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ESE-2021

(Preliminary Examination)

Current Issues

(April - June - 2021)

ACE is the leading institute for coaching in ESE, GATE & PSUs

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Current Issues

(April – May – June - 2021)

ECONOMY AND INDUSTRIAL DEVELOPMENT

BANKING:

Currency Chest

The news:

- A private security guard has looted Rs 4.04 crores from the currency chest of Axis Bank in Chandigarh. This has brought currency chests in spotlight.
- Currency Chests are places where RBI (Reserve Bank of India) stocks money meant for banks and ATMs. The Currency Chests are located in different banks and are administered by the Reserve Bank of India.
- The Currency chests are places where RBI stores money meant for ATMs and banks. The representatives from RBI inspect these currency chests from time to time. These currency chests are placed in banks spread all over the country. The money in the currency chest belongs to RBI and the WSTTAmoney placed outside currency chest in the strong room belongs to the bank.
- Whenever RBI prints new currency notes, it first delivers them to these currency chests. The banks holding the currency chests will then deliver them to the other banks.
- Now, RBI is prone to losses due to the theft. The entire money in the chest belongs to RBI. Now the question arises who will bear the losses? The bank that holds the currency chest should bear the losses. The bank should also submit a Fraud Monitoring Report to RBI.
- The RBI reimburses the security expenses to the bank. The reimbursement includes transportation of money from one bank to another as well. It is the sole responsibility of the banks to safeguard the cash.
- RBI has thirty-one offices in India. When new currencies are printed, RBI sends them to these offices. These offices then send the notes to the currency chests and small coin depots.
- There are 4,075 currency chests in the country.
- Around 3,746 banks act as small coin depots.

COVID Loan Book

The news:

- The Reserve Bank of India recently opened an on-tap liquidity window of Rs 50,000 crores.
- On-tap means ready to. On-tap liquidity window is funds that are to be provided immediately. Liquidity is cash.

Background:

- Under this step, the banks can provide lending support to vaccine manufacturers, importers of vaccines, pathology labs, hospitals and dispensaries, suppliers of vaccines, logistics firms, etc.
- The COVID Loan book is an account of loans provided by the banks under this new window.
- The banks can open COVID loan book. They can park their surplus liquidity to the size of COVID Loan Book with the RBI. This is to be done at reverse repo rate.
- Parking the funds means depositing the money in the bank. Under the new step, the banks can deposit the surplus money in RBI.
- RBI pays interest to these banks for the money deposited by them. In May 2020, the Indian Bank made 3.1 billion USD only by parking the funds with the RBI.
- Lenders are comfortable keeping their funds in safe places even the earning from such means are meagre. This is the main reason for the banks to park their funds with RBI.

Committee to assist RRA 2.0

The news:

- The Reserve Bank of India recently constituted a Committee under the Managing Director S Janaki Raman. The committee is to assist the second Regulatory Review Authority.
- The committee will assist the authority to identify areas, guidelines, regulations and returns. It will submit reports periodically to RRA that will provide suggestions and recommendations.

Background:

- In 1999, RBI set up the Regulatory Review Authority to review circulars, regulations, and reporting systems. The authority reviews these parameters based on feedback from banks, public and financial institutions. The RRA 2.0 was established to streamline regulations and reduce compliance burden of regulated entities.
- RRA 2.0 was established in April 2021. The authority is to function for a period of one year. It will review the regulatory prescription internally. Also, it will examine and suggest changes required in the dissemination process of RBI instructions and circulars.

- It will focus on reducing compliance burden. This is to be achieved by simplifying procedures and reducing reporting requirements wherever possible.
- It will make regulatory instruction more effective.
- Also, it will aid in streamlining reporting mechanism, obviating paper-based submission of returns wherever possible and revoking necessary instructions.

Bitcoin as legal tender

El Salvador has become the first country to formally adopt bitcoin as legal tender. Proposal to legalise cryptocurrency was put forward by President Nayib Bukele which was later approved by Congress.

Details:

- Even though there were concern regarding potential impact of legalising cryptocurrency on El Salvador's program of \$1 billion with International Monetary Fund, proposal was passed with majority of 62 out of 84 possible votes.
- Bitcoin was approved considering its potential to help Salvadorans living abroad to send remittances back home. U.S. dollar will also continue as legal tender in country.
- It will bring financial inclusion, investment, innovation, tourism and economic development in El Salvador.
- According to World Bank data, remittances from bitcoin to the country accounts for \$6 billion in 2019. It is around a fifth of GDP & a highest ratio across the world.

Bitcoin

It is decentralized digital currency which lacks central bank or single administrator. It is sent from user to user on peer-to-peer bitcoin network. It does not need any intermediaries.

Centrum to takeover PMC Bank

- Reserve Bank of India (RBI) cleared proposal to takeover of Punjab and Maharashtra Cooperatives Bank (PMC Bank) by a consortium of non-bank lender Centrum Financial Services & fintech startup BharatPe.
- This decision was taken in the backdrop of collapse of Punjab & Maharashtra Cooperatives Bank.
- This state cooperative lender was on the verge of collapse when regulator seized it on September 24, 2019.
- Regulator seized the cash withdrawals for six months and launched an investigation into its accounting lapses.

- Following this, Centrum Financial Services and BharatPe had submitted a joint proposal to overtake PMC Bank in February 2021.
- RBI has decided to grant in-principle approval to Centrum so as to set up a small finance bank. It will be set up under on-tap licensing norms. On-tap licensing means, when regulator gives out bank licences on continuous basis rather than once in several years.

Punjab & Maharashtra Co-operative Bank Limited (PMC)

PMC is a multi-state co-operative bank that was established in 1983. It has 137 branches across India while about 100 branches are in Maharashtra. It is regulated by Reserve Bank of India and is registered under Cooperative Societies Act.

FINANCIAL MARKETS

G-SAP 1.0

- A day after announcing the introduction of the G-sec Acquisition Programme (G-SAP 1.0), the Reserve Bank of India (RBI) announced the Open Market Purchase of Government of India Securities under the programme.
- The Reserve Bank has conducted open market purchase of government securities of Rs.1 lakh crore under the G-sec Acquisition Programme (G-SAP 1.0) in Q1 2021-22 with a view to enabling a stable and orderly evolution of the yield curve.
- The central bank will purchase five types of government securities via a multi-security auction using multiple price methods. The dates of maturity vary from November 2, 2023 to March 16, 2035.

GSAP 1.0

- The GSAP 1.0 will provide more comfort to the bond market. As the borrowing of the Government increased this year, RBI has to ensure there is no disruption in the Indian market.
- In the fiscal year 2021, the Reserve Bank of India purchased Rs 3.13 trillion worth bonds from the secondary market. However, it was carried out in an ad hoc manner.
- The programme will help to reduce the spread between repo rate and the ten-year government bond yield.
- It will also help to reduce aggregate cost of borrowing for the centre and states in fiscal year 2022.

ULPIN: Unique Land Parcel Identification Number

- The Government of India recently launched the Unique Land Parcel Identification Number (ULPIN) scheme in ten states. The system is to be rolled out in the country by March 2022.
- Land parcel is nothing but a portion of large area of land.

- The ULPIN is described as “Aadhaar for land”.
- The ULPIN is a fourteen-digit Alpha Numeric ID.
- The number will be used to identify every surveyed parcel of land.
- The identification number is to be launched based on latitude and longitude coordinates of the land parcel.



Benefits of ULPIN

- The ULPIN will help to develop a land bank.
- The ULPIN system will lead India towards Integrated Land Information Management System.
- The system will always help to keep the land records up to date.
- All the property transactions shall be linked and will get established through the system.
- Delivery of citizen services of land records through a single window shall be achieved through the system.
- The system will make sharing of land record data across the departments easier.

Digital India Land Records Modernization Programme

The DILRMP has three main components as follows:

1. Computerisation of land record
2. Survey or Re-survey
3. Computerisation of registration

The main aims of DILRMP are to usher in a system of updated land records , automated and automatic mutation , integration between textual and spatial records , inter-connectivity between revenue and registration, to replace the present deeds registration and presumptive title system with that of conclusive titling with title guarantee.

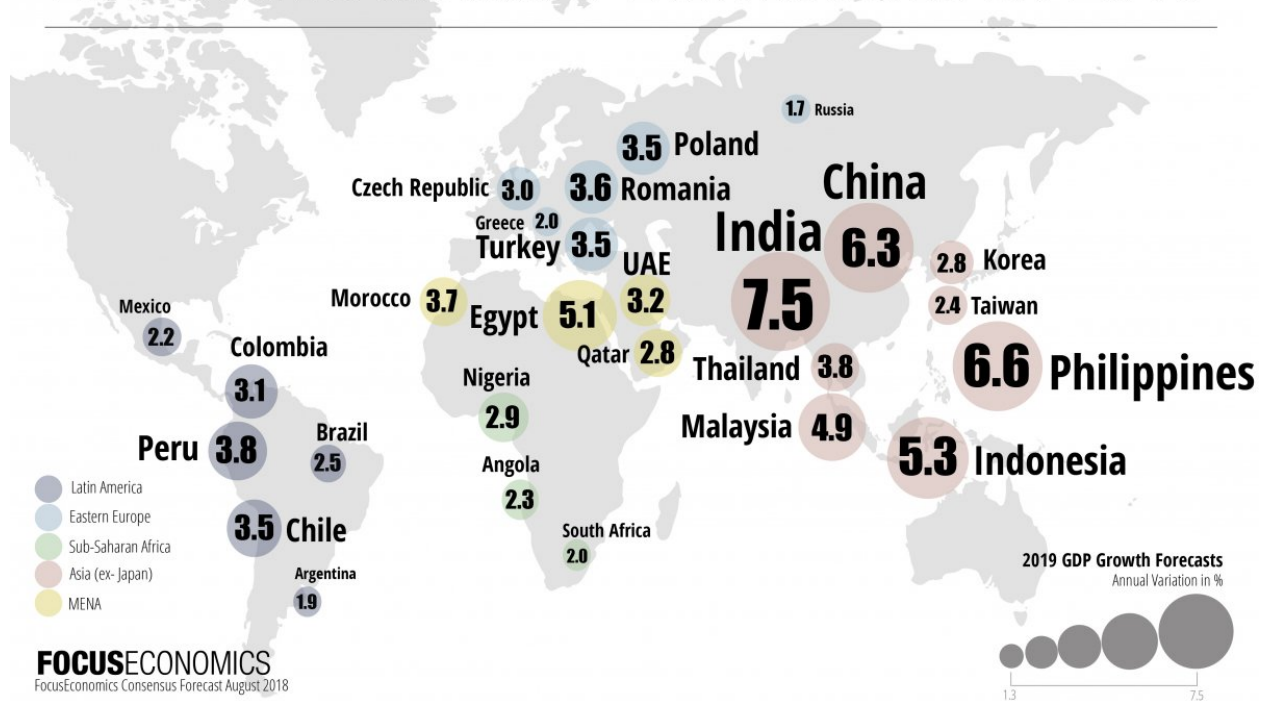
India's public debt level among highest in emerging economies

- India's public debt level is among the highest in emerging economies with a quantitative easing programme underway, while its debt affordability is among the weakest, Moody's Investors Service said.
- With the exception of Chile, most of the 11 emerging markets have weak government effectiveness, suggesting potential risks executing fiscal reforms or consolidation plans.
- Debt affordability varies widely, with Ghana and India [rated Baa3 negative] weakest. Across the 11 emerging markets, India, South Africa and Ghana have the highest public debt and weakest debt affordability.

The public debt is how much a country owes to lenders outside of itself. These can include individuals, businesses, and even other governments. The term "public debt" is often used interchangeably with the term sovereign debt. Public debt usually only refers to national debt.

Currently, some notable emerging market economies include India, Mexico, Russia, Pakistan, Saudi Arabia, China, and Brazil. Critically, an emerging market economy is transitioning from a low income, less developed, often pre-industrial economy towards a modern, industrial economy with a higher standard of living.

EMERGING MARKET ECONOMIES IN 2019



Turkey bans Crypto Currency payments

- The Bitcoin currency tumbled more than 4% after the Central Bank of Turkey banned the use of Crypto currencies and crypto assets for purchases. The bank cited possible irreparable damages and transaction risks as the reason for the ban.
- The ban followed actions of Morocco in banning the currency and is expected to be implemented in India as well.
- In March 2021, the Turkish President Erdogan fired the top central banker Naci Agbal. This forced several businessmen to turn towards crypto currency as an alternate method. This increased the growth of crypto currency market in Turkey. Bitcoin had surged by 111% and the second largest crypto currency Ethereum jumped by 225%.
- However, after the ban, the Bitcoin was down by 4.6%. The Bitcoin was at 60,333 USD after the ban. The other smaller coins such as XRP, Ethereum that tend to move in tandem with bitcoin fell between 6% and 12%.
- The recent Turkey regulations of Crypto currency mainly targets payments using crypto currencies for goods and services. It also prohibits companies from handling electronic fund transfers that involve crypto currency platforms.

FDI ceiling in insurance sector

- Indian promoters of insurance joint ventures with foreign partners will no longer be able to nominate a majority of the board members, as per the new rules notified under the Insurance Act. This follows the recent amendments to enhance the foreign direct investment (FDI) limit in the sector to 74% from 49%.
- However, a majority of board members, key management persons (KMP) need to be resident Indian citizens, as should at least one of the three top positions — the chairperson of the board, the MD and CEO.
- This new norm will apply to all insurers, irrespective of the stake held by the foreign partner, said legal experts. The Finance Ministry has also specified further conditions on the composition of the board for firms where foreign investors' stake exceeds 49%.



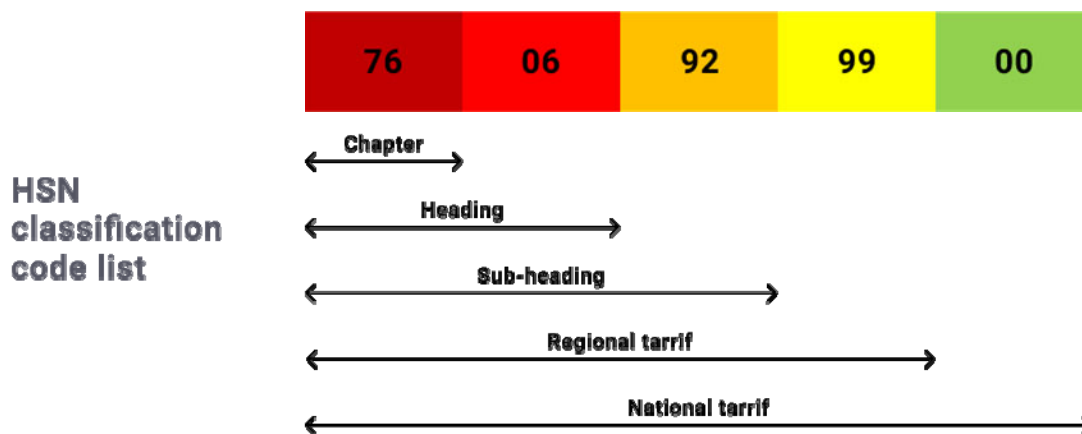
- The significant change introduced is the deletion of the requirements pertaining to Indian ownership and control, irrespective of whether the insurer has majority foreign ownership or not. “Previously, Indian promoters or investors were required to nominate a majority of the Board. This deletion is being seen favourably by foreign investors proposing to hold stakes in insurance companies.
- However, the requirement to have a majority of the board and KMP comprised of Indian resident citizens will mean that foreign investors will have to continue to rely on Indian citizens who are resident in India to man key roles in the insurance company and its board.
- Therefore, while the FDI limit in insurance companies has been increased to 74%, the government has sought to provide adequate protection for insurance companies.

TAXATION

HSN Code

- The Ministry of Finance recently announced that the businesses with annual turn over of more than Rs 5 crores will have to furnish six-digit HSN code on their tax invoices. The businesses with an annual turn over of less than five crores of rupees have to furnish four-digit HSN code. Previously, the requirement was four digits and two digits respectively.
- HSN is Harmonised System of Nomenclature. It was adopted by World Customs Organization in 1988. It is a six-digit code that classifies various products. India adopted the HSN coding system in 1986 (even before WCO) mainly to classify commodities for Customs and Central Excise.

Structure of HSN CODE



- The HSN codes apply to both GST and Customs.
- It is used all over the world.
- HSN codes make the process of filing GST easy as they remove the need to upload details about the goods.

- The first two digits of the HSN code denotes the chapter of the goods. It can be edible goods, non-edible goods, perishable goods, inflammable goods, etc.
- The next two digits in the HSN code denote headings in the chapter. This can be tomato, fish, petrol, etc.
- The rest of the code denotes the subheading. It can be chilled, fresh, dry, etc.
- In India, the importers, exporters and manufactures have been using the HSN codes for a long time. Indian dealers with an annual turn over of less than Rs 1.5 crores need not adopt HSN codes for their commodities.
- HSN system helps to maintain a harmonized trade procedure all over the world. It also helps to reduce the costs in international trade.
- In December 2020, the CBIC had made it mandatory to mention the eight digit HSN code in tax invoices for 49 chemical based products.

AGRICULTURE AND INDUSTRY

eSanta

- The Union Minister Shri Piyush Goyal recently launched a platform called “eSanta” for marine products. The main aim of the platform is to empower aqua farmers.
- The farmers can sell their produce in eSanta portal.
- It is a bridge between the buyers and the farmers.
- The eSanta portal eliminates the necessity of middlemen completely.
- The portal is available in languages such as English, Tamil, Telugu, Hindi, Odiya and Bengali.
- The initiative to launch eSanta portal was taken by NaCSA.

