to use sterilization operations, tubectomy, or vasectomy.
    - With an over-emphasis on sterilization certificates as the only way to ensure access to the govt benefits, it will lead to people having children in quick succession.
    - It ultimately results in UP facing the contradiction of low fertility & high birth rates & an overall higher population in the short run.
  - The discrimination of age where to qualify as the third child, it will have to be born one year after the notification of the law.
    - Where all those couples with 3 or more children who have completed their reproductive lives will not fall under the ambit of the law.
    - The law specifically discriminates & targets the youth.

Way-Ahead:
UP have a huge young population & a poor population. The draft law that potentially targets both sections from excluding them in availing govt initiatives will not only be unnecessary & harmful but can potentially lead to political & demographic disaster.

CONJUGAL RIGHTS BEFORE SC

GS1: Issues related to Women
Context:
Here we talk about the Conjugal rights under Hindu Personal Law.
What's Happening?
- The SC in the coming days is expected to hear a fresh challenge to the provision allowing restitution of conjugal rights under Hindu Personal Laws.

What are conjugal rights?
- Conjugal rights are rights created by a marriage that is rights of the one spouse to the society of other spouses, which recognizes both in personal law dealing with marriage, divorce, etc. & in criminal law requiring payment of maintenance.
- Section 9 of the Hindu Marriage Act recognizes the right of consortium & protects it by allowing a spouse to move the court to enforce the right.
    - o The restitution of Conjugal rights which has colonial origins has been codified under Hindu Personal Law.

The provision under Challenge: Section 9
- Section 9 under the Hindu Marriage Act 1955 deals with the restitution of conjugal rights:
    - o When either of the spouses without any reasonable excuse withdrawn from the society of the other when the aggravated person approaches court for restitution of conjugal rights & if the court found no legal ground on the application of conjugal rights then the court may decree restitution of conjugal rights

Why Section 9 is being challenged:
- The law is now challenged on the main ground that is violative of the fundamental rights to privacy.
    - o The plea filed by the petitioners argues that court-mandated restitution of conjugal rights amounted to a coercive act of the state which violates one's sexual & decisional autonomy & the right to privacy & dignity.
    - o Even though the restitution of conjugal rights provision has been upheld by the SC, but many experts have pointed out that the Landmark Puttaswamy privacy case set the stage for potential challenges to several laws including restitution of conjugal rights.
    - o Although the law is ex-facie gender-neutral since it allows both spouses to seek restitution of conjugal rights, the provision disproportionately affects women.

The Past Courts Judgments in this regard:
- **In 1983, in T Sareetha v T Venkatasubbaiah case** the AP HC for the first time struck down the provision & declared it null & void on the grounds :
    - o A matter so intimately concerned to the spouses is better left alone without state interference.
    - o It also recognized that compelling sexual cohabitation would be of grave consequences for women.
- However, in the same year, **Delhi HC in the Harvinder Kaur v Harmander Singh Chaudhry case** took a diametrically opposite view of the law & upheld the provision because:
    - o It is in the interests of the State that family life should be maintained & the homes should not be broken up by the dissolution of parents' marriage.
- In 1984, the SC upheld Delhi HC view & overruled the AP HC verdict.

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o In the **Saroj Rani v Sudarshan Kumar Chadha 1984 case**, the SC had upheld Section 9 of the Hindu Marriage Act because the provision serves a social purpose as an aid to the prevention of breakup of marriage.

Way-Ahead:

The SC judgment in the coming days would be a landmark & has a power to change the course of the direction of the marriage as a institution.

CHALLENGING NEGATIVE SOCIAL NORMS

Challenging negative social norms (GS 1 Society)

Context –
- India **has reached a demographic tipping point** that will last for the next two to three decades.
- Half of India's population is under the age of 29, implying that a bigger number of young people will drive India's economic growth and social improvement during this decade.
- In looking at **how to improve sexual and reproductive health and rights** (SRHR) in populations, the Guttmacher–Lancet Commission created a comprehensive definition of SRHR that incorporates a broader variety of challenges.
- These include SRHR as well **as issues such as violence, stigma, and respect for bodily autonomy, all of which have a significant impact on people's psychological, emotional, and social well-being.**

Developmental Goals –
- **India's population growth is now stabilising.** The Total Fertility Rate (TFR), presently at 2.2 children, will soon reach replacement level (2.1).
- One of the most difficult issues India faces in meeting the requirements of the next generation is **changing social standards**.
- For example, India's **population stabilisation policy must be altered to account for women's and girls' rights.**
- **Women must have a bigger say in deciding the size of their family**. The COVID-19 epidemic has exposed flaws in healthcare systems, resulting in significant gaps and obstacles in the provision of sexual and reproductive health information and services (SRH).
- Even before the epidemic, widespread **unfavourable social norms, health-care system hurdles, and gender disparities hampered universal access to SRHR**, as envisioned in the 1994 International Conference on Population and Development's Programme of Action (ICPD).
- The United Nations Population Fund (UNFPA) India recognises that, despite the fact that health systems are obviously pressured, **the provision of essential services cannot be delayed.**
- **India has made significant progress in terms of SRH indicators during the last two decades**. Improved rates of institutional delivery and a decrease in the maternal mortality ratio (MMR) from 327 per 100,000 live births in 1999-2001 to 113 per 100,000 live births in 2016-18 have resulted from progressive maternal health initiatives.
- The present government has made some efforts to disrupt old social conventions, with programmes such as **Beti Bachao Beti Padhao** (BBBP), and has **emphasised that investments in social issues must go hand in hand with economic success**.
- The UNFPA is eager to build on India's successes and strengthen South-South cooperation.

Challenges –
- Every year, two million adolescent females (15-19 years) become pregnant, with almost **63 percent of these pregnancies being unplanned or unexpected** (Guttmacher Institute, 2021).
- This indicates that this age **group lacks proper information and access to SRH services**.
- Girls are still being **married at an early age**.
- **Gender-based violence and socially sanctioned harmful practises** affect far too many girls and

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women.

- All of these behaviours stem from social conventions, attitudes, and practises **that deny women bodily autonomy**.
- India is the third-worst performer in South Asia in The World Economic Forum's (WEF) Global Gender Gap Report (2021).

Conclusion –

- As a result, India must carefully choose its priorities. Our research suggests **that putting youth, women, and girls at the centre of policymaking and service delivery could have a favourable impact.**
- If young people, particularly adolescent girls, have access to **education, relevant skills, information, and services to make healthy choices**, including those related to SRH, are empowered to exercise their rights, and have access to job opportunities, India will be well on its way to achieving its objectives.
- **Societies are healthier and more productive when women can make educated decisions about their sexual and reproductive health** and have access to resources that support those decisions.
- Controlling one's body benefits a woman not just in terms of autonomy, but also in terms of health, education, money, and safety. Her family, as well as she, has a better chance of thriving.

THE ASSAM-MIZORAM DISPUTE

GS1: Regionalism

Context:
Here we about the violent clashes between Assam & Mizoram.

What's Happening?
- Recently, a boundary dispute between Assam & Mizoram has escalated to unprecedented levels as firing on the inter-state boundary left 6 Assam policemen dead & several injured.
- This dispute dates back nearly 150 years, though there are several showdowns of inter-state disputes among various Northeast states but rarely dispute between both these states culminated to violence, until now.

Vairengte in Mizoram and Lailapur in Assam have seen violence in recent months. Mamit and Mizoram capital Aizawl lie south of Kolasib.

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Looking Deeper into the Dispute:
The demarcated boundary & Mizos objection:
- Mizoram borders Assam's Barak Valley that runs 165km, which has a history dating back to when Mizoram was a district of Assam.
- **The Boundary demarcations in 1875 & 1933 are at the heart of the dispute.**
    - o **1875 Demarcation:**
        - It is derived from the Bengal Eastern Frontier Regulation (BEFR) Act 1873 that differentiated Lushai Hills from Assam's Barak valley Cachar plains.
        - It was done in consultation with Mizo chiefs & became as basis for the Inner Line Reserve Forest demarcation.
    - o **The 1933 Demarcation:**
        - That marks a boundary between Lushai Hills & Manipur, beginning at the tri-junction of Lushai Hills, Cachar District & Manipur.
        - However, Mizos do not accept this demarcation on the ground that they were not consulted.
- **Mizo's View:**
    - o According to Mizo leaders, the only acceptable boundary is the Inner Line of 1875 on the southern frontier of Cachar, as per BEFR Act.
    - o The present arbitrarily made the boundary of 1933 was done without the consent & approval of the Mizoram people.
        - The 1933 demarcation is to the Mizos no more than an imaginary line pushed farther & farther south of the Inner Line of 1875 that deprived the Mizos for the convenience of outside settlers.

Intensification of Simmering Dispute:
- Since Mizoram became a UT in 1972, & then State in the 1980s, the dispute has been simmering.
    - o Though The two states signed a status quo agreement to maintain no-man's land set up in the boundaries, the frequent transgressions have happened over decades.
- While Assam sees its claimed boundary as transgressed, Mizoram cites unilateral moves by Assam inside Mizoram territory.
- **Events that lead to Violence:**
    - o A 200 member contingent of Assam Police visited the disputed land.
        - While Assam has reasoned that it went to resolve matters, Mizoram has claimed that Assam forced its way in overrunning the security posts.
    - o During the forcible visit of Assam Police & spillover of the past has led to violence from both sides.

Further-Ahead:
- The Union Home Ministry intervention led to the retraction of both side's forces.
- Mizoram wants that the inter-state border issue with Assam to be resolved in a peace-understanding atmosphere.
    - o It has called upon the Assam to create a congenial environment for peaceful resolution of the dispute.
- At the same time, Assam wants Mizoram to restrain its people & police personnel indulging in wanton violence.

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GENERAL STUDIES-2

CRAFTING A UNIQUE PARTNERSHIP WITH AFRICA

Crafting a unique partnership with Africa (GS 2 IR)

Context –

- Foreign Minister S Jaishankar recently visited Kenya. **New Delhi's engagement with Africa has taken several forms, including projects funded by Indian lines of credit, capacity-building efforts, and cross-sector cooperation.**
- In the agricultural sector, India's cooperation with African countries is growing. **Agriculture is vital to Africa's economy**, with 65 percent of the world's uncultivated arable land, employing over 60% of the workforce, and contributing for about 20% of Sub-Saharan Africa's GDP.
- As this relationship transitions into the **post-pandemic era, it is critical to prioritise and redirect resources into strengthening agricultural partnerships**.
- This is critical given its untapped potential, importance to global food security, financial prospects, and the need to provide viable alternatives to Chinese stakeholders' growing involvement in the industry.

Overview of China's Role –

- China is one of **Africa's most important trading partners**. It is also Africa's most important creditor.
- Its businesses dominate the region's **infrastructure market**, and they're now branching out into agri-infrastructure.
- While access to Africa's natural resources, undeveloped markets, and backing for the "One China Policy" are the key motivations of Chinese engagement with the continent, there are also other reasons at work.
- **Low-cost, labour-intensive manufacturing units are shifting from China to African industrial parks** and economic zones developed by the Chinese.
- Engineers from China who were interviewed stressed the importance of their activities in Africa in gaining worldwide experience in management, risk, and capital investments.
- Chinese tech corporations are constructing vital **telecommunications infrastructure**, and venture capital funds are investing in African fintech companies.
- Chinese companies are leveraging agri-tech in Zambia to fight conventional issues, such as using drone technology to combat the fall armyworm infestation.
- Over 20 Agricultural Technology Demonstration Centers (ATDCS) have been established across the continent, where Chinese agronomists are working on generating new crop types and raising crop yields.

India's China challenge in Africa –

- The exponential rise of China-Africa economic links, as well as Beijing's emergence as a viable alternative to conventional western powers, **has prompted a shift in opinions among many groups.**
- **Governments and heads of state are recalibrating their strategies, media outlets are allocating more resources to on-the-ground reporting**, and artists such as Kenya's Michael Soi are employing satirical paintings to spark a conversation.
- Simultaneously, with a rising, insular diaspora, unequal trade, impending debt, competition with local firms, and a negative reputation followed by stronger political and economical interlinkages, **Africa-China ties are getting more complex**.
- The Chinese and African experts in ATDCs appear to work in silos. There appears to be **a disconnect between talents transferred in China and the realities in Africa on occasion.**
- In some circumstances, **the technology taught in China is not available locally**, and in others,

due to a lack of supporting resources, it is impossible to put lessons learned into practise.

- **Socio-cultural tensions** are exacerbated by larger commercial farms run by Mandarin-speaking managers and the presence of small-scale Chinese farmers in local markets.

Takeaways for India –

- Institutional and individual capacity-building initiatives such as **the India-Africa Institute of Agriculture and Rural Development in Malawi, soft loan extensions, machinery supply, farmland acquisition, and the presence of Indian entrepreneurs in the African agricultural ecosystem are all examples of India-Africa agricultural cooperation.**
- Over 6,00,000 hectares of land in Africa have been purchased by Indian farmers for commercial cultivation.
- Another kind of collaboration in agriculture is provided **by subnational entities**. Consider the Kerala government's attempt to meet its high demand for raw cashew nuts, which totals 8 lakh tonnes per year, with imports from Africa to supplement its existing production capacity of 0.83 lakh tonnes.
- Incentivizing Indian enterprises to tap into African agribusiness value chains, as well as **connecting Indian technology firms and startups with African partners**, has promise.
- The African agri-tech sector has seen the transformative potential of innovative and disruptive technologies, with the continent's startup ecosystem growing by 110 percent between 2016 and 2018.

