JOKTA ACADEMY

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Where Dreamers Are Achievers

JOKTA Academy
IAS/HAS/PCS

MONTHLY
CURRENT AFFAIRS
OCTOBER 2021

SCO-78-79, 2nd Floor above Standard Book Shop, Sector 15-D, Chandigarh

OUR ACHIEVER 2019-20

Priyanka
HAS Rank-12 (BDO)

Akshay Sharma
HAS Rank-9 (DEO)
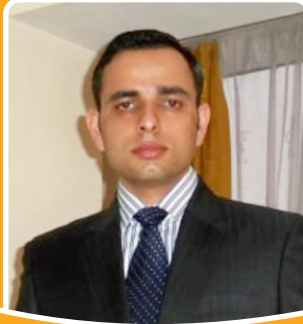
Anshul Kumar
HAS Rank-15 (DEO)

Mayank Sharma
HAS Rank-2 (SDM)

I must honestly state that Jokta Sir's book on General Studies for HAS Mains helped me in completing the Himachal portion of General studies quite exhaustively. Also, the inputs of the esteemed panel in the Mock Interview assisted in improving my performance in the actual interview. Cumulatively, these resources proved beneficial in helping me secure Rank 2 in the HAS exam.

MAYANK SHARMA
Rank-2 HAS-2019

Vipan Kumar
District Manager

I admit with utmost honesty that Jokta sir's books personal guidance and motivation have helped me alot in clearing District manager exam. My engagement with academy as well as with suresh Jokta sir benefited me Immensly to clear this exam.

VIPAN KUMAR
DISTRICT Manager
(2021)

EXECUTIVE OFFICERS/SECRETARY

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Executive Officer
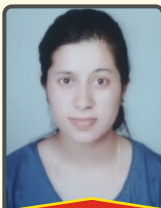
Piyush Chauhan
Secretary

Rajneesh Chauhan
Secretary

JOKTA Academy
IAS/HAS

Our Selection in Allied Services

Priyanka
Ex Inspector

The crisp and concise content provided by Jokta academy faculty alongwith Jokta's H.P. G.k. book and compiled economic survey helped me a lot right before the exam. I would like to take this opportunity to thank Jokta academy and Jokta sir in particular for helping me to crack the exam.

PRIYANKA
H.P. Subordinate
Allied Services
(ETI)- 2019

Poonam Verma
*Election Kanungo
(Deptt. of Election)*

I am grateful to the whole team of Jokta Academy for being good, in fact excellent in your teaching style and content. I have been part of Academy since first day of my preparation and the team leave no stone unturned in building, foundation of my preparation. The test series and constant guidance, motivation and support provided by Jokta Sir is redefining the way of preparation.
Poonam Verma
Election Kanungo
(Deptt. of Election)

Sunil Kumar
Ex Inspector

Every Success story is an outcome of so many factors, efforts of n no. of people and various institution. And I feel blessed to have JOKTA ACADEMY for civil services as my mentor in this entire journey. Quality material, aspirant friendly environment and above all JOKTA Sir as guide are some of the prominent features of this Academy that helped me to clear H.P Allied Services 2nd time in a row.

Dharmender Kumar
Inspector Audit

I have followed Jokta Academy materials for pre. + mains during my preparation, that help me a lot. I wish to thank Jokta Sir from bottom of my heart for their content as well as optimism, brevity of response as well as ability to motivate students.

Deeply Greatful
Dharmender kumar
HPSAS-2019 Inspector Audit

Shubham Bhardwaj
Inspector Audit

I would like to extend my gratitude towards Jokta sir for his valuable guidance and constant support throughout the journey. Jokta academy's study materials, test series in particular has great role in my success. However, whatever, I got you had a big role played in it. So accept my humble gratitude and felicitation.
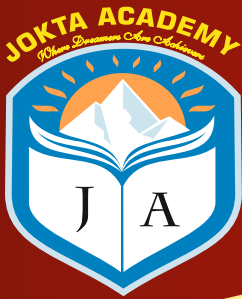
Shubham Bhardwaj
Inspector Audit
(HPSAS- 2019)

Aman Dhiman
Inspector Audit

The pedagogical efficacy and quality of relevant material provided by Jokta Academy has guided me throughout the journey as a HPAS aspirant. Suresh Jokta sir has motivated me in every step of the way which has made the process considerably less cumbersome and more optimistic. This makes me extremely grateful and proud to be a part of this institute.
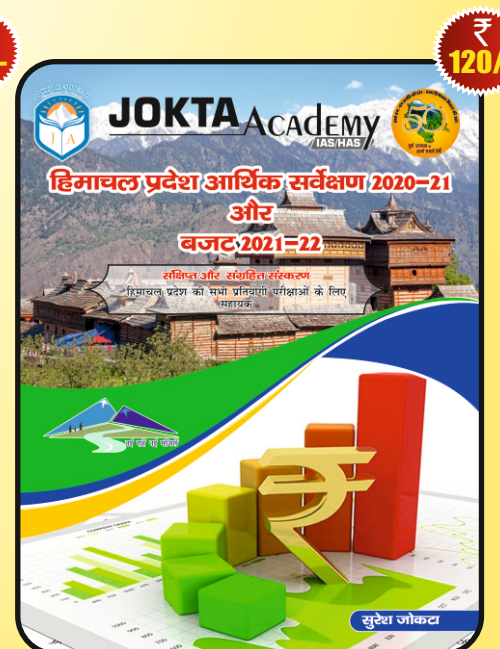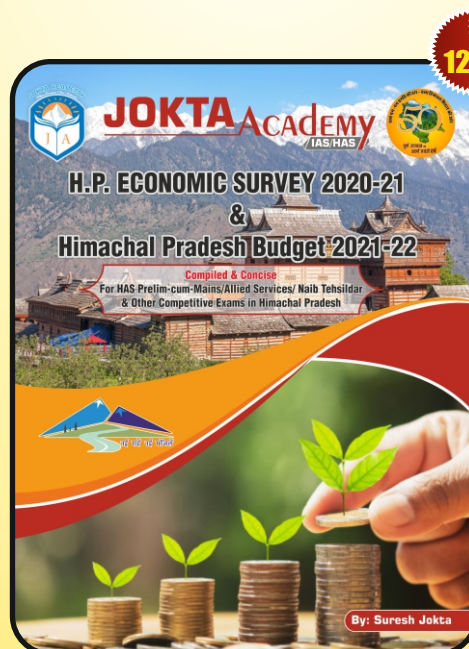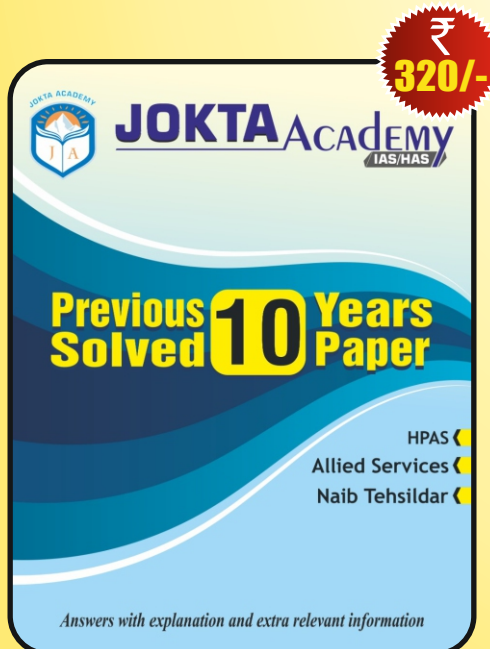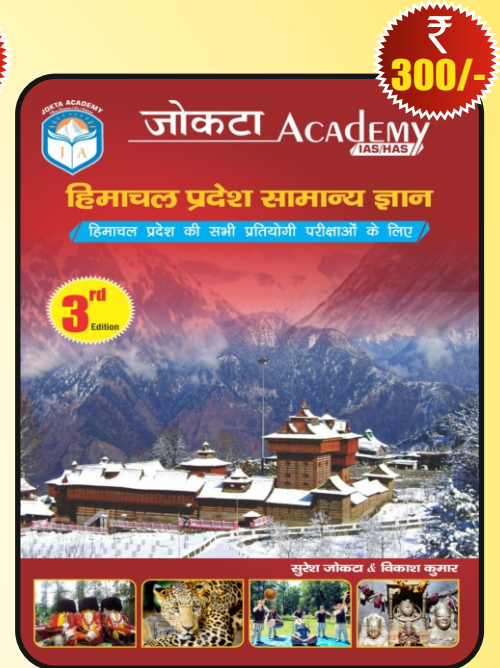
Aman Dhiman
HPSAS-2019

Polity and Governance

1. PM. Poshan Scheme

Why in news?

Recently, the Union Cabinet has approved the Prime Minister POSHAN scheme.

- The existing **Mid-Day Meal scheme**, which provides hot meals to school students, will be renamed as National Scheme for PM Poshan Shakti Nirman.
- **A total budget of over Rs 1.3 lakh crore** has been allocated for the continuation of the scheme for five years, from 2021-22 to 2025-26.

Key highlights of the proposed scheme:

Coverage:

- Under the mid-day meal scheme, hot cooked food is provided currently to students from Classes 1 to 8, around 11.80 crore children in all, in 11.20 lakh government and government-aided schools..
- Under PM Poshan Shakti Nirman or PM POSHAN scheme, **24 lakh more children in pre-primary classes, currently covered under the ICDS, will also be brought in.**
- Last year, the government had opened pre-schools called Balvatikas attached to angandwadis.
  - ➢ Balvatika is the pre-school that was started in government schools last year to include children aged younger than six years in the formal education system.
  - ➢ Primary (1-5) and upper primary (6-8) schoolchildren are currently entitled to 100 grams and 150 grams of food grains per working day each, to ensure a minimum of 700 calories.

School Nutritional Gardens:

- Government is promoting development of **School Nutrition Gardens** in schools to give children first-hand experience with nature and gardening.
- The harvest of these gardens is used in the scheme providing **additional micro nutrients**. School Nutrition Gardens have already been developed in more than 3 lakh schools.

Supplementary Nutrition:

- Special provision is made for providing supplementary nutrition items to children in **aspirational districts and districts with high prevalence of Anaemia.**
  - ➢ It does away with the restriction on the part of the Centre to provide funds only for wheat, rice, pulses and vegetables.
  - ➢ Currently, if a state decides to add any component like **milk or eggs** to the menu, the Centre does not bear the additional cost. Now **that restriction has been lifted.**

> Primary (1-5) and upper primary (6-8) schoolchildren are currently entitled to 100 grams and 150 grams of food grains per working day each, to ensure a minimum of 700 calories.

Tithi Bhojan Concept:

- **TithiBhojan is a community participation programme** in which people provide special food to children on special occasions/festivals.
- Children coming from affluent families will be urged to bring two lunch boxes so that nutritious food can be provided to needy kids on a voluntary basis.

Vocal for Local for Aatmanirbhar Bharat:

- Involvement of **Farmers Producer Organizations (FPO)** and **Women Self Help Groups** in implementation of the scheme will be encouraged.
- Use of locally grown traditional food items for a fillip to local economic growth will be encouraged.

Direct Benefit Transfer (DBT):

- The central government will ensure **Direct Benefit Transfer (DBT)** from states to schools, which will use it to cover cooking costs.
  > Earlier money was allocated to the states, which then included their share of the money before sending it to a nodal midday meal scheme authority at district and tehsil levels.
- This is to ensure no leakages at the level of district administration and other authorities.
- While the union government bears the entire cost of food grains and their transportation, as well as looks after the management, monitoring and evaluation under the scheme, components such as cooking costs, payments to cooks and workers are split in **a 60:40 ratio with states.**

Nutrition Expert:

- A nutrition expert is to be appointed in each school whose responsibility is to ensure that health aspects such as Body Mass Index (BMI), weight and haemoglobin levels are addressed.

Field visits and Social Audit of the Scheme:

- A social audit of the scheme has also been mandated for each school in each state to study the implementation of the scheme, which was so far not being done by all states.
- Field visits for progress monitoring and inspections will be facilitated for students of eminent Universities / Institutions and also trainee teachers of Regional Institutes of Educations (RIE) and District Institutes of Education and Training (DIET).

Challenges:

- **Malnutrition:** Despite such integrated child development schemes, India faces severe issues like child stunting, child mortality, child wasting and undernourishment.

- The same is reflected with India's rank of 94 in Global Hunger Index 2020.
- The National Family Health Survey 2015-16 reported 39 percent of children to be chronically undernourished.
- **Corruption:** There have been instances of plain chapatis being served with salt, mixing of water in milk, food poisoning etc.
- **Caste Biasness:** Food is central to the caste system, so in many schools, children are made to sit separately according to their caste status.

2. SACRED Portal for Elderly

Why in news?

The senior citizens seeking work opportunities will be able to register themselves on a **first-of-its-kind dedicated employment exchange portal for the elderly.**

About SACRED Portal-

- **'Senior Able Citizens for Re-Employment in Dignity** (SACRED)' portal is to bring the employment seeker senior citizens (**60 years and above**) and employment providers on one platform.
- Web portal will be developed through the **National Informatics Centre (NIC).**
- An individual senior citizen will get himself registered on the portal with his relevant education, past experience, skills and the areas of interest.
- The person will also select keywords regarding expected tasks, which will enable the job providers to find them automatically.
- **Details can be updated by the Senior.**
- Any job provider – individual / firm/ company/ partnership/ Voluntary Organisation etc. can also register on the portal.
- **Voluntary Organizations will help the senior citizens in applying for these jobs** and no user charges will be taken from any of the senior citizens.
- The Employment Exchange Portal will not be a guarantee for getting a job/ employment or selling of the products of the SHGs, or for any other activity.
- It will act as **an interactive platform where** stakeholders meet each other virtually and decide on the course of action with mutual respect, consent and understanding.
- An amount of **Rs. 10 Cr** would be provided for funding for the platform development along with maintenance grant of **@ Rs. 2 Cr per year for 5 years.**

3. 2nd Phase AMRUT Mission

Why in news?

Recently, Prime Minister Narendra Modi unveiled the second phase of the **Atal Mission for Rejuvenation and Urban Transformation (AMRUT).**

About AMRUT 2.0

- It aims to provide **100% coverage of water supply to all households** in around 4,700 urban local bodies by providing around 2.68 crore tap connections.
- It also envisages **100% coverage of sewerage and septage** in 500 AMRUT cities by providing around 2.64 crore sewer or septage connections, benefiting more than 10.5 crore people in urban areas.
- It would **follow circular economy principles** and promote the **conservation and renewal of surface and groundwater bodies.**
- A drinking water survey will be conducted to provide better water services to the people.
- It will promote **data-led governance in water management and Technology Sub-Mission to leverage the latest global technologies and skills.**
- **'Pey Jal Survekshan'** will be conducted to promote progressive competition among cities.
- The outlay of AMRUT 2.0 is around **Rs 2.87 lakh crore.**

4. Coal Crunch in India

Why in news?

India's thermal power plants are facing a **severe coal shortage, with coal stocks having come down to an average of four days of fuel** across an increasing number of thermal stations.

Contribution of coal in power sector:

Installed GENERATION CAPACITY(FUELWISE) AS ON 31.08.2021		
CATAGORY	**INSTALLED GENERATION CAPACITY(MW)**	**% of SHARE IN Total**

Fossil Fuel	2,34,859	60.9%
Coal	**2,02,805**	**52.6%**
Lignite	6,620	1.7%
Gas	24,924	6.5%
Diesel	510	0.1%
Total Fossil Fuel	**2,34,859**	**60.9%**

Reasons behind coal shortage

- **Increased power demand** - A sharp uptick in power demand as the economy recovers from Covid-19 pandemic coupled with supply issues have led to coal shortage.
  - ➢ India consumed 124 billion units of power in August 2021 compared to 106 billion units of power in August 2019.
- **Heavy rains in September-** Heavy rains in coal-mining areas hit production and delivery, and plants failed to build up their stocks pre-monsoon.
- **Supply crunches** - Lower than normal stock accumulation by thermal power plants in the April-June period is another reason.
- **Fall in imports** – There has been sharp fall in imports due to high international prices.
- **Non-payments of coal dues** - The non-payments of coal dues by States such as Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and Madhya Pradesh also resulted in inadequate supplies.

Likely impact of coal shortage

- The electricity shortages could delay India's economic reopening.
- It might lead to downscaling of business productions.
- India's population and under developed energy infrastructure will mean the power crisis could hit long and hard.

Measures taken by the Government

- The Power Ministry has constituted a **Core Management Team** to monitor and manage the fuel on daily basis to improve supplies to power plants.
- Coal India, the state-owned miner claims that it has ramped up supplies to thermal power plants by nearly 12 per cent annually.
- The government is pressing **thermal plants with captive coal mines to boost their coal output** to meet their own demand.
- The Power Ministry is trying to expedite the start of production from a number of mines that already have all requisite clearances.
- The government has also boosted the number of rakes of coal being transported to thermal power plants daily.

Way forward

- State run **Coal India and NTPC Ltd. can work together** to raise the output from mines.
- India has to ramp its imports despite the financial cost.
- Advance preparation and ensuring sufficient stocks ahead of monsoons is a well known strategy.

5. Jurisdiction Enhancement of BSF

Why in news?

The Union Home Ministry has enhanced the powers of the Border Security Force (BSF) to "arrest, search and seize" within 50 km from the international boundary in Assam, West Bengal and Punjab.

> Earlier, the BSF's limit was fixed up to 80 km from the international boundary in Gujarat and 15 km in Rajasthan, Punjab, West Bengal and Assam.

About new modifications

- The MHA has exercised the powers under the **Border Security Force Act of 1968.**
- It has thus outlined the area of BSF's jurisdiction.
- While the places marked here are **within 50 km of the respective borders**, this is not meant to represent the BSF's jurisdiction.
- At the same time, the Ministry has reduced BSF's area of operation in Gujarat from 80 km from the border, to 50 km.

Powers exercised by BSF in its jurisdiction

BSFs jurisdiction has been extended only in respect of the powers it enjoys under:

- Criminal Procedure Code (CrPC)

- Passport (Entry into India) Act, 1920 and
- Passport Act, 1967

Arrest and search

- BSF currently has powers to arrest and search under these laws.
- It also has powers to arrest**, search and seize under the NDPS Act, Arms Act, Customs Act and certain other laws.**

Sanctions behind such powers

- **Scarcely populated borders**: At that time, border areas were sparsely populated and there were hardly any police stations for miles.
- **Trans-border crimes**: To prevent trans-border crimes, it was felt necessary that BSF is given powers to arrest.
- **Manpower crunch**: While police stations have now come up near the border, they continue to be short-staffed.

Issues at Borders

- Encroachment
- Illegal incursion
- Drug and cattle smuggling

Why has the government extended the jurisdiction?

- The objective of the move is to **bring in uniformity** and also to **increase operational efficiency**. Earlier BSF had different jurisdictions in different states.
- BSF often gets information relating to crime scenes that may be out of their jurisdiction.
- The move was also necessitated due to increasing instances of **drone-dropping of weapons and drugs.**

Impact on State Police jurisdiction

- This move will **complement the efforts of the local police**. Thus, it is an enabling provision.
- It's not that the local police can't act within the jurisdiction of the BSF.
- The state police have better knowledge of the ground. Hence BSF and local Police can act in cooperation.

Criticism of the move

- At a basic level, the states can argue that law and order is a state subject and enhancing BSF's jurisdiction **infringes upon powers of the state government.**
- In 2012, then Gujarat CM and the present PM had opposed a central government moves to expand BSF's jurisdiction.

6. Ayushman Bharat Health Infrastructure Mission

Recently Prime Minister Narendra Modi has launched the Ayushman Bharat Health Infrastructure Mission, one of the **largest pan-India schemes for strengthening healthcare infrastructure**, in his parliamentary constituency **Varanasi.**

About the scheme:

- The scheme aims at **strengthening healthcare infrastructure** across the country.
- Its objective is to **fill gaps in public health infrastructure**, especially in **critical care facilities** and primary care in both urban and rural areas.
- Through this, critical care services will be available in all the districts of the country with more than five lakh population through **exclusive critical care hospital blocks**, while the remaining districts will be covered through referral services.
- People will have access to a **full range of diagnostic services in the public healthcare system** through a network of laboratories across the country, and integrated public health labs will be set up in all the districts.
- **Integrated public health labs** will also be set up in all districts, giving people access to "a full range of diagnostic services" through a network of laboratories across the country.
- An IT-enabled disease surveillance system will be established through a network of surveillance laboratories at block, district, regional and national levels.
- All the public health labs will be connected through the Integrated Health Information Portal, which will be expanded to all states and UTs.

Institutions to be set-up under the scheme:

- Under the scheme, **a national institution for one health, four new national institutes for virology, a regional research platform for WHO South East Asia Region, nine biosafety level-III laboratories, and five new regional national centres for disease control will be set up.**

Significance of the scheme:

- It will provide support for **17,788 rural health** and wellness centres in **10 high-focus states.** Further, **11,024 urban health and wellness centres will be established in all the States.**

7. Pegasus Case

Why in news?

Recently, the Supreme Court decided to **pass interim orders after the government did not respond with a "detailed" affidavit**, to allegations that it used Israeli-based Pegasus software to spy on citizens.