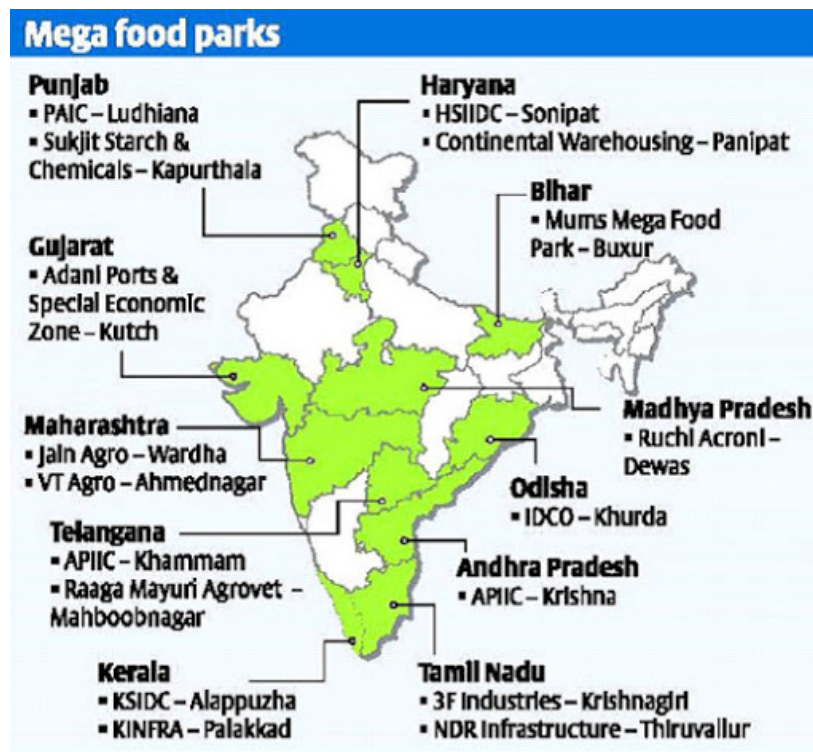


NaCSA

- National Centre for Sustainable Aquaculture is an arm of Marine Products Export Development Authority (MPEDA) that operates under Ministry of Commerce and Industry. The main objective of NaCSA is to encourage and uplift small and marginal farmers through organisation of clusters and also by adopting best practices in shrimp culture.

Italy: First Food Park in India

- Italy recently launched the first “Mega Food Park” in India involving food processing facilities. It is the first Italian-Indian Food Park project launched in the country.
- The name of the project is “Mega Food Park”.
- The main aim of the project is to develop an interaction between agriculture and industry.
- Also, the project will focus on the research and development of efficient technologies in the sector.
- It is to be implemented by a Special Purpose Vehicle. The SPV is a registered corporate under the Companies Act.
- It will link agricultural production and markets. This is to be achieved by bringing together processors, farmers and retailers to ensure maximizing value addition, increasing farmers income, minimizing wastage and creating employment opportunities.



- The Mega Food Park is a scheme implemented by the Ministry of Food Processing. The main aim of the scheme is to establish direct linkage from farms to processing and consumer markets.
- The main purpose of the scheme is to increase the perishables from 6% to 20%.
- Also, the scheme aims to increase India's share in global food trade by at least 3%.
- Under the scheme, the Government of India provides Rs 50 crores to each food park.
- The scheme aims to implement around 30 to 35 food processing units.
- It aimed to provide a turnover of Rs 400 to Rs 500 crore and employment generation of at least 30,000 from each food park.
- So far, forty-two Mega Food Parks have been sanctioned in six phases.
- Each Mega Food Park aims to connect at least 25,000 farmers.

Supply chain resilience Initiative

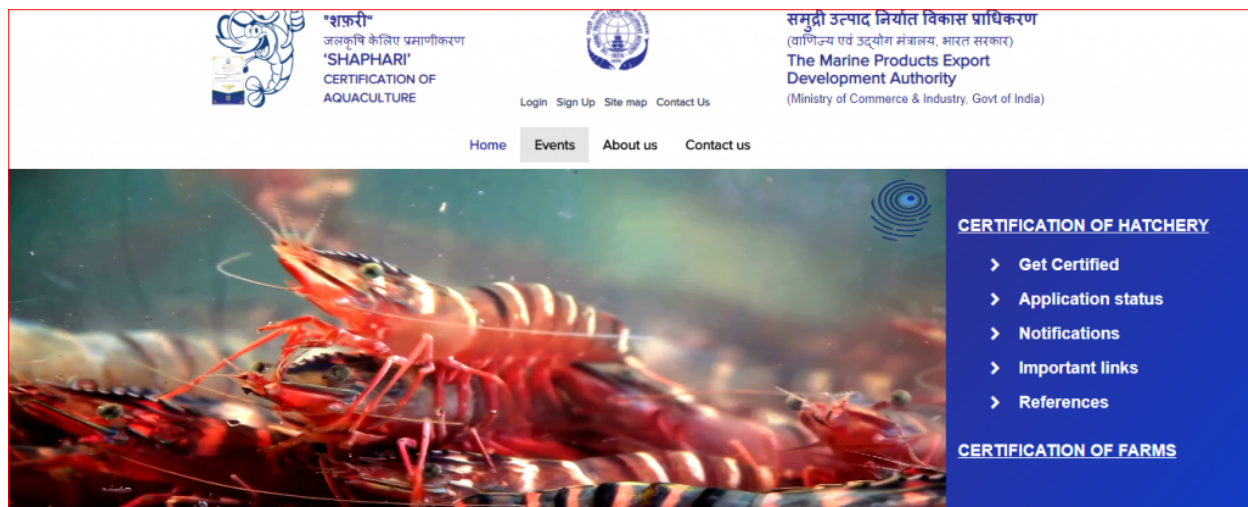
- The Supply Chain Resilience Initiative (SCRI) formally launched by the Trade Ministers of India, Japan and Australia brought a wary response from China, which has described the effort as 'unrealistic'.
- The three sides agreed the pandemic "revealed supply chain vulnerabilities globally and in the region" and "noted the importance of risk management and continuity plans in order to avoid supply chain disruptions".
- Some of the joint measures they are considering include supporting the enhanced utilisation of digital technology and trade and investment diversification, which is seen as being aimed at reducing their reliance on China.



- The SCRI aims to create a virtuous cycle of enhancing supply chain resilience with a view to eventually attaining strong, sustainable, balanced and inclusive growth in the region.
- China's Foreign Ministry described the move as 'unrealistic'. "The formation and development of global industrial and supply chains are determined by market forces and companies choices," spokesperson Zhao Lijian said.
- "Artificial industrial 'transfer' is an unrealistic approach that goes against the economic laws and can neither solve domestic problems nor do anything good to the stability of the global industrial and supply chains, or to the stable recovery of the world economy."

Shaphari scheme

- To bolster confidence in India's frozen shrimp produce, the country's biggest seafood export item, the Centre has kicked off a new scheme to certify hatcheries and farms that adopt good aquaculture practices.
- India exported frozen shrimp worth almost \$5 billion in 2019-20 to the U.S. and China — its biggest buyers. But a combination of factors had hurt export volumes in recent months, including container shortages and incidents of seafood consignments being rejected because of food safety concerns.
- The Marine Products Exports Development Authority (MPEDA) has developed a certification scheme for aquaculture products called Shaphari, a Sanskrit word that means superior quality of fishery products suitable for human consumption.



- Frozen shrimp is India's largest exported seafood item. It constituted 50.58% in quantity and 73.2% in terms of total U.S. dollar earnings from the sector during 2019-20. Andhra Pradesh, West Bengal, Odisha, Gujarat and Tamil Nadu are the major shrimp producing States, and around 95% of the cultured shrimp produce is exported.

- The Shaphari scheme is based on the United Nations' Food and Agriculture Organization's technical guidelines on aquaculture certification and will have two components — certifying hatcheries for the quality of their seeds and, separately, approving shrimp farms that adopt the requisite good practices.
- The certification of hatcheries will help farmers easily identify good quality seed producers. Those who successfully clear multiple audits of their operations shall be granted a certificate for a period of two years.

India-Israel joint work programme

The news:

- India and Israel have inked a three-year joint work programme which will continue till 2023. Joint work programme was initiated with the aim of enhancing cooperation in agriculture.

Background

- Under new work programme, 13 Centres of Excellence (CoEs) were set up to make Indian farmers aware of Israeli farm and water technologies.
- A model ecosystem in agriculture called Villages of Excellence (VoE) will also be created across eight states within 75 villages.
- New programme will promote increase of net income and enhance livelihood of individual farmer.
- It will also transform traditional farms into modern-intensive farms on the basis of IIAP standards.
- It will also strengthen the bilateral relations and mutual cooperation between both the countries in agriculture to benefit farming community.
- India and Israel have completed four similar joint work programmes successfully.
- India and Israel started the bilateral relations in agriculture sector in 1993. So, new programme is 5th Indo-Israel Agriculture Action Plan (IIAP).
- These action plans are playing a significant role in doubling farmers' income. It has improved productivity and quality of horticulture which boost farmer's income.

Area of summer crops

The Ministry of Agriculture and Farmer Welfare recently announced that the area of summer crops has sharply increased by 21.58% as compared to 2020. The increase has almost doubled. Summer crops are also called Zaid crops. They are grown between March and June.

Expansion of area of Summer Crops

- The area under summer crops has increased to 12.75 hectares in 2021. It was 6.45 hectares in 2020.
- The increase has been mainly reported in the states of Madhya Pradesh, Tamil Nadu, Odisha, Karnataka, Jharkhand, West Bengal, Gujarat.
- The Government of India has been promoting the summer crops mainly to increase the pulse production in the country.
- The area under rice cultivation has increased by 15.59%. In 2020, it was 33.82 hectares. Now it has increased in 39.10 hectares. The area under pulses has increased by 97.58%. It was 6.45 hectares in 2020 and has now increased to 12.74 hectares in 2021.
- Oil seeds has increased by 15.66%. Area under coarse grains have increased by 0.93%. GoI is also focusing to increase the production of oil seeds in the country apart from pulses. Currently, India imports 75% of edible oil to meet its domestic requirements. The import bill has crossed Rs 70,000 crores.
- The Ministry also announced that the water storage in more than 130 key reservoirs has increased by 20% as compared to that of the average storage in the last ten years. Due to this more areas have come under cultivation in the states of Andhra Pradesh, Maharashtra, Odisha and Karnataka. This is one of the main reasons for the increase in areas under summer cultivation.

Deep ocean mission

- The Union Cabinet has approved the long-pending deep ocean mission, which among other things involves developing a submersible vehicle that will allow a crew to plunge 6,000 metres into the ocean and hunt the floor for precious metals.
- If this works, India will be among a handful of countries able to launch an underwater mission at such depths.
- In the works since 2018, the mission is expected to cost Rs.4,077 crore over the next five years. The estimated cost for the first phase of three years (2021-24) would be Rs.2,823.4 crore.
- The Ministry of Earth Sciences (MoES) will be the nodal Ministry implementing this multi-institutional mission.
- There are six components to the programme.
 1. A manned submersible will be developed to carry three people to a depth of 6,000 metres in the ocean with a suite of scientific sensors and tools. An integrated mining system will be also developed for mining polymetallic nodules at those depths in the central Indian Ocean.
 2. The second component involves developing Ocean Climate Change Advisory Services, which entails developing a suite of observations and models to understand and provide future projections of important climate variables on seasonal to decadal time scales.

3. The next component is searching for deep sea flora and fauna, including microbes, and studying ways to sustainably utilise them.
4. The fourth component is to explore and identify potential sources of hydrothermal minerals that are sources of precious metals formed from the earth's crust along the Indian Ocean mid-oceanic ridges.
5. The fifth component involves studying and preparing detailed engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plants.
6. The final component is aimed at grooming experts in the field of ocean biology and engineering. This component aims to translate research into industrial applications and product development through on-site business incubator facilities.

DEEP OCEAN MISSION

- Deep Sea Mining through 'Underwater Vehicles' and 'Underwater Robotics'
- Asserting exclusive rights to explore polymetallic nodules from seabed **over 75,000 sq km of areas in international water**
- Estimated polymetallic nodules resource potential: **380 million tonnes (MT)**

- Development of ocean climate change advisory services
- Technology for sustainable utilisation of marine bio-resources

THESE POLYMETALLIC NODULES CONTAIN

Manganese	92.6 MT
Nickel	4.7
Copper	4.3
Cobalt	1
(*figures are rounded off)	

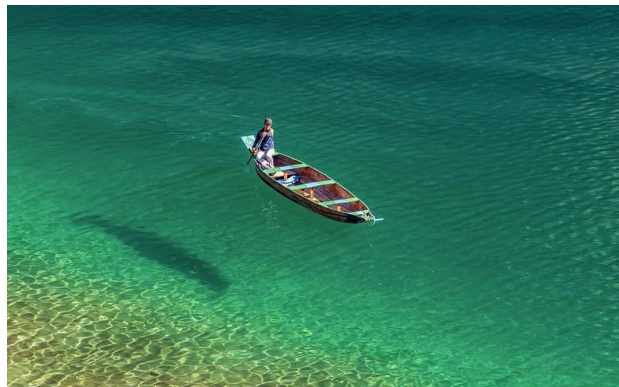
- Deep ocean survey and exploration
- Energy from the ocean and offshore-based desalination
- Krill fishery from southern ocean

- The Deep Ocean Mission was in 2019 envisaged as a Rs.8,000 crore mission. India has been allotted a site of 75,000 square kilometres in the Central Indian Ocean Basin (CIOB) by the UN International Sea Bed Authority for exploitation of polymetallic nodules (PMN). These are rocks scattered on the seabed containing iron, manganese, nickel and cobalt.
- Being able to lay hands on a fraction of that reserve can meet the energy requirement of India for the next 100 years, say officials at the Earth Sciences Ministry.

INFRASTRUCTURE

Meghalaya villagers oppose dam on Umngot

- Stiff resistance from at least 12 villages in Meghalaya has cast a cloud on a 210 MW hydroelectric project on Umngot, considered India's clearest river.
- The villages are near the border with Bangladesh in East Khasi Hills district but the dam is proposed upstream in the adjoining West Jaintia Hills district.
- The Meghalaya State Pollution Control Board (MSPCB) had scheduled a public hearing for the project to be executed by the Meghalaya Energy Corporation Limited.
- Hundreds of people from more than a dozen villagers obstructed officers from conducting the public hearing at Moosakhia in West Jaintia Hills district. The MSPCB officials faced a similar situation at Siangkhnai in East Khasi Hills district.
- The locals fear that the project, if executed, would cause irreparable losses by wiping out their areas from the tourism map.
- The project documents say people of 13 villages along the Umngot are likely to lose 296 hectares of land due to submergence if the dam comes up.



- Umngot flows through Dawki, a small but busy town in the East Jaintia Hills district near the Indo-Bangladesh border. The town itself is a mere 95 km from Shillong.
- Dawki serves as a busy trade route between India and Bangladesh where hundreds of trucks pass every day.
- The Umngot itself is a prime fishing spot for fishermen from nearby areas.
- The river is the natural boundary between Ri Pnar (of Jaintia Hills) with Hima Khyrim (of Khasi Hills) over which hangs a single span suspension bridge.
- It is the gateway to Bangladesh.

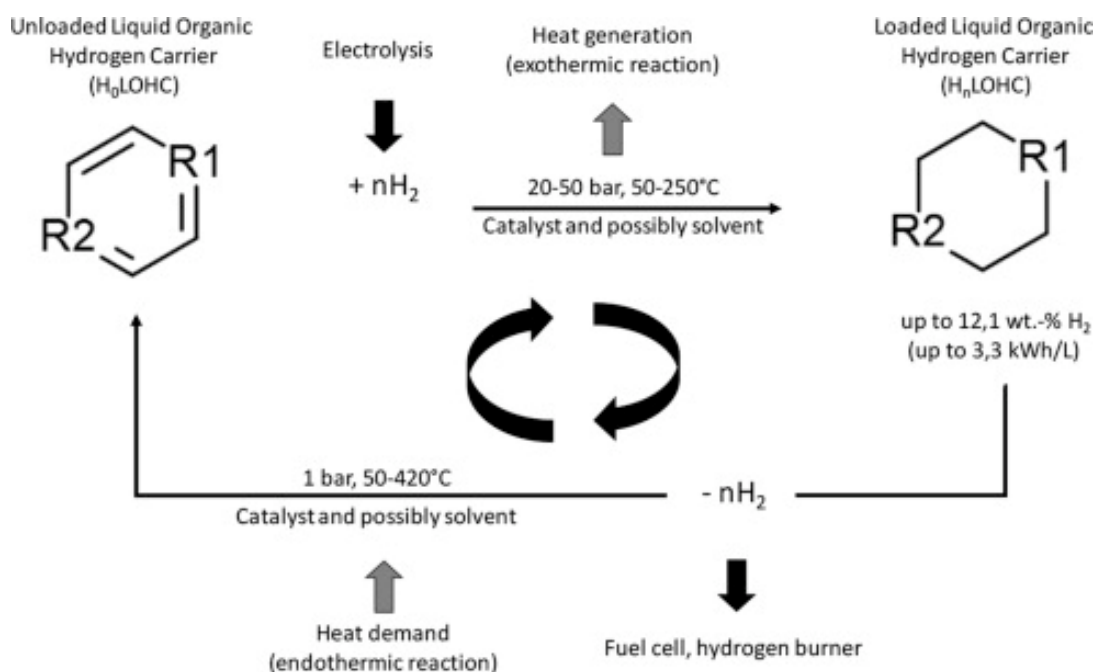
ENERGY

Longi Green Enters Hydrogen Market

- The World largest solar company Longi Green is to enter the Hydrogen Market. Longi Green is a Chinese company that manufactures solar panels, wafers and solar cells. Today several such solar companies are entering the hydrogen market.
- This is mainly because hydrogen is a carbon-free fuel that can be produced by electrolysis of water and then stored and transported and used in every possible machinery such as cars to electrical generators to steel mills.
- Longi Green was founded in 2000. The headquarters of Longi Green is located in Xi'an, China. Longi Green has plants in India, Malaysia and China. In 2019, Longi Green brought 300 MW monocrystalline PV products to India.