Conclusion –

- For India to be successful**, a detailed impact assessment of existing agricultural capacity-building projects is required.**
- While India's Africa strategy is self-contained, it is **crucial to be aware of China's growing presence in the region**. If Beijing's strategy succeeds here, it might serve as a model for the rest of the world.
- It's worth noting, though, that notable African voices have stated that their own agency is frequently disregarded in global discussions on the matter.
- In this regard, **India has made a persistent effort to emphasise the development partnership's alignment with African priorities.**

As a result, it is critical that we work together to create a distinctive modern cooperation with Africa.

FRESH STIRRINGS ON FEDERALISM AS A NEW POLITICS

Fresh stirrings on federalism as a new politics (GS 2 Federalism)

Context –

- The **recent issue of vaccination drive, GST returns, Controversy in Lakshadweep** heated debate of federalism in India once again.

Federalism and Politics –

- In India, **federalism has always had political significance, although it has rarely been an axis of political mobilisation,** with the exception of the States Reorganisation Act.
- Even in the days of coalition politics, when state politics played a role in national electoral outcomes, this was true.
- **Despite nearly two decades of coalition governments, fiscal and administrative centralization has continued**.
- Ironically, rather than deepening federalism**, electoral politics has posed enormous obstacles to reaching a political consensus for true federalism.**

Federalism and Nationalism –

- Following 2014, the BJP has couched its dissatisfaction with federalism in the language of development and nationalism, both of which have broad electoral appeal.
- India must become **"one nation, one market," "one nation, one ration card," and "one nation,**

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one grid" in order to expedite progress.
- Federalism, as a notion important for managing multiple political situations and identity demands, risks being **conflated with regionalism and a limited parochialism that is anti-development and anti-national in this environment**.
- A deepening federalism politics would have to overcome nationalist rhetoric that sets federalism against nationalism and progress.
- This is a tall order, especially given that **most regional parties have failed to preserve decentralisation principles in their own area.**
- Federalist politics has remained conditional rather than principled.
- Federal principles have been twisted in all kinds of ways to co-produce a political culture of flexible federalism, as Pratap Bhanu Mehta has pointed out over the decades — **"federalism for me, but not for thee."**
- In this version, federalism is reduced to a game of political chess and is confined to a partisan squabble rather than a genuine desire for accommodation on the side of the regions.

Diversity between States –
- Since liberalisation, economic growth paths have been marked by increasing regional divergence.
- Southern (and western) India has outpaced most of northern and eastern India across all key indices, resulting in a bigger divergence rather than the expected convergence with growth.
- The arguments around the **15th Finance Commission (FC)**, when the Government of India compelled the commission **to utilise the 2011 Census rather than the longstanding practise of utilising the 1971** Census to estimate revenue allocation between States, revealed hints of these growing tensions.
- At one level, the BJP's ideological objective of cultural homogenization risks causing **new forms of cultural alienation and regional tensions**, similar to the Citizenship (Amendment) Act protests in Assam.
- The **creation of new types of regional sub-nationalism** is a very real prospect, as evidenced by glimpses of it during the last Assembly elections, particularly in West Bengal.

Financial Federalism –
- Weak fiscal management has pushed the Union government to the brink of a **"hidden fiscal disaster**," according to economist Rathin Roy.
- **The Union's answer has been to increase cesses** on states in order to wring more revenue from them.
- Its insistence on offering states GST compensation in the form of loans (after lengthy delays) and increasing state participation in government initiatives.
- This has only been exacerbated by the pandemic-induced economic crisis.

Way Forward –
- As Suhas Palshikar has observed**, regional identity politics is inherently isolationist.**
- This risk will have to be overcome if a collective political action for federalism based on identity issues is to succeed.
- **Richer states must find a means to share the economic burden with poorer states**.
- If states are to negotiate existing tensions and win the collective war with the Union, they will need to display political maturity and make essential sacrifices.
- **An inter-State platform** that brings States together on a regular basis to discuss fiscal federalism issues could be a good place to start developing trust and a shared agenda.
- **The seeds of this were sown during the 15th Finance Commission and GST debates.**
- Finally, beyond ideas, a reinvigorated federalism politics is a political need. Without a glue that holds it together, no coalition has ever succeeded in the long run.
- **Forming a political agreement on federalism could be the glue that holds everything together.**

INDIA MUST DIRECTLY ENGAGE WITH TALIBAN 2.0

India must directly engage with Taliban 2.0 (GS 2 IR)

Context –
- With the US military withdrawing from Afghanistan, New Delhi has decided to reduce its civilian presence in the war-torn country, fearing a full-fledged civil war.
- India has closed its consulate in Kandahar for the time being and evacuated its diplomats and Indo-Tibetan Border Police (ITBP) personnel stationed there.
- This comes after the Indian consulates in Jalalabad and Herat decided to close their doors.

The Taliban's sway
- These developments show two things: New Delhi's decision to partially "withdraw" from Afghanistan demonstrates that relying solely on Kabul's government was a huge mistake, and that New Delhi recognises the threat the Taliban poses to Indian assets and presence in Afghanistan.
- In any case, India's Afghan policy is at a fork in the road; to protect its civilian assets and remain relevant in the unfolding "great game" in and around Afghanistan, New Delhi must fundamentally rethink its approach.
- Before it is too late, India must begin "open talks" with the Taliban in its own national interest.
- The days of hesitant, half-embarrassed backchannel discussions are gone.
- The talk-to-the-Taliban option is the best of the many less-than-ideal options available to India, with over a third of Afghanistan's more than 400 districts under Taliban control.

India's Changed Approach –
- Over the last few years, New Delhi has gradually abandoned its puritanical policy toward the Taliban.
- When the Taliban, members of the Afghan High Peace Council, and other countries from the region attended a conference in Moscow in late 2018, India sent a "non-official delegation" of two retired diplomats.
- Following that, India's External Affairs Minister S. Jaishankar attended the inaugural session of intra-Afghan negotiations in Doha in September of last year.
- Last month, reports surfaced that India had begun contacting the Taliban, which the Ministry of External Affairs indirectly confirmed when it stated, "we are in touch with various stakeholders in pursuit of our long-term commitment towards development and reconstruction in Afghanistan."
- However, in a rapidly shifting Afghan geopolitical landscape, such half-hearted, half-embarrassed, ideologically hesitant meandering outreach to the Taliban is hardly sufficient to safeguard Indian interests.
- It is no longer taboo to engage in open dialogue with the Taliban; it is a strategic necessity.
- As a result, our communication must now be direct and unequivocal.

Rationale for indirect talks
- There are at least five possible explanations for New Delhi's desire to keep the Taliban engagement low-key and behind closed doors.
- For one thing, if New Delhi chooses to directly engage the Taliban, it may make Afghanistan President Ashraf Ghani, India's long-time ally, uneasy.
- This could lead him to seek national security and personal political survival from China and the Shanghai Cooperation Organization (SCO).
- Two, decision-makers in New Delhi face the conundrum of deciding who to talk to within the Taliban, which is far from a monolith.
- New Delhi may not have much contact with members of the Quetta Shura or Afghan fighters on the ground.
- As a result, the Taliban negotiators in Doha or leaders like Abdul Salam Zaeef, whose beef with Pakistan is well-known, may be the only option.
- Third, given the international condemnation that the Taliban faced in its previous incarnation and the

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lack of evidence that the group has changed, New Delhi may not want to court the Taliban so soon.
- More importantly, there is a lack of clarity about what the The Taliban's true intentions for the future and what they would do if they were to gain power in Kabul are unknown.
- Finally, it is not unreasonable to consider the possibility of Pakistan retaliating against India in Kashmir if India strengthens its ties with the Taliban.
- Whether we like it or not, the Taliban will be a part of Afghanistan's political landscape in some form or another, and unlike in 1996, a large number of international players will recognize/negotiate/do business with the Taliban.
- As a result, basic statecraft dictates that we take that path as well. Making peace with the inevitable isn't always a bad thing, especially when better options aren't available.

The Pakistan Factor
- For recognition and legitimacy, the Taliban are seeking regional and global partners, particularly in the region.
- As a result, the less proactive India is with the Taliban, the stronger Pakistan-Taliban ties will become.
- To put it another way, relying solely on Pakistan's deep state to deal with the Taliban is an inherently bad idea.
- Even though the Taliban is widely thought to be supported by Pakistan, it would be a mistake to believe that once in power in Kabul, the Taliban will remain Pakistan's servile followers.
- A worldly Taliban 2.0 would develop its own agency and sovereign claims, possibly calling into question the legitimacy of the Durand Line separating Pakistan and Afghanistan, something Pakistan has always been concerned about.
- The Taliban may wish to hedge their bets on how far Pakistan should be listened to. Now is the time for New Delhi to engage the Taliban.
- If India wants to ensure the security of its civilian assets in Afghanistan, it must court all parties, including the Taliban.
- It makes no strategic or economic sense to leave Afghanistan after spending more than $3 billion, as the government appears to be willing to do.
- India should have approached the Taliban years ago, before the Taliban had as many suitors as they do now.
- So, if India does not take a proactive role in Afghanistan, at least now, when it is late, Russia, Iran, Pakistan, and China will shape Afghanistan's political and geopolitical destiny, which will undoubtedly harm Indian interests in the country.

Open the Congested Border –
- The key to bringing India's continental grand strategy back on track is to open up the congested north-western frontier, which New Delhi has already begun.
- Backchannel talks with Pakistan and a resulting ceasefire on the Line of Control, political dialogue with the mainstream Kashmiri leadership, and secret talks with the Taliban all point to New Delhi's congested north-western frontier being opened up.
- The Taliban's proactive engagement will give this effort more strategic heft.
- With the exception of a strategic foray into the Indo-Pacific, India is currently strategically boxed in the region and needs to break free.

Conclusion –
- Given its bloody past, the Taliban should not have been allowed to govern Afghanistan in an ideal world, but this is neither an ideal situation nor a situation in which the Taliban can be stopped from gaining power in Kabul.
- As a result, New Delhi must exorcise the demons of IC-814 (the December 1999 hijacking) from its collective memory and engage with Taliban 2.0 — no need to be secretive or embarrassed about it.
- Nonetheless, open engagement with the Taliban does not imply tolerating or accepting the Taliban's heinous crimes.

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INDIA'S AFGHAN INVESTMENT

- As the Taliban push ahead with military offensives across Afghanistan, preparing to take over after the exit of US and NATO forces, India faces a situation in which it may have no role to play in that country, and in the worst case scenario, not even a diplomatic presence.
- That would be a reversal of nearly 20 years of rebuilding a relationship that goes back centuries.
- Afghanistan is vital to India's strategic interests in the region. It is also perhaps the only SAARC nation whose people have much affection for India.
- India built vital roads, dams, electricity transmission lines and substations, schools and hospitals, etc. India's development assistance is now estimated to be worth well over $3 billion.
- And unlike in other countries where India's infrastructure projects have barely got off the ground or are mired in the host nation's politics, it has delivered in Afghanistan.
- Speaking at the Afghanistan Conference in Geneva in November 2020, External Affairs Minister S Jaishankar said "no part of Afghanistan today is untouched by the 400-plus projects that India has undertaken in all 34 of Afghanistan's provinces". The fate of these projects is now up in the air.

SALMA DAM:
- Already, there has been fighting in the area where one of India's high-visibility projects is located — the 42MW Salma Dam in Herat province.
- The hydropower and irrigation project, completed against many odds and inaugurated in 2016, is known as the Afghan-India Friendship Dam.
- In the past few weeks, the Taliban have mounted attacks in nearby places, killing several security personnel. The Taliban claim the area around the dam is now under their control.

ZARANJ-DELARAM HIGHWAY:
- The other high-profile project was the 218-km Zaranj-Delaram highway built by the Border Roads Organisation. Zaranj is located close to Afghanistan's border with Iran.
- The $150-million highway goes along the Khash Rud river to Delaram to the northeast of Zaranj, where it connects to a ring road that links Kandahar in the south, Ghazni and Kabul in the east, Mazar-i-Sharif in the north, and Herat in the west.

PARLIAMENT:
- The Afghan Parliament in Kabul was built by India at $90 million.
- It was opened in 2015; Prime Minister Narendra Modi inaugurated the building.
- In an expansive speech about India-Afghanistan friendship — he quoted Rumi, who was born in Balkh, Afghanistan, and the immortal Yaari hai imaan mera yaar meri zindagi from Zanjeer, featuring Pran in the role of Sher Khan, the Pathan — Modi described the building as India's tribute to democracy in Afghanistan.
- A block in the building is named after former PM AB Vajpayee.

STOR PALACE:
- In 2016, Afghan President Ashraf Ghani and Prime Minister Modi inaugurated the restored Stor Palace in Kabul, originally built in the late 19th century, and which was the setting for the 1919 Rawalpindi Agreement by which Afghanistan became an independent country.
- The building housed the offices of the Afghan foreign minister and the ministry until 1965. In 2009, India, Afghanistan, and the Aga Khan Development Network signed a tripartite agreement for its restoration.
- The Aga Khan Trust for Culture completed the project between 2013 and 2016.

POWER INFRA:
- Other Indian projects in Afghanistan include the rebuilding of power infrastructure such as the 220kV DC transmission line from Pul-e-Khumri, capital of Baghlan province to the north of Kabul, to beef up electricity supply to the capital.
- Indian contractors and workers also restored telecommunications infrastructure in many provinces.