> ➢ According to the government, **such an affidavit in the top court would be too public and compromise national security.**

About Pegasus:

- Pegasus is the name of a spyware developed by **Israeli firm NSO**. It can be introduced surreptitiously into mobile devices and can suck up all data and meta-data on the infected device as well as monitor conversations, chats and browsing.
- Pegasus, is perhaps the **most powerful spyware ever created**. It is designed to infiltrate smartphones — Android and iOS — and turn them into surveillance devices.
- The Israeli company, however, markets it as a **tool to track criminals and terrorists** — for targeted spying and not mass surveillance.

Users of Pegasus:

- NSO claims it will only sell the software to **verified government agencies**, with **a contractual clause** that the spyware can only be used in cases of suspected crime or terrorist activity.
- In practice, the clause is unenforceable -- any buyer can then use it as they please.
- However, it is possible for NSO to verify potential buyers and check whether they are official agencies, though it refuses to release its client list.
- NSO claims it has **60 clients in 40 countries**. NSO also says the spyware is mainly used by law enforcement and intelligence agencies as well as the military.

What's special about Pegasus?

- It is a very **sophisticated spyware**, which can remotely infect a very wide range of devices, without any action on the target's part.
- Most mobile spyware is installed by getting hold of the **physical device or via phishing.**
- For instance a text message/WhatsApp/e-mail with a malicious link is sent, and the target gets infected when he or she clicks on that link. Pegasus can be transmitted this way.
- More importantly, **Pegasus can infect mobiles by sending malicious WhatsApp messages, without any actions being necessary on the target's part.**
- NSO has, in fact, been sued by WhatsApp for exploiting this vulnerability.
- Pegasus can also be spiked into the target's phone from a nearby base transceiver station (BTS). **BTS is standard equipment used by telecom service companies to route and re-route signals.**

What can Pegasus do?

- Once installed, **the spyware takes a wide range of permissions**, allowing it to monitor location, e-mails, grab contact lists, take screenshots, grab media, grab instant messages and SMS, access browser history, take control of the phone's mike and cameras, etcetera.
- Pegasus can also be **deleted remotely**. It is very hard to detect and once it is deleted, leaves few traces.
- It can also be used to plant messages/mails, etcetera, which is why there are theories it may have been used to plant fake evidence to implicate activists in the **Bhima Koregaon case.**

Pros and cons of public surveillance

Pros

- **Increase Public Safety:** Just like surveillance on our private property improves our home security, public surveillance increases public safety.
- **Reduce Crime Rate:** It can keep an eye out for crimes as well as act as a deterrent.
- **Captures "precrime" data**
- **Helps Catch Criminals**
- **It helps authorities to track criminals down.**
- **Encourages good behavior**
- **Provide Evidence & Gather Clues**
- **Acts as reassurance**
- **Convenience**

Cons

- **Easily Abused:** Unfortunately, this technology can be easily abused. For example, information collected can potentially be used as a form of blackmail. Another example is voyeurism and stalking. To combat these issues, strict regulations on public surveillance must be put into place.
- **Reduces personal privacy**
- **Reduces personal freedom**
- **Freezes free speech**
- **Creates a "Big Brother" society**
- **Creates a "nanny state"**
- **Brings into disrepute the role of government**
- **Blurs moral and legal boundaries**
- **Undermines the rule of law**
- **Increases societal "paranoia"**
- **Narrows choices through creation of algorithmic "echo chambers"**
- **Increases supply side manipulation**
- **Information asymmetry (supply side high, demand side low)**
- **Doubts about Effectiveness**

Economy

1. Air India Disinvestment

Why in news?

Recently, the government announced its decision to sell its entire stake in Air India (AI) as well as AI's stake in two other businesses -**Air India Express Ltd (AIXL)** and **Air India SATS Airport Services Pvt Ltd** (AISATS).

> ➢ AI was started by the **Tata Group in 1932,** but in 1947, as India gained Independence, the government bought **49% stake in AI.**
> ➢ In **1953,** the government bought the remaining stake, and AI was **nationalised.**

Reasons for disinvestment

These include **high labor cost and low productivity, an obsolete work culture, weak leadership, a non-performing board and ministerial interference in day-to-day affairs**. Lack of expertise is another key factor.

- **No profit:** Air India has not registered profit since over a decade after the merger of the erstwhile Indian Airlines (domestic operations) with Air India (international operations) in 2007.
- **Debt of ₹52,000 crore:** It is tottering under a mountain of debt and is surviving on doles from the government.
- **Poor performance:** Air India's market share has also eroded rapidly over the years due to competition from private players — from 19.4% in 2013 to around 13.3% in May 2017. The airline lags behind most Indian domestic airlines when compared on the basis of their cancellations (2.6%), on-time performance (53.5%) or airline load factor (80.9%)
- **Mismanagement:** The airline has been grossly mismanaged over the years and controversial decisions have been taken.
- **Too many employees:** AI has 26,978 employees (including permanent, contractual, casual, and on-deputation staff) for a fleet of 115 aircraft — or **234 employees per aircraft.**
- **Corruption:** The CBI has initiated investigations into key decisions made on Air India including the merger of Air India and Indian Airlines, purchase of 111 aircraft by the national carrier and giving away of profitable routes to rival airlines.
- **Failure of 2012 turnaround plan:** As per the Comptroller and Auditor General of India, compared with the target of raising Rs 500 crore annually through monetization of assets in the four-year period from 2012-13 to 2015-16, the company managed to raise only Rs64.06 crore.
- **Market economy**: The government should not be in the business of providing goods and services where the private sector has a vibrant presence.
- **Opportunity cost**: It has been elaborated by the 14th Finance Commission, the opportunity cost of such investments should be considered. The government has fiscal constraints and needs to spend more in important areas such as health and education.

- **Disinvestment target:** The target for disinvestment receipts has increased to Rs 1.05 trillion for FY20, from Rs 90,000 crore in the interim Budget presented in February.

Possible benefits of privatization of Air India

- **Investor sentiments:** Divesting the loss-making Air India will send a strong signal to investors that India is serious about reforms and is no longer willing to throw good money after bad.
- **Paving the way for disinvestment of other loss-making companies**: Bharat Sanchar Nigam Ltd (BSNL) and Mahanagar Telephone Nigam Ltd (MTNL). Are not able to compete in India's hyper-competitive telecom market.
- **Tourism sector**: Airlines are an 'upstream' industry that a lot of businesses and industries depend on. Compared to the 150 or so international destinations that Qatar and Emirates fly to, AI flies to mere 37 international destinations. For international operations, one needs bilateral rights of India, and Air India has plenty of them.
- **Private sector**: It will release valuable landing spots in key airports for private airlines.
- **Social sector**: The money can be diverted to the social sector schemes.

Arguments against privatizing Air India

- **Interests of employees:** There will be a huge number of job losses.
- **Social obligations**: the public sector undertakings (PSUs) have some social obligations as well apart from profit motives.
- **India needs a national airline**: Airlines are the means of public transport where competition may endanger the lives of people by compromising on safety

Way forward

- All depends in what avatar the govt. will sell it and how much debt it will put on the books.
- The acquirer would need to bring a **significant amount of operational improvement** to generate value from the transaction.
- **A piecemeal approach** will result in better overall interest and demand.
- **Reviving the sick airlines industry:** There is a need for comprehensive civil aviation reforms as many other airlines are reeling under the distress.
- **Fuel prices:** India is a price-sensitive market. If the fuel price is low, airlines can make money even at current revenue levels. The first step will be to lower the prices of Jet fuel which is 35-40% more expensive in India than in the rest of the world, because of relatively high tax rates.
- **Easing regulations:** The government can also reduce cumbersome regulation like route dispersal guidelines (RDG) that results in overcapacity in certain markets with a more comprehensive demand-supply and auction-driven regional connectivity scheme.

2. PM's 60-Point Action Plan

Why in news?

Recently, the Centre has prepared a **comprehensive 60-point action plan** following Prime Minister Narendra Modi's marathon meeting with secretaries of all departments and ministries.

About PM's 60-Point Action Plan

- The 60-point plan is targeted at specific ministries and departments.
- It can be broadly categorized under three heads:
- leveraging IT and technology for governance
- improving business climate
- upgrading the civil services

Key-highlights of the major categories:

Leveraging IT and Technology for Governance:

- There are several actionable inputs for the Ministry of Electronics and Information Technology from streamlining the disbursement of scholarships to **bridging the digital divide for underprivileged students by developing indigenous tablets and laptops.**
- **Digitizing all land records by 2023** under the central database called **'Matribhumi.'** Integration with the e-Courts system will provide transparency on title/possession-related issues.
- Citizenship can be linked to birth certificates using technology and focus.

Improving Business Climate:

- It includes the **complete abolition of certain permits, reducing the cost of starting a business in 10 sectors and bringing it in line with Vietnam and Indonesia**, automatic permitting information, and one-point access to all government services.
- **Incentives for timely land acquisition and forestry approval**, a comprehensive Environment Management Act that makes for a variety of laws in the field.
- **An advisory platform for start-ups and skills programs** in emerging sectors.
- It uses the **Geographic Information System (GIS)** decision-making map to increase the country's GDP **(Gross Domestic Product).**
- Aiming to find jobs while negotiating trade measures.

Upgrading the Civil Services

- **Capacity building (Mission Karamyogi)** - training of officers on various aspects of infrastructure in both the Centre and states, infusion of expertise, and exposure to latest technologies for higher civil services.
- **Performance-oriented, clear, and targeted performance** of Ministers and departments as is the case in the public sector, the mechanisms for dealing with countries with their limited

jurisdiction, and the restructuring of departments through Government Technology Reconstruction (GPR) every ten years.

- GPR is designed to address **the 'problems' or 'needs'** of an organization or its customers to improve the overall quality of services.
- **More Appointments of Chief Information Officers (CIOs) and Chief Technology Officers (CTOs) as data can be used effectively.** All government information must be made accessible to all sectors.

3. Global Agricultural Productivity Report (GAP Report)

Why in news?

Recently, Global Agricultural Productivity Report 2021 was launched by the **Virginia Tech, a U.S. university.**

Key Highlights of the Report:

- **Total factor productivity (TFP)** is growing at an annual rate of 1.36 per cent (2020-2019).
  - TFP tracks changes in **how agricultural inputs like land, labour, fertiliser, machinery, are transformed into outputs like crops, livestock, and aquaculture products.**
- **Climate change** has reduced **productivity growth globally by 21 per cent since 1961.**

Regional TFP rates:

- **Low-income countries**: contracting by 0.31 % per year due to minimal investments in agricultural research and development (R&D).
- **Middle-income countries** (including India): continued to have strong TFP growth rates.
- **High-income countries** (including North America and Europe): modest TFP growth.
- **Drier regions of Africa and Latin America**: slowed productivity growth at 34 % per year.

Productivity Growth in India:

- In India an average annual TFP growth stood at **2.81 percent and output growth is 3.17 percent (2010–2019.)**
- Rising temperature, and changes in rainfall patterns, could cut yields for India's major food crops by 10 percent by 2035.
- As per the Ministry of Agriculture, **out of the 147 million landholdings in India, 100 million are less than two hectares in size.**
- The **inefficient use of labor contributes to high rates of rural poverty and food insecurity.**

Strategies to create Sustainable Agricultural Growth:

- **Invest in agricultural research and development**.

- **Embrace science-and-information-based technologies**.
- **Improve infrastructure** for transportation, information, and finance.
- **Cultivate partnerships** for sustainable agriculture, economic growth, and improved nutrition.
- Expand and improve local, regional, and global trade.
- **Reduce post-harvest loss and food waste.**

4. Krishi UDAN 2.0

Why in news?

The Civil Aviation Ministry on **October 27, 2021**, launched **Krishi Udan 2.0 scheme**, which focus on **optimizing and incentivizing air transportation of agricultural produce from hilly areas, northeastern states, and tribal regions across India.**

About Krishi UDAN 2.0 Scheme:

- Krishi UDAN Scheme was launched in 2020 on international and national routes to assist farmers in **transporting agricultural products** so that it **improves their value realisation.**
- Krishi UDAN 2.0 will focus on **transporting perishable food products from the hilly areas, northeastern states and tribal areas.**
- The scheme will be implemented at **53 airports across the country**, mainly focusing on Northeast and tribal regions, and is likely to benefit farmers, freight forwarders and Airlines.

Key features of the Krishi UDAN 2.0 scheme:

- **Facilitating and incentivizing movement of Agri-produce by air transportation**: The scheme will provide a full waiver of landing, parking, Terminal Navigation and Landing Charges and Route Navigation Facilities Charges for domestic airlines.
- **Strengthening cargo-related infrastructure at airports and off airports:** The Ministry will facilitate the development of a hub and spoke model and freight to transport perishable products.
- **Concessions sought from other bodies:** The Ministry has asked states to reduce sales tax on Aviation Turbine Fuel (ATF) to 1 percent for airlines under Krishi UDAN 2.0.
- **Resources-Pooling through establishing convergence mechanism:** Collaboration with other government departments and regulatory bodies.
- **Focus Routes:** Seven focus routes and the agro products to be flown from there have been identified under the scheme.
- **Technological convergence**: Development of **E-KUSHAL (Krishi UDAN for Sustainable Holistic Agri-Logistics).**

5. SAMBHAV Awareness Programme: MSMEs

Why in news?

Recently, Ministry of Micro, Small & Medium Enterprises (MSME) has launched e-National Level Awareness Programme 2021 titled as 'SAMBHAV' to promote engagement of the youth in promoting entrepreneurship in New Delhi.

About SAMBHAV:

- SAMBHAV calls for **engagement of the youth in promoting entrepreneurship, leading to the economic development of the country.**
- The mass outreach program is a **one-month long initiative under the Ministry of MSME** in which students from different colleges/ITIs from all parts of the country will be encouraged by 130 field offices of the Ministry to take up entrepreneurship.
- During the campaign the **college students will be made aware of the various schemes being implemented by the Ministry of MSME through Audio/Video film presentations.**
- Awareness programs will be conducted in more than **1,300 colleges across the country in which 1,50,000 students are expected to participate.**

Objective:

- To **encourage youth to participate in promoting entrepreneurship and domestic manufacturing** with a view to promoting economic development.

Need:

- The government is working to **increase the contribution of MSMEs to the Gross Domestic Product (GDP) and exports.**
- Emphasis is being laid to increase the contribution of MSMEs to the GDP from the **current 30 percent to 50 percent** and **to increase the employment in the MSME sector from 11 crores to 15 crores.**

6. Gati Shakti-National Master Plan

Why in news?

Recently, the PM Gati Shakti-National Master Plan for multimodal connectivity was just launched by the Prime Minister.

About Gati Shakti:

- The Prime Minister made the announcement on the **75th anniversary of the country's independence.**
- It's a nationwide master plan for **connecting infrastructure developments across modes of transportation.**
- It will assist India in realising its ambition to become the world's **"business capital."**
- Its goal is to **reduce logistics costs by coordinating the design and execution of infrastructure projects.**

Project's focus areas:

- It will help **local manufacturers boost their global reputation and compete with their global counterparts**. It also opens up the possibility of other economic zones in the future.
- It will aid India's manufacturing and export efforts. Every product that comes from India and is sold around the world is associated with India.
- By 2024-25, the plan calls for **11 industrial corridors**, a **defence production turnover of Rs 1.7 lakh crore, and 38 electronics manufacturing clusters and 109 pharmaceutical clusters.**
- **Railways must handle 1,600 million tonnes of freight by 2024-25,** up from 1,210 million tonnes in 2020, and decongest 51% of the network by building additional lines and implementing two Dedicated Freight Corridors (DFCs).
- By 2025, the goal for civil aviation is to increase the current aviation footprint to **220 airports, heliports, and water aerodromes.**

Importance of high-quality infrastructure:

- It is widely acknowledged that building high-quality infrastructure for long-term development is a tried-and-true method for generating a wide range of economic activity and large-scale employment.

Need for Integrated Infrastructure Development:

- Due to a **lack of coordination and sophisticated information exchange**, there is a significant gap between **macro planning and micro implementation**, as departments conceive and function in silos.
- According to a study, **India's logistics costs are around 13% of GDP**, which is more than that of wealthy countries.
- The competitiveness of **India's exports is severely harmed as a result of these high logistics costs.**
- It is well acknowledged that building high-quality infrastructure for Sustainable Development is a proven method for generating a wide range of economic activity and large-scale employment.

- The plan complements the **National Monetisation Pipeline (NMP).**
- The NMP was announced in order to establish a **clear framework for monetisation and to present potential investors with a ready-to-invest asset list.**

Concerns

- **Low Credit Offtake**: Despite the government's strong banking sector reforms and the Insolvency and Bankruptcy Code's recovery of around Rs. 2.4 lakh crore on bad loans, there are concerns about sliding credit offtake trends.
- Banks provide credit off-takes to help firms obtain finance for future projects by promising future income and demonstrating the existence of a market.
- Insufficient Demand: There is a dearth of private demand and investor demand in the post-Covid-19 scenario.
- **Structured Concerns:** Project implementation is extremely delayed by global standards due to land acquisition delays and litigation issues.
- In terms of land access and environmental clearances, obtaining approvals is extremely complex; also, pending litigation in court hinders infrastructure development.

Way forwrd

- India's goal of becoming a **$5 trillion economy will rely heavily on infrastructure development.**
- India is interested in using cutting-edge technology and materials in road construction and is willing to adopt new material and technology guidelines, in order to achieve its objectives..

7. Tax Inspectors Without Borders (TIWB) Programme

Why in news?

Tax Inspectors without Borders (TIWB) just began their programme in the **Seychelles. India was chosen as the program's partner administration** and has **provided a tax expert.**

About Program for Tax Inspectors without Borders:

- The TIWB initiative is a **capacity-building initiative.**
- It's a **joint OECD/UNDP effort that began in July 2015** with the **goal of improving developing countries' auditing capabilities and multinational companies' compliance around the world.**
- **It sends trained professionals to developing nations in Africa, Asia, Eastern Europe, Latin America, and the Caribbean** to assist in the development of tax capacity in areas such as audit, criminal tax investigations, and the efficient use of automatically transferred data.
- In several of the world's least developed countries, **TIWB aid has resulted in enhanced domestic resource mobilisation.**

Concerning the situation

- The duration of this programme is scheduled to be **12 months.**
- India will work with the TIWB Secretariat and the UNDP Country Office in Mauritius and Seychelles during this time.
- The goal is to **assist Seychelles in developing its tax administration by sharing best audit practises and passing technical know-how and skills to its tax auditors.**
- The curriculum will concentrate on **Transfer Pricing examples in the tourism and financial services industries.**
- This is the 6th TIWB programme to be supported by India, which has provided Tax Experts.
- India has already **provided assistance to Bhutan** under the similar initiative.
- It shows **India's commitment to South-South Cooperation, the SAGAR initiative, and an older brother approach to the Indian Ocean nations.**

8. Production Linked Scheme for Textile Sector

Why in news?

Recently the Cabinet has approved a **Production-Linked Incentive (PLI) scheme for the textiles sector worth Rs 10,683 crore.**

> ➢ The scheme aims to **attract fresh investment of Rs 19,000 crore** in the sector for production of in-demand textiles, and additional turnover of **Rs 3 lakh crore over five years.**
> ➢ This is part of a larger **PLI scheme for 13 sectors**, with **a total budgetary outlay of 1.97 lakh crore.**

Key Highlights:

- **Aim:** The PLI scheme for textiles aims to promote the production of high value Man-Made Fibre (MMF) fabrics, garments and technical textiles.
- **Incentives:** The scheme is set to provide incentives to eligible producers in two phases.
  > ➢ Any person or company willing to invest a minimum of **Rs 300 crore** in plant, machinery, equipment and civil works (excluding land and administrative building cost) to produce products of MMF fabrics, garments and products of technical textiles will be **eligible to participate in the first part of the scheme.**
  > ➢ Investors willing to spend a minimum of **Rs 100 crore** under the same conditions shall be eligible to apply in the **second part of the scheme.**
  > ➢ The companies investing between **Rs 100 crore and Rs 300 crore** will also be eligible to **receive duty refunds and incentives (lower than 15 percent of their turnover).**

Significance of the scheme:

- Two-thirds of international trade in textiles is of man-made and technical textiles. This scheme has been approved so India can also contribute to the ecosystem of fabrics and garments made of MMF.
- Man-made staple fibres accounted for exports **of $1,699.05 million in FY20**, while technical textiles accounted for exports of **$42.7 million** in the same year.
- In Q1 FY22, man-made staple fibres accounted for exports of **$483.3 million**, while technical textiles accounted for exports of **$11.7 million** in the same period.
  - The PLI scheme will provide an **immense boost to domestic manufacturing, and prepare the industry for making a big impact in global markets in sync with the spirit of Aatmanirbhar Bharat.**
  - It is estimated that over the period of **five years,** the PLI Scheme for Textiles will lead to fresh investment of more than Rs.19,000 crore, cumulative turnover of over Rs.3 lakh crore will be achieved under this scheme.
- This will create additional employment opportunities of more than **7.5 lakh jobs** in this sector and several lakhs more for supporting activities.
- The textiles industry **predominantly employs women**; therefore, the scheme will empower women and increase their participation in formal economy.
- The Technical Textiles segment is a new age textile, whose application in several sectors of **economy, including infrastructure, water, health and hygiene, defence, security, automobiles, aviation, etc.** will improve the efficiencies in those sectors of economy.
  - Government has also launched a **National Technical Textiles Mission** in the past for promoting R&D efforts in that sector.
- PLI will help further, in attracting investment in this segment.
- Scheme would directly benefit the states of **Gujarat, Uttar Pradesh, Maharashtra, Punjab, Tamil Nadu, Andhra Pradesh, Telangana and Odisha,** as these were states where the textile sector is already growing.
  - In addition, priority will be given for investment in **Aspirational Districts, Tier 3, Tier 4 towns,** and rural areas and due to this priority Industry will be incentivized to move to backward area.