Hydrogen Market in India

- The Hydrogen market in India is valued at 50 million USD. It is projected to reach 81 million USD by 2025. In India, the major end use of hydrogen is in petroleum refining industry. Here, hydrogen is used to refine crude oil.
- Though India is moving towards clean fuel, the high transportation and high storage cost is hampering the growth of hydrogen market in the country. However, the emerging liquid organic hydrogen carrier technologies (LOHC) will make storage and transportation of hydrogen easier.



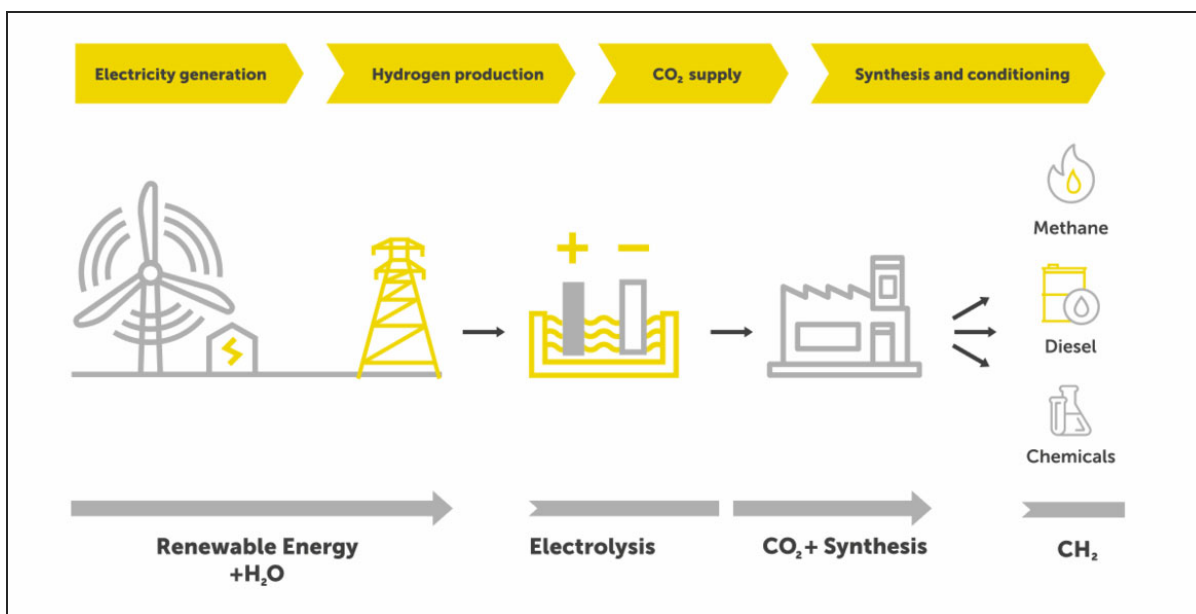
Liquid Organic Hydrogen Carriers (LOHC)

They are organic compounds that can absorb and release hydrogen through chemical reactions. Thus, LOHCs are ideal for hydrogen storage and transportation.

In 2020, Japan built the first international hydrogen supply chain in the world using LOHC. It was built between Brunei and Kawasaki city using toluene based LOHC technology.

eFuel

- The Porsche has joined with Siemens Energy to produce eFuel by 2022. The project of eFuel production is called Haru Oni project.
- It is based in Chile due to its windy climate. The joint project aims to produce 130,000 litres of eFuel by 2022. Later this is to be increased to 550 million by 2026.
- eFuel is a complex hydrocarbon. It is created based on the following process:
 - ✓ Water is separated into hydrogen and oxygen using wind generated electricity.
 - ✓ This hydrogen is then combined with the carbon dioxide filtered from the air to form methanol.
 - ✓ The methanol is then converted into gasoline using ExxonMobil licensed technology.
 - ✓ The eFuel shall be used in any cars.
 - ✓ The cost of production of eFuel is 10 USD per litre. Over time, this is expected to come down to 2 USD per litre.
 - ✓ The eFuel is a kind of Electro Fuel.



- The Electro Fuels are the emerging class of carbon neutral fuels. They are also called Synthetic fuels. They are seen as an alternative to biofuels. They are made by storing electrical energy from renewable sources in chemical bonds of liquid or gas fuels.

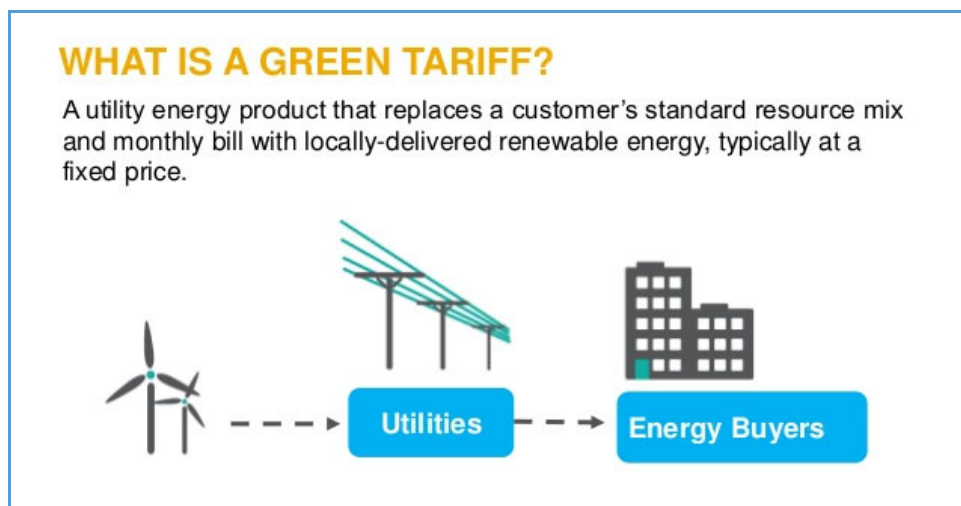
India's oil imports

- OPEC's share of India's oil imports fell to the lowest in at least two decades in the year to the end of March as overall purchases by Asia's third-largest economy fell to a six-year low, data obtained from industry and trade sources showed.
- Total crude imports by the world's third-biggest oil importer fell to 3.97 million barrels per day (bpd) in FY21, down 11.8% from a year earlier, data showed.
- India bought more U.S. and Canadian oil at the expense of that from Africa and West Asia, reducing purchases from members of the Organization of the Petroleum Exporting Countries (OPEC) to about 2.86 million bpd and squeezing the group's share of imports to 72% from about 80% previously. That is the lowest share since at least FY02, before which crude import data is not available.
- U.S. and Canadian oil accounted for about 7% and 1.3% respectively of India's imports compared to 4.5% and 0.60% a year earlier.
- The U.S. emerged as the fifth-biggest supplier, up two places from FY20.

Green Tariff Policy

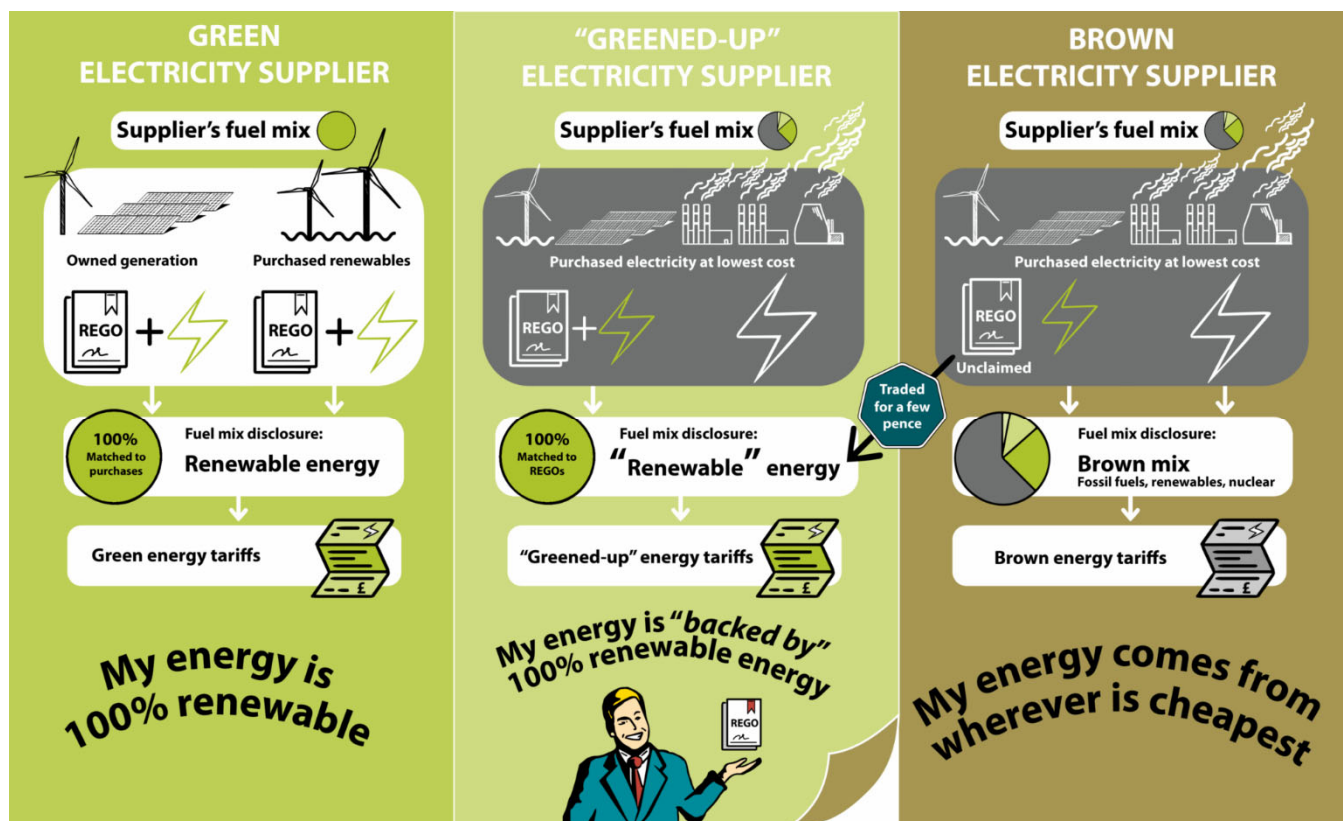
The news:

- Union Government is working on a 'Green Tariff Policy' with the objective of reinforcing India's green energy credentials.



Details:

- Green Tariff Policy will help electricity distribution companies (DISCOMs) supply electricity generated from clean energy projects at a cheaper rate as compared to power from conventional fuel sources such as coal.
- Large corporates who are looking to procure only green power, can contract such power from a clean energy developer as it is done in commercial and industrial (C&I) segment.
- Once the policy is finalised, DISCOMs can exclusively buy green electricity and supply it at 'green tariff'.
- Green Tariff will be the weighted average tariff of green energy that consumer will have to pay.



- Open access allows large users of energy, consuming over 1 megawatt of power, to buy energy from open market, instead of depending on expensive grid.
- However, state DISCOMs are not allowing clean energy developers to use power transmission and distribution networks to supply electricity to third-party.
- Green tariff policy is being finalised in the backdrop of India's solar and wind power tariffs hitting a low of Rs.1.99 per unit and Rs.2.43 per unit respectively.

ISSUES ON SOCIAL DEVELOPMENT

EDUCATION

Special e-content for the Divyang

Union education minister, Ramesh Pokhriyal ‘Nishank’, approved guidelines to develop e-content for children with disabilities with the objectives of promoting inclusive education.

Details:

- PM e-Vidya programme was launched by finance minister Nirmala Sitharaman on May 17, 2020 as a COVID-19 relief measures. Under the programme, expert committee has made detailed recommendations on creating accessible special e-content for Divyang, or children with disabilities.
- Committee presented the report called ‘Guidelines for the Development of e-Content for Children with Disabilities’. It has eleven sections and two appendices on creating e-content for visually and hearing-impaired students.
- Report laid special emphasis on extensive use of radio, community radio and podcasts. It also recommends to upload QR-coded digital textbooks.
- Content must comply with “international accessibility standards” and recommends “reasonable pedagogical accommodations” in case of special disabilities.
- Content should be provided in multiple formats viz., text, video, audio, sign language with turn-on and turn-off features.
- e-learning platforms like DIKSHA and e-pathshala must comply with technical standards.
- Content must be provided with descriptive hyperlinks to access additional information on internet.
- Committee also recommends to create e-modules to train the content developers and curators to create and curate accessible content. This will enhance acceptability compliance. It will be mandatory for all content developers and curators to go through training modules.

HEALTH

Tika Utsav

- Calling the ‘Tika Utsav’ (vaccination festival) the beginning of the second big war against COVID-19, Prime Minister Narendra Modi laid stress on social and personal hygiene.
- The festival started on the birth anniversary of Mahatma Jyotiba Phule and will continue till the birth anniversary of Babasaheb Ambedkar on April 14.

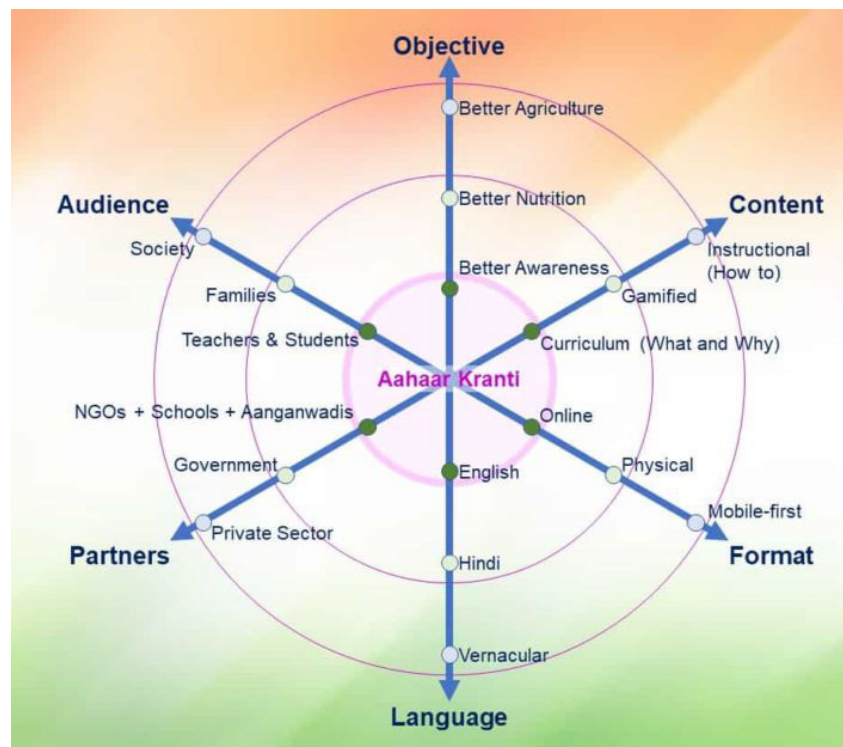
- The PM noted that India should move towards zero vaccine wastage, and said optimum utilisation of vaccination capacity was a way to increase our capacity.
- Reiterating his advice Dawai bhi, kadai bhi (Take medicines, follow rules), he said awareness and responsible behaviour would succeed in containing the virus again.
- The Prime Minister stressed four points with regard to the drive.
 - ✓ First, “Each one, vaccinate”, meaning those who can’t go themselves for vaccination, such as the unlettered and the aged, should be assisted.
 - ✓ Second, “Each one, treat one”, which involves helping people in getting treatment, if they do not have resources or knowledge to get it.
 - ✓ Third, “Each one, save one”, meaning one should wear a mask and save herself and others. This should be stressed, Mr. Modi said in his statement.
 - ✓ Finally, society and people should lead in creating “micro containment zones”.
- Mr. Modi emphasised testing and awareness, and said every eligible person should get vaccinated. “This should be the primary effort of both society and the administration.”
- The Prime Minister said our success would be determined by awareness of “micro containment zones”, by not moving out of our homes unnecessarily, vaccination of all eligible persons and how we follow COVID-19-appropriate behaviour such as wearing masks and other protocols.

Aahaar Kranti

- The Union Minister of Health and Family Welfare Dr Harsh Vardhan recently launched “Mission Aahaar Kranti”. The mission aims to spread the message of the importance of nutritionally balanced diet. It will also promote the importance of accessibility to local fruits and vegetables.
- The Mission is designed to address the major problem faced by India and the world, which is, “Hunger and Diseases in Abundance”.
- India produces two times the amount of calories it consumes. Still, several people are malnourished in the country.
- The mission is also co-launched by the Vijnana Bharti and Global Scientists and Technocrats Forum.
- The motto of the mission is “Good Diet-Good Cognition”.
- The mission will train the teachers. The teachers in turn will pass on the message to students. Through the students the mission aims to pass on the message to the families and societies at large.