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HEALTH INFRA:

- India has reconstructed a children's hospital it had helped build in Kabul in 1972 —named Indira Gandhi Institute for Child Health in 1985 — that was in a shambles after the war.
- 'Indian Medical Missions' have held free consultation camps in several areas.
- Thousands who lost their limbs after stepping on mines left over from the war have been fitted with the Jaipur Foot.
- India has also built clinics in the border provinces of Badakhshan, Balkh, Kandahar, Khost, Kunar, Nangarhar, Nimruz, Nooristan, Paktia and Paktika.

TRANSPORTATION:

- According to the MEA, India gifted 400 buses and 200 mini-buses for urban transportation, 105 utility vehicles for municipalities, 285 military vehicles for the Afghan National Army, and 10 ambulances for public hospitals in five cities.
- It also gave three Air India aircraft to Ariana, the Afghan national carrier, when it was restarting operations.

OTHER PROJECTS:

- India has contributed desks and benches for schools, and built solar panels in remote villages, and Sulabh toilet blocks in Kabul.
- New Delhi has also played a role in building capacity, with vocational training institutes, scholarships to Afghan students, mentoring programmes in the civil service, and training for doctors and others.

ONGOING PROJECTS:

- At the Geneva Conference in November, Jaishankar announced that India had concluded with Afghanistan an agreement for the construction of the Shatoot Dam in Kabul district, which would provide safe drinking water to 2 million residents.
- He also announced the start of some 100 community development projects worth $80 million.

LESSONS FROM INDIA'S FOOD SECURITY RESPONSE

Lessons from India's food security response (GS 2 Schemes for Vulnerable sections)

Context –

- With the second wave of COVID-19 infections waning in India, it's more important than ever to focus on the pandemic's disruptive impact on the poor and marginalized's food security and livelihoods.
- The deadly virus has been circulating for two years, with no clear indication of how or when it will be eradicated. In terms of a hindsight analysis of policies and interventions that promise food and livelihood security, as well as the strengthening of health support, for millions of people facing the pandemic's wrath, we have enough.
- While the full extent of the pandemic's impact has yet to be determined, a multi-agency report titled "The State of Food Security and Nutrition in the World" estimates that around a tenth of the world's population – up to 81.1 crore people – was undernourished last year.

Pivoting safety nets

- The Union government took a number of steps, including allowing states to increase their allocations for six months at a time in anticipation of a spike in demand for food grains through the public distribution system.
- During the lockdown, there was an unprecedented increase in the uptake of subsidised and free food grains, according to data.
- For millions of people affected by the pandemic, the public distribution system became a lifeline.

Increasing Entitlements

- The Government of India was able to increase entitlements given to National Food Safety Act (NFSA) beneficiaries in 2020 thanks to a dynamic analysis of the food security scenario and feedback from various stakeholders.

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- For example, under the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), 81.3 crore NFSA beneficiaries received an extra 5 kg of foodgrains per person per month and 1 kg of pulses per family per month for eight months, from April to November 2020, at no cost.
- Approximately 89 percent of the allocated foodgrains were distributed to beneficiaries during the third phase of PMGKAY.
- In May, the distribution reached 94 percent. The PMGKAY outlay, which was implemented for eight months last year and seven months this year, will cost a total of 2,28,000 crore over 15 months.

Addressing Challenge –
- The COVID-19 pandemic has once again highlighted the importance of addressing the issues of food entitlement access and portability.
- In times like these, it's critical to leave no one behind, and it's critical for states to find solutions so that no one goes hungry.
- At the heart of 'Leave No One Behind,' ensuring that food assistance focuses on at-risk groups such as people with disabilities, the elderly, single women-led households, transgender people, HIV-affected people, displaced people, refugees, and orphan children.

Way Forward –
- First, the One Nation One Ration Card (ONORC) scheme, which allows beneficiaries to access their food entitlements from anywhere in the country, is a game-changing innovation.
- This is especially important in a country like India, where the population is highly mobile and migration between states is common.
- Second, climate change will continue to have an impact on agriculture and food security, with potentially disastrous consequences for the poor and vulnerable.
- Through the introduction of newer crop varieties, efficient irrigation systems, and crop promotion according to agro-climate zones, massive efforts are needed to build resilient agriculture that is adaptable to changing weather and needs.
- Finally, one-third of all food produced is thrown away. Efforts to prevent losses should be stepped up.
- Food production waste accounts for about 10% of global energy consumption, and annual greenhouse gas emissions from food losses and waste total around 3.5 gigatonnes of CO_2 equivalent.
- Finally, the upcoming UN Food Systems Summit, the Nutrition for Growth Summit, and the COP26 on climate change provide a unique opportunity to advance food security and nutrition by transforming food systems in 2021.
- The outcomes of these events will almost certainly shape the actions of the UN Decade of Action on Nutrition's second half.
- India can play a key role in this transformation by sharing its experiences and solutions for developing resilient, equitable, and food-secure thought processes and models.

INDIA NEEDS A RENEWED HEALTH-CARE SYSTEM

India needs a renewed health-care system (GS 2 Health)

Context –
- Given the lessons learned from the COVID-19 epidemic, how should citizens expect the government to improve its public health performance?
- If the Union Health Ministry implements the following health-system lessons, it will not only improve COVID-19 response, but will also have far-reaching positive consequences far beyond the COVID-19 issue.

Comparing Maharashtra and Kerala –
- Their per capita gross state domestic product (GSDP), which reflects each state's overall economic status, is comparable.

- However, their COVID-19 case fatality rates are vastly different, with Kerala's at 0.48 percent and Maharashtra's at 2.04 percent, implying that a COVID-19 patient in Maharashtra is over four times more likely to die than one in Kerala.
- Huge inequalities in the effectiveness of public health systems are likely to be a key cause of such crucial divergence.
- When compared to Maharashtra, Kerala has two and a half times more government doctors and an equal number of government hospital beds per capita, while contributing over one and a half times more funds to public health each year.
- In Kerala, robust government health-care facilities have resulted in more effective outreach, timely testing, early case diagnosis, and more reasonable COVID treatment, all of which have resulted in lower death rates.
- Evidence from the COVID-19 pandemic sends a clear message: ignoring public health systems can result in large-scale, preventable deaths; thus, public health services must be updated quickly and extensively as a top priority.

Dealing with Public Policy on Health –
- The National Health Mission (NHM) is a larger programme that requires the Health Minister's immediate attention; since 2017-18, Union government allocations for the NHM have decreased in real terms, resulting in insufficient support to States for core activities such as immunisation, and systemic gaps are affecting the delivery of COVID-19 vaccination.
- The National Urban Health Mission (NUHM) is still in a sorry state. The Central funding for the NUHM this year is Rs 1,000 crore, or less than Rs 2 per month each urban Indian.
- This scenario must change, and the Government must allocate 1.6 lakh crore for public health during the current fiscal year, as proposed by the Parliamentary Standing Committee, in order to meet National Health Policy targets.
- This would be a doubling of the current central health budget, allowing for significant improvements in health services in both rural and urban locations across the country.

Regulating Private Sector –
- Massive hospital fees have wreaked havoc on the middle class; COVID-19 treatment can cost anywhere from Rs. 1 lakh to Rs. 3 lakh each week in large private hospitals.
- Despite the drug's lack of efficacy in reducing COVID-19 mortality, the 'Remdesivir panic' was connected to widespread usage of the drug by unlicensed private hospitals.
- Although a number of factors have led to the Mucormycosis outbreak, inappropriate use of steroids in COVID-19 patients, particularly diabetics, appears to be one of them.
- Despite all this, the central government has failed to take the essential steps to promote the Clinical Establishments (Registration and Regulation) Act's implementation (CEA).
- Passed in 2010 and presently applicable to 11 States across India, this Act is not effectively implemented due to a major delay in notification of central minimum standards, and failure to develop the central framework for regulation of rates.

NITI Aayog Suggestions –
- The document titled "Investment Opportunities in India's Healthcare Sector" was just released by the NITI Aayog.
- This encourages more health-care privatisation in a country that already has one of the most privatised health-care systems in the world.
- The report makes no mention of the negative features of unregulated private health care, nor does it highlight the necessity for private hospital regulation.
- Instead, the document hails the COVID-19 outbreak as a golden economic opportunity, claiming that 'in the hospital segment, the growth of private players to Tier 2 and Tier 3 areas, beyond major centres, presents an excellent investment opportunity.'
- Proposals to transfer over public hospitals to private operators, who would presumably administer

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these essential public institutions on a commercial basis under the 'Viability Gap Funding' model, are highly concerning, particularly because formerly free public health services would begin to be charged for.

Conclusion –

- It is vital to restore people's faith in public health systems at this time.
- This would aid in overcoming COVID-19 vaccination apprehension while also bolstering the promotion of healthy behaviours required to combat the present COVID-19 wave and prevent a third.
- This will be accomplished most effectively if the incoming Health Minister acts on three key lessons learned from the COVID-19 pandemic: the need to improve public health systems, regulate private health care, and avoid further privatisation of the health sector.

IN LEH & KARGIL, DIFFERENT REASONS TO OPPOSE LADAKH'S CURRENT STATUS

GS2: Issues related to Federalism

Context:

Here we talk about the issues revolving around new demands that Ladakh leaders have been vocal about.

What's Happening?

- When J&K was bifurcated into two Union Territories in August 2019, Ladakh was seen welcoming the reorganization.
- As it turned out, over the 2 years that statement papered over Ladakh's concerns & the different demands from its two districts, have come to the fore at different times,
  - But the govt appears to be paying more attention to them now, at the same time as its outreach to the J&K leadership.
- A committee under MoS Home Reddy will seek to address these demands from Ladakh.

Leh & Kargil: not alike

- When J&K reorganization announced people of Kargil immediately opposed & leaders of the majority Shia population of Kargil demanded,
  - That the district should remain part of J&K &
  - That special status be restored to safeguard the rights of Kargil people over their land & employment.
- People of Kargil see themselves as a minority in Buddhist majority Ladakh.
- Though Leh supported the reorganization but started opposing it because
  - A UT for Ladakh had been a long-standing demand in Buddhist majority Leh that believed it was marginalized in the larger state of J&K.
    - But Leh leaders are failed to bargain for was the complete loss of legislative powers.
    - Earlier both districts each sent 4 representatives to the J&K legislature.
      - But after the changes, they were down to sole MP with all powers vested in the UT bureaucracy.
    - This led to fear in Ladakh is that alienation of land, loss of identity, culture, language & change in demography, will follow their political disempowerment.

Hill Development Councils:

- Leh & Kargil have separate Autonomous Hill Development Councils set up under the Ladakh Autonomous Hill Development Councils Act 1997.
  - It does not have legislative powers.
  - The councils are elected & have executive powers over the allotment, use & occupation of land vested in them by the Centre.
  - The powers to collect some local taxes.
- But the real powers are now wielded by the UT administration which is even more remote than the erstwhile J&K state govt.

- Last year as the Leh Ladakh AHDC elections were scheduled, the People's Movement for Sixth Schedule group put forth its demand for an autonomous hill council under the Sixth Schedule modeled on the lines of the Bodoland Territorial Council.
  - The Sixth Schedule is a provision of Article 224(a) of the constitution meant for the creation of autonomous tribal regions in Assam, Meghalaya, Mizoram & Tripura.
    - Hill councils under this provision have legislative powers.
  - The centre has promised to Leh political leadership that Sixth Schedule-like protections to the Ladakh.
- However, the Kargil political leadership did not join in the demand for the Sixth Schedule.

Evolving Demands:
- With no progress on Leh's demands for Sixth Schedule protections, the Leh leadership has now upped its demands.
  - They currently demanding UT with an elected Assembly.
- Meanwhile, the Kargil delegation demanded full statehood to Ladakh as well as restoration of special status with Article 35 & 370 of the Constitution.
  - Also demanded the protection of language, culture land & jobs.

Conclusion:
The need is for both Leh & Kargil leaders has to work out a common negotiating front & plan to gain as much as freedom from the Centre.

THE ROLE OF THE COLLEGIUM SYSTEM IN PROTECTING DEMOCRACY

GS2: Issues related to Judiciary

Context:
Here we talk about the role of the collegium system in protecting democracy.

Editorial Insights:
- With the sacrifices of millions of freedom fighters, India became independent & became a largest democratic nation in the world.
- There are many constitutional institutions designed to protect India's democracy, amongst Indian judiciary is the frontrunner.
  - But over the years it has been fighting inner & outer battles to protect its independence mainly in the appointments mechanism for judges.

The Collegium System:
- The Collegium system is a novel mechanism consisting of the CJI & 4 senior-most judges of the SC & the HC was devised to ensure that opinion of the CJI is not merely his individual opinion but an opinion formed collectively by a body of persons at the apex level in the judiciary.
  - In 1993 the SC held that process of appointment of judges to the SC & the HC is an integrated participatory consultative process for selecting the best & most suitable persons available for appointments after consultation with those functionaries in the collegium.
  - The SC re-interpreting Article 124 & 214 of the Constitution empowered the judiciary to make appointments to the higher judiciary to secure the rule of law.
    - The judicial interpretations consider those people for appointment of the superior judiciary are those who combine the attributes of making an able, independent & fearless judge & had legal expertise ability to handle cases, & possess proper personal & ethical conduct.