9. The carbon policy for agriculture in India

Why in news?

From October 31 to November 12, the United Kingdom will host the **26th UN Climate Change Conference of the Parties (COP26)** in Glasgow, with the purpose of **accelerating progress toward the Paris Agreement's targets.** The focus should be on low-cost climate funding and green technology transfer.

> Agriculture's contribution to **India's total emissions has gradually decreased**. In absolute terms, however, agricultural emissions have risen to a level comparable to China's. India must take action to address this problem.

India has reason to be concerned.

- According to the Global Carbon Atlas, **India ranks third** in total greenhouse gas emissions, emitting roughly 2.6 billion tonnes (Bt) CO2eq yearly, trailing China (10 Bt CO2eq) and the United States (5.4 Bt CO2eq), and Russia (1.7 Bt) and Japan (1.4 Bt CO2eq) (1.2 Bt).
- **In 2019, India was rated seventh on the list of countries most affected by extreme weather disasters, with losses of $69 billion (in PPP) (Germanwatch, 2021).**
- The fact that India has **22 of the world's 30 most polluted cities** is cause for alarm.
- According to the World Air Quality Report 2020, **Delhi is the world's most polluted capital.**

Issues highlighted in the global climate change negotiations

- Nations are still arguing about who should bear responsibility for historical global emitters and how to remedy the problem.
- Emissions per capita and the emission intensity of GDP are frequently discussed in global climate change negotiations.
- **The United States has the most per capita emissions (15.24 tonnes) among the top five absolute emitters, followed by Russia (11.12 tonnes).**
- **India's per capita emissions are under 1.8 tonnes, compared to the global average of 4.4 tonnes per capita.**
- **China comes first among the top five absolute polluters** in terms of emissions per unit of GDP, with 0.486 kg per 2017 PPP $ of GDP, which is quite close to Russia's 0.411 kg per 2017 PPP $ of GDP.
- India is somewhat higher than the global average of 0.26 (kg per 2017 PPP $ of GDP), at 0.27 kg, compared to 0.25 in the United States and 0.21 in Japan.
- India pledged in its 2016 Nationally Determined Contributions (NDCs) to **"lower emission intensity of its GDP by 33 to 35 percent by 2030 from 2005 levels."**

Emissions by sector and the contribution of agriculture

- Electricity and heat generation, as well as agriculture, forestry, and other land use, account for **50% of global emissions.**
- However, the **energy sector accounts for the biggest share of India's emissions (44%),** followed by manufacturing and construction (18%), agriculture, forestry, and land use (14%) and transportation, industrial processes, and waste (the remaining 4%).
- **Agriculture's contribution to overall emissions has gradually decreased from 28% in 1994 to 14% in 2016.**
- In absolute terms, however, agricultural emissions climbed to **almost 650 Mt CO2 in 2018, which is comparable to China's agricultural emissions.**

What factors contribute to India's agricultural emissions?

The livestock industry accounts for the majority of agricultural emissions in India (54.6 percent) in the form of methane emissions. The reason behind this is-

➢ fermentation that occurs in the **animals' digestive systems**
➢ The usage of **nitrogenous fertilisers,** which generate nitrous oxides, in agricultural soils (19%);
➢ **rice cultivation in anaerobic circumstances** (17.5 percent) and,
➢ **Livestock management** (6.9%), as well as **crop residue burning** (2.1 percent).

Way forward:

Agriculture's carbon policy

• **Compensate farmers with carbon credits:** A carbon strategy for agriculture should aim not merely to cut emissions but also to reward farmers with globally marketable carbon credits.

Focus on livestock:

• With the world's largest livestock population (537 million), India need better feeding practises and increased production from fewer cattle.

Switch rice fields to maize:

• While direct-seeded rice and alternative wet and dry methods can help reduce carbon emissions in rice fields, the actual solution is to switch rice fields to maize or other less water-intensive crops.

Fertilizer efficiency:

• In the national inventory, agricultural soils are the single largest source of nitrous oxide (N2O) emissions.
• Between 1980-81 and 2014-15, nitrous oxide emissions from nitrogen fertiliser use grew by about 358 percent.
• Promoting fertigation and subsidising soluble fertilisers would be an alternative for better and more efficient fertiliser use.

Subsidies and incentives:

• The government should encourage and provide subsidies for drip irrigation, as well as transitioning from rice to corn or other less water-intensive crops and pushing soluble fertilisers at the same rate as granular urea.

India and World

1. One Sun, One World, One Grid (OSOWOG)

Why in news?

India and the UK are likely to announce a joint declaration on Green Grid or OSOWOG at the upcoming Conference of Parties (COP26).

- ➢ COP26 (UN Climate Change Conference) is scheduled to be held between **31st October and 12th November in Scotland.**
- ➢ The climate parliament secretariat is handling details of the proposal and more than 100 energy ministers from across the world is ready to sign the proposal.

About OSOWOG:

- The concept of OSOWOG is also called as **green grid** by the British.
- The fundamental concept behind OSOWOS is to develop a **trans-national grid** that will be laid all over the globe to transport the solar power generated across the globe to different load centres.
  - ➢ It would thus help in realizing the vision of **"One Sun, One World, One Grid"** articulated by India.
- The idea was **first floated by PM Modi in 2018** at the first meeting of International Solar Alliance, which will also take a lead on this venture.
  - ➢ The climate secretariat will put a road map in place at COP26, on how to achieve this vision.
  - ➢ This is seen as **India's counter to China's Belt and Road initiative (BRI)** that is primarily an economic diplomacy strategy to boost its domestic economy by improving connectivity and cooperation among the current 78 partner countries.
- The vision behind the OSOWOG is '**The Sun Never Sets'** and is a constant at some geographical location, globally, at any given point of time.
- This is by far one of the most ambitious schemes undertaken by any country (India) and is of **global significance in terms of sharing economic benefits.**
- It has been taken up under the **technical assistance program of the World Bank.**
- With India in the middle, the solar spectrum can easily be divided into two broad zones, which are:
  - ➢ Far East including countries like **Myanmar, Vietnam, Thailand, Lao, Cambodia etc.**
  - ➢ Far West covering the **Middle East and the Africa Region.**

The OSOWOG study will be implemented in three phases.

- In the **first Phase**, the Indian Grid interconnects with the Middle East, South Asia, and Southeast Asia grids to share solar and other renewable energy resources for meeting electricity needs including during peak demand.

- It is then interconnected with the African power pools in the **second Phase** and
- The **third phase** would contend for global interconnection of the power transmission grid to achieve the One Sun One World One Grid's vision.

Significance of the Project:

The initiative will help to realize **"three transitions" of energy development.**

  - The transition of energy production from fossil fuel to clean energy dominance.
  - The transition of energy allocation from local balance to cross-border and global distribution and
  - The transition from coal, oil, and gas in energy consumption to electric-centric consumption.
- **OSOWOG can catalyse investments in sustainable energy solutions**, expand energy access, create jobs, improve health, make economies more competitive and resilient and advance the SDGs.
- **Resultant economic benefits would positively impact poverty alleviation and support in mitigating water, sanitation, food and other socioeconomic challenges.**
- At the same time, OSOWOG can reinstate the global interdependencies threatened by the pandemic.

Possible Bottlenecks:

- **Cost Sharing:** The mechanism of cost-sharing will be challenging, given the varied priorities of participating countries depending on their socio-economic orders.
- **Complex process:** The OSOWOG will turn out to be an expensive, complex and very slow progress project.
  - The strategic benefits, if any, of having a single grid will be obliterated in the wake of any geopolitical problem.
  - Energy supply is necessary for a range of activities including defence and essential services like hospitals, etc. Under the project, these will be exposed to this common grid.
  - Any disruption caused due to any bilateral / multilateral issues can potentially affect critical services in multiple continents and countries. Hence, not many countries may be willing to participate.
- **Multiplicity of regulations:** In India, the major issue of renewable energy developers is to deal with different state governments and hence, different laws and regulations.
- Further, the project also contradicts the Prime Minister's Aatma nirbhar Bharat vision, as it extends the reliance for a major strategic entity, energy supply, to other countries through this grid.

Way forward:

- This is the key to **future renewable-based energy systems globally** because regional and international interconnected green grids can enable sharing and balancing of renewable energy across international borders.
- Institution building is key to fulfilling the ambitions of **a multi-country grid project**. In this context, ISA (International Solar Alliance) can act as an independent supranational institution to take decisions about how the grid should be run and conflicts settled.

2. The Uighur Muslims—China

Why in news?

- Recently, **43 countries issued a declaration urging China to ensure that the Muslim Uighur community in Xinjiang is treated equally** under the law.
- Previously, in March 2021, several hundred Uighur Muslim women in Turkey marched against Turkey's extradition agreement with China on International Women's Day.

Concerning the Declaration:

- The US and other countries signed the declaration, accusing China of human rights breaches and ethnic cleansing of Uighur Muslims.
- Similar statements were made in 2019 and 2020 condemning China's policies in Xinjiang, where the US has accused Beijing of genocide.
- It also demanded that **independent observers**, including the **UN High Commissioner for Human Rights, be granted entry to Xinjiang.**
- It was stated that the **Xinjiang Uighur Autonomous Region has an extensive network of 'political re-education' centers**, where over a million people have been arbitrarily jailed.

China's Position:

- Ethnic cleansing has long been a charge levelled against China. It also slammed the proclamation, calling it a ruse to **smear China's image.**
- China maintains that the camps are **'educational centres,' where Uighurs are healed of "extremist beliefs" and radicalization while also obtaining vocational skills.**
- They are, however, **terrible detention camps in reality.**
- The **Indian government has remained deafeningly silent on the Uighur situation.**

Characteristics of Uyghur Muslims:

- Uyghurs are a **Turkic ethnic group** that originated in and is traditionally associated with the Central and East Asian region.

- The Uyghurs are **indigenous to the People's Republic of China's Xinjiang Uyghur Autonomous Region.**
- **China does not consider them to be an indigenous people**.
- Over a million Uyghurs are thought to have been jailed in Xinjiang re-education centres since 2016.
- The major purpose of the camps**, according to the United Nations' International Consortium of Investigative Journalists (ICIJ), is to enforce obedience to Chinese Communist Party ideology.**

Why is the Uighurs being targeted by China?

- The Uighurs are Muslim, **do not speak Mandarin** as their first language, and **have a distinct ethnicity and culture from mainland China.**
- **As economic prosperity has spread over Xinjiang in recent decades**, it has brought with it a **massive influx of Han Chinese,** who has **snatched up the better professions**, leaving the Uighurs fearful for their livelihoods and identity.
- This resulted in **intermittent violence**, culminating in a riot in Urumqi, the region's capital, in 2009 that killed 200 people, predominantly Han Chinese.
- In any case, **the authorities have been cracking down on the Uighurs**. After this outburst of violence, revenge became more ruthless.
- With terror strikes in other parts of the world and the United States' withdrawal from Afghanistan, **local militancy was seen as a threat that may develop into a terrorist-secessionist movement intent to secede from China and build an independent "East Turkestan."**
- From this point on, Chinese strategy appears to have been to treat the entire community as suspect, and to undertake a deliberate campaign to eliminate all trace of a distinct Uighur identity.

3. 2021 State of the Education Report for India: UNESCO

Why in news?

"No Teachers, No Class" is the theme of the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) 2021 State of the Education Report (SOER) for India.

Key highlights of the report:

- **Single-teacher schools in the country:** The country has about 1.2 lakh single-teacher schools, with 89 percent of them located in rural areas.
- Arunachal Pradesh (18.22%), Goa (16.08%), Telangana (15.71%), Andhra Pradesh (14.4%), Jharkhand (13.81%), and Uttarakhand (13.81%) are among the states with a high rate of single-teacher schools (13.64 per cent),

- **Women instructors account for 50% of all teachers**, making the gender ratio in professions "generally balanced."
- There are, however, **inter-state urban-rural disparities**.
- In rural areas, the proportion of female instructors is lower than in urban areas.
- **Women make up 28% of primary school teachers in rural areas, compared to 63% in metropolitan ones.**
- Early childhood education teachers, on the other hand, are mostly women, with 88 percent of them working in rural areas. Women make up 24 percent of secondary school teachers in rural areas, compared to 53 percent in urban ones."
- The average wage of private school teachers in the country (primary and secondary) is **Rs 13,564,** according to PLFS data, with rural private school teachers earning less at **Rs 11,584. In rural private schools**, **women instructors earn an average of Rs 8212 per month**.
- **Impact of the pandemic:** The ongoing pandemic has highlighted the relevance of teaching as a profession and the importance of high-quality instruction.
- Despite a reported lack of professional abilities, most instructors were found to have favorable attitudes and views about incorporating technology into school during this unprecedented health crisis.

India's State of Education Report (SOER)

- **It is UNESCO's yearly flagship report**, and it is the result of intensive research.
- This third edition, which focuses on teachers, teaching, and teacher education, emphasises the complexity of teaching.
- It is based on an examination of data from the **Periodic Labour Force Survey (PLFS)** and the **Unified District Information System for Education (UDISE).**
- It aims to provide a better understanding of key aspects of the teaching profession, including a profile of the 9.6 million teachers in the United States, as well as the challenges of their complex teaching routine and professional development.
- The report aims to serve as a reference for enhancing the implementation of the **NEP and towards the realization of the SDG.4 target 4c on teachers.**

Recommendations

- **Teachers' working conditions** in both **public and private schools should be improved**.
- In North-Eastern states, rural areas, and **"aspirational districts,"** increase the number of teachers and improve working conditions.
- Teachers should be seen as **frontline employees.**
- Increase the number of teachers in the areas of physical education, music, art, vocational education, early childhood education, and special education.
- **Teachers' professional autonomy should be valued**, and teachers' career paths should be developed.

- **Pre-service professional development should be restructured** and curricular and pedagogical reform should be strengthened.
- Develop teaching governance through consultation processes based on **mutual accountability by providing relevant ICT training to teachers.**

Conclusion

The report concludes with a set of **ten action-oriented recommendations for addressing the challenges facing India's teaching profession** and, as a result, assisting in the achievement of the NEP 2020 vision and goal of **"ensuring a quality education for all in the country."**

4. China-Taiwan Issue

Why in news?

Taiwan recently reported that 38 Chinese military jets flew into its defence air zone, claiming it as one of the biggest incursions by Beijing.

Recent clashes between China and Taiwan:

- China has **increased diplomatic, economic and military pressure on Taiwan**, whose **residents overwhelmingly reject Beijing's demand for political unification** with the mainland.
- **China has long blocked Taiwan from taking part in the UN and other international organizations** and has stepped up such pressure since the election of Taiwanese President Tsai Ing-wen in 2016.

Background:

Beijing considers Taiwan a province of China. Taiwan, on the other hand, considers itself to be a sovereign state. Relations between the two have historically been sour because of issues such as sovereignty, foreign relations and military build-up.

China- Taiwan relations- Background:

- China has claimed Taiwan through its **"one China" policy** since the Chinese civil war forced the defeated Kuomintang, or Nationalist, to flee to the island in 1949 and has vowed to bring it under Beijing's rule, by force if necessary.
- While **Taiwan is self-governed and de facto independent**, it has never formally declared independence from the mainland.
- Under the **"one country, two systems" formula**, Taiwan would have the right to run its own affairs; a **similar arrangement is used in Hong Kong.**
- Presently, Taiwan is claimed by China, which refuses diplomatic relations with countries that recognise the region.

Indo-Taiwan relations:

- Although they do not have formal diplomatic ties, Taiwan and India have been cooperating in various fields.
- **India has refused to endorse the "one-China" policy since 2010.**

5. World Energy Outlook Report 2021 by IEA

Why in news?

The World Energy Outlook (WEO) Report 2021 was recently released by the **International Energy Agency (IEA).** Every year, it delivers **crucial analyses and insights into energy demand and supply trends.**

> - At the Conference of Parties (COP26) conference, the 2021 report put **pressure on nations to advocate for more climate action (in Glasgow, UK).** Earlier this year, the IEA announced its **'Net Zero by 2050' Net Zero Emissions (NZE) Roadmap.**

Key highlights:

Increase the percentage of renewables in your energy mix:

- **Solar, wind, hydropower, and bioenergy, among other renewable energy sources, must account for a far larger share of the comeback in energy investment** following the **coronavirus pandemic.**
- The world is **not investing enough to satisfy future energy needs**, and the uncertainties are causing a tumultuous period ahead.
- Renewable energy continues to be in high demand. However**, renewable energy progress is still far too sluggish to bring global emissions to net zero by 2050**, as the IEA believes, which will help limit global warming to 1.5 degrees Celsius.
- Initially, the IEA was in favour of continuing to invest in fossil fuels.
- However, it has steadily shifted to a "**stronger tone pressing decision-makers to address climate change."**

Measures to Reduce Emissions:

- It's possible that the additional investment isn't as difficult as it appears. Measures that pay for themselves would account for more than 40% of the required carbon reductions, such as:
  > - **Improving efficiency, reducing gas leakage, or installing wind or solar** in **areas where these technologies are now the most cost-effective electricity generation options.**
  > - **Various Situations:** The International Energy Agency (IEA) looked at two scenarios:

1. STEPS (Stated Policies Scenario):

- This examines the policies and actions that countries have already implemented. Regardless of the measures, annual global emissions will remain constant as developing countries expand their infrastructure.
- Temperatures in 2100 would be **2.6 degrees Celsius higher** than pre-industrial levels under this scenario.

2. Make a Net-Zero pledge:

- This report examines countries' **commitments to reach net-zero emissions**, with clean energy investment potentially doubling over the next decade.
- If countries meet their commitments on schedule, global average temperature rises will be roughly 2.1 degrees Celsius by 2100, which is an improvement but still significantly beyond the 1.5 degrees Celsius target agreed under the Paris accord.

Key Recommendations:

Electrification without Pollution:

- In comparison to the [stated promises scenarios], this necessitates a doubling of solar PV and wind deployment.

Generation with Low Emissions:

- A major expansion of other low-emissions generation, including the **use of nuclear power** where appropriate; a massive expansion of electricity infrastructure and all forms of system flexibility, including hydropower; a rapid phase-out of coal; and a push to increase the use of electricity for transportation and heating.

Efficiency in Energy Use:

- An unwavering commitment to energy efficiency, as well as steps to reduce energy service demand through material efficiency and **behavioural change**.

Methane Emissions Reduction:
- **A push to reduce methane emissions from fossil fuel operations**, as well as a significant boost to clean energy innovation.

Clean Energy Decade:

- To make the 2020s the decade of enormous renewable energy deployment, COP26 will need to provide clear guidance.
- Population and Gross Domestic Product (GDP) in India from 2020 to 2050:
- **India will overtake China as the world's most populated country this decade**, and by 2050, India will have surpassed 1.6 billion people, while China's population is expected to decline.

- Over the next three decades, **India's GDP will increase at a greater rate than China's** [5.3 percent vs. 3.6 percent].

Production of Coal:

- The banking sector in India has been strained by about 50 GW of Financially Stressed Coal Assets (NPAs).
- By 2030, India's coal demand is predicted to increase by roughly **30%.**
- According to their pledges, India will be the **second largest user of unrestricted coal after China,** accounting for around 15% of global consumption for electricity generation in 2030.

Pollution in the Air:

- People will continue to be exposed to air pollution if clean energy transitions are not accelerated.
- Air pollution has been connected to 1.67 million premature deaths in India, or more than three deaths every minute.

India's Efforts Were Appreciated:

- India's success in financing a rapid development of **solar photovoltaics (pv) in pursuit of its 450 GW objective for renewables by 2030** is a notable example of developing economies mobilising funds for clean energy projects.
- The **World Health Organization's** recent survey results for India revised the prior clean cooking access percentages.
- This is owing to faster development than originally anticipated, thanks in major part to the **Pradhan Mantri Ujjwala Yojana LPG distribution programme.**

Recommendation: India should require all room air conditioners to have a default set point temperature of 24 degrees Celsius and **stricter minimum performance standards** in order to improve efficiencies as cooling and power demand grows.

Way forward:

- Even as the global economy more than doubles in size and the worldwide population grows by 2 billion people, the world faces a daunting task of cost-effectively reforming the energy sector within 30 years.
- The primary interim measures that must be completed until 2030 in order for the world to reach Net Zero Emissions by 2050 are to engineer inexpensive and green energy from hydrogen and renewable energy while making them available to everybody.

6. Nepal-India Rail Link

Why in news?