- According to UNICEF, India is at the tenth spot among countries with highest number of underweight children. Also, the organisation says that India is at the seventeenth spot among countries with highest number of stunted children. Both the problems of stunting and underweight are caused by malnutrition.
- Malnutrition is the major contributing factor to one-third child deaths in the country.

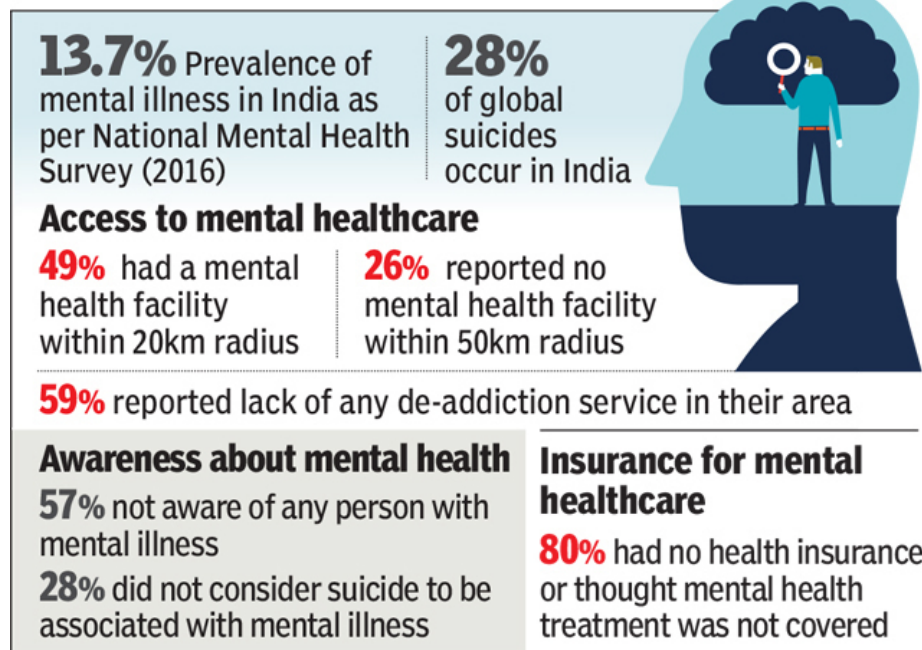


MANAS Application

- The Principal Scientific Advisor to Government of India recently launched a mobile application to promote the mental wellbeing of the people of India. It is called the MANAS App.
- MANAS stands for Mental Health and Normalcy Augmentation System.

- It is a comprehensive and national digital wellbeing platform.
- The MANAS integrates indigenous tools developed and researched by various national bodies and research institutions.
- The MANAS app was jointly executed by NIMHANS Bengaluru, C-DAC, AFMC. However, it was mainly developed by C-DAC (Centre for Development of Advanced Computing).
- The app is supported with tele consultation especially for mental health related problems.
- The app was launched during the 34th Foundation celebrations of C-DAC.
- The pandemic is increasing mental health problems. According to Practo, an integrated health care company, there has been 665% jump in the number of mental health consultations. Most of them were in the age group of 21 to 40 years.
- In United States, 90% of the survey respondents of Harvard Medical School complained of frustration, worry and anxiety.

CAUSE FOR CONCERN



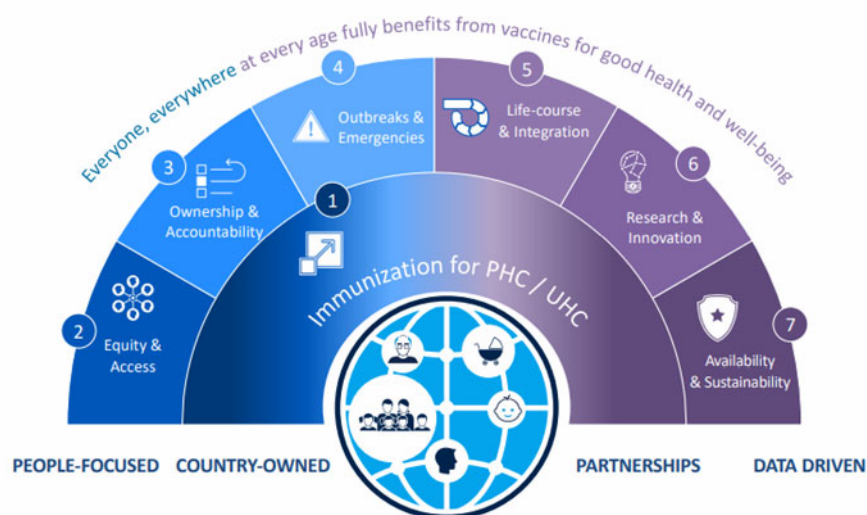
- The Global economic cost of mental illness has been estimated as 16 trillion USD in the next twenty years. This is more than the cost estimated for any other non-communicable disease.
- The pandemic increased isolation and loss of income. These were the two main reasons for increased mental problems due to the pandemic.
- Also, COVID-19 has halted mental health care services in 93% of the world.
- According to WHO, the countries are spending less than 2% of health budget on mental health.

IA 2030

- The IA 2030 is Immunisation Agenda 2030. It was launched by World Health Organisation, GAVI and the UNICEF. It has been titled as the “A Global Strategy to leave No One Behind”.
- It aims to maximise lifesaving impact of vaccines. The Immunisation Agenda 2030 was launched during the World Immunisation Week.
- It aims to promote “Vaccination throughout life”, that is, from infancy to adolescent and till old age.
- According to WHO, if completely implemented, the IA 2030 will avert fifty million deaths. Of this 75% of them will be in low-income and in lower-middle-income countries.
- It aims to achieve 90% coverage of essential vaccines that are administered to infants, children and adolescents.
- Also, the IA 2030 agenda will aim to halve the number of children missing vaccines by 2030.
- Also, it will complete 500 national introductions of new vaccines such as COVID-19 vaccines, Human Papilloma Virus vaccine called the HPV and also rotavirus.
- In August 2020, the 73rd World Health Assembly passed the resolution of “IA 2030 Agenda”.

The seven priorities of IA 2030 are as follows:

1. Commitment and Demand
2. Coverage and Equity
3. Outbreaks and Emergencies
4. Life Course and Integration
5. Supply and Sustainability
6. Research and Innovation
7. Availability and Sustainability



Health infrastructure in rural areas

The Government of India recently issued guidelines to contain COVID-19 in rural areas.

The guidelines:

- COVID-19 Care Centre for asymptomatic cases should be established in peri urban and rural areas. These centres should have a minimum of thirty beds. This should be set up mainly in areas where home isolation is not possible.
- The Rapid Antigen Test kits should be made available in all public health facilities. This includes primary health centres and health and wellness centres as well.
- The COVID Care Centres shall admit suspect or confirmed case. However, it should have separate areas for confirmed and suspected cases.
- Besides urban areas, a large number of cases have increased in tribal areas, rural areas and peri urban areas. Thus, the ministry has released “SOP on COVID-19 Containment and Management in Peri-Urban, Rural and Tribal Areas”.
- An active surveillance should be done for Severe Acute Respiratory Infections and Influenza like illness. This should be done periodically by ASHA with the help of Village Health Sanitation and Nutrition Committee.
- Symptomatic cases shall be treated at village level by tele-consultation with the Community Health Officer (CHO). However, cases with low oxygen saturation should be sent to higher centres.
- The CHO and the ANMs should be trained to perform Rapid Antigen Tests.
- Contact tracing should be done according to the Integrated Disease Surveillance Programme Guidelines.
- Each village should have adequate number of thermometers and pulse oximeters.
- The COVID Care Centre shall be set up in marriage halls, schools, panchayat buildings.
- The COVID Care Centres should be mapped with one or more dedicated COVID Health Care Centres.

WOMEN AND CHILDREN

SAMVEDNA

- SAMVEDNA is Sensitizing Action on Mental Health Vulnerability through Emotional Development and Necessary Acceptance. It a toll-free helpline through which children affected during COVID-19 pandemic are provided counselling.
- The main objective of SAMVEDNA is to provide psychological first aid and emotional support to the COVID-19 affected children
- The tele-counselling is provided by the National Commission of Child Rights working under Ministry of Women and Child Development.

- Psychologists, counselors and experts from NIMHANS, National Institute of Mental Health and Neurosciences.
- The Toll-Free Number is 1800-121-2830
- It is available from Monday to Saturday, from 10 AM to 1 PM and 3 PM to 8 PM.
- The service is only to children.
- The service under this initiative is provided under various regional languages such as Telugu, Tamil, Kannada, Marathi, Bengali, Gujarati, etc.

The tele-counselling is to be provided to children in three categories. They are as follows:

1. Children who have lost their parents due to COVID-19
2. Children who are in quarantine in COVID care centres
3. Children who have COVID-19 positive parents or family members.

Corpus fund for orphaned by COVID-19

- The Union government announced a special “PM-CARES for Children” scheme for all those orphaned due to COVID-19. It will include a corpus of Rs.10 lakh for each child till he or she reaches the age of 18.
- Children who have lost both parents or the lone surviving parent or their legal guardian or adoptive parent due to COVID-19 will be supported under the scheme.
- The Women and Child Development Ministry has said that there are a total 577 COVID-19 orphans identified across the country.
- When a child turns 18, he or she will draw a monthly stipend from the corpus of Rs.10 lakh in order to meet expenses for personal needs and higher education. On reaching the age of 23, the child will get the entire Rs.10 lakh, according to an official statement.
- The government will also assist such children with school education. They will be given admission in the nearest Kendriya Vidyalaya or in a private school as a day scholar.
- If the child is admitted in a private school, the fees will be paid from the PM CARES Fund as per norms under the Right To Education Act, 2009. PM CARES will also meet the expenses on uniform, text-books and notebooks.
- Children in the age group of 11-18 will have the option to study in a residential school under the Central government such as Sainik School and Navodaya Vidyalaya. These children will also be supported in their higher education through either scholarship equivalent to the tuition fees or educational loans where the interest will be paid by the PM CARES Fund.
- All children will be enrolled as a beneficiary under the Ayushman Bharat Scheme with a health insurance cover of Rs.5 lakh, where the premium amount will be paid by PM CARES till a child turns 18.
- The government has also announced measures to help the families who have lost the sole earning member due to COVID-19.

WATER AND SANITATION

Vajra Kavach Disinfection System

The news:

- Mumbai-based start-up, Indra water has developed “Vajra Kavach Disinfection System” which removes scourge of viral particles from equipment used by Corona warriors front line workers.

About Disinfection System

- Disinfection System removes any possible traces of SARS-Cov-2 virus from Personal Protective Equipment, coats, gloves, N95 masks and gowns.
- Thus, it enables reuse of PPEs and other equipments used by healthcare workers.
- In a way, it will protect environment too, by reducing biomedical waste generation.



VAJRA KAVACH

An N95 Mask/PPE Disinfection System- '**Vajra Kavach**' developed by Mumbai based Startup, Indra Water, has been installed at multiple Government hospitals across Maharashtra & Telangana

Decreases cost of combating the pandemic by **making PPE, medical, and nonmedical gear reusable**

Environment friendly as system reduces generation of excessive **COVID-19 related bio-medical waste**

- It will make personal protective equipment more available, affordable, and accessible.
- Disinfection can be done in just a few minutes.
- System can achieve a 1,00,000-fold reduction in number of microorganisms.
- Validation and testing of system was done by Department of Biosciences & Bioengineering at IIT Bombay.

Testing

- It went through a long trial and testing process. Testing was done with Escherichia virus MS2; which is a single-stranded RNA virus similar to human respiratory viruses like influenza virus and coronavirus; and E.coli strain C3000.
- While testing it, full loads of virus and bacteria samples were placed PPE kit and was then placed inside Vajra Kavach. After disinfection cycle time, PPE was removed and sample was rechecked to assess growth rate and log reduction of virus.
- System comprises of multistage disinfection process having advanced oxidation, corona discharge and UV-C light spectrum which inactivate viruses, bacteria, and other microbial strains from materials.

SKILL DEVELOPMENT

Labour codes

- The four labour codes are likely to see the light of day in a couple of months as the Centre is now keen on going ahead with the implementation of these laws, which, among others, will result in a reduction in the take-home pay of employees and a higher provident fund liability for the companies.

Details:

- Once the wages code comes into force, there will be significant changes in the way basic pay and the provident fund of employees are calculated.
- The Labour Ministry had envisaged implementing the four codes on industrial relations, wages, social security and occupational health safety and working conditions from April 1, 2021.
- These four labour codes will rationalise 44 Central labour laws.
- Labour is on the Concurrent List of the Constitution and, therefore, both the Centre and the States have to notify rules under these four codes to make them the laws of the land in their respective jurisdictions.
- Under the new wages code, allowances are capped at 50%. This means half of the gross pay of an employee would be basic wages. Provident fund contribution is calculated as a percentage of the basic wage.
- After the implementation of the new codes, the take-home pay of employees would reduce, while the provident fund liability of employers would increase in many cases.

Labour codes:

- The new set of regulations consolidates 44 labour laws under 4 categories of Codes namely, Wage Code; Social Security Code; Occupational Safety, Health & Working Conditions Code; and the Industrial Relations Code.

- The Code on Wages, 2019, applying to all the employees in organized as well as unorganized sector, aims to regulate wage and bonus payments in all employments and aims at providing equal remuneration to employees performing work of a similar nature in every industry, trade, business, or manufacture.
- The Code on Occupational Safety, Health and Working Conditions, 2020 seeks to regulate the health and safety conditions of workers in establishments with 10 or more workers, and in all mines and docks.
- The Code on Social Security, 2020 consolidates nine laws related to social security and maternity benefits.
- The Code on Industrial Relations, 2020 seeks to consolidate three labour laws namely, The Industrial Disputes Act, 1947: The Trade Unions Act, 1926 and The Industrial Employment (Standing Orders) Act, 1946. The Code aims to improve the business environment in the country largely by reducing the labour compliance burden of industries.

WHAT WILL BE IMPACT ON SALARIES

- Under the new code, **gratuity becomes mandatory** for fixed-term employees, irrespective of five-year completion norm
- It also allows employees **encashment of leave**

Pay component changes will be different across levels:

High-salary range | Only impact will be in gratuity as well as superannuation payouts

Mid-salary range | Impact will be in bonus, gratuity & superannuation payouts. Some of the employees will get out of the purview of the statutory bonus too



Low-salary range | Cos will have to comply with the base floor rate fixed by the central government with basic+DA as wages. In future, salary heads will be reduced to basic, DA or VDA, & HRA. In this range, the contribution towards PF, ESI, bonus & gratuity will go up

How will this impact cos:

- Cos could see **rise of 6-10%** in the wage bill
- After Covid, cost-conscious cos are **reviewing salary increment budgets** for 2021

YounTab scheme

- Lieutenant Governor of Ladakh, RK Mathur, launched the YounTab scheme for students. Under the scheme, about 12,300 tablets were distributed among them in Leh.

Details:

- It is an initiative of Department of School Education. It was launched with the technical support of Information Technology Department.
- Under the scheme, 12,300 tablets with preloaded online and offline content like textbooks, video lectures and online class applications would be distributed among students from Class 6th to 12th in government schools. Scheme was launched as an attempt for long term technology infusion in education system.

Additional information:

- The LT Governor pointed out the need for a substantial improvement in the education sector in Ladakh as per the recently published report on SDG by NITI Aayog.
- The Governor emphasized that there must be efforts to improve the quality of education, 100% enrollment, and zero dropouts in schools.
- The Governor announced financial assistance to the meritorious students of 10 and 12 to avail the coaching for exams such as JEE, NEET, UG CLAT, and NDA. Under the Rewa Scheme, students will be reimbursed a coaching fee of up to Rs. 1 lakh.
- The students who cleared the preliminary exams of Civil Services, IFS, and IES, the Governor will be given financial assistance of up to Rs. 1.54 lakh.
- The administration also announced to give Rs. 25 lakh to the Gram Panchayats from LG's fund to provide better provision in the villages for conducting the community classes for primary school students.
- He also lauded the Education Department for achieving 100% target in teacher's training and mentioned that NCERT's help in further improvement in the training and curriculum development of the department will prove to be beneficial.

BILLS & ACTS

Draft Electricity (Rights of Consumers) (Amendment) Rules, 2021

The Ministry of Power recently issued a Draft Electricity (Rights of Consumers) Rules, 2021. These new rules allow net metering of roof top solar systems.

About the new Rules

- The net metering of roof top has been allowed up to 500 KW in the new rules.
- Gross Metering means a mechanism where the total solar energy generated from a grid interactive rooftop solar system and the energy consumed are accounted separately.
- Net metering is defined as the mechanism where solar energy is exported to the grid from grid interactive rooftop solar PV (Photo Voltaic) system.
- The energy imported from the grid and the energy exported to the grid are valued at two different tariffs.
- These amendments have been made to the Electricity (Rights of Consumers) Rules, 2020. Electricity is a concurrent subject.

Electricity (Right of Consumers) Rules, 2020

- The rules mainly cover aspects of power supply to the consumers. It mainly includes metering arrangements, obligations of distribution licenses, release of new connections, grievance redressal, modifications of existing connections and compensation mechanisms.
- No connection shall be provided without meters.
- The meter used should be prepayment meter or smart prepayment meter.
- The meters should have provisions for testing.
- The consumer shall have the option to pay bills offline or online. Also, he shall be provided with advance payment of bills.
- A prosumer will enjoy the same rights as that of a consumer. A prosumer is a person who produces and consumes power.
- Consumer Grievance Redressal Forum should include prosumer and consumer representations

Personal Data Protection Bill

- The proposed regime under the Bill seeks to be different from the existing regime which does not adequately protect users' data
- The Personal Data Protection Bill, 2019, now under scrutiny by a Joint Parliamentary Committee, could play a big role in providing robust protections to users and their personal data.
- The proposed regime under the Bill seeks to be different from the existing regime in some prominent ways. First, the Bill seeks to apply the data protection regime to both government and private entities across all sectors.
- Second, the Bill seeks to emphasise data security and data privacy.
- Third, the Bill seeks to give users a set of rights over their personal data and means to exercise those rights.
- Fourth, the Bill seeks to create an independent and powerful regulator known as the Data Protection Authority (DPA). More importantly, the DPA will give users a channel to seek redress when entities do not comply with their obligations under the regime.