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- o Unfortunately, for few years, instead of selecting the best from amongst those available, compromises appear to have been repeatedly made.
- **The rationale for Judiciary independence**:
  - o It is of utmost importance for the Judiciary, the main bulwark of civil liberty, to be completely separated from & independent of the Executive influence.
  - o With the advent of democracy & freedom, the need for Judiciary independence is due to the interference of political parties with the free administration of justice.
  - o To prevent tilt in favour of upholding the govt orders.
  - o While striking down the National Judicial Appointments Commission, the SC strongly disapproved of any political executive in the final selection & appointment of judges.
    - ▪ Because reciprocity & feelings of payback to the political executive would be disastrous to the independence of the judiciary.

Way-Ahead:

The need of the hour is that the Collegium has to do best in the selection of deserving judges to ensure the independence of the judiciary without any compromise in its moral character.

THE NEED FOR A NEW ED-TECH POLICY TO MAXIMIZE STUDENT LEARNING

GS2: Issues related to education

Context:
Here we talk about the need for a new Ed-tech policy to maximize student learning.

What's Happening?
- India's school education landscape is facing daunting challenges.
  - o Even before COVID-1, the country was under an acute learning crisis with 1 in 2 children under 10 lacking basic reading proficiency.
  - o The pandemic just exacerbated this crisis because of the physical closure of 15 lakh schools that affected 25 crore students.
- Further to aid this learning crisis, the 4th industrial revolution makes the situation more critical.
  - o Because current imperative is to reimagine education & align it with the unprecedented technological transformation.
    - ▪ The pandemic-induced disruption of traditional delivery models offers a critical reminder of the impending need to weave tech into education.

Best Practices/Case Studies across India in Edu-tech innovations:
- **Hamara Vidhyalaya of Arunachal Pradesh:**
  - o Fostering tech-based performance assessments
- **Assam's online career guidance portal**
- **Samarth of Gujarat:**
  - o Facilitating the online professional development of teachers
- **Jharkhand's DigiSATH**:
  - o Establishing stronger parent-teacher-student linkages.
- **Himachal Pradesh's HarGhar Pathshala:**
  - o Providing Digi-education for special needs children.
- **Uttarkhand's Community Radio:**
  - o Promoting early reading through byte-size broadcasts.
- **Madhya Pradesh's DigiLEP:**
  - o Delivering content for learning enhancement through WhatsApp groups,
- **Kerala's Aksharavriksham:**

- o Focus on digital edutainment to support learning & skill development.

India & 4th Industrial Revolution in Education:
- The new NEP 2020 is a response to the clarion call to integrate tech at every level of instruction.
  - o It envisions the establishment of the National Education Technology Forum (NETF) to spearhead efforts towards providing strategic thrust to the deployment & use of tech.
- India is well-poised to take this leap forward
  - o with increasing access to tech-based infra & affordable internet connectivity
  - o which is fueled by flagship programmes such as Digital India, DIKSHA & UDISE+(largest education management systems).
- **India needs a comprehensive Ed-tech policy architecture that must focus on 4 key elements:**
  - o Providing access to learning mainly to disadvantaged sections,
  - o Enabling processes of teaching, learning & evaluation,
  - o Facilitating teacher training & continuous professional development.
  - o Improving Governance system.
- **Learning's from India's experiences in this regard:**
  - o Technology is a tool & not a panacea,
  - o Technology must be in service of the learning model but there is a danger in providing digital infra without a plan.
  - o Technology cannot substitute schools or replace teachers.
    - It's not teachers versus tech, the solution is in teachers & tech.
      - Tech solutions are impactful only when embraced & effectively leveraged by teachers.
  - o With conditional good learning design, tech has potential in enabling greater personalization of education & enhancing educational productivity by:
    - Improving rates of learning
    - Reducing costs of study material & service delivery at large.

Further-Ahead:

To craft a cohesive strategy Action needs to be taken on multiple fronts:
- **Immediate term:**
  - o There must be a mechanism to map the ed-tech landscape.
  - o The focus should be on
    - Access,
    - Equity,
    - Infra,
    - Governance & quality-based outcomes
    - Challenges for teachers & students.
- **Short to Medium-term:**
  - o **The policy formulation & planning must strive to**
    - Enable convergence across schemes,
    - Foster integration of solutions through PPP,
    - Factor in voices of all stakeholders,
    - Bolster cooperative federalism across all levels of govt.
  - o **Special attention paid to address the digital divide at two levels:**
    - Access & skills to effectively use tech & leverage its benefits.
  - o **Thematic areas of the policy should feature:**
    - Infra & connectivity.
    - High quality & relevant software & content,
    - Rigorous global standards for outcome-based evaluation,

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▪ Real-time assessments & systems monitoring.
- **Longer-Term:**
    o As policy translates to practice at local levels & tech-based solutions become ubiquitous, then good practices & lessons from successful implementation must be curated.

Conclusion:

India's journey from a holistic strategy to its successful application is daunting & longer. It needs careful planning, sustained implementation & calculated course corrections.

India with NEP 2020 having set the ball rolling, the need of hour is a transformative Ed-tech policy architecture to effectively maximize student learning.

THE CLASSROOM TEST

GS2: Issues related to Education

Context:
Here we talk about fixing school dropouts which is accelerated by COVID.

Editorial Insights:

What's Happening?
- Currently, the proportion of India's children attending a govt school has now declined to 45%.
    o This proportion is 95% in Japan & 85% in the USA.
- The new minister of Education must deal with this crisis because it is the fundamental duty of the state to provide a quality, free & regular school education which represents India's most potent infra of opportunity.
- Despite higher teacher salaries, teacher qualifications & govt spending, the decline in enrollment happened.

India's State of Education & Dropouts:
- R M Lohia once suggested that powerful people have caste, wealth & English instruction.
    o This observation is based on the Wooldridge idea that suggested meritocracy became the world's ruling ideology by the end of the 20the century.
    o However, India's meritocracy is sabotaged by flailing govt schools.
- The 25% confiscation of private school capacity is in a way acceptance of school failure & parents revealed preference.
- Without a market response to demand, the post-1947 policy errors in primary education would have been catastrophic for India's human capital.
- Due to COVID, Haryana state witnessed 25% private school student's dropouts due to parent's financial challenges.

Need for overhauling:
- India's 100% plus school enrolment masks challenges:
    o A huge dropout ratio,
    o Poor learning outcomes
    o India also faces too many schools but with fewer students,
        ▪ For instance in States like Rajasthan, Karnataka, etc some schools have less than 50 students.

- The new world of work redefines employability to include reading, writing & arithmetic & also relationships.
    - o This cannot be taught in 3 months or years it needs a min of 10 years.
- India's farm to non-farm is happening to sales & customer services that need above 4 competency & English awareness.
- Due to the increasing mechanization of work, future jobs require dynamic learners.

What to do in this regard: The 3 Difficult Reforms:
- Harvard expert suggests that COVID accelerates the overdue move by schools from the factory model (static model) to a medical model(dynamic model).
- Recent govt school actions such as Sarva Shiksha Abhiyan Spending etc need supplementing with difficult reforms.

Performance management:
Performance management needs evaluation of scores, skills competence & classroom management.
    - o Continuous assessment of scores has to take place.
    - o Teacher competence needs judging on child interaction, knowledge & communication, etc.
    - o Classroom management needs assessment by classroom observation of learning, physical set-up, instructional differentiation & communication.

Governance:
- Governance must shift from control of resources to learning outcomes.
- Governance must enable performance to be substantive & replace the current system.

English Instruction:
- English instruction is about Bilingualism, Higher education pathways & Employability.
    - o Because in a county like India English is a operating system & vocational skill.
    - o Employment outcomes are 50% higher for persons with English familiarity.
        - Because of higher geographic mobility,
            - Sector mobility,
            - Role eligibility
            - Entrance exam ease.
    - o Yet states like Bengal has banned English teaching in primary schools in 1981.
        - The poor have been at the receiving end of the elite favoring dichotomy between govt provided regional language & professional courses in English.
        - However recently Andhra Pradesh govt made a good move in making English has the medium of instruction for 1 to 4 classes.
- Indian constitution fragmented Education policy across three lists, which needs to be revisited because it tends to concentrate decisions that should be made locally.
    - o For instance, block-level recruitment minimize teacher absenteeism.

Way-Ahead:

The challenges of getting school education right are not uniquely Indian or contemporary, many developed nations faced it.

However, India missed her tryst with destiny for many reasons but one of them was weak govt schools.

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Without a systemic overhaul, Indian education will fail its Children just like socialism failed its poor. The policy is a choice but not fate & it is high time for Indian policymakers to drive difficult reforms of governance, performance management & English instruction.

ONE NATION, ONE POLICE

GS2: Criminal Justice Reforms

Context:
Here we talk about the need for All-India level Police reforms.

What's Happening?
- Lately, the govt has been planning for One Nation, One Ration Card to One Nation, One Election, which would contribute to an integrated scheme in different facilities & networks across the country.
    - As long as the regional characteristics are retained & recognized the same system is welcomed.
- In this background, there is arises the need for the One Nation One Police Act.
    - However today, India is confronted with a situation where each is legislating a different Police Act.
    - Though these Acts are being passed purportedly in compliance with the SC's 2006 directions on police reforms.
        - But the main objective behind these laws is to give legislative cover to the existing arrangement & thereby circumvent the implementation of judicial directions.
    - Today nearly 18 states have already passed Police acts which are leading to have One Nation, Many Police Acts.

Supreme Court Directives in Prakash Singh Case:

In 2006, Supreme Court issued directions regarding a 1996 petition, for implementation of expert committee's recommendations to prevent police abuse & misuse of police powers & the directions for Centre & State famously known as "The Prakash Singh Guidelines".
- **State Security Commission:**
    - Every state should constitute commission that lay down policy for police functioning, police performance evaluation & mainly to curb political unwarranted influence on police.
- **Police Establishment Board:**
    - Every state shall constitute police board that decides postings, transfers & promotions for officers below DSP rank.
- **Police Complaints Authority**:
    - State & District level complaints authority needed to constitute for inquiring into allegations of serious misconduct & power abuse by police personnel.
- **Security of Tenure**:
    - In order to protect against arbitrary transfers & postings, there is need to provide a minimum tenure of 2 years for DGP at state & Chiefs of central forces.
- **DGP Appointment:**
    - DGP appointment shall be taken on the basis of service length, good record & experience, chosen among 3 senior most officers empanelled for promotion by UPSC.
- **National Security Commission:**
    - For shortlisting of candidates for appointment as Chiefs of central armed police forces, National Security Commission is required.

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- **Separation Of investigation and Law & Order:**
  - o To ensure speedier investigation, better expertise & friendly police, there is need to separate investigation wing from law & order wing.

Rationale behind the directives:
- To reduce political interference in police functioning & rationalize the police performance evaluation system.
- To reduce politics & corruption and increase transparency in police appointments, promotions & transfers.
- Replacing the existing internal inquiries system & instilling public confidence in police.
- To enable key police officials to withstand against undue political. interference
- To reduce uncertainty of office & tenure for the DGPs by reducing arbitrariness & personal considerations of ruling class in appointments.
- For encouraging specialization in police force & upgrading the overall performance.
- Increasing transparency & streamlining policing by speedier & scientific investigation.

The Dichotomy: Barriers for One Nation One Police Act:
- Following the SC's 2006 guidelines on police reforms, the Police Act Drafting Committee headed by Soli Sorabjee came out with the Model Police Act 2006.
- In spirit to ensure a uniform police structure, the GOI should have enacted a law based on this Model Police Act & states should have mutatis mutandis across the country.
  - o But that did not happen because the Centre has been dilly-dallying on passing a Model Police Act.
- In the absence of any central guidance or directive, several states while blatantly violating the SC directions, have passed their own Police Acts.
- The laws enacted by states fall foul of the basic minimum requirements to be satisfied by the state under the constitutional guarantee.
- Surprisingly, the SC has not issued a contempt notice to any of the states for non-compliance with its directions on police reforms.
- Though the GOI could have done was to legislate for the UTs & then pass similar legislation in states under its control.
  - o Enacting a similar law in other states could have been incentivized by linking their passage with the modernization grants.
  - o However, neither the centre nor the state govts displayed any such intent.
  - o This is the main reason why the archaic police structure created by the imperial power continues to haunt us & fails the police system for not being able to meet the democratic aspirations of the people.
- Further, the following recent shaming events has degraded the value of the police system.
  - o The Mumbai Commissioner accusing the state home minister of using the police as an instrument for extortion.
  - o The prevention of attack on opposition party leaders by West Bengal Police led to the involvement of the Centre with its armed police force.
    - ▪ This could have been avoided if State police have respected law of the land rather than the law of the ruler.
  - o The arrest of West Bengal's ruling MLA's by CBI around elections caused serious misgivings.
- The main issue lies with the Constitutional distribution of powers between the Centre & the States which is originated from the GOI Act 1935.

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- o However, the murky politics & strained Centre-state relations have resulted in this complex & vicious cycle of an undeliverable police system.

The Way-Out:
- The best solution would be for the central & state govts to respect each other's turf in a spirit of cooperative federalism.
  - o Failure to do so would lead to taking a fresh look at the distribution of powers in the 7th schedule of the constitution.

THE HOUSING BOOST

GS2: Public Policies

Context:
Here we talk about the significance of the Model Tenancy Act

What's Happening?
- The union cabinet recently approved the Model Tenancy Act 2021 which significantly boost India's rental markets.