Nepal's **first-ever broad gauge passenger service** is set to restart on the first stretch of rail link between the two countries (**Jainagar-Bijalpura-Bardibas railway project**).

Background:

- Since the early twentieth century, the rail link between Nepal and India has been popular.
- **The British built a narrow gauge railroad from Nepal to India in 1937** to transport freight, primarily logs.
- However, it grew in popularity as a passenger service before being discontinued in 2014 for conversion to broad gauge.

Project Revisions:

- The first stretch is a 34-kilometer stretch between **Jainagar, Bihar, and Kurtha, Nepal**, with the Hindu pilgrimage city of Janakpur Dham (in Nepal) in the middle.

Second Stretch:

- A 17-kilometer railway line between **Kurtha and Bijalpura** is also nearing completion.
- Land is being handed up to IRCON International Limited for the remaining stretch up to Bardibas (a Government of India Undertaking).
- The entire stretch will cost **India Rs 784 crore** in construction costs, which will be paid to Nepal in the form of a grant.

Managing Body:

- The **Konkan Railway Corporation Limited** has been awarded the contract for line operations and maintenance, and will train and develop Nepalese employees as part of the bilateral agreement.

Track for electric trains:

- The **India-Nepal Rail Services Agreement (RSA) 2004** has a Letter of Exchange (LoE) signed by India and Nepal.
- It will allow all authorised cargo train operators to use the Indian railway network to transport Nepalese containers and other freight, both bilaterally between India and Nepal and from Indian ports to Nepal.

Significance:

The line is seen as a modest piece of a broader effort to strengthen India's links with Nepal via railways, bypassing the influence of other neighboring countries in this strategically important region.

Environment

1. Green Term Loan

Why in the news?

- NTPC Renewable Energy (NTPC-REL), an NTPC subsidiary, recently signed its first Green Term Loan deal for solar project installation in **Rajasthan and Gujarat.**
- In Kutch, NTPC-REL is also constructing India's largest single local solar power park, with a capacity of 4.75 GW.
- NTPC is taking a number of efforts to greenerits energy portfolio by adding renewable energy capacity.

What is 'Green Loan'?

A green loan is a type of financing that aims to enable and empower businesses to fund projects with a significant environmental impact, or more specifically, to finance 'green projects.'

What is the advantage of Green Loans?

Corporate advantages:

- It will help to increase corporate value by proving that they are actively promoting Green Projects through the acquisition of Green Loans, which may lead to public acceptability.
- This will also aid in the achievement of Corporate Social Responsibility goals.

Economy and Ecology balance:

- Lenders can promote the achievement of environmental advantages that contribute to the creation of a sustainable society while also generating returns on their loans by providing Green Loans.
- Individual knowledge of Green Loans will improve as the number of Green Loans and Green Deposits rises.

Environmental advantages:

- Increases in Green Loans are predicted to promote private investment in Green Projects, resulting in significant reductions in GHG (Greenhouse Gas) emissions and the prevention of natural capital deterioration.
- The development of Green Projects can cut energy prices, promote energy security, invigorate the area economy, and improve catastrophe resilience.

2. State of Climate Services Report 2021: WMO

Why in news?

- The World Meteorological Organization (WMO) recently published its State of Climate Services report for 2021. It is mostly concerned with **Terrestrial Water Storage.**
  - ➢ **One in five children globally lives in areas of high or extremely high water vulnerability**, according to a research released by the **United Nations Children's Fund (UNICEF) on World Water Day (March 22nd).**

Terrestrial Water Storage (TWS):

- TWS is the total amount of water on the surface of the land and in the subsurface, which includes surface water, soil moisture, snow and ice, and groundwater.
- Water is an essential component of human development. However, only 0.5 percent of the world's water is suitable as freshwater.
- Human- and naturally-induced stressors are putting enormous strain on the world's water resources.
- These include population increase, urbanisation, and dwindling freshwater supplies.
- Extreme weather occurrences have also contributed to the strain on water supplies that has been felt across sectors and geographies.

Current scenario:

- TWS decreased at a rate of 1 centimetre per year for the next 20 years in the global scenario (2002-2021).
- Antarctica and Greenland have suffered the greatest losses. TWS losses have also been reported in numerous densely populated, lower-latitude locales.
- The TWS has being eroded at a rate of at least 3 cm each year in India. In certain areas, the loss has been as high as 4 centimetres every year.
- If the loss of water storage in Antarctica and Greenland is eliminated, India has the biggest loss in terrestrial water storage.
- The 'topmost hotspot of TWS loss' is India. Within the country, the northern section of India has suffered the most losses.
- Water Availability Per Capita: As India's population grows, water availability per capita is decreasing.
- From 1,816 cubic metres in 2001, the average annual per capita water availability has decreased to 1,545 cubic metres in 2011.
- According to the Union Ministry of Housing and Urban Affairs, it is expected to drop to 1,367 cubic metres in 2031.

River basins

- According to the Falkenmark Water Stress Indicator, five of India's 21 river basins are 'absolutely water scarce,' with per capita water availability below 500 cubic metres.
- Five are 'water scarcity,' with per capita water availability of less than 1,000 cubic metres, and three are 'water stressed,' with per capita water availability of less than 1,000 cubic metres (per capita water availability below 1,700 cubic metres).
- According to the State of India's Environment in Figures, 2020, six states will become absolute water shortage, six will become water scarce, and four will become water strained by 2050.
- One of the most extensively used markers for monitoring water stress is the Falkenmark indicator. It shows the strain that population puts on water resources, including the needs of natural ecosystems, by relating total freshwater resources to total population in a country.

Recommendations:

- Integrated Resources are required investments. Water management as a means of better managing water stress, particularly in Small Island Developing States (SIDS) and Least Developed Countries (LDCs) (LDCs).
- Drought and flood early warning systems in at-risk LDCs, including drought and flood warning systems in Africa and Asia.

Close the Capacity Gap:

- Close the gap in data collection for basic hydrological variables, which are the foundation of climate services and early warning systems.
- Fill in the gaps in data on country capacities for climate services in the water sector, particularly for small island developing states (SIDS).

Improve Engagement:

- Improve the interaction between national level stakeholders in order to co-develop and operationalize climate services with information consumers in order to better support water sector adaptation.
- There is also a pressing need for better socioeconomic benefit monitoring and assessment, which will help to highlight successful methods.

Join the Water and Climate Coalition:

- The Water and Climate Coalition provides a forum for its members to collaborate on collaborative activities and develop solutions to operational water and climate concerns, with a focus on data and information.

3. Kunming Declaration on Biodiversity

Why in news?

- The Kunming Declaration was recently accepted by over 100 countries at the United Nations Convention on Biological Diversity's 15th Conference of the Parties, which is currently taking place in China.
- The declaration's approval will provide impetus for a new global biodiversity treaty.
- Governments agreed on 20 targets to try to limit biodiversity loss and safeguard habitats by 2020 in a prior accord, the Strategic Plan for Biodiversity 2011-2020, signed in Aichi, Japan, in 2010.

Key highlights:

- It made the vow as delegates from 195 countries convened in Kunming, China's southernmost city, for the first of a two-part summit on protecting plants, animals, and ecosystems.
- The summit's goal is to create a new agreement with ambitions for 2030 and 2050.
- It will provide the post-2020 Global Biodiversity Framework a much-needed boost.
- Despite substantial donor differences on the project, it aims to safeguard biodiversity in developing nations during an important UN conservation gathering.
- Agenda for the '30 by 30' project:
- The "30 by 30" agenda, which would safeguard 30% of the Earth's land and oceans by 2030, is a prominent proposal being addressed at the conference.

About The Biodiversity Conservation

- It asks for immediate and comprehensive action to incorporate biodiversity considerations into all sectors of the global economy, although key issues such as supporting conservation in poorer countries and committing to biodiversity-friendly supply chains have been deferred.
- It is not a legally enforceable international agreement.
- It urges the parties to include biodiversity protection in their decision-making processes and to recognise the value of conservation in protecting human health.

Ecological Civilization:

- Creating a Shared Future for All Life on Earth is the theme of the proclamation.
- By signing this, the countries have agreed to support the formulation, adoption, and implementation of an effective post-2020 implementation plan for the Cartagena Protocol on Biosafety, as well as a capacity-building action plan.
- The Protocol aims to conserve biological variety from the dangers that live modified organisms offer as a result of modern biotechnology.
- Signatory countries will guarantee that post-pandemic recovery policies, programmes, and plans contribute to biodiversity conservation and sustainable usage, fostering sustainable and equitable development, according to the declaration.

4. COP26 Climate Conference

Why in news?

- On November 1, the United Nations' Conference of Parties (CoP) will convene for its 26th meeting in Glasgow.
- The goal for this meeting is to have all nations commit to a 'net zero' year, or a year by which a country's fossil fuel emissions will peak and eventually be neutralised by removing extra carbon from the atmosphere.

India's Position

- India hasn't ruled out the prospect of reaching an agreement on a "net zero" aim.
- According to a report by the Council for Energy, Environment, and Water, India will need to achieve a net-zero aim by 2070.
- India will not budge in response to demands from wealthy countries that it fulfil earlier promises such as the Kyoto Protocol.
- India may amend its Nationally Determined Contributions even if it does not set a net zero target (NDC)
- India and the United Kingdom have agreed to expand their green relationship and improve climate initiatives.

Road to net zero | In 2015, over 190 countries committed to limiting global warming to 1.5°C above pre-industrial levels. Countries such as the U.K. and France have already enacted laws to achieve net zero target by 2050. This has put pressure on India, the third-largest emitter, which has not been in favour of committing to a deadline

- Net zero means committing to a year beyond which emissions will be balanced by taking an equivalent amount of greenhouse gases from the air
- retiring coal plants and fossil fuel use overnight and even then, it will not guarantee that temperature rise stays below 1.5°C
- India says that future net zero promises are hollow as countries responsible for the climate crisis have not delivered on previous promises
- India has maintained that committing to a target will require
- India argues that countries clamouring for net zero will continue to pollute on a per capita basis way beyond their fair share

India's Challenges:

- Achieving "net zero" entails making big and deep reduction to fossil fuel use, which could have an impact on India's and other developing countries' development paths.
- In order for India to meet its net-zero goal by 2070, coal use, particularly for power generation, would have to peak in 2040 and then drop by 99 percent between 2040 and 2060.
- Furthermore, crude oil use across all sectors would have to peak by 2050 and then drop by 90% between 2050 and 2070.

Way forward:

- **International cooperation**: In sectors such as energy policy, carbon markets, technology transfer, and economic recovery, deeper political engagement with stronger policy backing is required.
- Focus on zero-emissions transportation while **decarbonizing investment.**

- **New technologies to decarbonize sectors** like as steel, cement, and chemicals, as well as agriculture, provide tremendous room for ambition to be raised.

5. Report on Heat-trapping Gases in the Atmosphere: WMO

Why in news?

The abundance of heat-trapping greenhouse gases in the atmosphere set a new record last year (2020), according to the World Meteorological Organization's Greenhouse Gas Bulletin, with the annual rate of increase above the 2011-2020 average. This is despite **a 5.6 percent** decline in fossil fuel CO2 emissions in 2020 owing to pandemic-related restrictions.

What are the initiatives of the World Meteorological Organization?

- The World Meteorological Organization (WMO) had previously produced a paper titled **United in Science 2021.**
- The World Meteorological Organization (WMO) is a **United Nations specialised organisation for meteorology (weather and climate), operational hydrology, and related geophysical sciences.**
- The World Meteorological Organization's Global Atmosphere Watch Program coordinates **systematic measurements and analyses of greenhouse gases and other atmospheric elements.**

What are the significant points mentioned in the report?

- The most major greenhouse gas, **carbon dioxide (CO2), reached 413.2 parts per million in 2020**, which is 149 percent more than pre-industrial levels.
- Many countries are now setting carbon-neutral goals, and the COP26 (Climate Conference) is expected to witness a **significant rise in commitments**.
- **Methane (CH4) levels are 262% and Nitrous Oxide (N2O) levels are 123** percent higher than they were in 1750 when human activities began to disrupt Earth's natural equilibrium.
- Although there was a brief fall in new emissions, the economic slowdown from Covid-19 had no discernible impact on atmospheric levels of greenhouse gases (GHG) and their growth rates.
- Radiative forcing,the warming effect of **long-lived GHGs on our climate increased by 47% from 1990 to 2020**, with CO2 accounting for nearly 80% of this rise.
- Land ecosystems and oceans' ability to operate as **"sinks"** may deteriorate in the future, limiting their ability to absorb CO2 and act as a buffer against larger temperature increases.

What are the Concerns?

- By the end of this century, temperatures are anticipated to rise by **1.5 to 2 degrees** Celsius beyond pre-industrial levels, well exceeding the **Paris Agreement targets of 1.5 to 2 degrees Celsius.**
- Due to deforestation and reduced humidity in the region, **parts of the Amazon rainforest have shifted from being a carbon sink, sucking CO2 from the air, to becoming a producer of CO2.**

- Because CO2 has such a long life, even if emissions are immediately reduced to net zero, the current temperature level will last for decades. More weather extremes, such as strong heat and rainfall, ice melt, sea-level rise, and ocean acidification, are expected to accompany rising temperatures, with far-reaching socioeconomic consequences.

6. Georissa Mawsmaiensis: A Micro Snail Species

In news:

Georissa mawsmaiensis, a micro snail species, was recently discovered in Meghalaya's Mawsmai Cave.

About Georissa mawsmaiensis:

- The new species differs from Georissasarrita (a member of the same genus identified in 1851) in its shell morphology, which includes shell size variation and the presence of four noticeable spiral striations (a minute groove, scratch) on the shell's body whorls.
- In Georissasarrita, there are seven spiral striations counting from the suture to the aperture in apertural view.

Habitat:

- Georissa can be found in soil or subterranean environments in both lowland tropical and high altitude evergreen forests, as well as on calcium-rich rock surfaces.

Distribution:

- Georissa species can be found in Africa, Asia, and the Pacific, and have been reported from all three continents. They are, however, restricted to microhabitats consisting of limestone caves or karst landscapes created by limestone dissolution.
- Threats: The large visitor influx could put this micro snail species, as well as other cave faunas, in jeopardy.

7. Flower Scorpionfish

In news:

- Flower Scorpionfish (HoplosebastesArmatus), a fish previously solely found in the Pacific Ocean, has just been identified in the Indian Ocean.

- The migration of this species from diverse places may have been prompted by a rise in the temperature of sea water as a result of global warming.

Key highlights:

- It belongs to the Scorpaeniforme family of ray-finned fish.
- In 1929, it was discovered in the Pacific Ocean off the coast of Japan, over a century ago.
- The scorpionfish family includes some of the ocean's most toxic creatures.
- The species' head is disproportionately huge and larger than its body.
- The species' length ranged from 75 to 127 mm, with a body width of 14 to 22 mm.
- Because of their variegated colour patterns, scorpionfish blend in flawlessly with their coral and rocky surroundings.

Habitat

- They were previously only found in the Pacific Ocean. Its range, however, has expanded to include the Northwest Pacific and the Indian Ocean.

Scorpaeniformes

- Any of a group of bony fishes that have a plate of bone running across each cheek, often known as mail-cheeked fish.
- They can be found in all of the world's oceans.
- They are thought to have evolved in warm marine environments, but they have spread to temperate, even Arctic and Antarctic oceans, as well as Northern Hemisphere fresh waters.

Science and Technology

1. DigiSaksham Programme

Why in news?

Recently, the Union government launched a digital skilled platform — **DigiSaksham.**

Key highlights:

- It is a joint initiative of **Labour Ministry with Microsoft India** to enhance the employability of youth.
- Free of cost training in **digital skills including basic skills as well as advanced computing**, will be provided to more than **3 lakh youths in the first year.**
- The initiative gives priority to the **job-seekers of semi urban areas belonging to disadvantaged communities**, including those who have lost their jobs due to Covid-19 pandemic.
- Under the initiative, there will be basically three types of training namely, Digital **Skills – Self paced learning, VILT mode training (Virtual Instructor led) and ILT mode training** (Instructor led).
  - ➤ The ILT training which is in person training would be conducted at the **Model Career Centres (MCCs) and National Career Service Centres (NCSC)** for SCs/STs across the country.
- Implemented by: **Aga Khan Rural Support Programme India (AKRSP-I).**
  - ➤ AKJRSP-I is a non-denominational, non-government development organization. It works as a **catalyst for the betterment of rural communities** by providing direct support to local communities.
- The DigiSaksham initiative will equip more than **300,000 youth in technical skills** in the first year and Jobseekers can access Microsoft learning resources such as programming languages, data analytics, software development fundamentals and advanced digital productivity on the National Career Service (NCS) Portal.
  - ➤ The **Ministry of Labour and Employment is implementing the National Career Service (NCS) Project as a Mission Mode Project** for transformation of the National Employment Service to provide a variety of employment related services like job matching, career counselling, vocational guidance, information on skill development courses, apprenticeship, internships etc

Significance:

- To bridge the gap of India's **digital divide**, placing the country on the path to inclusive economic recovery and preparing India's talent to thrive in a digital future catering not only to the needs of the domestic economy but also to tap the overseas employment opportunities.
- Today the job market is more competitive and employers are now looking for employability skills along with expertise in subject matter as essential traits in their potential employees.

- ➢ Employoyability skills are those skills that go beyond qualifications and experience
- **The initiative gives priority to the job-seekers of semi urban areas belonging to disadvantaged communities,** particularly the candidates from the socially and economically backward communities, marginalized communities, people who have been displaced or lost jobs due to Covid-19.

2. Landslide and Flood Early Warning System

Why in news?

The Council Of Scientific And Industrial Research -National Geophysical Research Institute (CSIR-NGRI) has launched an **'Environmental Seismology' group to develop a 'Landslide and Flood Early Warning System'** for the Himalayan region based on real-time monitoring with dense seismological networks, coupled with satellite data, numerical modelling and geomorphic analysis.

About land side:

- Landslide **is rapid movement of rock, soil and vegetation down the slope under the influence of gravity.**
- These materials may move downwards by falling, toppling, sliding, spreading or flowing. Such movements may occur gradually, but sudden sliding can also occur without warning.
- They often take place in **conjunction with earthquakes**, **floods and volcanic eruptions**. The extent and Intensity of
- Landslide depends upon number of factors- **Steepness of the slope, amount of vegetation cover, tectonic activity, bedding plane of the rocks etc.**

Types of Landslides

- **Falls:** Abrupt movements of materials that become detached from steep slopes or cliffs, moving by free-fall, bouncing, and rolling.
- **Creep:** Slow, steady downslope movement of soil or rock
- **Debris flow:** Rapid mass movement in which loose soils, rocks, and organic matter combine with water to form slurry that then flows down slope. Usually associated with steep gullies.
- **Mudflow:** Rapidly flowing mass of wet material that contains at least 50 percent sand-, silt-, and clay-sized particles
- **Flows:** General term including many types of mass movement, such as creep, debris flow, mudflow etc.

Causes of Landslides

- **Geological Causes:** Weak, Sensitive and Weathered material, Sensitive material, Presence of Joints and Fissures, Variation in physical properties such as Permeability.

- **Morphological Causes**: Tectonic or volcanic uplift, Erosion due to Wind and Water, Higher deposition of load on the slope or its crest, Removal of Vegetation
- **Physical Causes**: Intense rainfall, Earthquake/Volcanic eruption, Rapid snow melt/freeze
- **Human Causes**: Excavation of the slope or its toe, Deposition of load on the slope, Drawdown of Reservoir, Deforestation, Mining, Irrigation and artificial vibration.

Landslide Prone areas in India

As highlighted before, as per **Geological Survey of India (GSI),** about 0.42 million sq.km covering nearly **12.6%** of land area of our country is prone to landslide hazards. The major landslide prone areas in India include

> - Western Ghats and Konkan Hills (Tamil Nadu, Kerala, Karnataka, Goa and Maharashtra) 2. Eastern Ghats (Araku region in Andhra Pradesh)
> - North-East Himalayas (Darjeeling and Sikkim)
> - North West Himalayas (Uttarakhand, Himachal Pradesh, Jammu and Kashmir).

- **The Himalayan mountain ranges** and **hilly tracts of the North-Eastern region** are highly susceptible to slope instability due to the immature and rugged topography, fragile rock conditions, high seismicity resulting from proximity to the plate margins, and high rainfall. Extensive anthropogenic interference, as part of developmental activities, is another significant factor.
- Similarly, the **Western Ghats**, though **located in a relatively stable domain, experiences landslides due to number of factors- steep hill slopes, high intensity rainfall and anthropogenic activities.** The Nilgiris hills located at the convergence zone of the Eastern Ghats and the Western Ghats experiences a number of landslides due to high intensity and protracted rainfall.

Impact of Landslides

Short run: Loss and damage to property, loss of lives, Destruction to agricultural crops, Damages to Vegetation, Obstruction of vehicular movement leading to Traffic jam, temporary loss of livelihood for the poor people etc.