Decoding the data protection bill



WHAT IT MEANS FOR CONSUMERS

- **DATA** can be processed or shared by any entity only after consent.
- **SAFEGUARDS**, including penalties, introduced to prevent misuse of personal data.
- **ALL** data to be categorized under three heads—general, sensitive and critical.



THE GOVERNMENT & REGULATORY ROLE

- **GOVT** will have the power to obtain any user's non-personal data from companies.
- **THE** bill mandates that all financial and critical data has to be stored in India.
- **SENSITIVE** data has to be stored in India but can be processed outside with consent.



WHAT COMPANIES HAVE TO DO

- **SOCIAL** media firms to formulate a voluntary verification process for users.
- **SHARING** data without consent will entail a fine of ₹15 crore or 4% of global turnover.
- **DATA** breach or inaction will entail a fine of ₹5 crore or 2% of global turnover.

Source: Mint research

- The Bill seeks to bring a massive and meaningful change to personal data protection in India through this regime. However, the reality could be different. Several provisions in the Bill create cause for concern about the regime's effectiveness. These provisions could contradict the objectives of the Bill by giving wide exemptions to government agencies and diluting user protection safeguards.



DEEP
LEARN

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INTERNATIONAL ISSUES

Police and Crime Bill: UK

- In the United Kingdom, thousands are protesting against the new legislation introduced in the British Parliament. The new legislation is called the Police, Crime, Sentencing and Courts Bill, 2021. The protests against the bill have been named as “Kill the Bill” protest.

Police and Crime Bill features

- The bill widens the range of conditions that the police shall impose on protests. They can impose conditions such as start and finish times. Also, they can fix maximum permissible noise in static protests.
- The bill will introduce a statutory offence of public nuisance. This means that it will provide clarity on forbidden conducts such as producing smells or noise, dangerous behaviour in public (like hanging from bridges, etc).
- If the protestors fail to follow police directions in conducting the protests, they shall be fined up to 2,500 Euros.
- Maximum sentences for assaults against the emergency service workers.
- The bill provides powers to closely monitor offenders released from prison.
- According to the critics, the provisions of the bill will provide more rights to the police to control and monitor the protests.

The Labour Party of UK opposes the following provisions of the bill:

- The bill criminalises protestors even for making noise.
- It also accuses persons for creating serious annoyance or serious inconvenience. Such persons can be imprisoned for a period for ten years.

The new Russian Legislation

- The Russian President Vladimir Putin recently signed a legislation that will allow him to stay in power till 2036. The Russian leader had already been in power for more than two decades. And he is 68 years old.
- According to the previous constitution, Putin should have stepped down after his second consecutive term that is to end in 2024. Now, with the new constitutional amendment, he can stay in power till 2036.
- In 2020, the Russians voted for constitutional amendments that will allow Putin to recontest after 2024. Majority voted in favour of the amendment.

- According to Article 81 of Russian Constitution, the same person cannot hold the office of President more than two terms in a row. Vladimir Putin was elected as president in 2012 and again re-elected as president in 2018. He will now stay in power till 2024. The term of a president in Russia is six years.
- The new constitution has not changed the two-term limit. However, it has removed the words “in a row”. With this, Putin will be able to run for President elections for another two terms under the new constitution.
- A Constitutional referendum was held in Russia in 2020. In this, 79% of the voters supported the changes to the constitution.
- The amendments increased the powers of advisory bodies and State councils. Bottom line, the amendments tightened Putin’s grip over Russia.

Central Asia: trans-border trade center

- Kazakhstan and Uzbekistan have launched the construction of an international center for trade and economic cooperation called “Central Asia”. The Central Asia Trade center has been launched on the borders of the two countries.
- The Center is to be constructed in an area of 400 hectares of land. It will have a capacity to accommodate 35,000 people and five thousand trucks. After completion, the center will become a large trade and industrial platform to implement joint projects of Uzbekistan and Kazakhstan.
- The center is located near the border check post of Gisht Kuprik.
- After China and Russia, Kazakhstan is the third largest trade partner of Uzbekistan.
- Uzbekistan holds one of the largest Uranium reserves in the world.

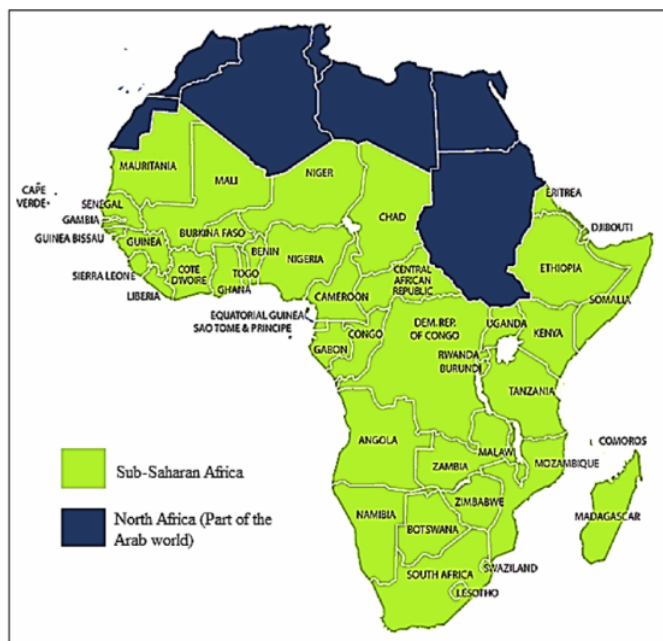


Denmark drops AstraZeneca vaccine

- Denmark announced that it would stop using the AstraZeneca COVID-19 vaccine altogether, becoming the first European country to do so over suspected rare but serious side-effects.
- Despite recommendations from the World Health Organization and European medicines watchdog to continue using the inoculation Denmark's vaccination campaign decided to go ahead without the AstraZeneca vaccine.
- Denmark was the first country in Europe to suspend the use of the AstraZeneca jab in its vaccination rollout, after reports of rare but serious cases of blood clots among those that had received the vaccine.
- More than a dozen countries followed suit but all but a few have since resumed the use after the European Medicines Agency (EMA) emphasised the benefits of the vaccine and deemed it "safe and effective".
- Denmark had, however, continued to hold off using the vaccine as it conducted investigations of its own.
- Meanwhile, Europe's medicines regulator said that it will make a recommendation on the safety of Johnson & Johnson's coronavirus jab next week after U.S. authorities recommended pausing vaccinations over blood clot fears.

Sub-Saharan Africa to see world's slowest growth

- The International Monetary Fund recently released the Regional Economic Outlook for Sub Saharan Africa. According to the report the Sub Saharan region is to witness the world's slowest growth in 2021.
- The sub-Saharan region is projected to grow by 3.4% in 2021. This is way below the global growth prediction of 5.5% in 2021.



- The region had faced 1.9% contraction in growth in 2020. This resulted in large increase in poverty. Around 32 million people fell into extreme poverty in 2020 in the region.
- In several Sub-Saharan countries, the per capita income will not return to pre-crisis levels even by 2025.
- The rebound of Africa is to be uneven. South Africa, the most developed economy in the region is to grow by 3.1%. It faced a contraction of 7% in its growth in 2020. The oil producers in the region such as Nigeria and Angola are to grow by 2.5% and 0.4% respectively.
- In East Africa, the GDP growth of Kenya is to be 7.6%. It faced a 0.1% of contraction in its growth in 2020.
- Seventeen countries in the Sub Saharan region are under debt stress.
- The employment in the region has fallen by 8.5%.
- For most of the countries in the Sub Saharan region, they will require to increase up to 50% of their spending in health care for vaccinating 60% of their population.
- The WHO backed COVAX facilities are ready to help the Sub Saharan countries in administering vaccines. However, the financing and investment are not matching to scale up the supply of vaccines as quickly as possible. On the basis of current trends, very few African countries will be able to make vaccines widely available before 2023.

Heartbeat Bill

Texas recently passed the Heartbeat Bill. It is a controversial bill in the United States. The bill bans abortions after the heartbeat of the embryo is detected. It is usually detected after 6 weeks of gestation.

Background:

- North Dakota became the first state in the USA to pass the Heartbeat Bill. However, the Supreme Court of the US held the law unconstitutional.
- Later several other states passed the law. This includes Ohio, Louisiana, Georgia, Alabama, Missouri, Kentucky. However, the federal courts of the states have blocked the law temporarily. These states are in the Bible Belt of US.

Controversies

- Many women are unaware of their pregnancies at six weeks. Most of them have an abortion only after six weeks.
- A fetal heartbeat can be detected at about six to seven weeks of pregnancy, but may not be detectable until 12 weeks' gestation when a Doppler fetal monitor is used. Many women who are pregnant remain unaware of their pregnancies at six weeks from their last period. Most women who have an abortion do so after six weeks' gestation. Reproductive rights advocates contend that because of this, the fetal heartbeat bills are de facto bans on abortion.

- The Center for Reproductive Rights says that these laws are inconsistent. It is a global legal advocacy organisation that aims to advance reproductive rights (such as abortion). The organisation works to make reproductive freedom as a fundamental human right.

The biggest Nuclear Power Project

- On May 19, 2021, China and Russia began the biggest Nuclear Power Project. The Russian President Vladimir Putin and the Chinese President Xi Jing Ping attended the ceremony that began the construction of the project on May 19, 2021.

Background

- In 2018, Russia and China signed an agreement on Nuclear Energy Cooperation Project. Under the agreement, the countries agreed to build Unit three and Unit Four of the Xudapu Nuclear Power Plant and Unit 7 and Unit 8 of the Tianwan Nuclear Power Plant.
- The construction of the above four units is the major cooperation outcome of science and technology innovation and high-end equipment manufacturing between the countries.
- The contract value of the project is twenty billion USD. The nuclear reactors to be used in the project are third generation VVER-1200 reactors.
- After completion, the reactors will generate 37.6 billion kilo watt hours of electricity. Also, they will reduce 30.68 million tonnes of carbon dioxide and will also reduce the use of fossil fuels.
- China has been speeding up its nuclear development to reduce its reliance on coal fired plants.
- This is being done to achieve its target of becoming carbon neutral by 2060.

Highlights of China-Russia Energy Cooperation

October 1999

China and Russia officially commenced the construction of the Tianwan Nuclear Power Plant (NPP).

April-May 2009

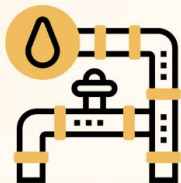
Construction of the China-Russia crude oil pipeline began.

June 29, 2016

Construction of the China-Russia east-route natural gas pipeline began.

December 2017

The China-Russia Yamal LNG project was officially put into operation.



June 8, 2018

Chinese President Xi Jinping and Russian President Vladimir Putin witnessed the signing of the Framework Contract for Tianwan Nuclear Power Plant (NPP) Units 7 and 8, and the Framework Contract for the Xudapu NPP.

The cooperation was the largest China-Russia nuclear energy cooperation project.

June 5, 2019

Chinese President Xi Jinping and Russian President Vladimir Putin witnessed the exchange of signed copies of the General Contract for Xudapu NPP Units 3 and 4.



August 27, 2020

Construction of the China-Russia Amur Gas Chemical Complex project officially started, and will become one of the world's largest polymer plants upon its completion.

December 3, 2020

China started operation on the middle section of the China-Russia east-route natural gas pipeline, which means that the Beijing-Tianjin-Hebei region can directly use gas from Russia.

May 19, 2021

Chinese President Xi Jinping and Russian President Vladimir Putin witnessed the groundbreaking ceremony of bilateral nuclear energy cooperation together via a video link.

GLOBAL
TIMES

Sources: Media reports
Graphic: Feng Qingyin, Tu Jiayu (intern) /GT



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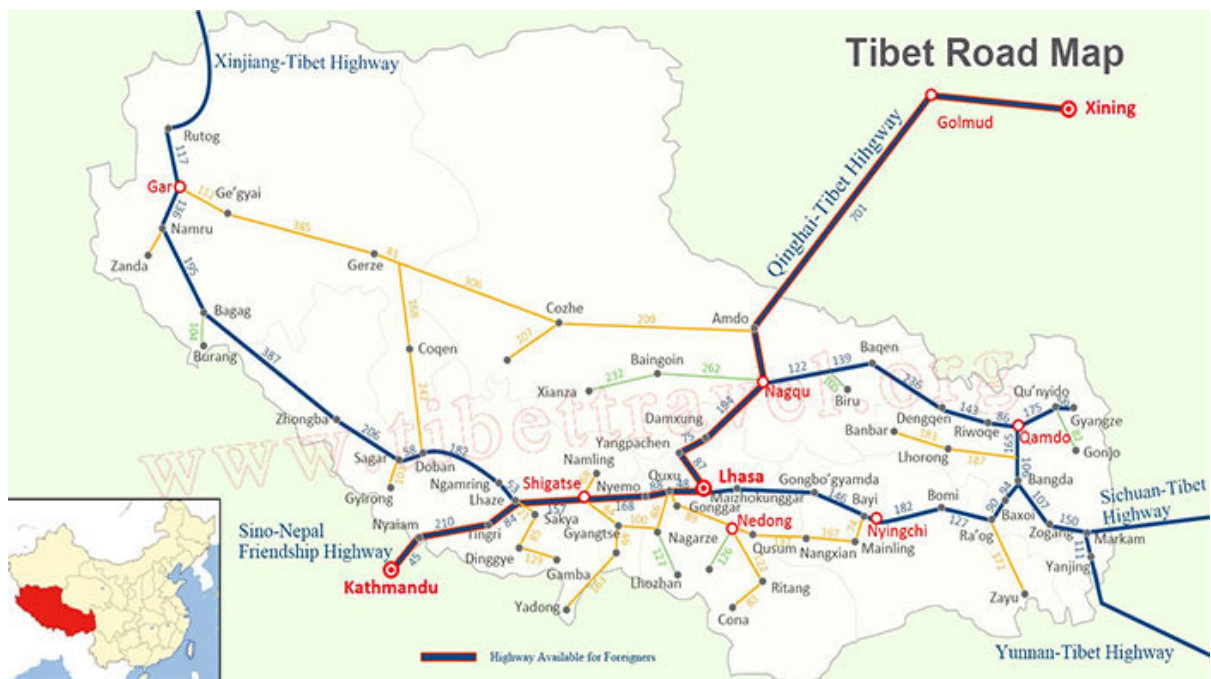
Tibet highway

The news:

- China has completed the construction of a strategically significant highway through the world's deepest canyon in Tibet along the Brahmaputra river, enabling greater access to remote areas along the disputed border with Arunachal Pradesh in India.

Background:

- The highway took seven years to complete and passes through the Grand Canyon of the Yarlung Zangbo river, as the Brahmaputra is called in Tibet. This is the "second significant passageway" to Medog county that borders Arunachal directly connecting the Pad township in Nyingchi to Baibung in Medog county.



- The highway will reduce the distance between Nyingchi city and Medog from 346 km to 180 km and will cut the travel time by eight hours.
- The project, undertaken by the China Huaneng Group, required an estimated investment of over 2 billion yuan (around \$310 million).
- The construction, which began in 2014, is part of a wider infrastructure push in border areas in Tibet. In November, China began work on a strategically important railway line — its second major rail link to Tibet after the Qinghai-Tibet railway that opened in 2006 — that will link Sichuan province with Nyingchi.

- The civilian settlements, along with the new infrastructure connectivity, are seen as aimed at bolstering China's control over the areas.

Global G 20 Health Summit

The news:

The Global G20 Health Summit was co-hosted by European Commission along with Italy as part of its G20 presidency amid the surge and spread of the coronavirus cases.

Background:

- The summit adopted the agenda to overcome Covid-19 pandemic. It also decided to develop and endorse a Rome Declaration of principles.
- Summit noted, risk of more transmissible variants has increased with nine people losing their lives to Covid-19 per minute. As per WHO officials, future of pandemic is in hands of G20 leaders. G20 has also contributed in the launch of ACT-Accelerator as it was launched after G20 called for a global mechanism to accelerate development of tests, treatments and vaccines.
- ACT-Accelerator is used for "Access to COVID-19 Tools Accelerator". It is also called as Global Collaboration to Accelerate Development, Production and Equitable Access to COVID-19 diagnostics, therapeutics and vaccines.
- This initiative was announced and started by G20 grouping in April 2020. ACT Accelerator acts as a cross-discipline support structure which enable the partners to share resources and knowledge.
- ACT-Accelerator has four pillars which is managed by collaborating partners. Four pillars are Vaccines, Diagnostics, Therapeutics and Health Systems Connector.