Need for Model Tenancy Act:
- By 2028, India is set to double its urban population between 2018 & 2030, this large scale migration to urban centres in India is bound to create pressure on housing markets.
- As per some reports, the EWS & LiG currently face 98% of the total housing shortages in India.
  - o In such a scenario, building an affordable & reliable rental housing market becomes an important policy objective.
- As per the 2011 census, there are nearly 11 million housing units are vacant in the country & at the same time, there is a 19 million units shortage in the country.
- **The main reasons house-owners prefer to keep their home vacant rather than renting out are:**
  - o The existence of pro-tenant rent control laws across Indian states continues to be an obstacle, which protects tenants' rights while diluting those of the house owners.
    - ▪ Due to lack of written contract & informal housing sector, the pro-tenant character was established.
  - o Judicial delays in case of disputes have dampened the spirit of house owners over time.

The Significance & important provisions of the Act:
- The act calls for the repeal of the existing rent control laws across India.
  - o Removing monetary ceilings on the rent amount & allowing negotiation on the duration of tenancy based on market standards.
- It addresses various challenges that exist in the rental market for both homeowners & tenants.
- It also facilitates special fast-track courts to settle rental disputes.
  - o As per the Ease of Doing Business Report, it takes 1445 judicial days to settle a civil suit.
  - o To fast-track the disposal of rental disputes, the Act envisions improved contract enforcement through a three-tier dispute redressal mechanism.
- It is expected to provide a fillip to private participation with the formalization of rental housing markets in India.

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- o With a legal framework in place, the private sector can enter into affordable rental housing markets through Build to Rent & Rent to Own models.
  - o This model is popular in the UK housing markets & can serve well in the Indian cities where developers are sitting on a large inventory of unsold ready-to-move-in stock.
- Finally, the Act provides a promising framework for tenancy agreements in the future, past rental agreements under the state's respective rent control laws will continue.

Way-Ahead:

While the Act is much-needed reform for India's housing sector, the need of the hour is that states use this opportunity to unlock the economic value of vacant housing & increase access to good quality housing for all.

RESHUFFLE & DIGITAL REFRESH

GS2: Issues related to Union Executive
Context:
Here we talk about the mammoth tasks that the new IT minister has to tackle.
What's Happening?
- The recent revamping of the Union of the council of minister led to the induction of the new Minister of Electronics & Information Technology i.e. replacing Ravi Shankar with Ashwini Vaishnav.
  - o The induction happened at a time when the Indian govt has been at loggerheads with social media giants & the pandemic has pushed the governance focus towards a digital environment.
- The new IT minister has the following mammoth tasks to tackle for advancing an agenda that promotes both digital rights & innovation in India.
The Issues:
- **The pivotal issue is of ACCESS**
  - o At present, there is few arguments on the larger policy goal of increasing internet access.
  - o However, the performance has been dismal & targets are being missed.
    - ▪ As per the latest TRAI's report, till Dec 2020 the rural penetration rate is 34.7% with 300 million rural internet subscribers, which is less than 1/3rd of the urban penetration rate.
      - • More importantly, 37k villages in India are still not covered by telecom service providers.
    - ▪ Existing digital literacy schemes have also witnessed slow progress.
      - • For instances, PMGDISHA has only certified 2.7 crore candidates out of identified 4.5 crore target candidates.
- **The issues of INTERNET SHUTDOWNS:**
  - o The data shows in 2012-2019, state govt have shut down the internet across India approximately 374 times, with 2019 & 2020 witnessing 106 & 129 shutdowns respectively.
    - ▪ These shutdowns caused monetary losses of $2.4 billion.
    - ▪ Hence there is widespread non-compliance by state govts with the SC's Judgment in the Anuradha Basin Case that required publication of internet shutdown orders.
  - o There is no enforcement body formed for implementing net neutrality in India.
  - o Finally, for decades, there has been no policy proposal towards improvement on internet shutdowns & net neutrality.
- **The more contentious issue of SOCIAL MEDIA REGULATION:**
  - o The previous Minister has considerably invested in the IT Rules 2021& these rules are jointly administered by Information & Broadcasting Ministry.

- o The I&B Ministry regulates online news portals & video streaming services under these rules.
  - However, rather than leading to clear regulatory principles, these have only led to uncertainty & dispute.
  - At present 14 constitutional challenges are pending across India.
  - These are the same IT rules that hope to regulate not only Twitter but substantial parts of the Indian internet.
    - However, they emerge from the absence of any clear legislative power & end up hurting the user's rights.

- **A significant concern of an increasing number of DATA BREACHES:**

According to a report, the average data breach in India costs Rs. 14 crore & the average time to both detect & contain a breach went up to 221 days & 83 days respectively.

- This indicates a significant amount of data loss for users with further risks of financial crimes.
- There have been no policy movements to address these lapses & this delay the incoming Data Protection Law.

The solutions:

- The current IT rules must be withdrawn & a broader & more comprehensive digital governance framework is implemented.
  - o Until then, the intermediary liability can be regulated by the pre-existing legislative frameworks refined by the SC in the Shreya Singhal case.
- Most importantly, the updating IT Act 2000 process must be made public.
  - o This involves large-scale consultations with various stakeholders as well as setting out a position paper on the future of the IT Act.
- A larger, participative vision for legislative action will resolve continuing issues of website blocking & encryption in a rights-respecting manner.
- To over Data breach issues & to protect Data Privacy, the new Minister have to effectively & efficiently plan in addressing privacy risks as more Indians get connected while services gather user data in a completely unregulated manner.

Way-Ahead:

The nature of problems presented by the digital environment requires large-scale reforms while recognizing its utility. It is high time for the new minister to ensure the growth of the Indian internet into a healthy forum that enshrines our Constitutional values. This is also reflected in the recent G-7 Open Societies Declaration that states "Human rights for all, both online & offline".

TALIBAN 2.0, SCO AND INDIA

GS2: India & Its Neighborhood

Context:

Here we talk about the implications of the US's retreat in Afghanistan.
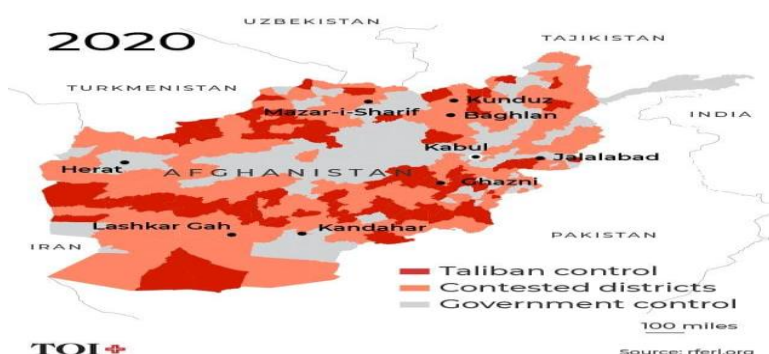
What's Happening?

- Afghanistan has been witnessing the speedy withdrawal of US troops & matching swift advance of the Taliban across the nation.
  - o The Taliban currently has been gaining military ground very quickly.
- These two developments have moved Afghan into the court of regional powers that now have the burden of managing the US retreat-induced military vacuum.
  - o The regional solution ideas to Afghan had always political appeal & divergent regional interests limit the prospect for a sustainable consensus on Afghanistan.

The role of Shanghai Cooperation Organization in this regard:

- The SCO was launched 20 years ago by China & Russia to promote inner Asia stability.
  - o Both nations are also driven by fears about US power in the post-Cold war era & the US's ambition to promote human rights & democracy in the region.
  - o Current members of SCO: China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Pakistan & India.
    - ▪ 4 observer nations: Iran, Afghanistan, Mongolia & Belarus.
- In the upcoming days, the regional conclave of foreign ministers under the SCO banner is taking place that should give a sense of the unfolding regional dynamic on Afghan.
  - o Geography, membership & capabilities make the SCO an important forum to address the post-American challenges in Afghan.

History of SCO & its members in this regard:

- SCO was set up around the time when the world witness 2001 terror attacks on the US by Al Qaeda which was sheltered in Taliban-ruled Afghanistan.
- The US marched in quickly to oust the Taliban from power & launched the Great War on Terror.
  - o This propelled Afghan to the center stage of international politics & became the top agenda of the SCO.
- US intervention in Afghan during 2001, was unopposed by China & Russia.
  - o Though they had no issue with USAs ousting terror outfits in Afghan, however, they were deeply apprehensive about the implications of extended US military presence in Afghan.

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The current situation among SCO members:
Today, both China & Russia having a good laugh at the USAs Afghan mission failure.
- Because Russia has not forgotten its 1980s humiliating military retreat from Afghan due to US-backed jihadi insurgency.
- For China, the US withdrawal from Afghan also reinforces its strongly held conviction that the US s in terminal decline.
    o At a time when China is offering an alternative to the Western model of domestic & international governance, the US retreat will be seen as a great ideological victory for China.
- Iran has been locked in a confrontation with the US longer than any other nation, has even more reason to see the US retreat by a peg to two in its neighbourhood.
- Pakistan has long been a critic of US policies in Afghan, the retreat is a moment of geopolitical vindication because its army has heavily invested in the Taliban.

Implications of retreat & Actions by the SCO members:
Today all four nations are quite satisfied with the US retreat, however, they also worry about the long-term implications of the USA's retreat.
Neither China nor Russia would want to see Afghan becoming a nursery of international terror again under the Taliban.
- For China, potential Taliban support to the Xinjiang separatist group is a major concern.
- Iran can't ignore the Sunni extremism of the Taliban & its oppressive record against the vulnerable.
- Pakistan worries about the danger of the conflict spilling over the Durand line & hostile groups gaining sanctuaries in Afghan.

Pakistan-China-Taliban equation:
The alliance between Pakistan & China starts with some advantages in Afghan.
- Pak's deep connections to the Taliban Combine with China's massive economic resources could contribute to the Afghanistan transformation.
- But many imponderables complicate the picture such as:
    o Taliban itself remains a major variable.
        ▪ Taliban's unwillingness to accommodate the Afghan's interest would set the stage for civil war in Afghanistan.
- However, the Taliban leaders have been saying all the right things to key regional actors & are eager for regional & international economic cooperation.
The Taliban also stressing it won't be a proxy for anyone else & it will pursue independent policies.
    o However, there is much lacking clarity in the Taliban's words & actions because its ground actions on its territories & the ties to terrorist organizations seem to be revival ground for Taliban 2.0.

India's Role:
- **Implications of retreat on India:**
    o For India, the prolonged peace era in Afghan secured by the US came to an end.
        ▪ Now India has new constraints on its ability to operate inside Afghanistan.
        ▪ There is also a danger of nurturing anti-India terror groups under the Taliban in Afghan.

Factors that shape India's new Afghan Policy:
- India has to remain active & patient to utilize many cropping up opportunities in the new Afghan phase. The three structural conditions that continue to shape India's Afghan policy are:
    o India's lack of direct physical access to Afghanistan, which underlines the importance of India having effective regional partners.
    o Geography has given Pak the capability to destabilize any Afghan govt.

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- However, it does not have the power to reconstruct a stable & legitimate order in Afghan.
- The only hope for Pak is that Partnership with China & the extension of CPEC into Afghan can address its power deficit.
    o Finally, the contradiction between Afghan & Pak is an enduring one.
        ▪ Because many in Pak wants to turn Afghan into a protectorate while Afghans deeply value their independence.
            • This will push Afghans including the Taliban inevitably look for partners to balance Pak.

Way-Ahead:

The need of the hour for India is to actively contribute to the SCO deliberations on Afghan while tempering its hopes for a collective regional solution. It is high time for India to focus on intensifying its engagement with various Afghan groups & finding effective regional partners to secure its interests in a changing Afghanistan.

GENERAL STUDIES-3

TIME FOR A GREEN STIMULUS

GS3: Resource Mobilization & Inclusive Growth
Context:
Here we talk about pathways for a green stimulus for India.
What's Happening?
- India to achieve a V-shaped economic recovery needs a large demand stimulus.
    o In this regard, a less exploited Green stimulus can help in creating demand, addressing air pollution & accelerating the energy transition.
- The following are few innovative & affordable pathways for a green stimulus that would create dispersed demand & jobs with large multiplier effects.
The pathways for Green Stimulus for India:
- **The crop waste to Briquettes:**
    o Every year around Diwali, the burning of rice crop residue in northern India will create an air pollution crisis.
        ▪ It can be avoided by procuring all the crop waste at a remunerative price.
        ▪ The waste can be converted into briquettes which can be substituted for coal in thermal power stations.
            • For example, NTPC has successfully used briquettes to generate low-cost electricity.
        ▪ Govt should encourage private players in the conversion of waste to briquettes.
            • This private investment can create a demand for the conversion equipment, labor & transport.
Using this pathway, govt without financial burden will effectively reduce Air pollution.
- **Increasing demand for Electric Vehicles:**
Currently, the Indian market has an availability of E-vehicles.
    o The E-vehicles are not air-polluted & cheaper to run on a lifecycle basis.
    o However, the demand for them is not rising because of the lack of charging infra.
    o Issues India facing in this regard:
        ▪ Until efficient charging infra are created, demand for EVs will not pick up & investment on charging stations would not generate returns.
    o Govt efforts:

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- A national programme for building charging stations in million-plus populated cities is called for, which is fully financed through a govt guaranteed debt.
- At the same time purchase of E-buses is also fully financed through govt guaranteed debt.
- This would provide a large demand stimulus across the country which generates a sustained surge in demand for EVs & their manufacturing supply chain.