Long-run:

- Increase in the sediment load of the river which can lead to floods.
- Reduce the effective life of hydroelectric and multipurpose projects by adding an enormous amount of silt load to the reservoirs.
- Loss of cultivable land
- Environmental impact in terms of erosion and soil loss
- Demographic Impact in terms of relocation of Population towards other areas
- Frequent disruption of transportation networks leads to geographical isolation and hence perpetuates under-development

- NDMA Guidelines for Landslide Disaster Management (Can be used as Points to highlight as to how Landslides can be better managed)

Landslide Hazard, Vulnerability and Risk Assessment:

- This includes delineating areas susceptible to landslide hazards in different areas and to assess the resources at risk.

Early Warning Systems for Landslides:

- This includes the continuous monitoring of movements, development of stresses and the transmission of this data at regular time intervals.

Investigations for Landslide Risk Assessment:

- Multi-disciplinary investigations of landslide risk assessment leading to formulation of Standards to mitigate impact of landslides.

Landslide Risk Mitigation and Remediation:

- **Restricting Development in Landslide-Prone Areas** through Land use planning.
- Laying down **standards to be followed for Excavation and Construction**
- **Protecting Existing Developments** through Restraining walls and rock anchors

Slope Stabilization measures:

- Generally, include works involving modification of the natural landslide conditions such as topography, geology, ground water, and other conditions that indirectly control portions of the entire landslide movement.
- These include drainage improvement works, soil/debris removal works etc.

Regulation and Enforcement:

- The state governments/SDMAs will adopt the model **techno-legal framework** for ensuring compliance with land use zoning and landslide safety issues in all development activities and plans.
- **Awareness and Preparedness**: Comprehensive awareness campaigns targeting different groups of people living in landslide prone areas should be carried out systematically

Capacity Development (Including Education, Training and Documentation):

- Introduction of curriculum related to Disaster Management, including Landslides in the Schools
- Training of the Administrators to plan, respond and mitigate the impact of Landslides
- Technical institutes located in vulnerable areas should develop adequate technical expertise on the various subjects related to landslide management.

Immediate Response:

- Put in place Standard Operating Procedure (SoP) which should ensure **coordinated and sustained action from various agencies in the aftermath of landslides Research and Development**.
- Government should encourage, promote, and **support R&D activities to address current challenges, offer solutions, and develop new investigation techniques,** with the application of the latest developments in remote sensing, communications, and instrumentation technologies.

3. The laser-based clad coating technology (LCCT)

Why in news?

Indian scientists recently developed a novel **laser-based clad coating technique (LCCT)** that improves boiler part protection in thermal power plants.

What is Laser Cladding and How Does It Work?

- Laser cladding, also known as **laser metal deposition**, is a method of depositing one material onto another's surface.
- Laser cladding is a process that includes **delivering a stream of metallic powder or wire into a melt pool created by a laser beam** as it scans across the target surface, creating a layer of the desired material.

Significance

- When compared to conventional surface technologies, it can **extend the life of boiler parts by 2- 3 times.**
- This method has been discovered to be useful for any **technical application requiring high temperature erosive and corrosive environments, not just boiler parts in thermal power plants.**

4. Astro Robot

Why in news?

Amazon recently revealed its 'Astro' home robot, which is intended to **assist consumers with a variety of duties** such as house monitoring and staying in touch with family.

> However, civil society has raised concerns about the **privacy implications of round-the-clock surveillance.**

About Astro:

- Astro, **a robot dog on wheels, weighs around 20 pounds and is two feet tall.** In The Jetsons, Astro is also the name of the non-robotic dog.
- The robot is supposed **to wander around the house and keep an eye on pets while the owner is away**, as well as detect anything weird.
- It has a "**periscope" camera** that rises up from its head and may be used to monitor your home.
- It's a **cutting-edge product that taps into Amazon's artificial intelligence skills** and employs cameras and sensors to track and follow you throughout the house.

Concerns about privacy:

- Civil society is concerned about the **amount of data Amazon will be able to collect with the Astro,** allowing the firm easy access to the home. This is a step beyond Alexa, which previously just had access to vocals and sound.
- Although Amazon claims that **Astro stores facial data locally rather than in the cloud**, privacy concerns remain, as they do with any internet-connected device.
- There are fears about the **device being stolen or hacked**. As a result, the criminal has access to the digital map of someone's home that the robot develops.
- In the long run, the primary issue may contribute to a **stronger public acceptance of AI-assisted surveillance.**
- Hackers have already gained access to Ring cameras, which are employed in Amazon technologies.
- There are fears about **the device being stolen or hacked**. As a result, the criminal has access to the digital map of someone's home that the robot develops.
- In the long run, the primary issue may contribute to a stronger public acceptance of AI-assisted surveillance.

Other Recent Experiments:

- Softbank "halted" the manufacture **of Pepper**, one of the first humanoid robots **capable of "reading" emotions,** earlier this year.
- Jibo has launched an **Indiegogo campaign to create the world's first social robot for the home.**

About Robotics:

- Robotics is an engineering discipline that deals with the **conception, design, construction, and operation of robots.**
- Any machine that operates automatically and replaces human effort is referred to as a robot.
- The goal of robotics is to develop intelligent devices that can help people in a number of ways.

Advantages:

- Robots can **boost production, efficiency, quality, and consistency** in a variety of circumstances.
- Because robots do not have the same environmental requirements as people, such as lighting, air conditioning, or noise protection, they can work in hazardous conditions.
- Some sensors/actuators on robots are more capable than those on humans.
- Robots, unlike humans, do not become bored. They can perform the same thing over and over until they wear out.
- They can be **extremely precise, down to fractions of an inch** (as is needed for example in manufacturing of microelectronics).

Disadvantages:

- If robots **displace human jobs**, they may cause economic concerns.
- Robots can only do what they're told; **they can't think for themselves**.
- This necessitates the implementation of safety safeguards to protect humans and other robots.
- Although robots are better to humans in some aspects, they are **not as dexterous**.
- Emotional intelligence, which is crucial in high-stress circumstances, is lacking in robotics.
- In terms of the initial cost, upkeep, the requirement for additional components, and the need to be programmed to complete the work, robots are frequently highly expensive.
- Concerns about surveillance raise the risk of a privacy nightmare.

5. New Biodegradable Polymer

Why in news?

A team of Indian scientists have developed an **environmentally friendly, non-toxic, biodegradable** polymer using **guar gum and chitosan**, both of which are **polysaccharides extracted** from **guar beans and shells of crab and shrimps.**

➢ **Fabricated guar gum-chitosan film with high water stability**, high mechanical strength, and excellent resistance against harsh environmental conditions can be used in packaging applications.

Polysaccharide

- Polysaccharide is one of the biopolymers having high potential for use in synthesis of packaging material. But due to some drawbacks of polysaccharides, like low mechanical properties, low barrier properties and high water-solubility, they are not preferred for packaging materials.

Guar gum-chitosan composite film

- To overcome the challenges associated with polysaccharide, the team of scientists fabricated a guar gum-chitosan composite film.
- It is a cross-linked polysaccharide that does not use any plasticizer with the help "solution casting method".

Properties of the film

- The Fabricated biopolymer composite film had high water stability, high mechanical strength as well as excellent resistance towards harsh environmental conditions.
- The fabricated cross-linked film is not easily soluble in water. As per scientists, it did not dissolve even after 240 hours.
- Furthermore, the mechanical strength is higher compared to general biopolymer.
- It is highly water repellent or hydrophobic because of its high contact angle of 92.8º.
- Water vapor permeability is low as compared to the film made only from chitosan.

Significance:

- It is likely to help effectively deal with the menace of piling non-biodegradable packaging materials, including water and soda bottles.
  - ➢ Normally, Polymers have a wide variety of industrial and commercial uses but it is not biodegradable and hence poses a major challenge to the environment and earth's ecosystem.

6. First Malaria Vaccine: Mosquirix

Why in news?

According to World Health Organization's expert, **the world's first malaria vaccine is ready to be used on a pilot basis before any wide-scale use**. The vaccine is about to be tested as part of routine childhood immunization, in a pilot program in Ghana, Kenya and Malawi (African Countries).

- ➢ The vaccine is expected to avert at **least 50,000 malaria cases and save approximately 750 children in the intervention areas.**
- ➢ In Ghana, malaria causes about 2,000 deaths annually, approximately 48% of them children under the age of 5.

Pilot project Aim

- The pilot aims to vaccinate a total **360,000 children per year, to evaluate the feasibility of delivering the four required doses of Glaxosmithkline plc's Mosquirix (RTS,S)** and assess the vaccine's effectiveness in a real-world.

- The vaccine only protects about **one-third of children against malaria**. But even if it doesn't prevent the disease, the vaccine can reduce the risk of severe malaria.

The RTS, S or Mosquirix

- The RTS, S or Mosquirix vaccine is an injectable, developed to protect **the plasmodium falciparum malaria in children.**
- The plasmodium falciparum, is the **predominant malaria parasite** which causes 80 to 90 percent of severe morbidity and mortality mostly in children under 5 and pregnant women.
- The vaccine stimulates the body's own immune system to defend it against malaria by preventing the parasite from infecting, maturing and multiplying in the liver.
- All eligible children will be targeted to receive the **full 4 doses of the new vaccine beginning from the 6th month, 7th, 9th and the 24th month.**

Malaria

- Malaria is a **life-threatening disease caused by parasites** that are transmitted to people through the bites of infected female **Anopheles mosquitoes**.
- Malaria is caused by **Plasmodium parasites**. The parasites are spread to people through the bites of infected **female Anopheles mosquitoes, called "malaria vectors."**
- There are 5 parasite species that cause malaria in humans, and 2 of these species **– P. falciparum and P. vivax – pose the greatest threat.**
- It is preventable and curable.

Symptoms: fever, headache and chills.

India: World Malaria Report 2018

- Among the **11 nations with 70% of the world's burden of malaria, only India has managed to reduce its disease burden**, registering a 24% decrease between 2016 and 2017.
- With about **9.5 million malaria cases in 2017, down 3 million cases since 2016, India is no longer among the top three countries with the highest malaria burden.** However, 1.25 billion Indians–94% of its population–are still at risk of malaria.

Odisha battle against malaria

- Odisha accounted for 40% of India's malaria burden, **and its remote**, **heavily-forested regions with scattered tribal populations were the most vulnerable.**
- The state government started implementing a programme called **Durgama Anchalare Malaria Nirakaran (elimination of malaria in inaccessible regions),** in short DAMaN.
- The programme is jointly implemented by **Indian Council of Medical Research-National Institute of Malaria Research (ICMR-NIMR), National Vector Borne Disease Control Programme (NVBDCP), Odisha and Medicines for Malaria Venture (MMV).**

7. India's Ethanol Plan and Food Security

Why in news?

India's ambitious plan to **cut the use of fossil fuels by promoting ethanol derived from rice, corn and sugar is drawing criticism** from some experts who warn the move could **undermine food security** in the world's second-most populous country.

➢ In June, Prime Minister Narendra Modi's administration accelerated the **nation's ethanol goal by five years, seeking to double production and to have gasoline 20 per cent** blended with the spirit by **2025.**

Govt's plan to promote ethanol:

- The government has planned to divert 17 million tonnes of surplus rice from its food stocks of 90 million tonnes to produce ethanol. This is in addition to the 2 million tonnes of sugar which is already being diverted to produce ethanol.
- -India is estimated to achieve about 8.5% blending with petrol by this year, which it plans to increase to a mandatory 20% blending by 2025.

Ethanol blending benefit for India:

- **Lower import of petroleum products**: According to NITI Aayog, a successful biofuels programme can save India $4 billion or about ₹30,000 crore every year by lowering import of petroleum products.
- **Emission reduction:** Ethanol is less polluting and offers equivalent efficiency at a lower cost than petrol.
- The Centre expects that rising production of grains and sugarcane and feasibility of making vehicles compliant to ethanol-blended fuel makes its biofuels policy a strategic requirement.

Unintended effects of the policy:

- **More stress on water**– Increasing reliance on biofuels can push farmers to grow more water-intensive crops like sugarcane and rice, which currently use 70% of the available irrigation water.
- **Impact on hunger situation in India**: Experts have further raised concerns that the move could impact India's hunger situation by limiting the coverage of the food security schemes.
- **Negative impact on crop diversification**: Although the biofuels policy stresses on using less water-consuming crops, farmers prefer to grow more sugarcane and rice due to price support schemes.
- **Diversion of sugar** could be used as a temporary measure to reduce excess stocks of sugar, but in the long run, it would push farmers away from crop diversification strategy of growing more pulses and oilseeds which are less water-intensive.

- **Ethical concerns:** As per some experts, it is unethical to use edible grains to produce ethanol in a country where hunger is severe. India, with 14% of its population undernourished and more than a third of its children stunted, ranks 94th out of 107 countries in the Global Hunger Index 2020.
- **Rise in food prices**: Diversion of mass consumption grains can push food prices up and can worsen our hunger problem.

Way forward

Government needs to review its policy and plans to overcome the various others issues arising out of it and making its plan a success.

8. Mission Lucy: NASA

Why in news:

NASA's Lucy mission is scheduled to take off on October 16.

About Mission Lucy :

- The Lucy mission is a **12-year journey making it NASA's longest mission so far.**
- This is the first spacecraft to **explore Jupiter's Trojan asteroids**, and also the first to examine multiple independent solar system targets.
- The mission takes its name from **the fossilized human ancestor (called "Lucy" by her discoverers)** whose skeleton provided unique insight into humanity's evolution.
- It will launch aboard an **Atlas V 401 rocket.**
- Scientists will use Lucy's black and white cameras to count the number of craters on asteroid surfaces which will let them learn about the environments that the asteroids were exposed to billions of years ago.
- It will complete a 12-year journey to **eight different asteroids** — a Main Belt asteroid and seven Trojans.
- The spacecraft will first fly by earth twice and use the planet's gravity to push itself toward the Trojans and will reach them by August 2026.
- **Its journey is expected to end in two ways** – come back to earth as an artefact or be flung into the sun or out of the solar system by Jupiter.

Trojan asteroids:
- They are named after characters from **Greek mythology.**
- They are described as **clusters of rock grains and exotic ices that didn't become planets when the solar system formed.**
- Hence they are considered the best evidence left to learn more about the **solar system's formation.**

- They circle the sun in two swarms where one precedes and the other follows Jupiter in its orbit of the sun.
- Clustered around the two Lagrange points equidistant from the Sun and Jupiter, the **Trojans are stabilized by the Sun** and its largest planet in a gravitational balancing act.
- All of the Trojans are thought to be **abundant in dark carbon compounds.**

9. 6G Technology

Why in news?

Recently, the Telecom Secretary and Chairman – **Digital Communications Commission, Department of Telecommunications asked C-DOT** to start work on **6G technologies.**

About 6G technology:

- 6G (sixth-generation wireless) is the successor to 5G cellular technology.
- LG has already started testing the 6G network in **Berlin, Germany** and the data was sent and received at a distance of 100 meters during the test.
- 6G networks will be able to use **higher frequencies than 5G networks** and provide **substantially higher capacity and much lower latency.**
- One of the goals of 6G internet will be to support **one microsecond-latency communication**.
- The 6G technology market is expected to **facilitate large improvements in imaging, presence technology and location awareness.**
- 6G is expected to support data rates of **1 terabyte per second.**
- Working in conjunction with artificial intelligence (AI), the **computational infrastructure of 6G will autonomously determine** the best location for computing to occur; this includes decisions about data storage, processing and sharing.
- It is expected to be commercially launched **between 2028-2030.**

10. Hypersonic Technology

Why in news?

- **China** recently conducted a test of a **nuclear-capable hypersonic glide vehicle** that circled the globe before accelerating towards its target.
- Several countries, including the United States, Russia, and China, are working on hypersonic missiles that move five times the speed of sound.
- They are tougher to intercept and can be **maneuvered**, while being slower than ballistic missiles.

About Hypersonic Missile:

Hypersonic speeds are defined as those that exceed five times the speed of sound, or anything that can travel at rates of **Mach 5 or higher**, which is at least **1.6 kilometers** per second.

Types of hypersonic missiles:

- Hypersonic cruise missiles: These are cruise missiles that employ rocket or jet propellant to fly and are considered to be quicker versions of existing cruise missiles.
- Hypersonic glide vehicle (HGV) missiles: China has tested this type of missile. They are launched into orbit by rockets and orbit the earth at their own speed. Because they "do not follow the set parabolic trajectory," unlike ballistic missiles, they are difficult to track.

Hypersonic Technology and India:

- As far as space assets are concerned, India has already proved its capabilities through the test of **ASAT under Mission Shakti.**
- Hypersonic technology has been developed and tested by both **DRDO and ISRO.**
- Recently, DRDO has successfully flight-tested the **Hypersonic Technology Demonstrator Vehicle (HSTDV),** with a capability to travel at 6 times the speed of sound.
- Also, a **Hypersonic Wind Tunnel (HWT) test facility** of the DRDO was inaugurated in **Hyderabad.** It is a pressure vacuum-driven, enclosed free jet facility that simulates Mach 5 to 12.

11. The Metaverse

Why in news?

Facebook intends to rebrand itself with a **new moniker that reflects its focus on metaverse development.**

About Metaverse:

The phrase **"metaverse" refers to a concept of the internet evolving into a virtual environment**. In **1992, American novelist Neal Stephenson proposed this concept** for the first time. In his **science fiction work Snow Crash,** he discussed this subject.

- It was created by combining the words **"meta," which means "beyond," and "universe," which means "all."** It's the metaverse, which mixes features of the physical world with virtual spaces.
- The internet is viewed as a 3D virtual realm where **people can walk in and out and even interact with one another in real time,** according to this concept. This means you'll be able to communicate with your coworkers even if you're not at the office physically, because you'll be virtually present with them. People can use the internet to work, socialise, share, and have a variety of other experiences.

- For the first time, bringing coworkers together in an avatar-based one-on-one contact is a major source of excitement.

What is Decentraland, and how does it work?

- It is a virtual environment in which visitors can participate in a variety of activities such as attending concerts, visiting art galleries, and gambling in casinos.
- Land parcels costing hundreds of thousands of dollars in MANA are also being offered (cryptocurrency).

Metaverse examples include:

- There is a lot of virtual activity in today's environment. NFTs, or non-fungible tokens, can already be regarded a type of metaverse. Cryptocurrencies are also among them. However, it is still a long way from the full metaverse experience, which would include living lives entirely online.

Who stands to gain from the metaverse?

- If you read too much about huge tech corporations like Apple, Facebook, Google, and Microsoft, you can come to believe that technological advancements (such as the advent of the metaverse) are unavoidable.
- It's difficult not to wonder how these new technologies will impact our society, politics, and culture in the future, and how we could fit into that picture.
- This concept is known as "technological determinism," which holds that technological advancements alter our social ties, power relations, and culture, with us as simple passengers. It ignores the fact that, in a democratic society, we have a say in how everything unfolds.
- The metaverse is attractive for Facebook and other huge firms eager to embrace the "next big thing" before their competitors because it opens up new markets, new types of social networks, new consumer gadgets, and new patents.

12.ABHYAS: High-speed Expendable Aerial Target

Why in news?

Recently, the **Defence Research & Development Organisation (DRDO)** has successfully conducted the flight test of ABHYAS-High-speed Expendable Aerial Target (HEAT) from the Interim Test Range, **Balasore in Odisha.**

About ABHYAS-High-speed Expendable Aerial Target (HEAT)

- It is designed & developed by **Aeronautical Development Establishment (ADE),** DRDO.
- The air vehicle is launched using **twin underslung booster and is programmed for fully autonomous flight.**
- It is powered by a **small gas turbine engine** and has **MEMS based Inertial Navigation System (INS) for navigation along with the Flight Control Computer (FCC)** for guidance and control.
- The check-out of air vehicle is done using laptop based Ground Control Station (GCS).
- It is a drone which is designed to offer a **realistic threat scenario** for the practice of weapon systems.
- Abhyas's radar cross-section (RCS) as well as its visual and infrared signatures can be augmented to simulate a variety of aircraft for air-defense weapon practices.
- It can also function as a **jammer platform and decoy.**

Himachal Currents

'Brahmabodhi' magazine

In news:

Governor Rajendra Vishwanath Arlekar has launched a title page of **Brahmabodhi e-platform 2022** on 1st October.

About 'Brahmabodhi' magazine:

- It is a multilingual e-magazine of art and culture published by Brahmnaad at Raj Bhavan.
- The magazine edited by **Rupak Mehta**, who is the Managing Director of the Brahmnaad Cultural Society.

'Devdhara: Himachal Pradesh' Book

In news:

- Recently Governor Rajendra Vishwanath Arlekar has realsed 'Devdhara: Himachal Pradesh'
- This book has been written by author and senior journalist **Dr. Rachna Gupta**, who is also member of Himachal Pradesh Public Service Commission.

Himachali Kala Jeera

Why in news?

Recently, Governor Rajendra Vishwanath Arlekar unveiled a special cover on Himachali Kala jeera of Indian Postal Department, Himachal Pradesh Postal Circle.

About Himachali Kala Jeera

- Himachali black cumin is an **economically important medicinal plant** grown in the **forests and grassy slopes of high mountainous regions.**
- Its seeds are known for **rich aroma and taste apart from medicinal properties.**
- It is produced in the high mountainous regions comprising of **Kinnaur, Lahaul-Spiti, Pangi and Bharmour.**
- It is a **Geographical Indication Product.**
- The demand for this prized spice is very high as it is difficult to find kala jeera in the shops even a month after harvesting.