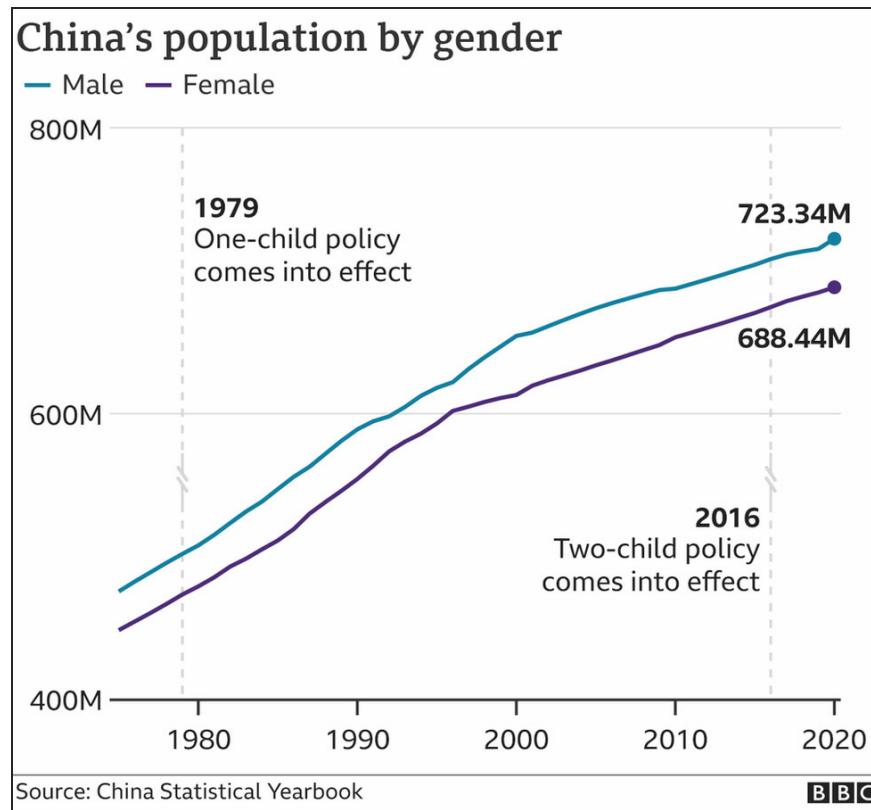
China to allow third child

China will for the first time allow couples to have a third child, the country's government said, in a further relaxation of family planning rules five years after a "two-child policy" largely failed to boost birth rates.

Background:

- The National Bureau of Statistics said on May 11 that 12 million babies were born last year, the lowest number since 1961, a time when Mao's China was in the midst of a four-year famine, and down from 17.86 million in 2016.
- The census said China's population was 1.41 billion in 2020, an increase of 72 million since the last census in 2010, reflecting a 5.38% growth in this period and a 0.53% annual growth.

- Forecasts say the population could peak in the next couple of years and most likely by 2025, when India will become the world's most populous country.



- China's workforce in the 15-59 age bracket peaked at 925 million in 2011, according to the Ministry of Human Resources and Social Security said previously. That number was down to 894 million in this census and would drop to 700 million by 2050.
- China introduced a "two child policy" in 2016, but the wide consensus is that it failed to have the desired impact. Surveys carried out by Chinese media attributed financial pressures as one main reason. A 2015 survey by the government said 70% of respondents attributed financial reasons for choosing to not have many children.

Migrant Protection Protocols

- United States has ended Migrant Protection Protocols which is also dubbed as “Remain in Mexico” policy.

"REMAIN IN MEXICO" POLICY

UNLAWFUL. UNSAFE. UNACCEPTABLE.

A new U.S. policy means asylum seekers arriving at ports of entry on the U.S.-Mexico border will be returned to Mexico to wait for the duration of their U.S. immigration proceedings.

Officially called the "Migration Protection Protocols" (MPP), it has nothing to do with migrant protections. It's the opposite.

IT IS ILLEGAL

It breaks U.S. law by ignoring legislation passed by Congress on the process asylum seekers must undergo at the border—violating their rights to due process.

It goes against international law by potentially violating individuals' rights not to be returned to danger.

IT IS DANGEROUS

It places migrants in direct danger. They face high rates of kidnapping, murder, disappearances, extortion, and sexual violence—at the hands of organized crime and Mexican enforcement agencies—and across Mexico and along Mexico's northern border states, the very place migrants would be returned.

It restricts migrants' access to legal representation, basic services, and shelter while waiting in Mexico.

IT MUST END

Remain in Mexico policy must not be expanded. It must be terminated. Other illegal practices—that fuel the humanitarian crisis, endanger lives, and restrict access to asylum at the border—must also end.

Funding for border militarization and deportation enforcement should decrease. Funding for asylum officers to clear the backlog of 800,000 cases should increase.

LAWG.ORG/REMAININMX

LATIN AMERICA WORKING GROUP

- This policy forced several Central American asylum seekers to wait in Mexico for US court cases.
- Now, Joe Biden administration has paused this programme known as the Migrant Protection Protocols (MPP) in January 2021.
- Since January 2021, about 11,000 migrants have enrolled in it and have been allowed to enter US to seek asylum claims.
- However, Republicans have criticised reversal of this policy. Because, it encouraged huge migrant arrivals at US-Mexico border.
- Even since Biden took office, he has reversed many restrictive immigration policies by President Donald Trump as they were against US asylum laws.
- In 2016, former President Donald Trump proposed to build a border wall to control immigration across the border. According to him, border wall would cost \$8 to \$12 billion.
- However, newly elected U.S. president Joe Biden terminated national emergency and stopped construction of wall in January 2021.

Building the wall

Donald Trump's proposed wall on the US-Mexican border will be over 1,600km long. Currently, about 1,000km of the border already has fences or other barriers.



Juneteenth

The news:

- US President Joe Biden is to sign a law to make June 19 or “Juneteenth” a national holiday. This holiday will be recognized by federal government to commemorating end of slavery after American Civil War.

Details:

- Bill to establish Juneteenth National Independence Day was supported in both houses of US Congress and now needs to be approved by White House to become law.
- It was passed in the backdrop of killing of George Floyd that triggered anti-racism protests in US.
- Juneteenth is going to be first new federal holiday created in almost four decades.



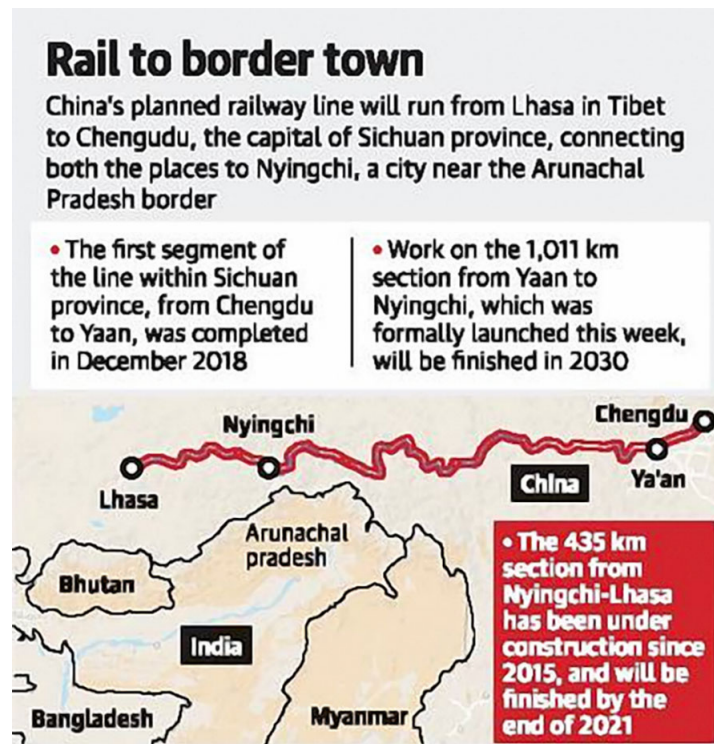
Background

- Juneteenth, combination of June and nineteenth, is observed on June 19 every year. It is the oldest nationally celebrated commemoration of end of slavery in America.
- The day is recognized as holiday in 47 US states and District of Columbia. Juneteenth is also known as Emancipation Day or Juneteenth Independence Day.
- Juneteenth celebration started in 1866 from state of Texas, with community-centric events like cookouts, parades, prayer gatherings, historical & cultural readings and musical performances.

- While, era of “Modern Juneteenth Movement” started in 1994 from New Orleans in Louisiana with objective of greater recognition of Juneteenth.

Tibet gets first bullet train

- China started operating the first bullet train line in Tibet, linking Lhasa to Nyingchi near the border with Arunachal Pradesh.
- The China State Railway Group said the 435-km line, on which construction began in 2014, has a designed speed of 160 km per hour and would connect the capital city of the Tibet Autonomous Region to the border city of Nyingchi with a travel time of three and a half hours.
- Over 90% of the track is 3,000 metres above sea-level, state media quoted the railway group as saying, and the line is the first electrified high speed rail (HSR) line, as China refers to bullet trains, in Tibet.



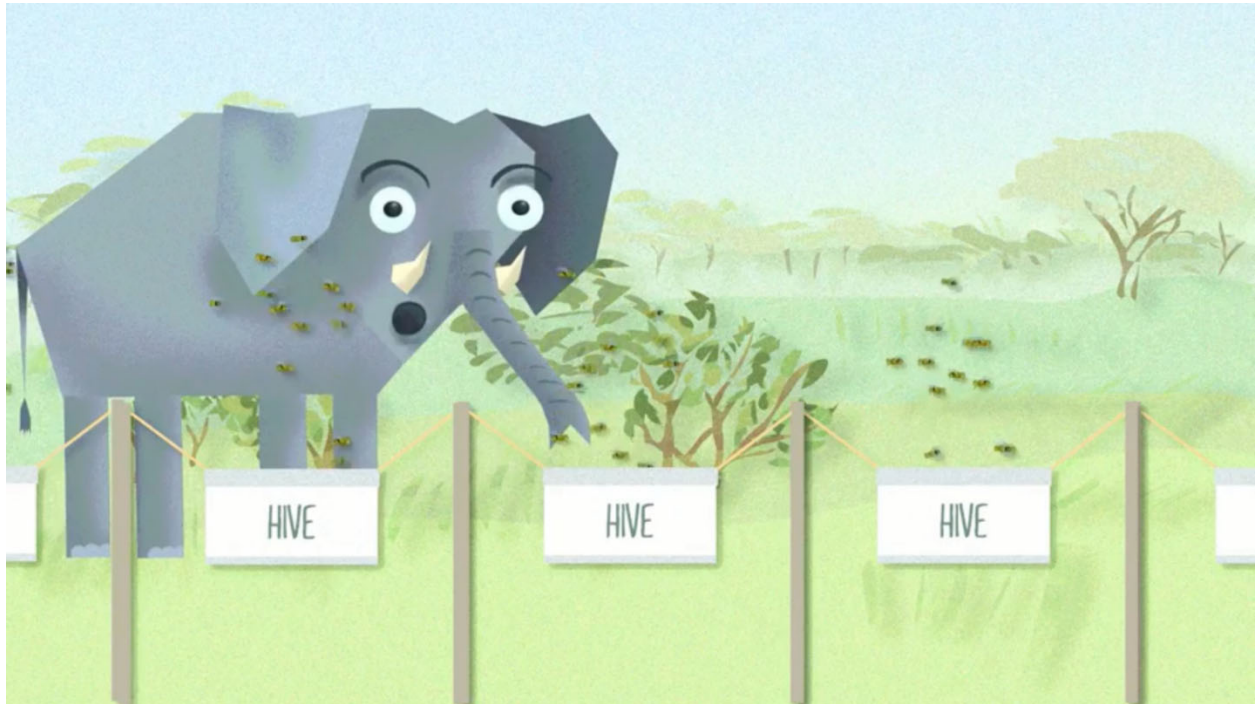
- China has the world's longest HSR network.
- The Lhasa-Nyingchi rail is one among several major infrastructure projects recently completed in Tibet's southern and southeastern counties near the Arunachal border.
- The first section of the new line, from Chengdu, the provincial capital of Sichuan, to Ya'an, was finished in December 2018, while work on the 1,011 km Ya'an-Nyingchi line will complete the entire railway line by 2030.

ENVIRONMENT

KVIC's RE-HAB Project

- The Ministry of Road Transport and Highways Shri Nitin Gadkari recently announced that the project of Khadi and Village Industries (KVIC) called RE-HAB has become a huge success.
- Thus, it is to be implemented in other states as well. This includes Odisha, West Bengal, Jharkhand, Assam, Chhattisgarh, Tamil Nadu, and Kerala.
- Project RE-HAB is Reducing Elephant Human Attacks using Bees. It was launched at four spots in the Nagarhole National Park of Karnataka. The project aims to prevent elephant human conflicts without creating harm to either of them. The project is highly cost effective.
- The project uses bee boxes as fence to prevent elephants from entering human habitation. The buzz of the bees irritates elephants. Also, elephants fear that the bees might sting them in the inner side of the trunk and in their eyes.





- The bee boxes were provided as a part of Honey Mission.
- The Honey Mission was launched by KVIC in 2017. The main aim of the mission is to provide awareness and training in bee keeping.
- The Man-Animal Conflict has increased in the country lately. More than 2,400 people have been killed in conflicts with wild elephants all over India since 2015. On the other hand, more than 510 elephants were killed since 2015 in man-elephant conflicts.

Nagarhole National Park

- The Nagarhole National Park is also called the Rajiv Gandhi National Park. It was established in 1955. In 1999, the GoI declared the park as a Tiger Reserve under Project Tiger. In 2021, the Srivilliputhur Meghamalai Tiger Reserve was added to the list.
- Nagarhole National Park is a part of the Nilgiri Biosphere Reserve.

Last two rhinos translocated under IRV 2020

- The ambitious Indian Rhino Vision 2020 (IRV 2020) came to a close with the release of two rhinos — an adult male and a female — in Assam's Manas National Park transported from Pobitora Wildlife Sanctuary about 185 km east.

- Designed in 2005, the IRV 2020 is believed to have achieved its target of attaining a population of 3,000 rhinos in Assam. But the plan to spread the *Rhinoceros unicornis* across four protected areas beyond Kaziranga National Park, Orang National Park and Pobitora could not materialise.
- The eighth round of rhino translocation under IRV2020 ended with the release of the two rhinos in the central part of the Bansbari range of Manas, which has received a total of 22 rhinos from other protected areas under the translocation programme.
- The ears of the translocated rhinos have been notched according to the International Union for Conservation of Nature's Species Survival Commission and Asian Rhino Specialist Group's guidelines for identification and monitoring.
- Assam had at least five rhino-bearing areas till the 1980s. Better conservation efforts helped maintain the population of the one-horned herbivore in Kaziranga, Orang and Pobitora, but encroachment and poaching wiped the animal out of Manas and Laokhowa Wildlife Sanctuary.
- The translocated rhinos helped Manas National Park get back its World Heritage Site status in 2011. It can be expected that the translocation programme will set up a healthy, breeding population for the future of the species.

Launched in 2005, Indian Rhino Vision 2020 was an ambitious effort to attain a wild population of at least 3,000 greater one-horned rhinos spread over seven protected areas in the Indian state of Assam by the year 2020.

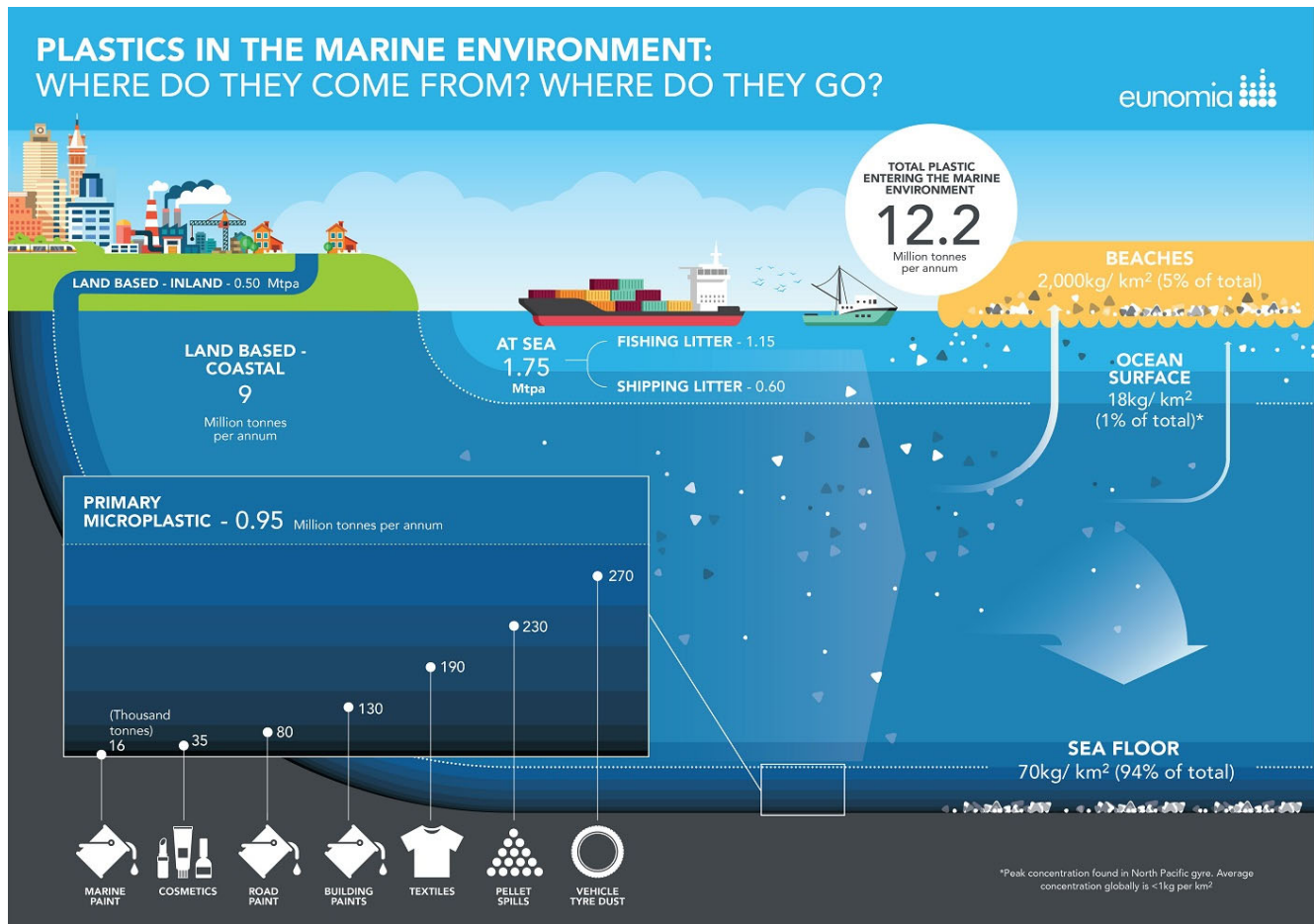
Seven protected areas are Kaziranga, Pobitora, Orang National Park, Manas National Park, Laokhowa wildlife sanctuary, Burachapori wildlife sanctuary and Dibru Saikhowa wildlife sanctuary.