- **Solar Power- feed-in tariff:**
  - o India has gone well beyond its commitment under the Paris agreement to aim for 450 GW of renewable energy capacity by 2030.
  - o The easy way of achieving progress is to have national policy guidance for the states to get discoms to announce a remunerative feed-in tariff to buy solar power from the rural areas.
    - It doesn't need any transmission investments.
    - Also, solar power generated in a village is easily & cheaply provided to farmers.
    - This also facilitates more efficient use of water.
  - o This type of programme would generate widely dispersed private investment & increased incomes.

- **Cow dung into useful commercial energy:**
Today, with penetration of LPG connections & electricity connections, cow dung for cooking has lost relevance,
  - o However, with the availability of modern tech infra, the cow dung can be converted to fuel gas that can be used for cooking & transport.
  - o India has the largest cattle population in the world & the goal should be to convert all the cow dung into useful commercial energy.
  - o In this regard, a govt promoted system, for procurement of this gas or electricity generated from this gas at a remunerative price would create the right incentives for private investment & income generation across villages.

Way-Ahead:
It is high time for India to have an economic stimulus that can also aid green energy transition, Innovations around solar power, crop residue & E-vehicles would create dispersed demand & jobs with large multiplier effects. At the same time, these measures would also lead to substantial improvement in air quality in highly polluted regions.

INDIA'S 1991 LIBERALISATION LEAP AND LESSONS FOR TODAY

Background -
- In an **interview with The Hindu, Montek Singh Ahluwalia**, one of the key figures in the reform process, former Deputy Chairman of the erstwhile Planning Commission discusses the transition of the Indian economy, what remains to be done, and what needs to be done.

Evolution of Indian Economy since 1991 –
- The changes were aimed at **releasing the private sector's energy in order to boost economic growth** while also ensuring a sufficient flow of benefits to the poor.
- Because of the **gradualist strategy** used — which is appropriate in a democracy — the full benefits took time to manifest, but the effects are dramatic when viewed over a longer period of time.
- **GDP growth averaged 7% over the 25 years from 1992 to 2017**, compared to 5% in the previous ten years and 4% in the previous twenty.
- But at same time In the areas **of health and education, we have not done as much** as we should have, and environmental problems have not been effectively addressed in our development strategy.

Scenario Before 1991 –
- The **private sector was barred from investing in a number of sectors** deemed vital to development. Despite its poor performance, the public sector was given the so-called **"commanding**

heights."
- Where the private sector was permitted to invest, it could only do so after obtaining an industrial licence, which was particularly difficult to get for "large" industrial houses.
- Over **860 goods were set aside for small-scale producers only, including many with great export potential.**
- **Imports were highly regulated**, more so than in nearly any other developing country, in order to conserve scarce foreign cash. Imports of consumer goods were simply not possible, therefore domestic producers faced no import competition.
- **Importing capital goods and intermediates was possible for producers**, although it usually required an import licence. Technology imports were restricted, and foreign direct **investment (FDI) was discouraged.**

Pending Reforms –
- -The necessity **for labour market reforms** was recognised, but it was decided that we should focus on the industrial, trade, and financial sectors first, with labour market reforms following later.
- -For a few years, we grew at a rate of above 9%, but persuading labour proved tough.
- -**Land reforms** is also one of the thing we need to put pressure as there is requirement for centre state cooperation beyond political motives.

In the era of protectionism –
- - India gradually reduced import taxes from an estimated 57.5 percent in 1992 to 8.9 percent in 2008, but this trend has now been reversed.
- - The **reversal of a trend** that other governments had been following**. It will prevent our professed goal of joining global supply chains**. Inadequate infrastructure, poor logistics, and time-consuming trade procedures **are genuine concerns for Indian industry**, lowering its competitiveness.
- - However**, the solution rests in directly resolving these issues rather than raising import tariffs,** which will merely increase economic expenses.
- - We should go to an average duty rate of roughly 7%, **gradually limiting the range of fluctuation between items and eliminating duty reversals,** according to the NITI Aayog's first Vice-Chairman, Arvind Panagariya. This is the correct strategy.

On RCEP –
- - The tariff reductions necessary by the RCEP were to be phased in over several years, allowing us plenty of time to improve our competitiveness.
- - When it comes to unfair competition from China, the approach is to impose anti-dumping penalties on China more quickly rather than hiking import duties across the board.
- - It's worth noting that geopolitics is pressuring big nations to minimise their reliance on China.
- - **India will not be able to replace China, but it can hope to become a big role in supply chains** that are not controlled by China.
- - Membership in the RCEP would be beneficial because it would ensure partners that trade policy would not be modified arbitrarily.
- - We have typically supported trade liberalisation in a multilateral venue for FTAs with the United States, Europe, and the United Kingdom, but major industrialised countries appear to be moving away from multilateral negotiations.
- - **Working on bilateral agreements with significant parties appears to be the only way to ensure market access**.
- - However, such FTAs will necessitate greater concessions, notably on difficult subjects like intellectual property rights and bilateral investment protection, which we must be willing to accept.

Problem of Joblessness and impact of Pandemic –
- - The UPA period was the first time we saw a drop in agricultural employment... but it was

- accompanied by enough increase in total employment in non-farm sectors to absorb the labour displaced from agriculture.
- - Santosh Mehrotra and Jajati K. Parida examined the post-UPA period before to the pandemic in a recent paper. They discovered **that after the significant slowdown in GDP growth in 2016-17, employment fell from 474 million in 2011-12 to 469 million in 2018-19.**
- - Agriculture employment continued to fall, reflecting a typical **structural transition**, although non-agricultural employment grew considerably more slowly than during the UPA years.
- - As a result, the number of people who are unemployed has increased. The problem was most acute among the youth, who had an unemployment rate of 18 percent.
- - The COVID-19 pandemic has resulted in a labour shortage. GDP decreased by 7.3 percent in 2020-21, according to preliminary National Income estimates.
- - Many observers believe that this understates the decline because the negative impact on the informal sector is not taken into account.
- - In any case, **a substantial drop in GDP will inevitably lead to a reduction in total employment**, as the data from the Centre for Monitoring Indian Economy shows.

Priorities in Post COVID era –
- - Only a **return to the level of 2019-20 will suffice**. We will get no relief on the employment front or in eliminating poverty if we simply return to the pre-pandemic growth rate of approximately 4% to 5%.
- - Past experience demonstrates that **if we want to make progress on poverty reduction and provide adequate jobs for our rising labour force, we need to return to a growth rate of 7% to 8%.**
- - Once the pandemic has been contained and production has returned to the 2019-20 level, the government would be well advised **to examine what caused the slowdown prior to the pandemic and to issue a clear statement of mutually supportive policies to counteract these forces** and lead to higher growth and employment.
- - It should also come out with a post-pandemic growth target.

ENVISIONING THE POST-PANDEMIC SMART CITY

Envisioning the post-pandemic smart city (GS 3 Infrastructure)

Context –
- -The government embarked on an urban development journey with the notion that a select group of cities across the country might be 'transformed' and made smart after a competition among the states.
- -But Covid 19 pandemic has put forth new dimensions to consider while designing such cities.

General concept of smart cities -
- -**Sensors everywhere, smart houses, high levels of connection, vast and ubiquitous data collection by multiple organisations, and a continuous flow of helpful information** to citizens are all part of vision of smart city.
- -It can assist governments in allocating resources wisely and making timely decisions to improve efficiency and living standards.
- -Infrastructure deficiencies, insufficient water supply, waste management, sewage and transportation arrangements, high levels of pollution, and, as a result of climate change, frequent extremes of floods and drought plague India's cities.
- -The Smart Cities Mission, which was created in response to these concerns, is a **mix of improved civic services and high-profile initiatives in selected cities,** with the investments significantly influenced by the Centre.

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Focus on Health –

- -COVID-19 disrupted the lives of cities, locking people indoors for lengthy periods of time, interrupting economic processes, and paralysing vibrant urban life before a thorough critique of the costly programme could emerge.
- -When the Smart City Awards 2020 were announced recently, one component of the project, **the Integrated Command and Control Centres** (ICCCs), was given a health focus by the Ministry of Housing and Urban Affairs.
- -**COVID-19 used these centres as "war rooms**," and when combined with "other smart infrastructure established under the mission, communities were able to battle the epidemic through information dissemination, improved communication, predictive analysis, and supporting effective management."

Convergence of infrastructure

- -Over the years, Smart Cities Mission projects converged with other infrastructure programmes such as AMRUT, the Atal Mission for Rejuvenation and Urban Transformation, the PMAY (Urban), the Pradhan Mantri Awas Yojana, for housing.
- -According to the most recent official tally**, 5,924 Mission projects worth Rs. 1,78,500 crore have been bid, reflecting the magnitude of the investments.**
- -According to some projections, 90 percent of urban development will take place in developing countries by the middle of the century.
- -**Jan Gehl**, a Danish urban planning expert **who opposes smart cities and "silly gimmicks**," speaks of a **city's universal values** as a gathering place for people, inviting them to spend time, walk, bike, and explore through public, semi-public, or private gardens.
- -**A good city also prioritises pedestrianisation over motorization.** Despite their attempts to incorporate some of these components, **India's smart city plans are unable to achieve a structural shift** in which people's movement takes precedence over vehicle movement.
- -In fact, expanding the **green logic** would entail a moratorium on all wetlands and commons diversion for any other purpose, the creation of new urban gardens and water bodies, and a climate change audit for every piece of infrastructure planned.
- -Less damaging flooding, more water to gather, and lower peak temperatures would all result from a **green and blue metropolis**, all at a reasonable cost.

Designing Common spaces –

- -Cities that allocate adequate road space for bicycles, which **symbolise safe commuting and can complement enhanced public transportation** when commuters return in large numbers to bus and urban rail, could be elegant, healthy, and sensible after the epidemic.
- -Pedestrianisation, biking, and peaceful chances for street selling produced by **designating additional commons would be truly democratic**, addressing the complaint that smart city planning ignores the informality that characterises India's urban environments.
- -**None of this negates the importance of essential modernisation,** such as the deployment of multiple sensors to monitor air, noise, and water pollution, the provision of electronic citizen services, whether online or in a government office, intelligent public transportation, and the expansion of renewable energy.
- -Even in the largest cities**, recovering useful materials from waste remains a missed opportunity**.
- -However, it would necessitate a move away from flyovers, underpasses, and low-cost parking lots that serve significantly fewer people.
- -Citizens can only benefit **from real-time control rooms** if they have a decent public dashboard of information.
- -This includes access to health alerts, immunizations, hospital beds, and topical counselling in COVID-19 times, with data on pollution, rainfall, congestion, and other factors thrown in for good measure.

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- -Smart city planning must be **democratised so that all members of society, not just those with access to the internet, have a say in the process.**

However, the pressure to frame initiatives typically leaves many people out, including elected officials.

Conclusion –

- -The **pandemic has provided a unique chance to rethink the smart city paradigm** and direct the fate of hundreds of smaller municipalities that aren't yet on the map.

- -They should be assisted in framing their goals around people and nature, **learning from their failures, and avoiding costly technical solutions.**

THE PROBLEM NOW WITH THE MILITARY SYNERGY PLAN

The problem now with the military synergy plan (GS 3 Security)

Context –

- It is undeniable that the Indian military, like all government departments in India, continues to operate in walls, and Prime Minister Narendra **Modi recognised the necessity and gave directives to achieve jointness, entrusting the task to India's first Chief of Defence Staff (CDS).**
- Also there **is need to create operational synergy** while reducing costs by eliminating duplication and inefficient methods or processes.There are some news about Air force resisting the formation of theatre/functional commands.

Complexities of Air Force –

- The IAF's criticisms have primarily been based on air power being viewed as a complement to the two surface forces, the Indian Army and Indian Navy, and being separated into penny packets, which would severely reduce the effectiveness of air operations in any future conflict or contingency.
- Such criticisms and dissenting perspectives are better expressed now, before the structure is formalised, than afterwards, when the deployment of air power is discovered to be sub-optimal under the military ethos of "an order is an order."

Political Objectives –

- The **failures** of the world's most powerful militaries in Vietnam, Afghanistan, and even our own Indian misadventure in Sri Lanka **demonstrate the lack of defined political objectives and military plans.**
- Even after more than seven decades of independence, **India still lacks a well-defined national security plan.**
- Only such a strategy may specify the types of situations that the military is expected to deal with, resulting in the development of appropriate military plans, doctrines, and capabilities.
- That would describe the structures needed to perform synergized operations, as well as the necessary communications and training.
- Simultaneously, such an intellectual endeavour would reveal duplication, inefficient resources, and procedures.
- Before freezing the building and attempting to glue the components together or hammer square pegs into round holes, the CDS should have pursued this goal.
- **Such an exercise may possibly identify air power as the leading factor**, especially since India's political goal is unlikely to be the conquest of additional territories in the near future.
- In the seamless deployment of air power, **the proposed air defence command clashes with the domain commands.** Because of the lack of such an intellectual exercise, the IAF does not want its limited resources to be squandered fighting frontal defensive fights by a land force commander who has no experience with air power deployment.
- As illustrated in 1971, the Army fails to recognise that offensive air power is best kept hidden, focusing on keeping the opposing air force held down while allowing own surface troops to manoeuvre

and function with impunity.

- The Chinese People's Liberation Army Air Force's (**PLAAF) infrastructure is still being built up in Tibet, emphasising the need for an air-land strategy,** with air power as the lead element to dissuade or defeat Chinese coercion plans.