Justice Sabina

In news:

Justice Sabina has been appointed as a Judge of Shimla high court.

Justice Mohammad Rafiq

In news:

Justice Mohammad Rafiq has been appointed as the **Chief justice of the Shimla high Court.**

Yogender Mohan

In news:

Chief Minister Jai Ram Thakur has condoled the sad demise of Yogender Mohan, **Chairman of Dainik Jagran Media Group.**

The Great Wall of Shimla

In news:

- Governor Rajendra Vishwanath Arlekar has inaugurated The Great Wall of Shimla on 28 October 2021.
- It is a **Waste to Wealth Initiative** of **Orchid Shimla.**

G.S Bali

In news:

- Chief Minister Jai Ram Thakur has expressed his deep condolences over the demise of senior Congress leader and former Minister G.S. Bali, who breathed his last at AIIMS, New Delhi on 30 October.
- He was 67 years old.
- G.S. Bali remained MLA from **Nagrota-Bagwan Assembly** constituency of **Kangra district** for **four terms** and also **Cabinet Minister in Virbhadra Singh Cabinet from 2003 to 2007** and again from **2012 to 2017.**

Defence

8th Mitra Shakti 2021

- The 'Mitra Shakti 2021' joint bilateral military exercise aims **to develop and promote relations between both nations and enhance interoperability.**
- The exercise will help to share best practices **to counter-terrorism and counter insurgence between both nations.**

5th JIMEX

- **The 5th edition of India – Japan Maritime Bilateral Exercise (JIMEX)** commenced on 6th Oct 2021. It will be held till 8th Oct 2021.
- It is being held between the **Indian Navy and Japan Maritime Self-Defence Force.**

7 New Defence PSUs Dedicated to the Nation

- **Prime Minister Narendra Modi** dedicated seven new Defence PSUs.
- These 7 PSUs are formed with the dissolution of the **200-year-old OFB from 1st Oct 2021.**

DRDO successfully Flight-Tested ABHYAS

- The 'ABHYAS' is the **High-speed Expendable Aerial Target (HEAT).**
- It was test-fired from **Integrated Test Range (ITR), Chandipur off the coast of Bay of Bengal in Odisha.**

'Konkan Shakti 2021'

- **India and the United Kingdom armed forces conducted** 'Konkan Shakti 2021' which is a maiden Tri-Service exercise.
- The exercise aims **to strengthen cooperation between the two countries.**

DRDO successfully Test Fired 'Agni-5' Missile

- The Agni-5 is a **surface-to-surface ballistic missile**. It is a nuclear-capable intercontinental ballistic missile (ICBM).
- It can hit the target at ranges up to **5,000 km with high accuracy. It is 17-meter long, 2-meter wide, and possesses a launch weight of 50 tonnes.**

Index and Ranking

Digital Quality of Life Index 2021

- The 'Digital Quality of Life Index (DQL) 2021' was released by 'Surfshark' which is a cybersecurity firm.
- The first rank was marked by Denmark.

Henley Passport Index 2021

- The ranking for the Henley Passport Index 2021 was released. It is prepared by **Henley and Partners,** which is a global citizenship and residence advisory firm based in London.
- As per the ranking, India is ranked **at 90th position**, it has slipped by six places **from last year.**

Renewable Energy Country Attractiveness Index

- This was the 58th edition of the index. It ranks the **world's top 40 markets as per their renewable energy investment and deployment opportunities.**
- As per the index, **India was ranked at 3rd position.**

Global Hunger Index (GHI) 2021

- The Global Hunger Index (GHI) 2021 was released by **Welt Hunger Hilfe (WHH) (Germany) and Concern Worldwide (Ireland).**
- As per the index, India is ranked at **101st** position among 116 countries.

Mercer Global Pension Index 2021

- India is ranked at **40th position in the 2021 Mercer CFS Global Pension Index survey. India has an index value of 43.3.**
- The index is topped by **Iceland with an index value of 84.2.**

Global Food Security (GFS) Index 2021

- The **Global Food Security (GFS) Index 2021** was released. It is framed by **London-based Economist Impact and sponsored by Corteva Agriscience.**
- India is ranked at **71st position in the index with a score of 57.2 points.**

World Justice Project's (WJP) Rule of Law Index 2021

- As per the index, **India is ranked at 79th position out of 139 countries.**
- The 1st position is marked by **Denmark.**

State Energy Efficiency Index 2020

- The index is released by the **Bureau of Energy Efficiency (BEE) and the Alliance for an Energy-Efficient Economy (AEEE).**
- **Karnataka** has topped the index ranking by scoring 70 points out of 100.

Public Affairs Index (PAI) 2021

- The top 3 positions are marked by **Kerala, Tamil Nadu, and Telangana in the index.**
- The index mentions the **state government's quality governance and mostly highlighted how the state government worked to tackle pandemic COVID-19**

Reports

'The State of the World's Children 2021' Report Released

- The state of World's Children 2021 report is the **global flagship publication of UNICEF and so was launched globally.**
- The report reveals the **impact of pandemic COVID-19 on the mental health of children.**

2021 Multidimensional Poverty Index (MPI) Report

- The 2021 Multidimensional Poverty Index (MPI) Report was released by **United Nations Development Programme (UNDP) and Oxford Poverty & Human Development Initiative (OPHI).**
- The report gives an estimation **for multidimensional poverty in 109 developing countries.**

'Global TB Report for 2021'

- The report highlighted the **impacts of the COVID-19 pandemic that led to a huge reversal in the progress of Tuberculosis (TB) elimination.**
- As per the report, India is the **worst-hit country** in TB elimination.

Global Climate Tech Investment Trend Report

- As per **London & Partners and Co's research 'Five years on**, Global climate tech investment trends after the **Paris Agreement, India is ranked at 9th position among 10 nations.**
- The report granted ranks to the countries as per making **climate technology investment from 2016 to 2021.**

MOUs Signed

Karnataka Signs 3 MoUs with Infosys

- The MoUs will be **for developing skills among students** as per the National Education Policy (NEP- 2020).
- The MoUs will offer support to the **colleges to implement NEP 2020 and boost their talent with technical and professional skills.**

Kerala Rail signed MoU with IISc Bangalore, L2MRail and SID

- The Kerala Rail has signed MoU with IISc Bangalore, IISc incubated **startup L2MRail and the Society for Innovation and Development (SID).**

- The objective of the MoU is to **enhance rail safety, mostly in vulnerable terrains.**

MoU signed between RARI and Sikkim Manipal University

- The MoU was signed between **Regional Ayurveda Research Institute (RARI) and Sikkim Manipal University (SMU).**
- The MoU was signed for **having collaborative research in mutually identified domains** and promote research activities.

Ministry of Textiles signed MoU with Germany's GIZ

- The MoU was signed to implement projects on '**Sustainability and Value Added in the Cotton Economy'.**
- The MoU agreement was signed on Indo German Technical Cooperation Project.

India and Croatia partnered to Improve Traditional Medicine System

- The Ministry of Ayush entered into an agreement with Croatia **for India's traditional medicine systems especially in the field of Ayurveda.**
- The MoU was signed between the **All India Institute of Ayurveda (AIIA) and Croatia's Kvarner Health Tourism Cluster.**

India and UK signed Forward Action Plan

- The Forward Action Plan was signed for **power & clean transportation, renewables, green finance, and green energy research domains.**
- The Forward Action Plan was signed under its **2030 roadmap.**

India Sanctioned LoC to Support Projects in Kyrgyzstan

- The funds will be used to **conduct high-impact community projects in Kyrgyzstan.**
- The MoU on '**High Impact Community Development Projects'** will **enable commencement in developing various community projects under grant funding by GoI.**

Danfoss India signed MoU with IISc Bangalore

- The MoU was signed **to set up a research and training center on the use of low GWP** (Global Warming Potential) refrigerants.
- The Danfoss India is an entity dealing in **heating, ventilation, and air-conditioning (HVAC).**

NHAI signed MoU with TIDCO

- The MoU was signed to **develop Multimodal Logistics Park (MMLP) in Mappedu village in Tiruvallur district in Chennai.**
- The investment of **Rs 1200 crore will be made to develop MMLP.**

STPI, AIC STPINEXT Initiatives Partnered with SINE-IIT Bombay

- They have collaborated to **develop entrepreneurship and boost startup ecosystem.**
- The STPI comes under **Ministry of Electronics and Information Technology.**

PayPal Signed MoU with IIFT

- PayPal has signed MoU with the **Indian Institute of Foreign Trade (IIFT).** They have signed the MoU to increase the knowledge base of Indian MSME.
- Through the MoU, they will be launching **India Digital Trade Facilitation Forum (IDTFF) for the MSME sector.**

BSE signed MoU with BLL

- The MoU was signed to create and spread awareness about the benefits of listing for small and medium enterprises on BSE SME platforms.
- Under the MoU, the BLL will play the role of knowledge partner.

RailTel signed MoU with C-DoT

- The C-DoT is the **R&D unit of the Department of Telecommunications (DoT) under the Ministry of Communications.**
- Under the MoU, both entities will work to **rationalize the tech and equipment of communication networks.**

Bellatrix Aerospace and Dhruva Space signed MoU with L&T

- They have signed MoU to give an **enhancement to efforts being taken to address the increasing demand for affordable access to the space.**
- The MoU was signed at the **Dubai Expo 2020.**

FGII signed Bancassurance Pact with BoI

- The FGII aims to further **penetrate its general insurance products through this partnership**.
- Under this pact, FGII will offer its **wide array of insurance solutions to 5,084 BoI branches in India.**

IGRUA and Drone Destination signed Pact with Haryana

- The pact was signed for **the initiative called 'DRIISHYA' (Drone Imaging and Information services of Haryana Limited).**
- The pact will allow **conducting drone training sessions in the state.**

MoU signed between CAG and Auditor General of Maldives

- The MoU was signed to **develop and strengthen institutions' professional capacity and bring methodologies in the field of audit of public finance.**
- Through this MoU, both nations aim to **strengthen and align the audit process of public finance.**

Government Schemes

'जनCARE'- AmritGrand Challenge Program

- The challenge will identify **75 Start-Up and entrepreneurs**, who have **innovative solutions and ideas, which will help to solve healthcare challenges and transform the healthcare sector** of the country.
- The solution and ideas must be able to work in **Low Resource Settings and strengthen Healthcare Delivery in India.**

'Mukhyamantri Paryatan Udyog Sambal Yojana-2021'

- The scheme aims to **grant support and relief to those entrepreneurs who are associated with the tourism and hospitality sector,** as this sector has been affected a lot due to pandemic COVID-19.
- Financial support will be offered to the entrepreneurs of the **tourism and hospitality sector.**

Jal Jeevan Mission App and Rashtriya Jal Jeevan Kosh

- Prime Minister Narendra Modi launched Jal Jeevan Mission mobile application and Rashtriya Jal Jeevan Kosh.
- The Jal Jeevan Mission was launched in **August 2019** by Prime Minister Modi. It **aims to grant clean tap water to every household in the country.**

'Kamdhenu Deepawali 2021' Campaign

- The **Kamdhenu Deepawali 2021 campaign was launched by Dr. Vallabhbhai Kathiria,** former CabinetMinister and former Chairman of Rashtriya Kamdhenu Aayog.
- The campaign was launched **to manufacture and market more than 100 Crore Cow dung-basedDeepak lamps and Laxmi-Ganesh Idols.**

'Prashasan - Shahron Ke Sang' and 'Prashasan - Gaon Ke Sang' Campaigns

- The Chief Minister of Rajasthan, **Ashok Gehlot** launched two campaigns namely 'Prashasan -- Shahron Ke Sang' and 'Prashasan -- Gaon Ke Sang'.
- Under both the campaigns, **various benefits will be granted to the people of the state, including allocation of land lease.**

'Mission Basundhara'-- Assam

- The mission will ensure **that the public receives their secured land rights in an efficient manner.**
- The focus of the mission will be on **poor and disadvantaged sections** of the society and will ensure that this section of the society gets its secured land rights.

'Good Samaritans'-- Ministry of Road, Transport & Highways

- The scheme is launched to **motivate people to help the road accident victims and save their life by rushing to the hospital for their treatment.**
- Along with the cash, **certification of appreciation will also be awarded.**

'Swechha' Program-- Andhra Pradesh

- The program aims **to solve the stigma attached to menstruation and give importance to female personal hygiene.**
- It focuses on the **health and hygiene of women and adolescent girls.**

'Fishwaale' App-- India's First e-Fish Market

- The app was developed by **Aqua Blue Global Aquaculture Solutions Pvt. Ltd. In partnership with fisheries department.**
- The app is a **one-stop solution for aquaculture** which will be beneficial to **both buyers and sellers.**

'Mission Kavach Kundal'-- Maharashtra

- The 'Mission Kavach Kundal' is a **special Covid-19 vaccination drive** that will be executed in the state.
- The mission aims to **vaccinate 15 lakh people every day against COVID-19.**

PM Gati Shakti –National Master Plan for Multi-Modal Connectivity

- The plan is comprised of a **centralised portal which combines various infrastructural initiatives by 16 central ministries and departments.**
- The plan will prove to be a **milestone to transform infrastructural landscape** of India.

'MyParkings' App

- It is developed by **Broadcast Engineering Consultants India Limited (BECIL)** and **South Delhi Municipal Corporation (SDMC).**
- The people will be able **to book parking slots in an online manner in areas under the jurisdiction of the SDMC.**

'Mera Ghar Mere Naam' Scheme-- Punjab

- The scheme aims to **provide proprietary rights to the people living in the houses within the 'Lal Lakir' of villages and cities.**
- Lal Lakir is the **land area that is a part of the village habitation and is used for non-agriculture purposes.**

'Mukhyamantri Ration Apke Dwar Yojana'—Madhya Pradesh

- Under the scheme, the **ration will be provided at the doorstep of the villagers where there are no Fair Price Shops (FPS) located.**
- The scheme will **provide ration materials to the vulnerable sections like Specially-Abled people, senior citizens, and poor people in the state.**

'Shri Dhanwantri Generic Medical Store Scheme'— Chhattisgarh

- The scheme aims **to provide low-cost generic medicines and healthcare services to the vulnerable people of the state.**
- The **Urban Administration and Development Department (UADD)** of the state will implement the scheme.

$100 Million Credit Facility for MSMEs

- The credit facility aims **to support small business sectors in India so that they can avail digital needs of their business.**
- The credit facility will also help the **MSMEs to recover from the negative impacts of COVID-19.**

Ayushman Bharat Health Infrastructure Mission

- The 'Ayushman Bharat Health Infrastructure Mission' will work to **eradicate the gaps in public health infrastructure and will bring critical care facilities.**
- It will work to **bring primary health care facilities to urban and rural parts of the country.**

Green Day Ahead Market (GDAM)

- India has become the **only major electricity market in the world to launch the GDAM for renewable energy.**
- This will help **to reduce the dependency on fossil fuel imported sources and bring energy transition.**

'SAMBHAV'- e-National Level Awareness Programme

- The 'SAMBHAV' aims to **promote the participation of the youth in entrepreneurship promotion activities.**
- The program was launched by the **Union Minister of MSME Narayan Rane**.

'Appscale Academy Programme'

- The tech giant **Google in partnership with the Ministry of Electronics and Information Technology (MeitY)** announced to launch 'App scale Academy Programme'.
- The program aims to **help early to mid-stage startups in India develop high-quality apps for the entire world.**

FIFA Football for School (F4S) Programme

- The aim of the program is to **integrate and unite the football sport with education.**
- The fun football sessions for **school-going children** will be delivered under the program.

Summit and Conferences

India –US Industrial Security Agreement Summit

- It was held **to frame a protocol for exchanging information** between ministries of defense of both nations.
- The summit was led by Designated Security Authorities of both nations. The Indian side was represented by **Anurag Bajpai** and the US side was represented by **David Paul Bagnati.**

'Azadi@75 – New Urban India: Transforming Urban Landscape'

- It showcases **various solutions and innovations to transform the urban** look of India.
- It also highlighted the achievement of **flagship urban development missions performed by GOI in the last 7 years.**

ICRIER's 13th Annual International G-20 Conference

- He mentioned that G20 is playing and will play a **major role to develop people, the planet, and collective prosperity.**
- He mentioned that G20 is **an international platform that brings nations together to address major problems and bring peace and prosperity.**

28th NHRC Foundation Day Programme

- The **National Human Rights Commission (NHRC) of India** was constituted on 12 October 1993. It is a Statutory public body for the protection of human rights.
- It was constituted under the Protection **of Human Rights Act 1993.**

National Conference for Zoo Directors and Veterinarians 2021

- The conference was attended by the Union Minister of Environment, Forest, and Climate Change, **Bhupendra Yadav.**
- At the valedictory, **Sudha Murthy, Chairperson of Infosys Foundation was felicitated.**

LMDC Ministerial Meeting

- The Union Minister for Environment Forest and Climate Change, **Bhupender Yadav participated in the Like-Minded Developing Countries (LMDC) Ministerial meeting** in a virtual manner.
- The meeting was held under the title of **'Preparations for COP 26 on Climate Change – Expectations and Challenges'.**

CII Organised International Conference & Exhibition on Digital Technologies

- It was titled **'Future Tech 2021- a Journey of digital transformation to technology** adoption and acceleration'.
- The theme for the conference was **'Driving technologies for building the future, we all can trust'.**

7th Meeting of BRICS Communications Ministers

- At the meeting, **Mr. Devusinh Chauhan highlighted that India is committed to bridge the digital divide in India.**
- To attain the objective the country is taking various **Telecomm reforms in order to unleash the true potential of the telecom industry.**

6th Annual Meeting of the Board of Governors of AIIB

- The meeting was based on the theme of '**Investing Today and Transforming Tomorrow'**.
- The meeting was organized by **AIIB in partnership with the Government of the UAE.**

Ambassadors' Round Table for DefExpo 2022

- The DefExpo 2022 is **Asia's largest defence exhibition which will be held on 10th March 2022 in Gandhinagar, Gujarat.**
- The objective of the Round Table was to give an idea about the planning, arrangements, and other details of DefExpo 2022 to the Ambassadors of foreign missions.