Wild-to-wild translocations were an essential part of IRV2020 – moving rhinos from densely populated parks like Kaziranga NP, to ones in need of more rhinos, like Manas National Park.

India & Germany MoU

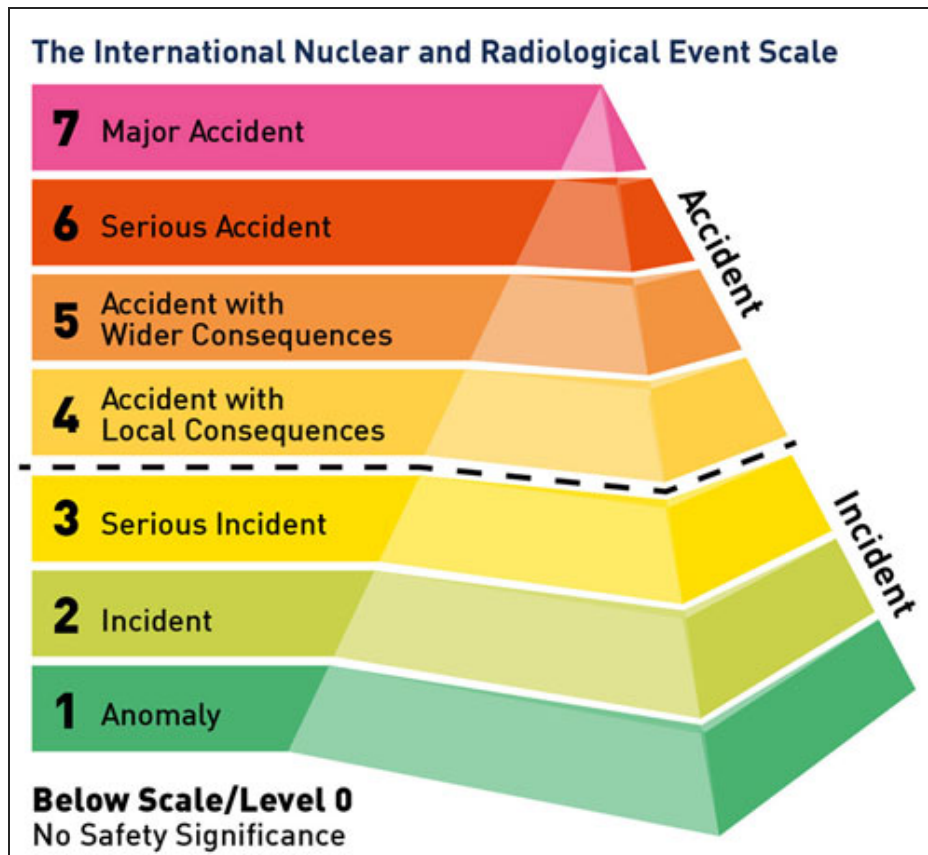
- India and Germany have recently signed a Memorandum of Understanding on “Cities Combating Plastic Entering the Marine Environment”. It is in line with the objective of Swachh Bharat Mission-Urban.
- According to the MoU, the project to be implemented mainly focuses on sustainable solid waste management.
- It will help India achieve the goal of phasing out single use plastics by 2022.
- The project is being launched under the Joint Declaration made by the countries regarding cooperation in the field of Prevention of Marine Litter. The declaration was signed by India and Germany in 2019.
- The project is to be implemented mainly in the states of Kerala, Uttar Pradesh and Andaman and Nicobar Islands.
- The project is to be implemented for a period of three and a half years.

- It will mainly support cities such as Port Blair, Kochi and Kanpur.
- The project will help the cities in improving their system of garbage collection, segregation.
- It will also work towards enhancing marketing of plastic wastes.
- Around 15% to 20% of the plastics entering the oceans are through the riverine system. Of this, 90% are contributed by the ten most polluted rivers in the world. Two of these rivers are located in India. They are the Ganges and Brahmaputra.



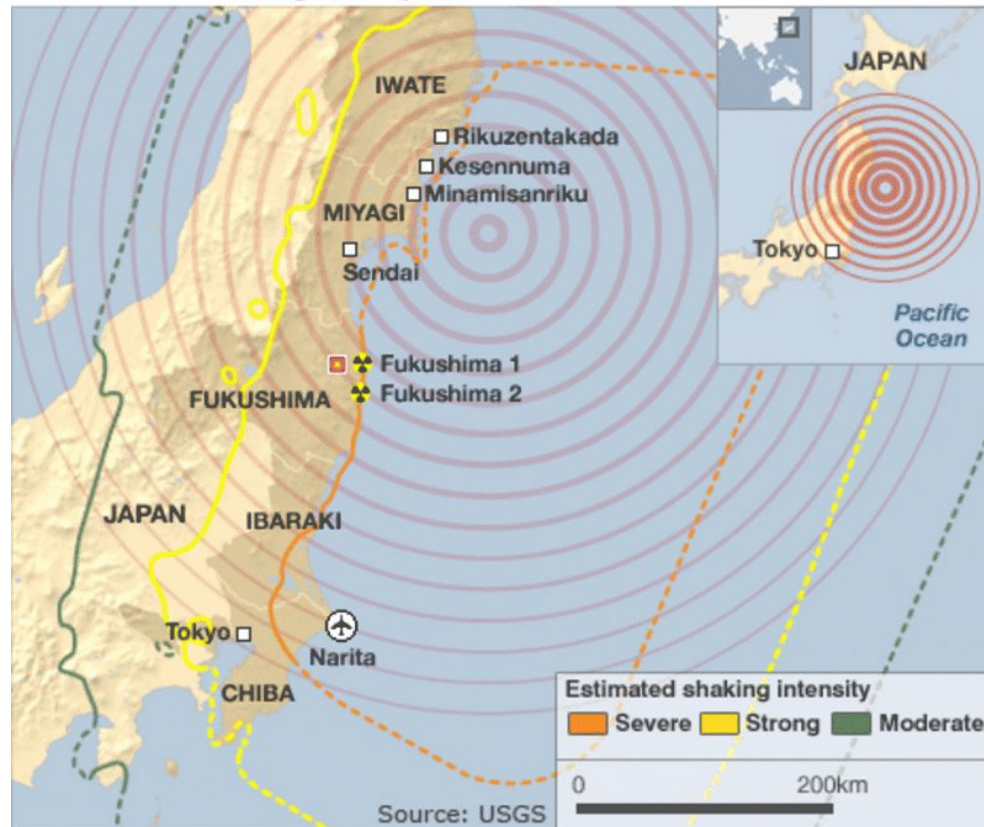
Contaminated Fukushima water into the ocean

- The Japanese Government recently approved a plan to release more than 1 million tonnes of treated radioactive water from the Fukushima nuclear power plant.
- In 2011, there occurred a nuclear disaster in the plant due to an earthquake and tsunami. It was the most severe Nuclear accident that was classified as Level 7 on the International Nuclear Event Scale.



- The *release* of the treated radioactive water could take several years to begin and will take decades to complete. Also, Japan is facing opposition from the anti-nuclear activists and fishing communities for the release of the water into the sea.
- According to the International Atomic Energy Agency, the release of the water from the Fukushima nuclear power plant is similar to disposing wastewater from nuclear plants elsewhere in the world.
- To bring the damaged nuclear reactor under control a makeshift system of pumps and piping was used. Tonnes of water was injected into the damaged nuclear reactors to keep the melted Uranium rods cool. The water got contaminated as it contacted the fuel. The contaminated water has now piled up to 1.3 million tonnes.

Areas affected by the quake



- The Operator TEPCO (Tokyo Electric Power Company Holdings) has planned to filter the contaminated water leaving only tritium. This is because, it is highly complicated and difficult to remove tritium from water. However, the filtered water is to be diluted till tritium levels fall below regulatory limits before dumping into the ocean.
- Tritium is less harmful as compared to other radioactive wastes. It does not emit enough energy to penetrate human skin. However, it can cause cancer when ingested.

New Zealand Climate Change law for Financial firms

The bill:

- New Zealand recently introduced a bill on Climate Change for financial firms. The bill is the first of its kind in the world. New Zealand has fixed 2050 as the deadline to become carbon neutral.
- It will require the insurers, banks and investment managers to report the impacts of their funding on the effect of climate change.
- It will also force the financial firms to evaluate the companies they are lending in terms of environmental impacts.

- All the banks in New Zealand with total asset more than 1 billion New Zealand dollars (703 million USD) will now have to make disclosures about their asset management.
- The financial firms will now have to explain how they will manage climate related risks and opportunities.

The New Zealand Government has lately taken several climate changes measures to lower green house gas emissions in the country. Some of them are as follows:

- In 2019, the Climate Change Response Act, 2002 was amended. According to the amendment, New Zealand intended to implement climate change policies in accordance with the Paris Agreement.
- Carbon Neutral Government Programme was set up to accelerate the reduction of emissions within the public sector.

New Zealand Green Investment Finance was launched to reduce Greenhouse gas emissions. The main objective of the finance is to accelerate funding of projects that have the potential to reduce emissions.

Nationally Determined Contributions of New Zealand

- In 2015, New Zealand ratified the Paris Agreement. The Nationally Determined Contributions of New Zealand under the agreement are as follows:
- To reduce green house gas emissions by 30% below 2005 levels by 2030.

Ecocide

- The Citizens Convention for Climate defined Ecocide as “Any action that causes serious environmental damage by contributing to overstepping the limits of the planet”.
- The French National Assembly recently approved the bill that makes “Ecocide” an offence.

Key Features

- Under the law, the transgressors are liable up to ten years in prison and a fine of 4.5 million Euros (that is 5.4 million USD). Transgressor is person who violates a rule or law or has done something unacceptable.
- The law mainly punishes those who endanger the environment or commit a general crime of pollution. Such persons will be punished with three years in prison and a fine of 300,000 Euros.

Background

- In April 2015, the French President Emmanuel Macron announced the creation of Citizens Convention for Climate. The convention aimed to reduce the Green House Gas Emissions by 40% as compared to their levels in 1990.

- The convention proposed the idea of making ecocide a crime.
- The Convention was launched as result of Gillet Jaunes Crisis. It is also called the Yellow Vests Movement.
- The movement mainly began condemning the fuel price rise in France. According the French President the fuel tax was imposed to discourage the use of fossil fuels to combat climate change.
- The movement called for redistributive economic policies such as increased pensions, wealth tax, higher minimum wages and reduced salaries for politicians.

Saudi Green Initiative and Middle Eastern Green Initiative

- Even as countries rightly continue to focus on tackling the immediate health emergency, the need is to have a long-term vision to build a climate-resilient global economy for the future.
- That is precisely what defines the two recent initiatives launched by Crown Prince Mohammed bin Salman bin Abdulaziz, Deputy Prime Minister of the Kingdom of Saudi Arabia, to combat the threat of climate change — the ‘Saudi Green Initiative’ and the ‘Middle East Green Initiative’.
- The Saudi Green Initiative aims to raise the vegetation cover, reduce carbon emissions, combat pollution and land degradation, and preserve marine life.
- As part of the initiative, 10 billion trees will be planted in the Kingdom. It aims to reduce carbon emissions by more than 4% of global contributions, through a renewable energy programme that will generate 50% of Saudi’s energy from renewables by 2030.
- With the understanding that the need of the hour is to do more than enough, Saudi Arabia is working towards raising the percentage of its protected areas to more than 30% of its total land area, representing roughly 6,00,000 sq km, exceeding the global target of 17%.
- As part of the Middle East Green initiative, Saudi Arabia will work with the Gulf Cooperation Council countries and regional partners to plant an additional 40 billion trees in the West Asian region.
- It represents 5% of the global target of planting one trillion trees and reducing 2.5% of global carbon levels. Saudi Arabia has been sharing its expertise and know-how with its neighbouring countries to reduce carbon emissions resulting from hydrocarbon production in the region by 60% and globally by 10%.
- Saudi Arabia currently operates the largest carbon capture and utilisation plant in the world, turning half a million tonnes of CO₂ annually into products such as fertilizers and methanol. It also operates one of the region’s most advanced CO₂-enhanced oil recovery plants that captures and stores 8,00,000 tonnes of CO₂ annually.
- Plans are afoot to deploy additional carbon capture, utilisation and storage infrastructure. Saudia Arabia believes that nature-based solutions will play an important role in removing carbon as part of the CCE.

- To ensure momentum and continuity, Saudi Arabia will convene an annual summit called the Middle East Green Initiative which will host leaders from the government, scientists and environmentalists to discuss the details of implementation.
- The aim is start implementing the plan in the fourth quarter of this year and continue for the next two decades. Saudi Arabia also recognises the scarcity of financial resources to irrigate the terrain.



- Therefore, in partnership with participating countries, innovative methods will be researched to irrigate from treated water, cloud seeding and other purpose-driven solutions such as planting native trees which requires support for three years to grow and will then be able to survive on their own with natural irrigation.

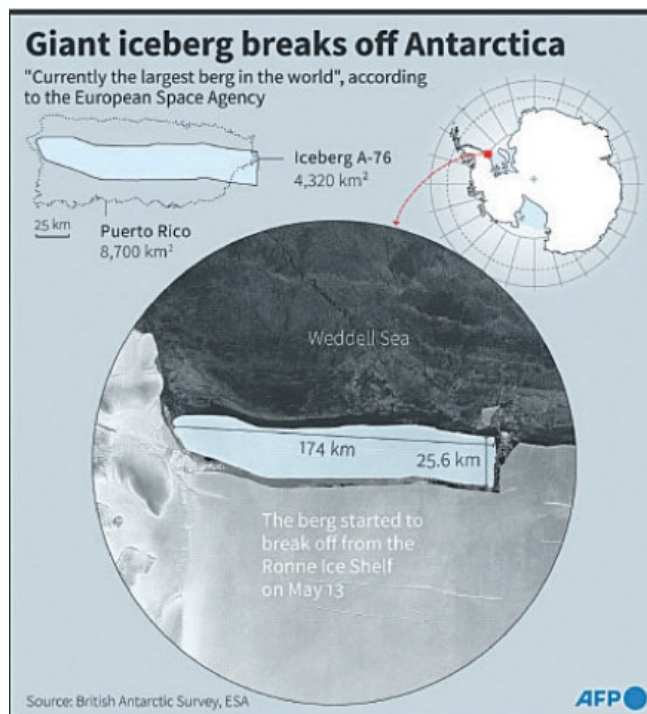
A-76

The news:

An Iceberg recently calved off from the continent of Antarctica. This iceberg is now the largest iceberg in the world. It has been named as A-76.

Background:

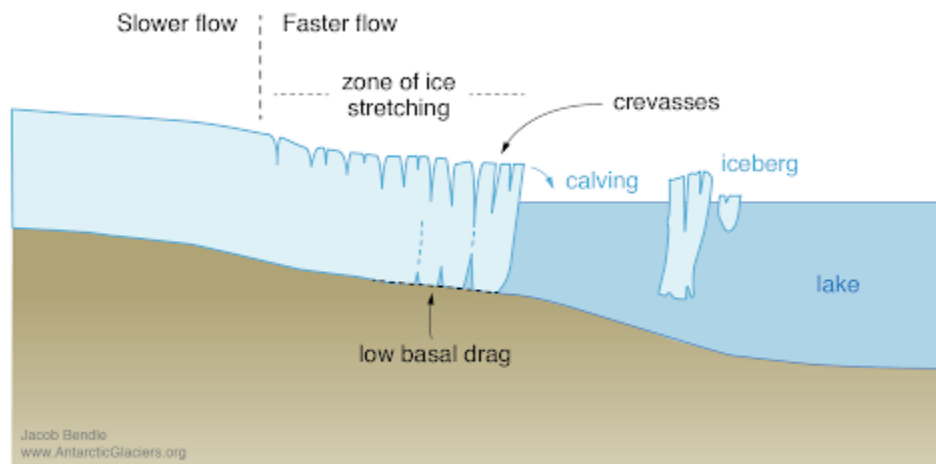
- The Ice Berg is 170 kilometres long and 25 kilometres wide. The ice berg was spotted by a European Space Agency satellite called Copernicus Sentinel. It is a two-satellite constellation that orbits the earth's poles.
- The Ice Berg is now floating on the Weddell Sea. Weddell Sea is a large bay in the Western Antarctic.
- The British Antarctic Survey was the first to notice the breakaway.
- Every time an ice berg calves out from Antarctica, it adds up to the rising sea levels. However, in this case, the ice shelf from which this berg carved out was already floating on water.