Address the structural gaps –

- Finally**, theatre or any lower structure requires an institutionalised higher defence organisation, which has been sadly lacking** since the demise of the Defence Committee of the Cabinet (DCC) in the 1950s, resulting in little regular dialogue between the political and military leadership, except in times of crisis, resulting in knee-jerk reactions.
- As a result, a scholar-warrior remarked, "**It's odd that the Cabinet has an Accommodation Committee but no Defense Committee**."
- In the current proposal, it appears that the CDS, as the permanent chairman of the Chiefs of Staff Committee (CoSC), would also have operational control over the theatre/functional commands, a move that is unlikely to be popular with the politico-bureaucratic leadership and has prompted further discussion.

Conclusion –

- Instead of pushing down such institutions without enough study and discussion with all stakeholders, we should first **develop acceptable military plans against a nuclear backdrop in tandem with the political goals**.
- Following that, with war-gaming, combined planning and training for all foreseen contingencies would automatically identify the requisite structures with appropriate command, control, and communications.

THE WINGS OF PEGASUS, THE EPOCH OF CYBERWEAPONS

The wings of Pegasus, the epoch of cyberweapons (GS 3 security)

Context –

- A worldwide debate over the misuse of Pegasus spyware — much of which is mired in facts, suppositions, false trails, allegations and counter-allegations, but contains more than a kernel of truth — has reignited debate about the role of cyber weapons. Cyberattacks on financial institutions and critical infrastructure have increased to alarming levels, signalling the dawn of the cyber weapon epoch.
- What has been worth reflecting on since the turn of the century is that, while Moore's Law has democratised access to computing and the Internet has opened up a whole new avenue for communication, all of this has come at a cost.
- Privacy has been eroded, and the Internet has evolved into a powerful weapon in the hands of those seeking to exploit its various facets, true to its Cold War origins.

Preferential Treatment –

- In addition to land, sea, air, and space, cyber is frequently referred to as the fifth dimension of warfare. It is important to note, however, that cyber as a domain of military and national security coexists with cyber as a domain of everyday life.
- By the first decade of the twenty-first century, cyberspace had progressed from merely a new domain of warfare to essentially a civilian space.
- Cyberweapons have always been considered special weapons, similar to nuclear weapons in the past. Following the release of the Stuxnet Worm by a joint US-Israeli effort in 2010 — which helped disable hundreds of centrifuges at the Iranian nuclear facility in Natanz — it became clear that humanity had indeed unleashed a new weapon, and had crossed the Rubicon.
- It's only a short step between sabotage and intrusive surveillance. Many stories about the Pegasus spyware's use circulated long before the current controversy, because WhatsApp sued NSO in 2019

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over allegations that the Pegasus spyware had been used on hundreds of its users.

- However, the Israeli firm's claim that the spyware is only sold to governments and official agencies has been debunked. Pegasus is classified as a cyberweapon by Israel, which claims that its exports are regulated.

Work in Progress –

- According to reports, the Pegasus spyware can copy sent and received messages, "harvest photos and record calls," "secretly film through the phone's camera," and "activate the microphone to record conversations."
- It may be able to determine where you are, where you've been, and who you've met. Once installed on a phone, the spyware can collect almost any data or extract almost any file'. The makers of Pegasus, the NSO Group, are working hard to make the spyware difficult to detect.
- A quick review of the most damaging cyberattacks over the last decade and a half, with and without the Pegasus spyware, can be instructive.
- The devastating cyberattack on Estonia's critical infrastructure in 2007 was followed by the Stuxnet worm attack on Iran's nuclear facility a few years later. In 2012, Saudi Aramco was attacked by the Shamoon virus.
- Following that, there was a 2016 cyberattack on Ukraine's state power grid; a 2017 Ransomware attack (NotPetya) that affected machines in as many as 64 countries; a Wannacry attack on the UK's National Health Service the same year; and a series of attacks this year on Ireland's Health Care System and in the US, including 'SolarWinds,' the cyber-attack on Colonial Pipeline, and others.

Grave Threat –

- Things have reached a tipping point, with cyberweapons becoming the weapon of choice not only in times of conflict but also in times of peace.
- Cyberweapons have the potential to distort civilian and military systems and structures, as well as to disrupt democratic processes, exacerbate domestic divisions, and, most importantly, to unleash forces over which established institutions or even governments have little control.
- All of this and more is included in the Pegasus spyware. For the time being, it is hiding behind a veil of anonymity and the unwillingness of those who have purchased it to acknowledge its misuse, but this is only a temporary reprieve.
- Cyber methods that undermine capabilities can be anonymous for a limited time, but not indefinitely. It may appear unrecognisable for the time being, but this will only last a short time.

Conclusion –

- With the introduction of cyber weapons like Pegasus, technology that was once regarded as a friend could quickly become a source of despair. Building proper defences will be difficult given the rate at which cyber technology evolves.
- Artificial Intelligence (AI) is frequently portrayed as a panacea for many of today's problems and ills, but technological advancements are always a double-edged sword.
- To be honest, AI could make all information warfare, including cyber warfare, nearly impossible to detect, deflect, or prevent, at least at the current stage of AI tool development.
- Meanwhile, easier access to newer cyber espionage tools will exacerbate the already chaotic situation. All of this suggests that in an era of ever-expanding cyberweapons, security may become a vanishing horizon.

LET THE MARKET WORK

GS3: Issues related to Agriculture & Allied Sector
Context:
Here we talk about the state of the Dairy sector & the need for more private dairy players in India.

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What's Happening?
- The recent 2/liter raise of milk prices by Amul has created much uproar in the mainstream media.
  - Even the increase is about 4% of existing prices & is well below the increase in the overall CPI which has crossed the 6% inflation targeting upper limit.
  - The rationale of price raise:
    - For farmers, this increase in milk prices is not commensurate to the increase in their feeds & other costs & they feel their margins are getting squeezed.
    - They also believe that this increase is meager as it does not fully cover increased costs of logistics & packaging.
  - **Criticism to price raise:**
    - The mainstream media are debating that this price raise will further push up CPI, causing inflationary pressure which will force the RBI to change its accommodative stance on monetary policy.

Significance of Milk in the Indian Agriculture sector:
- Milk is India's biggest agri-commodity in terms of value, greater than paddy, wheat & sugarcane combined.
- India is the largest producer of milk in the world with an estimated production of about 208 million tonnes in 2020-21.
- Indian dairy sector is dominated by smallholders with an average herd size of 4-5 animals.
- Most importantly, there is no MSP for milk; it is an oral contract-based.
  - Thus the price of milk is determined by the overall forces of demand & supply.
  - For the last 20 years, the overall growth in the dairy sector has been 4-5% & lately it has accelerated to even 6%.

Operation Flood:
- The Operation Flood that started in the 1970s has transformed the dairy sector.
  - The institutional innovation of a cooperative model steered by Verghese Kurien changed the structure of the dairy sector.
  - However, even after five decades, cooperatives processed only 10% of the overall milk production.

Need for Private players in the Dairy sector:
- India needed the double-engine force of the organized private sector to process another 10%.
  - With 1991 reforms, the doors of the private sector were opened partially.
  - But in 2002-03 the dairy sector was completely de-licensed.
  - Milk production recorded a growth rate of 4.7% between 2004(FY)- 2014(FY) which increase to 6% between 2015(FY)- 2021(FY).
- As per the NDDB report, the capacity created by private dairy companies in the last 15 years is equivalent to the capacity set up by cooperatives in over 30 years.
  - For instance, Hastun Agro Products Ltd(HAP) of Tamil Nadu is the largest private sector dairy company in India with the milk procurement of 32 LLPD.
    - It went against the Cooperative domination & daringly step into liquid milk marketing in 1995.
      Today India has several private players that can procure 10-20 LLPD of milk.

Role Startups in emerging challenging conditions:
- Many start-ups dairypreneurs have come in promising farm-to-home experience of milk.
  - They started delivering fresh milk at the consumer's doorstep & providing quality testing kits at home.
  - Some start-ups are working towards digitizing the dairy supply chain in India by enabling traceability across the milk supply chain for dairy companies.
- As per the Indian Grassland & Fodder Research Institute, India will face a green fodder deficit of about 30% by 2030.

- o However, an agri-tech startup started providing solutions to the green fodder deficit through a hydroponic green fodder unit.
  - ▪ It allows farmers to grow fresh green fodder year-round without soil in a controlled environment & with limited water resources.
- In the reproduction domain, another start-up started helping in the predetermined selection of sex of offspring by sorting X & Y chromosomes from the natural sperm mix.
  - o It will solve the problem of unwanted bulls.
  - o However, the current cost of sexed sorted semen is high, Maharashtra has taken a bold step in subsidizing it for artificial insemination.

Way-Ahead:
The need of the hour is to focus on innovations to cut down costs, raise productivity, ensure food safety & be globally competitive. During Operation Flood & currently, the cooperatives doing a great job but it is high time for private players to enter the sector in a big way to impart the creativity & competition spirit in the sector.

ROLE OF THE MINISTRY OF COOPERATION IN REVIVING THE COOPERATIVE MOVEMENT

GS3: Issues related to the Indian economy

Context:
Here we talk about the role of the New Ministry of Cooperation in reviving the cooperative movement in India.

What's Happening?
- Indian govt has created a new Ministry of Cooperation with an aim to strengthen the country's cooperative movement.
  - o It gave an opportunity to relook at the movement's history, examine the potential of the cooperative & analyze the challenges they face.

Cooperative Movement:
- In the 1980s with the downfall of Soviet, the Polish insurrection & the Solidarity Movement precipitated as the alternative.
  - o Although there have been suggestions of other models of labour ownership of firms, such as:
    - ▪ American small non-branded commodity market,
    - ▪ Scandinavians attempt to create a semblance of level-playing field negotiations between workers & owners.
    - ▪ Australia & New Zealand have dairy cooperatives.
- However, in the 1950s itself, Tribhuvan Das Patel & Verghese Kurien has begun India's significant tryst with dairy cooperatives in Anand, Gujarat.
  - o Soon enough, the govt took note of this initiative & established National Dairy Development Board in 1965.
- But the expansions other than dairy has not been working the way it was envisaged.
  - o Cooperatives are not holding regular & proper elections.
  - o Their accounts are not audited.
- To overcome the issue, govt established a committee in the company Affairs Ministry to allow farmers to set up companies' i.e. Farmer Producer Companies (FPC).
- **Farmer Producer Companies:**
  - o The FPCs are based on the principle of one share one vote & the essence of cooperatives would not be diluted.
  - o The Companies Act (Second Amendment) 2002 gave legal backing to the FPCs.

- o Initially very few cared about FPCs, but soon enough the govt department such as the agriculture ministry wanted FPCs jurisdiction.
- o **Teething Issues:**
    - The committee had to lobby to get funds for the new companies. Since existing vehicles were designed to cater to cooperatives, not FPCs.
        - A committee was set up to find the funding instruments.
        - The Boston Consulting Group had been commissioned to develop a plan for restricting NABARD.
            - o As a result, the restructured NABARD had a special window for FPCs.
- **Need for leveraging the Community Network:**
    - o During FPCs facing the funding crisis, Munish Alagh & Nadeem Jafri had set up a chain of Hearty Mart cooperative supermarkets in villages using the franchise model which is run by the Cheliya community.
        - Now the initiative has expanded to include franchised restaurants, though they are commercial ventures but profit is not their only motive.
        - In the spread of this model, the networks of the Cheliya community have played a key role.
    - o Today the idea of leveraging the community network has begun to be discussed across the country in re-imagining the economic infrastructure.
    - o The concept of social cooperatives builds on the idea of communities creating infrastructure by using local material & family labour.
        - It can be a village tank or finishing the construction of the canal network or even keeping watch on the contractor.
    - o The pandemic has increased the significance of community efforts.
        - From reducing vaccine hesitancy to looking after orphaned children has become an imperative duty for cooperatives.

Way-Ahead:
- The new work-from-home model will create several problems as well as offer opportunities.
- The new cooperation ministry is recognition of the needs of present times.
    - o But it should not be about just pumping the money. It has to push for designing models that help hose help themselves.
- Amid Pandemic, the need is to use the limited resources carefully.
- The possible current solution to the pandemic is to keep in mind the social needs while using resources.

Conclusion:

The virus made us to witness the dark reality of the world. It also made us to see the truth in the Mahatma's statement that there is enough for everyone's need but not for everybody's greed.

The only hope, for now, is that the new Ministry of Cooperation would take the above message in spirit & leverage the community networks in dealing with pandemic induced challenges.

A CHECK ON BAD LOANS

GS3: Issues related to the Banking Sector
Context:
Here we talk about the RBIs latest Financial Stability Report.
What's Happening?
- Recently RBI presented an assessment of the health of the banking sector in the pandemic year, in its latest Financial Stability Report.
The reports Short gist:

- Before the report, there were concerns that the balance sheets of banks would be adversely hit by the pandemic-induced disruption.
  - However, the report shows that banks fared much better as the NPA ratio was under control at the March-end.
- A series of regulatory forbearance policies & their timely withdrawals along with deleveraging by firms have helped that banks balance sheets to survive the pandemic.
- For the current year, RBI has projected that the NPA of banks will rise to 9.8%.
  - The deterioration is projected to be much steeper under various stress scenarios.

The Report in detail:

NPA ratio:
- The NPA ratio for banks at the end of March stood at 7.5%, which was much better than the earlier projections.
- While in July 2020, the RBI report projected that due to various stress scenarios the NPA ratio could rise from 8.4% to anywhere between 12.5% to 14.7% at the March-end.
  - However, RBI seems to have overestimated the bank's NPA position, as NPAs were settled at much lower figures.