CII Asia Health 2021 Summit

- The Union Minister for Health and Family Welfare, Dr. Mansukh Mandaviya participated and addressed the CII Asia Health 2021 Summit via video conference.
- The theme of the summit was**: 'Transforming Healthcare for a better tomorrow'.**

18th ASEAN-India Summit

- Prime Minister Narendra Modi participated in the 18th Association of Southeast Asian Nations (ASEAN)-India Summit in a virtual manner.
- The summit was held under the **chairmanship of the Sultan of Brunei.**

Indo-Pacific Regional Dialogue 2021

- Union Defence Minister Rajnath Singh addressed the **Indo-Pacific Regional Dialogue (IPRD) 2021**, which is an apex international annual conference of the Indian Navy.
- The dialogue also manifests the Indian Navy's **engagement at various strategic-level.**

Books & Authors

Name of the Book	Author	Published by
Chronicles from the Land of the Happiest People on Earth	Wole Soyinka	
Economist Gandhi: The Roots and the Relevance of the Political Economy of the Mahatma	Retired entrepreneur Jerry Rao	Penguin Random House
The Custodian of Trust	Former chairman of State Bank of India (SBI) Rajnish Kumar	Penguin Random House India (PRHI)
Titled Quest for a Stable Afghanistan: A View from Ground Zero	Sujeet Sarkar	Rupa Publications India
Handbook On Sustainable Urban Plastic Waste Management		NITI Aayog & UNDP India
Sir Syed Ahmad Khan; Reason, Religion and Nation	Shafey Kidwai	Routledge India
Actually… I Met Them: A Memoir	Indian lyricist Gulzar	Penguin Random House India

The Stars in My Sky': Those who Brightened My Film Journey	National Award- winning actress Divya Dutta	Penguin Random House India
Veer Savarkar: The Man Who Could Have Prevented Partition	Uday Mahurkar and Chirayu Pandit	Rupa publications
The Origin Story of India's States	Venkataraghavan Subha Srinivasan.	Penguin Random House India (PRHI),
Writing for My Life	An anthology of author Ruskin Bond	Penguin Random House India (PRHI)
Kamala Harris: Phenomenal Woman	Chidanand Rajghatta	HarperCollins India
Ek Jang Ladte Hue	Ramesh Pokhriyal 'Nishank'	Prabhat Prakashan Private Limited

Appointments:

Name of the Person	Designation
Sunil Kataria	Chairman of the Indian Society of Advertisers (ISA)
Vinod Aggarwal	President of the Automotive Skills Development Council (ASDC)
Padmaja Chunduru	MD and CEO of National Securities Depositories (NSDL)

Kangana Ranaut	Brand ambassador for Uttar Pradesh One District One Product Scheme
BC Patnaik	MD of LIC
Rebecca Vanessa Suchiang	First native woman of the Meghalaya who was appointed as chief secretary of the state
Amish Mehta	MD and CEO of rating agency Crisil
Amitabh Bachchan	Brand Ambassador of CoinDCX
Najla Bouden Romdhane	First-ever female Prime Minister of Tunisia
Abiy Ahmed	Prime Minister of Ethiopia
Eric Braganza	President of Consumer Electronics and Appliances Manufacturers Association (CEAMA)
Wendy Werner	India Country Head by World Bank's arm International Finance Corporation (IFC)
Sanjay Bhargava	To head Starlink's satellite broadband venture in India
Mirabai Chanu and Bajrang Punia	Brand ambassadors of Amrutanjan Healthcare Limited
PK Purwar	CMD of MTNL
P L Haranadh	Chairman of Paradip Port Trust (PPT)
Virat Kohli	Brand ambassador of Fire-Boltt
Ashok Kumar Gupta	Additional charge chairperson of the National Financial Reporting Authority (NFRA)
E.R. Sheikh	First Director-General of the Ordnance Directorate (Co-ordination and Services)
Justice Rajesh Bindal	Chief Justice of the Allahabad High Court
Justice Ranjit V. More	Chief Justice of the Meghalaya High Court
Justice Satish Chandra Sharma	Chief Justice of the Telangana High Court
Justice Prakash Srivastava	Chief Justice of the Calcutta High Court
Justice R.V. Malimath	Chief Justice of the Madhya Pradesh High Court
Justice Ritu Raj Awasthi	Chief Justice of the Karnataka High Court
Justice Aravind Kumar	Chief Justice of the Gujarat High Court
Justice Prashant Kumar Mishra	Chief Justice of the Andhra Pradesh High Court
Arun Kumar Mishra	CEO of Energy Efficiency Services Limited (EESL)
Rajnish Kumar	Chairman of the board of BharatPe
Amit Khare	Advisor to Prime Minister Narendra Modi
Alexander Schellenberg	Austria's Chancellor
Deepa Malik	Independent director for Hospitality firm Oravel Stays Ltd (OYO)
Sajjan Jindal	Chairman of the World Steel Association (WSA)
Meera Mohanty	Joint Secretary in PMO
Ritesh Chauhan	CEO of the Pradhan Mantri Fasal Bima Yojana

Navrang Saini	Chairperson of Insolvency and Bankruptcy Board of India (IBBI)
Amitabh Chaudhry	Managing Director & CEO of Axis Bank
A K Goel	Chairman of the Indian Bank's Association (IBA) for 2021-22
Jonas Gahr Store	Prime Minister of Norway
Pradeep Kumar Panja	Chairman of Karnataka Bank Ltd
Commodore Amit Rastogi (Retd)	Chairman & Managing Director of National Research Development Corporation
Rahul Dravid	Team India's head coach
Sabyasachi Das	CEO of L&T Edutech
Imtiaz Ali (Director-Producer)	Ambassador of the Russian Film Festival in India
A Balasubramanian	New Chairman of the Association of Mutual Funds in India (AMFI)
Sahdev Yadav	President of the Indian Weightlifting Federation (IWLF)
Ritesh Chauhan	Head the working group constituted by the central government to overhaul Pradhan Mantri Fasal Bima Yojana (PMFBY) from Kharif 2022
Commodore PK Garg	CEO of the Target Olympic Podium Scheme (TOPS) by the Sports Authority of India (SAI)
KL Rahul	Brand ambassador of RealMe
Deepika Padukone	Global brand ambassador of Adidas
Ramnath Krishnan	MD and Group CEO of rating agency ICRA
Dame Sandra Mason	First-ever president of Barbados
Shavkat Mirziyoyev	President of Uzbekistan
Siddhartha Lal	MD of Eicher Motors Ltd
Manoj Bajpayee	Brand ambassador of Flobiz flagship product named myBillBook
Baldev Prakash	MD and CEO of J&K Bank
K V Kamath	Chairperson of the National Bank for Financing Infrastructure and Development (NaBFID)
Isha Ambani	Board of Trustees of Smithsonian's National Museum of Asian Art
Subhash Khunti	Part-time Chairman of Jana Small Finance Bank Ltd
Justice Ashok Bhushan	Chairperson of the National Company Law Appellate Tribunal (NCLAT)
Justice Ramalingam Sudhakar	President of the quasi-judicial body, National Company Law Tribunal (NCLT)
Shaktikanta Das	Governor of RBI

Award and Honors

Awards	Awardees
2021 Yidan Prize for Education Development for the work made by her in improving children's learning	Dr. Rukmini Banerji
2021 Yidan Prize for Education Research for his work in enhancing educational outcomes and the importance of teaching quality	Prof. Eric A Hanushek
Delhi-based environmental organisation and has won the 2021 Right Livelihood Award	Legal Initiative for Forest and Environment (LIFE)
2021 UNHCR Nansen Refugee Award	Jeel Albena Association for Humanitarian Development
US India Business Council (USIBC) for the 2021 Global Leadership Award	Shiv Nadar and Mallika Srinivasan
2021 UNHCR Nansen Refugee Award	Jeel Albena Association for Humanitarian Development (JAAHD)
4th Satyajit Ray Award for his contribution to Indian cinema	B Gopal
45th Vayalar Ramavarma Memorial Literary Award for his book 'Manthalirile 20 Communist Varshangal'	Benyamin
Dr. G Satheesh Reddy (Chairman of DRDO)	Aryabhata Award by the Astronautical Society of India (ASI)
22nd Lal Bahadur Shastri National Award for Excellence by Vice President M Venkaiah Naidu	Dr. Randeep Guleria (Director of AIIMS)
CK Prahlad award for Global Business Sustainability Leadership 2021	Satya Nadella (Microsoft CEO)
Progressive Business Concept Award of PETA India 2021 for his Vegan Leather initiative	James Sangma
Gold Award in Environmental Sustainability Category	The National Mineral Development Corporation Ltd
Platinum Award in the Environmental Management Category	NMDC's Kumaraswamy Iron Ore Mine
European Union's top human rights prize, the Sakharov Prize for Freedom of Thought for 2021 bythe European Parliament	Alexei Navalny
UNESCO's Martial Arts Education Prize 2021	Kung Fu Nuns of the Drukpa order of Buddhism

Earth Guardian Award instituted by the NatWest Group India	Parambikulam Tiger Conservation Foundation
Satyajit Ray Lifetime Achievement Award at the 52nd International Film Festival of India (IFFI) in Goa 2021	Martin Scorsese and Istvan Szabo (Legendary filmmakers)
51st Dadasaheb Phalke Award at the 67th National Film Awards ceremony	Rajinikanth
2022 Joseph A. Cushman Award for Excellence in Foraminiferal Research	Dr. Rajiv Nigam
Peace Prize of the German Book Trade 2021 for a 'new Enlightenment'	Tsitsi Dangarembga (Zimbabwean author and filmmaker)
'Top organization Innovative HR Practices'	Karnataka Bank
'Outstanding Renewable Energy User' at the India Green Energy Award 2020 by the Indian Federation of Green Energy (IFGE)	TVS Motor Company

Nobel Prizes 2021		
Field	**Recipient**	**Contributions**

Chemistry	Benjamin List and David W.C. MacMillan	Finding an easier and environmentally cleaner way to build molecules that can be used to make compounds, including medicines and pesticides (organocatalysis).
Physics	Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi	Understanding of complex physical systems.
Medicine	David Julius and Ardem Patapoutian	For their work in the field of somatosensation, that is the ability of specialised organs such as eyes, ears and skin to see, hear and feel.
Peace Prize	Maria Ressa and Dmitry Muratov	For their efforts to safeguard freedom of expression, which is a precondition for democracy and lasting peace.
Literature	Abdulrazak Gurnah	For his uncompromising and compassionate penetration of the effects of colonialism and the fate of the refugee in the gulf between cultures and continents.
Economics	David Card, Joshua Angrist and Guido Imbens	Research on wages, jobs

Important day and themes

Date	Observed as	Theme/ Aim
October 1	International Day of the Older Persons	Theme: Digital Equity for All Ages.
October 1	World Vegetarian Day	Aim: To promote the joy, compassion and life-enhancing possibilities of vegetarianism.
October 1	International Coffee Day	Theme: Coffee's Next Generation.
October 2	International Day of Non- Violence	152nd birth anniversary of Mahatma Gandhi.
October 4	World Animal Day 2021	Theme: Forests and Livelihoods: Sustaining People and Planet.
October 5	World Teachers' Day	Theme: 'Teachers at the Heart of Education Recovery.
October 5	Ganga River Dolphin Day	A new campaign called "My Ganga My Dolphin" has launched in the 250 km stretch of the river.
October 5 1st Monday of October	UN- World Habitat Day	Aim: To remind people that they are responsible for the habitat of future next generations.
October 7	World Cotton day	Theme: There's more to cotton than you think.
October 8	89th Indian Air Force Day	Aim: To increase the awareness of the Indian air force in any organization of national security both officially and publicly.
October 8 -2nd Friday of October	World Egg Day	Theme: Eggs for all: Nature's perfect package.

4th – 10th October	World Investor Week	Aim: to Raise awareness about the importance of investor education and protection.
October 9	World Post Day	Theme: Innovate to Recover.
October 10	World Mental Health Day	Theme: Mental health in an unequal world.
October 11	UN - The International Day of the Girl Child	Theme: Digital generation. Our generation.
October 12	World Arthritis Day	Theme: Don't Delay, Connect Today: Time2Work.
October 14	World Standards Day	Theme: Standards for sustainable development goals - shared vision for a better world
October 15	World Student's Day	Theme: Learning for people, planet, prosperity, and peace.
October 15	UN - International Day of Rural Women	Theme: Rural Women Cultivating Good Food for All.
October 16	World Food Day	Theme: Safe food now for a healthy tomorrow.
October 17	International Day for the Eradication of Poverty	Theme: Building Forward Together: Ending Persistent Poverty, Respecting all People and our Planet
October 20	The International Chefs Day	Theme: Healthy Food for the Future
October 20	World Osteoporosis Day (WOD)	Theme: Serve Up Bone Strength
October 21	National Police Commemoration Day	Aim: To salute the spirits of police forces and their families and brave police martyred who lost their lives fighting for the country.

October 22	International Stuttering Awareness Day	Theme: Speak the change you wish to see
October 23	International Snow Leopard Day	Aim: To show the importance of snow leopard conservation and raise awareness about this incredible animal.
October 24	International Day of Diplomats	Aim: To bridge the gap in perception and reality of diplomats' lives among the general public.
October 24	76th United Nations Day	Secretary-General: António Guterres. Headquarters: New York.
October 24	World Polio Day	Theme: Delivering on a Promise
October 24	UN - World Development Information Day	Aim: To draw the attention of the world to development problems
October 27	World Day for Audiovisual Heritage	Theme: Your Window to the World
October 28	20th International Animation Day	Aim: To celebrate the art of animation and also recognize the artists, scientists and technicians behind animation.
October 29	International Internet Day	The first International Internet Day was celebrated on October 29, 2005.
October 29	World Psoriasis Day	Theme: Uniting for action

Sports News

- Olympic bronze medal-winning Indian hockey player **Rupinder Pal Singh** announced his **retirement from international hockey** with immediate effect to make way for youngsters.
- The eight-division world champion and Philippines senator **Manny Pacquiao** announced his **retirement from professional boxing** after 26 years and 72 professional bouts.
- **The Indian men's table tennis** team claimed the **bronze medal** after losing to **South Korea 0-3** in the semi-finals and two of the Three medals came from Men's Doubles event in the Asian Table Tennis Championships held in **Doha, Qatar**. The **women's team finished fifth** after beating Thailand 3-1 . **Japan topped the Table with 4 Gold.**
- The veteran forward and star striker of India men's field hockey team, **S V Sunil & Olympic bronze medal-winning Indian hockey star defender Birendra Lakra** have announced their **retirement f**rom international hockey.
- The National Basketball Association (NBA) named Bollywood superstar **Ranveer Singh** as the **NBA Brand Ambassador** for India to help grow the league's profile in India throughout its landmark 75th Anniversary Season in 2021-22.
- **Indian Super League side FC Goa** was crowned champions of the **130th Durand Cup football championship**, beating Mohammedan Sporting 1-0, in the final, held at Vivekananda Yuba Bharati Krirangan, Kolkata.
- Union Law Minister Kiren Rijiju inaugurated the country's first **"Sports Arbitration Centre of India" at Ahmedabad in Gujarat.**
- World Chess Champion **Magnus Carlsen** won the inaugural Meltwater Champions Chess Tour (MCCT). He claimed the non-fungible token (NFT) trophy, and $1,00,000 in the finals.
- Hockey India withdraws from 2022 Commonwealth Games in England. The UK has refused to consider India's COVID-19 vaccination certificates and imposed a **10-day quarantine on travellers coming from India even if fully vaccinated.**
- India clinched a silver medal after going down 0-2 to Russia in the final of the **FIDE World Women's Team Chess Championship at Sitges, Spain**. It was India's first ever medal in the world team chess championship.
- Germany unveiled the logo for **football's 2024 European Championship**. The slogan for the tournament **United by Football.**
- Indian wrestler **Anshu Malik** became the first Indian woman wrestler to win a **silver medal** after losing her 57kg final to 2016 Olympic champion Helen Lousie Maroulis 4-1 in the 2021 World Wrestling Championships in Oslo, Norway.
- Indian opener **Smriti Mandhana** became the **first Indian woman to score a century in a pink-ball women's cricket Test against Australia**. This is also the first century by an Indian woman on Australian soil.
- **Fire-Boltt,** India's leading smart wearable brand, has appointed Indian cricketer **Virat Kohli as its brand ambassador.**

- For the first time ever, India swept the eight **2021 International Hockey Federation's (FIH) annual Hockey Star Awards with drag-flickers Harmanpreet Singh and Gurjit Kaur** claiming the **Player of the Year honors** in men and women.
- Mercedes-Finland driver **Valtteri Bottas** won the **F1 Turkish Grand Prix 2021** held at Istanbul Park in tuzla, Istanbul.
- For the first time, the **Indian table tennis contingent has won 3 Bronze medals in the 2021 Asian Table Tennis Championship** organised by the International Table Tennis Federation (ITTF) at **Doha, Qatar.**
- **The 2021 International Shooting Sport Federation (ISSF) Junior World Championship Rifle/Pistol/Shotgun was held at Lima in Peru. India has won 43 medals, including 17 Gold, 16 Silver and 10 Bronze** medals to stand atop in the medal table. The USA finished second on the medal table with 21 medals
- The World football governing body, FIFA unveiled **the official mascot named "IBHA" of the U-17 Women's World Cup India 2022.**
- **Sunil Chhetri** has equalled the legendary **Pele** by making the **77th international goal** as his 83rd minute strike.
- Asian Football Confederation (AFC) and the Local Organising Committee (LOC) unveiled **'Our Goal for All' as the official tagline for the AFC Women's Asian Cup India 2022.**
- **Divya Deshmukh,** a 15-year-old from Nagpur, Maharashtra became the 21st Woman Grand Master (WGM) of India after qualifying in **the 3rd WGM norm.**
- **Chennai Super Kings clinched their fourth Indian Premier League title** after beating **Kolkata Knight Riders by 27 runs** in the summit clash at Dubai International Stadium.
- **Amy Hunter (16)** became the **youngest-ever batter to score an international century** in Ireland Women's clash against Zimbabwe.
- India beat Nepal, 3-0, to win the 2021 SAFF Championship final title at the National Football Stadium in Male, Maldives. **Top Scorer in the championship Sunil Chhetri (Captain) – 5 goals.**
- Nagaland capital **Kohima** will host the **South Asian Cross Country Championship on 15 th January 2022.**
- **The ICC has partnered with UNICEF**, has announced their partnership to raise awareness about the mental health issues and wellbeing amongst children and adolescents.
- **Ethiopia's Sisay Lemma** won the **men's elite race in a time of 2 hours, 4 minutes** and **1 second** & Kenya's Joycline Jepkosgei won the women's race in a blistering 2:17.43 in London, United Kingdom.
- Ace Indian fencer **Bhavani Devi** has won the **Women's Sabre Individual event at the Charlellville National Competition in France.**
- **The 2021 BNP Paribas Open tennis tournament** was held at Indian Wells, **California, USA.**
- Winners of 2021 BNP Paribas Open :

Category	Winners	Runners
Men's Singles	Cameron Norrie (United Kingdom)	Nikoloz Basilashvili (Georgia)
Women's singles	Paula Badosa (Spain)	Victoria Azarenka (Belarus)

➢ The 19-year-old Indian Grandmaster **P.Iniyan won the La Nucia Open chess tournament 2021 held in La Nucia, Spain.**

➢ **The 16-year-old Indian Grandmaster (GM) Rameshbabu Praggnanandhaa** has won the **Julius Baer Challengers Chess Tour 2021** finals after defeating Christopher Yoo of the USA (United States of America).

➢ Australia fast bowler **James Pattinson** has retired from international cricket ahead of the 2021–

➢ 22 Ashes series.

➢ Indonesia beat defending champion China, 3-0, to win the Thomas Cup final played at the Ceres Arena in Aarhus, Denmark. Badminton World Federation (BWF)

➢ In the Uber Cup, **China beat defending champions Japan 3-1**, to clinch their **15th Uber Cup trophy.**

➢ **South Korea and Thailand shared bronze**. Badminton World Federation **(BWF)**

➢ Karnataka swimmer **Ridhima Veerendrakumar** won the **gold medal in 50m backstroke for group II girls in Bengaluru, a record-breaking performance at the 37th Sub Junior and 47th Junior National Championships**

➢ Olympic badminton champion **Viktor Axelsen (Denmark**) clinched the 2021 **Denmark Open after defeating Momota Kento of Japan in the final.**

➢ List of winners of 2021 Denmark Open Title :

Category	Championship
Men's single	Viktor Axelsen (Denmark) beat Kento Momota (Japan)
Women's single	Akane Yamaguchi (Japan) beat An Se-young (South Korea)

➢ **Max Verstappen (Red Bull – Netherlands)** won the **2021 United States Grand Prix.**

➢ **In the 2021 FIFA Rankings India** has additionally moved one spot forward to the **106th position** after the Sunil Chhetri-led aspect received the SAFF Championship.

➢ Former India captain and Hyderabad Cricket Association (HCA) president **Mohd Azharuddin** unveiled the **world's largest cricket bat in Hyderabad**. The bat measures **56.10 feet**, weighs **nine tonnes and is made of poplar wood.**

Nation and States miscellaneous:

➢ The Social Justice and Empowerment Ministry will organise the Vayo Naman Programme in the honour of senior citizens on the occasion of the International Day of Older Persons in New Delhi.

➢ Anurag Thakur, who holds the Youth Affairs and Sports portfolio has launched a month-long Clean India Programme from Prayagraj as part of Azadi Ka Amrit Mahotsav till October 31.

➢ Prime Minister launches the Jal Jeevan Mission App for improving awareness among stakeholders.

➢ Home Minister Amit Shah has flagged off 7500 kilometer All India Car Rally of the National Security Guard – Sudarshan Bharat Parikrama from the historic Red Fort in Delhi under the ongoing Azadi Ka Amrit Mahotsav.

➢ Union Government has decided that the procurement of paddy under Minimum Support Price operation will commence from 11th october in Punjab and Haryana.

➢ Labour Ministry reconstituted the expert group responsible for determining the national floor level minimum wages under the Code on Wages. Economist and statistician SP Mukherjee will lead the 9-member group.

➢ The Defence Acquisition Council (DAC) under the Chairmanship of Defence Minister Rajnath Singh approved the Acceptance of Necessity (AoN) for defence procurement worth Rs. 13,165 crores for modernisation of Indian Armed Forces.

➢ Cabinet has approved renaming the Mid-Day Meal Scheme into PM POSHAN (Pradhan Mantri Poshan Shakti Nirman).

➢ The Cabinet Committee on Economic Affairs chaired by PM Narendra Modi has approved the listing of Export Credit Guarantee Corporation (ECGC) Ltd., an unlisted Central Public Sector Enterprises (CPSE) through the Initial Public Offer (IPO) on the Stock Exchange under the SEBI's (Issue of Capital and Disclosure Requirements) Regulations, 2018.

➢ Union Minister for Road Transport and Highways Nitin Gadkari announced a new ambitious road project connecting Surat in Gujarat and Chennai in Tamil Nadu.

➢ Environment Minister Bhupender Yadav has launched a web portal – indianwetlands.in on the occasion of Gandhi Jayanti and heralding the Iconic Week of Azadi ka Amrit Mahotsav of the Ministry. The portal is a single point access to all information relating to wetlands.

➢ World's largest Khadi national flag which is 225-feet long and 150-feet wide, weighs around 1,000 kg was installed at Leh in Ladakh on the occasion of Gandhi Jayanti. It was inaugurated by Ladakh Lieutenant Governor RK Mathur.

➢ The 15th Edition of Indo-Nepal Joint Training Exercise, EXERCISE SURYA KIRAN XV culminated at Pithoragarh, Uttarakhand after 14 days of rigorous training.

➢ Department of Pharmaceuticals under Chemicals and Fertilizers Minister Mansukh Mandaviya has celebrated the iconic week from 4th to 10th October with the theme Story Of Pharma @75: Future Opportunities.

➢ The Power Ministry has promulgated the Electricity (Transmission System Planning, Development and Recovery of Inter-State Transmission Charges) Rules 2021.

- The government has decided to extend the timeline of the Emergency Credit Line Guarantee Scheme (ECLGS) till March 31, 2022, or till guarantees for an amount of Rs 4.5 lakh crore are issued under the scheme, whichever is earlier.
- The Indian Navy signed the 'Terms of Reference' (ToR) with the Royal Australian Navy to conduct Navy to Navy (N2N) talks under the framework of the 'Joint Guidance for the India – Australia Navy to Navy Relationship' document signed by the Navies in August.
- Union Minister Bhupender Yadav, Ministry of Labour and Employment launched DigiSaksham in collaboration with Microsoft India. It aims to enhance youth employment opportunities in rural and semi-urban areas by imparting digital skills.
- NITI Aayog – Released Report on District Hospitals in India titled 'Best Practices in the Performance of District Hospitals' by Tie up with AWS, Intel to Boosts Innovation.
- Prime Minister (PM) Narendra Modi launched the second phase of Swachh Bharat Mission-Urban (SBM-U 2.0) and the Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0).
- The union minister for Panchayati Raj and Rural Development Giriraj Singh launched the People's Plan Campaign (PPC) 2021- Sabki Yojana Sabka Vikas and Vibrant Gram Sabha Dashboard.
- The Union Minister for Health and Family Welfare Mansukh Mandaviya has launched delivery of COVID-19 vaccine by Unmanned Aerial Vehicle (UAV) or drone in Bishnupur district of Manipur.
- The 40th edition of India International Trade Fair 2021 will be held from 14th to 27th November at Pragati Maidan in New Delhi. This year the theme of the fair is Atmanirbhar Bharat.
- Defence Secretary Dr Ajay Kumar has launched a website for Republic Day Celebrations - 2022.
- Prime Minister Narendra Modi has inaugurated the New Urban India: Transforming Urban Landscape, Conference-cum-Expo at Lucknow in Uttar Pradesh.
- An Indian Parliamentary Delegation led by Lok Sabha speaker Om Birla left for Rome to attend the G20 Parliamentary Speakers Summit.
- The Coal Ministry has constituted a panel to review and benchmark the timelines in project execution. The committee has been set up under the chairmanship of Joint Secretary and Financial Advisor comprising of representatives from NTPC, IOCL, PGCIL and Director (T), ECL as member secretary.
- The Ministry of Power reviewed the existing transmission planning framework based on long-term access (LTA) which resulted in the promulgation of the Electricity (Transmission System Planning, Development and Recovery of Inter-State Transmission Charges) Rules 2021 on October 3, 2021.
- Commerce and Industry Minister Piyush Goyal has addressed the Inaugural Session of the ICRIER's 13th Annual International G-20 Conference.
- The Union Cabinet approved the setting up of seven Mega Integrated Textile Region and Apparel (PM MITRA) Parks with a total outlay of four thousand 445 crore rupees over five years by Textiles Minister Piyush Goyal.
- Union Minister Jitendra Singh has stated that the government to set up 75 Science Technology and Innovation Hubs exclusively for SCs & STs.

- The Union Minister Bhupender Yadav, Ministry of Environment, Forest and Climate Change (MoEF&CC) released the 'Guidelines for sustainable Ecotourism in forest and wildlife areas' to promote a better understanding of nature and wildlife conservation during the occasion of Gandhi Jayanti (October 2, 2021) and indicating the Iconic Week of Azadi ka Amrit Mahotsav of MoEFCC (4-10th October 2021).
- The Ministry of Railways announced that the construction work of the new 2.05 km Pamban railway bridge in Mandapam will be completed by March 2022. The bridge will connect Rameswaram to the mainland in Tamil Nadu.
- Union Minister Mansukh Laxmanbhai Mandaviya, Ministry of Health and Family Welfare (MoH&FW) launched a delivery model namely 'ICMR's Drone Response and Outreach in North East (i-Drone)'.
- Minister for Petroleum and Urban Affairs Hardeep Singh Puri virtually inaugurated 62 Pressure Swing Adsorption PSA Medical Oxygen Generation Plants installed in public health facilities across the country.
- The second meeting of the India-UK Joint Working Group on Cyber Capacity Building was held through video conferencing. The Indian delegation was led by Atul Malhari Gotsurve, Joint Secretary (Cyber Diplomacy) from Ministry of External Affairs.
- The National Tiger Conservation Authority (NTCA) has designated the combined areas of the Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary as a Tiger Reserve. This will be the fourth Tiger Reserve in Chhattisgarh.
- Under the Swadesh Darshan Scheme, the Tourism Ministry sanctioned 5 projects of Rs 325.53 crore for Buddhist circuit development. The tour covers the destinations Gaya-Bodhgaya, Rajgir-Nalanda in Bihar as well as Sarnath-Varanasi in Uttar Pradesh.
- NTPC Limited, formerly known as National Thermal Power Corporation Limited, signed a (MoU) with the Électricité de France(EDF), a French energy company, for cooperation in the development of International Power Projects in the Middle East, Asia, Europe and Africa.
- Cabinet approves Productivity Linked Bonus to railway employees for the financial year 2020- 21 Government has approved setting up of 7 Mega Integrated Textile Region and Apparel.
- The National Health Authority (NHA) revised the Health Benefit Package (HBP 2.2) of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) under which the rate of around 400 procedures increased by 20% to 400%.
- The International Financial Services Centres Authority (IFSCA) and GIFT City launched the global FinTech Hackathon Series 'I-Sprint'21'.
- The first Sprint of the series "Sprint01: BankTech" is focussed on FinTechs for the Banking sector.
- On World Cotton Day, India's Ministry of Textiles (MoT) supported by Ministry of Agriculture and Farmers Welfare (MoAFW) signed a Memorandum of Understanding (MoU) with Germany's Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to implement projects on 'Sustainability and Value Added in the Cotton Economy'.
- The government of India has released 1st guidelines for cybersecurity in the power sector. Objective is to create a cyber secure ecosystem and strengthen the regulatory framework.

- India officially joined the High Ambition Coalition (HAC) for Nature and People during a ceremony between the French and Indian governments held at New Delhi, India.
- Prime Minister Narendra Modi has launched the first ever National Infrastructure Masterplan, Pradhan Mantri Gati Shakti. The Gati Shakti scheme was announced by Modi on Independence Day this year.
- External Affairs Minister S Jaishankar has visited Kyrgyzstan as part of his four-day visit to Kyrgyz Republic, Kazakhstan and Armenia. He is delighted to visit Bishkek, Kyrgyzstan at the invitation of Foreign Affairs Minister of Kyrgyzstan Ruslan Kazakbae.
- Prime Minister Narendra Modi has launched Indian Space Association (ISpA) through video conferencing. AIR correspondent reports, ISpA is the Premier Industry Association of Space and Satellite companies, which aspires to be the collective voice of the Indian Space industry.
- India and Denmark have inked four agreements and decided to expand cooperation following bilateral talks between Prime Minister Narendra Modi and his Danish counterpart Mette Frederiksen in New Delhi.
- India and the United Kingdom have agreed upon a 'Forward Action Plan' on power, clean transportation, renewables, green finance, and research as part of the 2030 roadmap.
- The Ministry of Power, Government of India, has set a revised policy to use biomass pellets in coal-burning thermal power plants. This encourages the use of agricultural waste, which will be burnt by the farmers causes air pollution.
- Tata Sons Private Ltd subsidiary Talace Pvt Ltd has won the final bid for acquiring the national carrier Air India by submitting Rs 18,000 crore bid.
- The Adani Finserv, a financial services arm of Adani group has acquired 10% equity stake in
- the government's rural e commerce venture CSC Grameen eStore.
- Prime Minister Narendra Modi has Addresses the 28th National Human Rights Commission (NHRC) Foundation Day programme through video conferencing.
- Prime Minister Narendra Modi has Addresses the 28th National Human Rights Commission (NHRC) Foundation Day programme through video conferencing. The summit has been convened by Italy, the current chair of the G20 that comprises 20 of the world's major economies.
- The Competition Commission of India (CCI) has imposed a penalty upon two firms for bid-rigging in tender floated by Gas Authority of India Limited, GAIL. These two firms are PMP Infratech Pvt. Ltd. and Rati Engineering.
- Cabinet Committee on Economic Affairs (CCEA) has approved the proposal of the Department of Fertilizers for fixation of Nutrient Based Subsidy Rates for Phosphatic and Potassic fertilisers (P&K) for the year 2021-22.
- The Union Cabinet has approved the Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0) till 2025-26. The Cabinet has providing reliable and affordable water supply and sanitation services to urban households are a national priority.
- Coal Crisis in India: Government Enabled Imported Coal Power Plants to Sell Un- requisitioned Power; Allowed 50% Sale of Coal from Captive Mines.
- OneWeb (a venture backed by Bharti Airtel), has entered into an arrangement with NewSpace India Limited (NSIL), the commercial arm of ISRO, to use Indian-built PSLV (Polar Satellite Launch

Vehicle) and the heavier GSLV (Geosynchronous Satellite Launch Vehicle) – MkIII as potential platforms to launch OneWeb's satellites in India from 2022.

- Prime Minister Narendra Modi virtually launched the Indian Space Association (ISpA), a private industry body to help boost space technology in India.
- India and Nepal have signed two agreements aimed at boosting cross-border train services and reviewed ongoing railway projects as part of efforts by the two countries to improve regional connectivity and trade.
- Power Finance Corporation Ltd (PFC) was accorded the status of 'Maharatna central public sector enterprise (CPSE)' by the Department of Public Enterprises, under the Ministry of Finance. This status is giving the PFC for greater operational and financial autonomy.
- Union Minister of Rural Development & Panchayati Raj Shri Giriraj Singh virtually launched Climate Resilience Information System and Planning (CRISP-M) tool for integration of climate information in Geographic Information System (GIS) based watershed planning under Mahatma Gandhi NREGA Scheme (MGNREGS).
- A two-day National conference for zoo directors and veterinarians 2021 was hosted by Sardar Patel Zoological Park, Kevadia, Gujarat. Organized by Central Zoo Authority (CZA), it was attended by Union Minister Bhupender Yadav, Ministry of Environment, Forest and Climate Change (MoEF&CC).
- The Department of Biotechnology (DBT) launched India's 1st 'One Health' consortium to carry out surveillance of important bacterial, viral and parasitic infections of zoonotic as well as transboundary pathogens.
- Minister of State for Consumer Affairs Ashwini Kumar Choubey has implemented the best global standards which will facilitate access to national and international markets for Small and Medium Enterprises.
- India hosted the first ever SCO Seminar on Role of Women in Armed Forces. Secretary (West) Reenat Sandhu, the role of India's women military officers at the global level in UN peacekeeping missions.
- India signed a long-term Memorandum of Understanding (MoU) with Russia for DAP (Di-Ammonium Phosphate) fertilizer supply.
- External Affairs Minister S Jaishankar on a five day official visit to Israel at the invitation of Alternate Prime Minister and Foreign Minister of Israel Yair Lapid. This is his first visit to the country as External Affairs Minister.
- World Bank President David Malpass met Finance Minister Nirmala Sitharaman in Washington and discussed India's efforts on climate change action.
- The second edition of Naval Commanders' Conference of 2021 held in New Delhi on Oct 18th to 22nd
- Chairman of Indian Council for Cultural Relations ICCR Vinay Sahasrabuddhe, as part of Azadi ka Amrit Mahotsav, India will host young leaders from 75 democracies under the initiative Gen-Next Democratic Network.
- Ministry of Steel, Government of India(GoI) and the Ministry of Energy of the Russian Federation signed a (MoU) for collaboration in the mining and steel sectors, with special focus on coking coal, in Moscow during the Russian Energy Week(REW)13-15 October 2021.

- Prime Minister Narendra Modi launched the 7 new Defence Public Sector Undertakings (DPSUs) that were carved out of the Ordnance Factory Board (OFB) and dedicated them to the nation.
- RailTel & Centre for Development of Telematics (C-DOT) Signed MoU to Boost Expansion of Telecom Services in India.
- India will participate in the Moscow Format meeting on Afghanistan. The meeting is being hosted by Russia.
- Raksha Mantri Rajnath Singh launched Web Based Project Monitoring Portal (WBPMP) for Military Engineer Services (MES) at New Delhi.
- Home Minister Amit Shah flagged off Modi Van under the 'Seva Hi Sangathan' programme to commemorate Prime Minister Narendra Modi completing 20 years as the Head of Government. Five Mobile Medical Vans will operate in five Assembly Constituencies in Kaushambi district of Uttar Pradesh.
- The Minister of State (MoS) for Communication, Devusinh Chauhan, participated in the Ministerial Roundtable Session of the 50th-anniversary edition of International Telecommunication Union (ITU) Digital World 2021, which was held in Vietnam and hosted by the government of Vietnam.
- Union Minister Amit Shah, Ministry of Cooperation inaugurated 14 projects worth Rs 299 crore and laid foundation stones of 12 projects worth Rs 643 crore from the Netaji Subhas Chandra Bose Island in Andaman and Nicobar Islands. Mount Harriet, an island peak in Andaman and Nicobar Islands as Mount Manipur as a tribute to the freedom fighters of Manipur.
- Prime Minister Narendra Modi has inaugurated the 806-bedded Vishram Sadan at the National Cancer Institute in Haryana's Jhajjar Campus of AIIMS, New Delhi.
- The 52nd edition of the International Film Festival of India (IFFI) will be held in Goa November 20,the Information and Broadcasting Ministry has announced.
- Bhupender Yadav, Union Minister for Environment Forest and Climate Change, virtually participated in the Like-Minded Developing Countries (LMDC) Ministerial meeting titled "Preparations for COP 26 on Climate Change – Expectations and Challenges".
- The Central Government has constituted a Working Group (WG) to be headed by Chief Executive Officer (CEO) of PMFBY, currently Ritesh Chauhan to roll out an overhauled Pradhan Mantri Fasal Bima Yojana (PMFBY) from Kharif 2022.
- NITI Aayog along with ISRO has launched the Geospatial Energy Map of India which will provide a holistic picture of all energy resources of the country. This map identifies and locates all primary and secondary sources of energy and their transportation.
- UK Secretary of State for Foreign, Commonwealth and Development Affairs Elizabeth Truss will arrive in New Delhi on a three-day visit to India.
- As part of commemorative activities of Azadi ka Amrit Mahotsav, Indian Navy is conducting an Offshore Sailing Regatta from Kochi to Goa under aegis of Indian Naval Sailing Association, INSA.
- Union Defence Minister Rajnath Singh has inaugurated a three-day conclave organised by the Indian Air Force to commemorate 'Swarnim Vijay Varsh' Conclave in Bengaluru.
- The Defence Ministry has signed a contract with the US Government under Foreign Military Sale (FMS) for procurement of MK 54 Torpedo and Expendable Chaff and Flares for the Indian Navy.

- The union government has approved a 3% hike in dearness allowance (DA) and dearness relief (DR) for central government employees. The new rate of dearness allowance will now be 31% from 28% earlier.
- Prime Minister Narendra Modi's interaction with the beneficiaries and stakeholders of the 'Aatmanirbhar Bharat Swayampurna Goa' programme is underway via video conferencing.
- The Ministry of Power has notified rules for the sustainability of electricity sector and the promotion of clean energy.
- 67th National Film Awards Ceremony Underway at Vigyan Bhawan, New Delhi. A total of 461 feature films, 220 non-feature films, 25 books on cinema, 12 film critics, and 13 film-friendly states competed for the awards. The awards were announced in March 2021 for the films released in 2019.
- A National Steering Committee has been formed by the government for the implementation of the National Initiative for Proficiency in Reading with Understanding and Numeracy, NIPUN Bharat Mission. Union Education Minister Dharmendra Pradhan will be heading the committee.
- The 19th Meeting of Prosecutors General of the Shanghai Cooperation Organisation, SCO Member States will be hosted by Solicitor General of India Tushar Mehta.
- The first India-Kyrgyzstan Strategic Dialogue between the National Security Council Secretariats was held in New Delhi.
- AYUSH Minister Sarbananda Sonowal will inaugurate the Incubation Centre for Innovation and Entrepreneurship (AIIA- iCAINE) at All India Institute of Ayurveda (AIIA) at Vigyan Bhavan in New Delhi.
- Prime Minister Narendra Modi has attended the 16th East Asia Summit which was held virtually.
- As part of Azadi Ka Amrit Mahotsav, Union Minister for Culture and Tourism G.Kishan Reddy has launched the Amrit Mahotsav Podcast. The first series, Zara Yaad Karo Qurbani, went live with an episode based on the Indian National Army. New episodes will be added on a weekly basis.
- The two-day G-20 Leader Summit-2021 has begun in Italy. Prime Minister Narendra Modi has visited Rome in Italy to attend the G-20 summit.
- The Department of Telecom, Ministry of Communication has notified Indian Telegraph Right of Way (Amendment) Rules, 2021 by amending Indian Telegraph Right of Way (RoW) Rules, 2016.
- The Union Government has received a final dividend of 6,665 crore rupees from Bharat Petroleum Corporation Ltd (BPCL) for the Financial Year 2020-21.
- Civil Aviation Minister Jyotiraditya released Krishi UDAN 2.0 which lays out the vision of improving value realization through better integration and optimization of Agri-harvesting and air transportation.
- Chennai - Mysore- Chennai Shatabdi Express becomes the first Integrated Management Systems certified train of Southern Railway. This is also the first Shatabdi of Indian Railways and the second express train on Indian Railways to bag this certification.
- Health Minister Mansukh Mandaviya has launched the 6th edition of National Formulary of India to promote rational use of medicines in the country.
- Housing and Urban Affairs Minister Hardeep Singh Puri has inaugurated the 14th Urban Mobility Conference 2021 through video conference. The main theme of this year's conference is

Mobility for All which focuses on providing equitable access and promote inclusive urban transportation.

➢ Union Minister Dharmendra Pradhan, Ministry of Skill Development and Entrepreneurship (MSDE), launched the second phase of the Mahatma Gandhi National Fellowship (MGNF) for 2 years, 2021-2023 on October 25,2021.

➢ The Union Minister of Power & New and Renewable Energy, R K Singh launched India's 1st Green Day Ahead Market (GDAM) for the renewable energy (RE) to enable the electricity generation and distribution companies (Discoms) to trade (i.e., buy or sell) RE in the day-ahead market.

➢ The Prime Minister (PM) of India Narendra Damodardas Modi launched a pan-India scheme namely PM Ayushman Bharat Health Infrastructure Mission from Varanasi, Uttar Pradesh (UP).

➢ Indo-Pacific Regional Dialogue (IPRD) is scheduled to be held as a three-day online event that commenced on 27, 28 and 29 October 2021. It will focus on eight specific sub-themes under the broad theme of "Evolution in Maritime Strategy during the 21st Century: Imperatives, Challenges, and, Way Ahead".

➢ India-Israel Joint Working Group on Bilateral Defence Cooperation has agreed to form a Task Force to formulate a comprehensive Ten-Year Roadmap to identify new areas of cooperation. This was decided at the 15th Joint Working Group meeting held in Tel Aviv, Israel .

➢ India International Trade Fair (IITF) will be held at Pragati Maidan, New Delhi from 14th of November to 27th November. The theme of the fair is 'AatmaNirbhar Bharat' (Self-Reliant India) - the vision of 'New India'. Bihar is the 'Partner State' whereas Uttar Pradesh and Jharkhand are the "Focus States" in the fair.

➢ Union Minister of State for Science and Technology Jitendra Singh has launched the Indian manned Ocean Mission Samudrayan in Chennai. India has joined the elite club of Nations such as the USA, Russia, Japan, France and China to have such underwater vehicles for carrying out sub-sea activities.

➢ Union Minister of Food Processing Industries Pashupati Kumar Paras chaired the Inter-Ministerial Approval Committee (IMAC) meeting to consider the proposals received under the Scheme for Creation of Infrastructure for Agro-Processing Cluster of Pradhan Mantri Kisan Sampada Yojana.

➢ During the meeting, IMAC approved seven proposals with a total project cost of over 216 crore rupees.

➢ NITI Aayog has released a comprehensive report titled Health Insurance for India's Missing Middle, which brings out the gaps in the health insurance coverage across the Indian population and offers solutions to address the situation.

➢ A Supreme Court (SC) bench headed by Chief Justice of India (CJI) N V Ramana instituted a 3-member expert panel to investigate the issue on usage of 'Pegasus Spyware' on Indian Citizens during 2019.

➢ Radio over Internet Protocol (ROIP) System at Syama Prasad Mookerjee Port, Kolkata (SMP, Kolkata), West Bengal (WB) was inaugurated for the first time in any Major Indian Port.

➢ Civil Aviation Minister Jyotiraditya Scindia launched Krishi Udan 2.0 scheme to implement in 53 airports under which cargo-related infrastructure will be built mainly focusing on north-east, hilly and tribal regions and likely benefits farmers.

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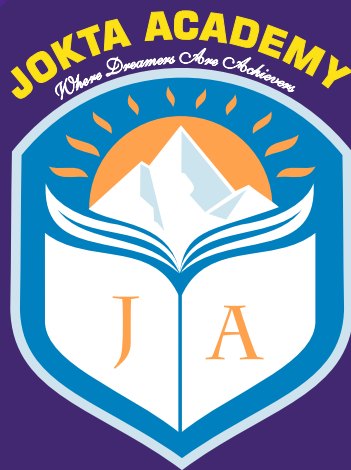
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