CRAR:
- The capital position of banks measured as the capital to risk-weighted assets ratio (CRAR) is also projected in the July report, to deteriorate from 14.6% in March 2020 to 13.3% in March 2021 in the baseline scenario.
  - However, banks were able to raise capital through various modes & improved their capital positions during 2020-21.
- Despite the pandemic, the banks CRAR is improved to 16% in March-end, which is above the regulatory threshold of 9%.
- Moving forward, the bank's capital position won't pose any major concerns, even in the severe stress scenario RBI doesn't expect any of the banks to fall short of capital.

Gross Non-Performing Assets (GNPA):
- Another positive feature from the report is that banks have enough capital cushions against deterioration in their assets.
  - The proportion of provisions to GNPA increased from 66.2% in March 2020 to 68.9% in March 2021.

Regulatory Support Measures:
- The main factor that the banks NPAs remained under the control is due to regulatory support measures such as:
  - Loan moratoriums,
  - Restructuring of loans,
  - Standstill on NPA classification &
  - Timely withdrawals.
- While banks were incentivized by RBI through the TLTROs to aggressively lend to sectors hit by the pandemic, they adopted a cautious approach & also there were fewer takers for the cheap loan windows.

Current Projections & Risks highlighted by the Report:
- For the current year, the report projects that the banks NPAs would rise to 9.8% in the baseline scenario by March 2022.
- The report also projects unlikely two stress scenarios that involve GDP growth slowing to 6.5% & less than 1% in 2021-22 in the medium & severe stress scenarios respectively.
- The key risk highlighted by the report is the weakness in the MSME portfolio of banks.
  - Despite loan structuring since 2019, the report notes that the stress in the MSME sector remained elevated as the NPA ratio for the public sector stood at 15.9% at March-end compared with 13.1% in December 2020.

- While stress in MSMEs needs to be monitored but it is unlikely to pose a systemic risk.
  - o Despite a series of measures to boost credit flows to the MSME sector, the share of MSMEs in the outstanding bank credit is less than 5%.
  - o The increase in credit flow to the sector is primarily due to the ECLGS scheme that is aimed to provide 100% guaranteed coverage to banks & other lenders.
  - o Thus banks will be guarded against a possible slippage of loans under this scheme.
  - o Additionally, RBI's restructuring schemes & pre-packaged insolvency resolution process should allow for better handling of MSME credit stress.

Way-Ahead:

Moving ahead in the absence of regulatory support measures, there could be fresh additions to NPAs. As the economy picks up, it is high time to ensure timely repayment of loans by companies, better recoveries & faster credit growth to keep NPAs under control. The need of the hour is also to improve the capital positions of banks to able to support a recovery in credit demand.

NEXT STEPS OF E-COMMERCE

GS3: Issues related to the Indian Economy

Context:

Here we talk about the Open Network for Digital Commerce (ONDC)

What's Happening?

- Recently govt has set up an advisory council for Open Network for Digital Commerce (ONDC) to:
  - o Digitize e-commerce value chains,
  - o Standardize operations,
  - o Promote inclusion of suppliers, &
  - o Derive efficiencies in logistics.
- It is another effort by the govt to facilitate the creation of shared digital infrastructure on similar lines of Aadhaar & UPI.

Significance of this approach:

- India's approach of standardizing the digital infrastructure layer is unique & offers learning's for other countries.
- With effective implementation, this approach could create a level playing field & value for users.
- The e-commerce sector is ripe for such disruption because the market is dominated by a few players who are involved unfair trade practices & also sector is characterized by many small players who lack equitable bargains with e-commerce companies.
  - o To overcome this "market failure" phenomenon, the govt needs to intervene.
- The issue with this approach:
  - o This approach also comes with risks & it should be tread with caution.
  - o The govt should intervene in markets only when there is a identifiable market failure or massive societal benefits from creating shared infra.
- There is a need to design three layers of an open digital ecosystem that provide a useful conceptual framework to think of both adoption & safeguards.

The three-layered Open Digital Ecosystem:

- **Tech-Layer:**
  - o It should be designed for minimalism & decentralization
  - o The govt should restrict its role to facilitating standards & protocols that provide open access & in getting them adopted organically.
  - o The platform should be built on privacy by design principles.
    - ▪ Collect minimal amounts of data & store it in a decentralized manner.
  - o Data exchange protocols should be designed to minimize friction & be based on rules that protect the consumer interest.

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- o Certain tools like block-chain are to be used to build technical safeguards that cannot be overridden without active consent.
- **Governance Layer:**
  - o It should allay business fears of excessive state intervention in e-commerce.
  - o Any deployment of standards or tech should be accompanied by law or regulation that lays out the scope of the project.
  - o Data protection bill passing & creating an independent regulator should be a precondition for any collection of personal data.
  - o The govt should set up a independent or non-profit society to overlook the standards of platform for assurance of fairness to industry.
- **Community Layer:**
  - o It can foster a truly & inclusive participatory process, which can be achieved by making civil society & the public active contributors making minutes of meetings public & seeking feedbacks on drafts of the proposal.
  - o Ensuring quick & time-bound redressal of grievances will help build trust in the system after the implementation of the framework.
  - o Though govt's championing of open-source tech for digital commerce is commendable, it also should push the envelope on the other principles of the open-source movement.

What more needs to be done:
- Even after implementing above all, an infra-led approach may not be sufficient.
  - o For instance, even in the level playing UPI field, 80% of transactions processed by only 2 players.
- Therefore the ecosystem needs to supplement infra with tightly-tailored regulation.
- The adoption of an open e-commerce platform or standards in a sector entrenched incumbents that have a dominant market share is by creating non-mandatory reference applications & financial or non-financial incentives.

Way-ahead:
It is the need of the hour for India to explore the interoperability concept that mandates private digital platforms to enable their users & suppliers to seamlessly solicit business on other platforms.
It is high time for India that the boldness of the vision must be matched by the thoughtfulness of the approach.

SURVEILLANCE REFORM IS THE NEED OF THE HOUR

Surveillance reform is the need of the hour (GS 3 Security)

Context –
- India's The Wire, titled the 'Pegasus Project' report says that over "300 verified Indian mobile telephone numbers, including those used by ministers, opposition leaders, journalists, the legal community, businessmen, government officials, scientists, rights activists and others", were targeted using spyware made by the Israeli firm, NSO Group.
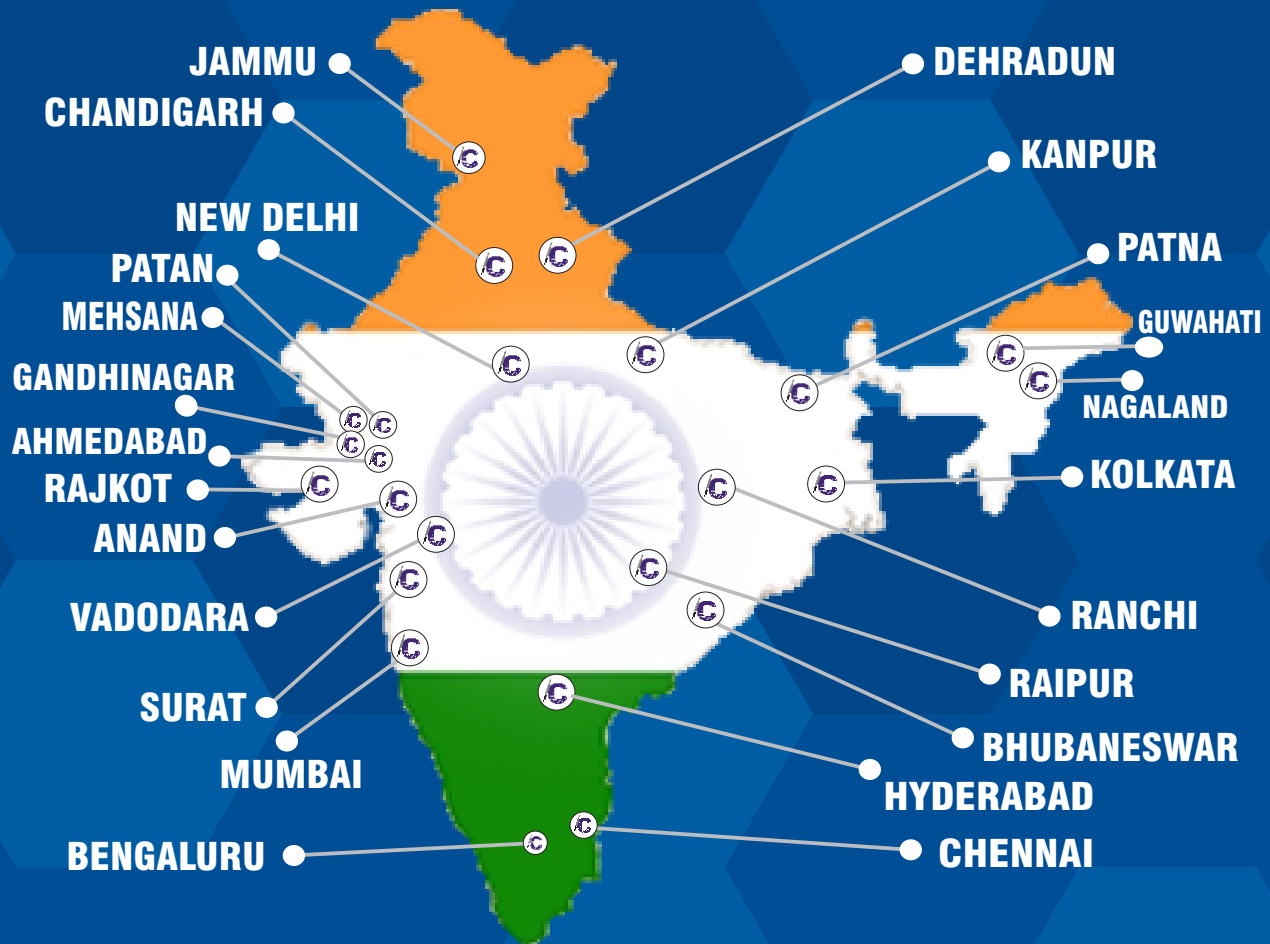
Threat to freedom of press –
- Subsequent reporting showed that the Pegasus spyware had been used to target 37 phones, of which 10 belonged to Indians.
- This time, a large percentage of Indians purportedly impacted by Pegasus are journalists.
- This is hardly surprising, given that India was ranked 142 out of 180 nations in Reporters without Borders' World Press Freedom Index in 2021.
- What is surprising, though, is that the press requires (and is allowed) greater speech and privacy safeguards in democracies.
- As a result, the absence of privacy puts a cloud of suspicion surrounding these journalists, essentially burying their credibility.

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Legal Basis –

- The Indian Telegraph Act of 1885 and the Information Technology (IT) Act of 2000 were used by the government to justify its actions.
- These provisions are dangerous even without the employment of Pegasus or any other hacking programme or surveillance, as they give the government complete opacity concerning its interception and monitoring activities.
- While the Telegraph Act regulates telephone calls, the IT Act regulates all communications that take place through a computer network.
- The Interception Rules of 2009 and Section 69 of the IT Act are much more opaque than the Telegraph Act, and the surveilled have even fewer protections.
- However, as hacking of computer resources, including mobile phones and apps, is a criminal offence under the IT Act, no provision authorises the government to hack into the phones of any individual.
- Nonetheless, surveillance, whether legal or not, is a flagrant infringement of persons' fundamental rights.
- Because the method is covert, there is no way for someone who has been subjected to surveillance to go to court before, during, or after acts of surveillance.
- Electronic surveillance, in the absence of parliamentary or judicial scrutiny, gives the administration the authority to affect both the subject of surveillance and all classes of citizens, chilling free speech.
- In 2013, the Central government reported that it issues between 7,500 and 9,000 orders for telephone interception every month in response to a Right to Information (RTI) request.
- RTI requests for such information are increasingly being turned down, citing national security and personal safety concerns.
- According to the government's ostensible response, any surveillance is carried out in accordance with "due process of law."
- The existing restrictions, on the other hand, are insufficient to prevent the growth of authoritarianism since they allow the executive to wield disproportionate power.
- Because such surveillance is conducted in secret, it violates Articles 32 and 226 of the Constitution (which empower the Supreme Court and the High Courts, respectively, to issue certain writs).

Role of Judiciary –

- Only the judge has the authority to determine whether specific instances of surveillance are proportionate, if less onerous alternatives exist, and how to balance the government's interests with the rights of those affected.
- Because the disclosed database of targeted numbers included the phone number of a sitting Supreme Court justice, judicial monitoring of surveillance systems in general, and judicial investigation into the Pegasus breach in particular, is critical.
- In India, surveillance reform is urgently required. Not only are existing safeguards inadequate, but the proposed legislation relating to the protection of Indian individuals' personal data ignores surveillance while granting broad exemptions to government officials.
- When spyware is expensive and interception is ineffective, the people being watched will be prioritised based on their perceived threat level to the current administration.
- Shortlisting people will become obsolete as spyware grows more affordable and eavesdropping becomes more effective.
- Everyone could be subjected to state-sanctioned mass surveillance.
- The only way to solve this problem is to implement immediate and comprehensive surveillance reform.

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Kudasan, Gandhinagar - 382421

V Vadodara: 720-390-1227
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Restaurant, Behind Fatehgunj Petrol Pump,
Vadodara, Gujarat-390002

N Ranchi: 931-321-8471
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Write us at: chahalacademy@gmail.com | www.chahalacademy.com

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