- The Ice Shelf from which A-76 calved out is called Ronne Ice Shelf.
- Prior to A-76, A-74 ice berg calved out from Antarctica. Both these calving were natural. The ice calving and regrowth occurs naturally in Antarctica at defined intervals. This process helps to maintain the ice levels in the region.
- However, influxes of warm water in the region are affecting this natural process and increasing the rate at which ice bergs calve out. The time taken by the ice bergs to calve out is now lesser than the time taken for the same amount of ice to regrow.

Ice calving, also known as glacier calving or iceberg calving, is the breaking of ice chunks from the edge of a glacier. It is a form of ice ablation or ice disruption. It is the sudden release and breaking away of a mass of ice from a glacier, iceberg, ice front, ice shelf, or crevasse.

The calving process begins when a rift opens in the edge of a glacier, caused by wind or water erosion, melting ice, or other events that cause the glacier to become unstable. This crack in the ice ultimately causes a block to break away from the land and form an iceberg, which falls into the ocean.



Green Solar Energy harnessing plant

The news:

The Indian Army recently launched the first Green Solar Energy harnessing plant in Sikkim. It was launched to benefit the troops of the Indian army.

Background:

- The plant uses Vanadium based battery technology.

- It was built at an altitude of 16,000 feet.
- The capacity of the plant is 56 KVA.
- It was completed in collaboration with IIT Mumbai.
- The Indian Army recently (April, 2021) launched a solar power plant at Jalandhar Cantonment. It was launched on the World Earth Day. Also, it was launched as a part of the “Go Green” initiative.
- The plant was constructed at a cost of Rs 5.16 crores.
- It was dedicated to the military hospital in the cantonment.
- The plant was set up in five acres of land.
- The project has installed 3,176 solar panels of Indian origin to produce 1MW of solar energy.
- It is expected that the project will produce 15 lakh units of solar power annually and will help save Rs 1 crore per year.
- In January 2021, Vanadium was discovered in Arunachal Pradesh. This was the first discovery of Vanadium in India.
- India consumes 4% of global vanadium production in the world.
- Vanadium is used in making steel alloys, space vehicles, nuclear reactors, etc. It is also used in making girders, piston rods. Vanadium redox batteries are used in superconducting magnets. They are also used to create reliable renewable sources of energy.
- The colour of Vanadium is silver. It is a transitional metal, that is, a good conductor of heat and electricity.



Master Plan Delhi 2041

- Draft Master Plan of Delhi 2041 was made open for public scrutiny for next 45 days. It will serve as blueprint for development of Delhi for next two decades.

Details:

- Master Plan document focuses on environment and tackling pollution. The plan also allows private developers to offer in land-pooling scheme for the first time. It aims:
- To make Delhi liveable & safe,
- To provide better economic opportunities,
- To offer housing for all. It emphasises on affordable & rental accommodation.
- To redevelop old areas of Delhi.
- In a bid to address challenges faced during pandemics, earthquakes & floods, it has suggested for periodic safety audits to ensure structural safety and to establish a Delhi Disaster Response Force.
- MPD 2041 proposes for decentralised workspaces, creation of open areas & public spaces, better habitat design & green-rated developments in order to reduce vulnerability to airborne epidemics & other such diseases and to reduce dependence on mechanical ventilation systems.

Background



- Preparation of draft MPD 2041 started in 2017. It continued through the lockdowns amid COVID-19. The plan will be GIS-based. Thus, zonal plans have been prepared after digitally mapping every service, land use and infrastructure. It has been prepared by Delhi Development Authority.
- It is a 'strategic' and 'enabling' framework which will guide the growth in Delhi. It has been prepared by eliminating loopholes of previous plans of 1962, 2001 and 2021.

SCIENCE AND TECHNOLOGY

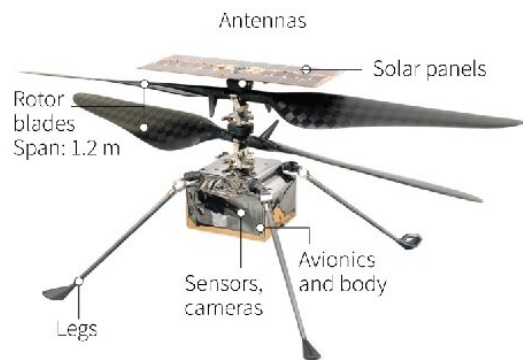
Ingenuity Helicopter

- NASA recently announced that its Ingenuity Helicopter has been dropped on the surface of Mars successfully and is in preparation for its first flight.
- Ingenuity is a technology demonstration of powered flight in another planet.
- NASA is to perform a series of test flights over thirty Martian days with the help of Ingenuity helicopter.
- The main challenge of Ingenuity Helicopter is that it would have to survive temperatures as low as -130 degrees Fahrenheit. Such low temperatures could freeze and crack the onboard batteries in the craft. The helicopter has successfully survived the temperature.
- The helicopter weighs 1.8 kilograms.
- It is a solar powered helicopter. The energy from the solar array in the helicopter will power the helicopter and also keep it warm during night.
- The full speed of the helicopter is 2,400 rpm.
- It is to reach a maximum height of 4.6 metres in Mars.
- The Ingenuity helicopter was dropped on the Martian surface by the Perseverance rover as a part of Mars 2020 mission.

The first powered helicopter flight on Mars

NASA's **INGENUITY**

Test flight to demonstrate its technology works

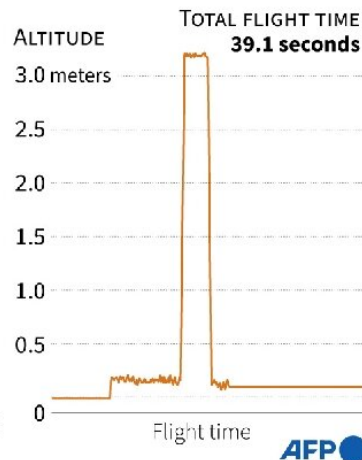


Sources: NASA/JPL-CalTech

FIRST FLIGHT
April 19, 2021

The helicopter hitched a ride on **PERSEVERANCE ROVER** (touched down on Mars Feb 18)

Weight **1.8 kg**
(0.7 kg on Mars)
Height **0.49 m**



Perseverance Rover

- The Perseverance rover is an astrobiology mission. The mission aims to search signs of ancient microbial life in Mars.
- The mission will characterize the geology and past climate of the planet.

- Perseverance is the first mission to collect Martian rock and regolith (broken rock and dust).
- Curiosity is the predecessor of Perseverance rover.
- The rover carries seven payload instruments, two micro phones and nineteen cameras.
- It will drill the Martian soil and collect core samples of martian rocks.

A dozen quasars discovered

- Astronomers have discovered a dozen quasars that have been warped by a naturally occurring cosmic “lens” and split into four similar images. Quasars are extremely luminous cores of distant galaxies that are powered by supermassive black holes.
- This rare discovery increases the number of known quasars or quads by about 25% and can help determine the expansion rate of the universe and address other mysteries.

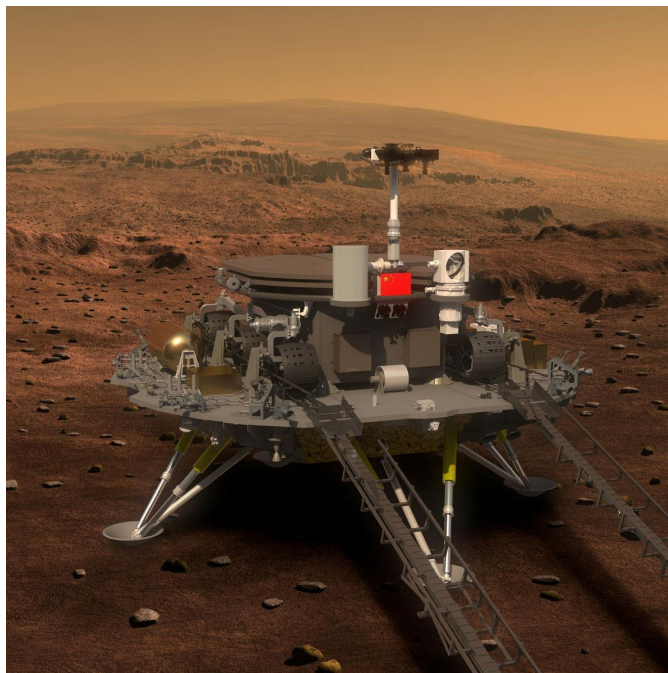


A quasar is an extremely luminous active galactic nucleus, in which a supermassive black hole with mass ranging from millions to billions of times the mass of the Sun is surrounded by a gaseous accretion disk. As gas in the disk falls towards the black hole, energy is released in the form of electromagnetic radiation, which can be observed across the electromagnetic spectrum. The power radiated by quasars is enormous; the most powerful quasars have luminosities thousands of times greater than a galaxy such as the Milky Way.

Zhurong

- China has named its first Mars rover as Zhurong after a traditional fire god. The name signifies igniting the flame of Planetary Explorations of China.
- Zhurong is on board Tianwen-1 Space probe.
- It arrived at the Mars orbit in February 2021 and is due to land on the planet in May 2021.


- With Zhurong, China will become the third country after Soviet Union and USA to achieve soft landing on Mars. Also, it will become the second country put a rover on Mars after the US.
- Zhurong weighs 240 kilograms and is solar powered.



- Zhurong carries multispectral cameras and instruments to analyse the composition of the rocks. It will investigate subsurface characteristics with ground penetrating radar.
- The main aim of Tianwen-1 is to analyse and map the Martian surface and look for water ice and study the climate and surface environment.
- It was launched in July 2020.
- Tianwen-1 was launched with an orbiter, camera, lander and the Zhurong rover.
- It weighs five tonnes and is one of the heaviest probes launched to Mars.
- It was launched in Long March 5 heavy lift launch vehicle.
- It was the second of the three space missions sent to Mars in 2020. The other missions launched were as follows:
 - ✓ The “Hope Orbiter” by United Ara Emirates
 - ✓ Perseverance Rover and Ingenuity helicopter on Mars 2020 by US

COVIRAP Technology

- COVIRAP is a diagnostic technology to detect COVID-19 virus. The technology is also capable of testing influenza, dengue, malaria, Tuberculosis and Japanese Encephalitis. Also, the technology can be used to test other vector borne diseases.
- The device will minimise the need for real time PCR machines and also for thermal cyclers.

<p>Novel solution A look at how the new COVID-19 testing device works</p>  <p>Virus alert: Researchers with the COVIRAP device at IIT Kharagpur.</p> <ul style="list-style-type: none"> ▪ SPECIAL ARRANGEMENT ▪ COVIRAP machine resembles a box and comes with a kit ▪ Kit has three master mixes which are markers of different genes to confirm the virus ▪ RNA samples are extracted from nasal swabs and mixed with the master mix in tubes ▪ Tubes are put in the machine which is set at a specific temperature and programmed to run for a fixed period ▪ Once the heating is over, 	<p>it's mixed with another solution and reheated</p> <ul style="list-style-type: none"> ▪ A paper strip is dipped into reaction product ▪ Coloured lines develop, like in a pregnancy kit, to indicate presence or absence of virus ▪ A smartphone app can grab image of the strip and convey results ▪ COVIRAP can deliver results in an hour <p>DIFFERENCES WITH RT-PCR</p> <ul style="list-style-type: none"> ▪ While RT-PCR machines can cost up to ₹25 lakh, the COVIRAP machine cost the IIT researchers only ₹5,000 ▪ COVIRAP test kits cost about ₹500 ▪ RT-PCR needs to be operated by a molecular biologist ▪ COVIRAP can be operated with minimal training
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- COVIRAP is a cuboid shaped portable testing device.
- It is capable of delivering the results in an hour. This will help to scale up the screening of COVID-19 in rural and peripheral areas.
- The COVIRAP based machines can be developed at a cost of less than Rs 10,000.

- COVIRAP conducts COVID-19 test using a swab sample. It does not require a separate facility for RNA extraction.
- COVIRAP is now being launched for commercialisation after getting validated by ICMR (Indian Council of Medical Research). Recently, the research team from IIT Kharagpur has developed a more advanced version of COVIRAP using isothermal nuclei acid testing technology for rapid diagnostics of the infections.

Carnivac-Cov

- Russia recently produced the first batch of COVID-19 vaccines for animals. The name of the vaccine is Carnivac-Cov. The World Health Organisation recently confirmed the possibility for transmission of virus between humans and virus.
- It was produced by Rosselkhoznadzor, a federal service for Veterinary and Phytosanitary Surveillance in Russia.
- The Russian scientists believe that the use of the vaccine will help to prevent virus mutations.
- The results of the vaccine trials say that it has good immunogenic effect.
- Response to the COVID-19 animal vaccine
- According to Russia, countries such as Lebanon, Kazakhstan, Poland, Greece, Germany, Austria, Iran, Argentina, South Korea have expressed interest in purchasing the vaccine.

Transmission of COVID-19

- COVID-19 mainly spreads through human-to-human transmission. However, there is evidence of human to animal transmission. This is possible mainly because it is a zoonotic virus.
- In 2020, Denmark killed more than 17 million minks after the country concluded that the virus has passed from humans to minks. In Denmark, the virus transferred to mink from humans. It then transferred back to humans as mutated strains.

Sinopharm Vaccine

- The World Health Organisation recently approved the Emergency Use of Sinopharm vaccine. Recently, the WHO approved COVID-19 vaccines developed by AstraZeneca, Pfizer, BioNTech, Johnson and Johnson as well. The other popular Chinese Vaccine is sinovac.
- Sinopharm vaccine was developed by China. This is the first time the WHO has given approval to a Chinese vaccine. It is also a sign that Sinopharm vaccine might be allowed to be included in COVAX programme.
- According to WHO, the efficacy of Sinopharm vaccine is 79%.

- The Sinopharm Vaccine is an inactivated vaccine just like the COVAXIN. The inactivated vaccines are created by killing the disease carrying virus (COVID-19) using heat, radiation or chemicals. These vaccines take longer time to make. Also, they require two to three doses.
- The other vaccines that use this approach is the polio vaccine and flu.
- Out of several vaccines in the world, only Sinovac, Sinopharm and COVAXIN use inactivated virus. Other vaccines such as Moderna, AstraZeneca (COVISHIELD), Sputnik, Pfizer, Johnson and Johnson use a viral vector.

2-deoxy-D-glucose (2-DG)

- The Drugs Controller General of India (DCGI) has granted permission for emergency use of an anti-COVID-19 therapeutic application of the drug 2-deoxy-D-glucose (2-DG), developed by the Institute of Nuclear Medicine and Allied Sciences (INMAS), a lab of the Defence Research and Development Organisation (DRDO), in collaboration with Dr. Reddy's Laboratories, Hyderabad.
- The Ministry of Defence said that as per the order, emergency use of this drug as adjunct therapy in moderate to severe COVID-19 patients is permitted. It added that being a generic molecule and analogue of glucose, it can be easily produced and made available in plenty in the country.
- The drug comes in powder form in sachets and is taken orally by dissolving it in water. It accumulates in the virus infected cells and prevents their growth by stopping viral synthesis and energy production. Its selective accumulation in virally infected cells makes this drug unique.
- Clinical trial results have shown that this molecule helps in faster recovery of hospitalised patients and reduces supplemental oxygen dependence, noted the release. It further said that higher proportion of patients treated with 2-DG showed RT-PCR negative conversion in COVID-19 patients.

Fengyun-4B (FY-48)

The news:

- China successfully launched its first satellite of a new generation meteorological satellite into planned orbit. This satellite, named as Fengyun-4B (FY-48), will be used for fields of weather analysis, environmental and disaster monitoring.



Details:

- This satellite was launched by Long March-3B rocket from Xichang Satellite Launch Centre in Sichuan Province. It is the first of China's new-generation meteorological satellites which will be used for weather analysis & forecasting, environmental and disaster monitoring.
- Fengyun-4B satellite will strengthen observation and response capability of small & medium scale disaster events and provide information security services in sectors including agriculture, meteorological, marine, aviation, and environmental protection.
- It will also conduct dynamic monitoring and tracking of several disaster elements like cold fronts, floods, droughts and sand storms. It will also improve forecast accuracy of disaster weather like typhoons and storms of China.
- It also comprises of a rapid imager which can improve measurement resolution to 250 meters from geostationary orbit and accelerate scan imaging of Earth.
- Observation range of the satellite include Asia, central Pacific Ocean and Indian Ocean regions.

World's First Wooden Satellite

- European Space Agency (ESA) will launch world's first wooden satellite called WISA Woodsat in Earth's orbit by the end of 2021.

- WISA Woodsat will be launched to test the applicability of wooden materials such as plywood in spacecraft structures. Mission will expose wooden materials to extreme space conditions like heat, cold, vacuum and radiation.
- Wooden satellite will be launched to space by end of 2021 with a Rocket Lab Electron rocket. It will be launched from Mahia Peninsula launch complex in New Zealand. Satellite has been designed and built in Finland.
- Satellite will orbit at around 500-600 km altitude in polar Sun-synchronous orbit.
- It is a 10x10x10 cm nano satellite which was built up using standardised boxes and surface panels of plywood, which is usually found in hardware store and are used to make furniture.
- Wood have been placed in a thermal vacuum chamber to keep dry when it is in space.
- Thin layer of aluminium oxide has been applied to it to minimise vapour coming from wood and to protect it from erosive effects of atomic oxygen.
- The non-wooden external parts of satellite are corner aluminium rails which will be used for its deployment into space and a metal selfie stick.

DEFENCE

UNSC members

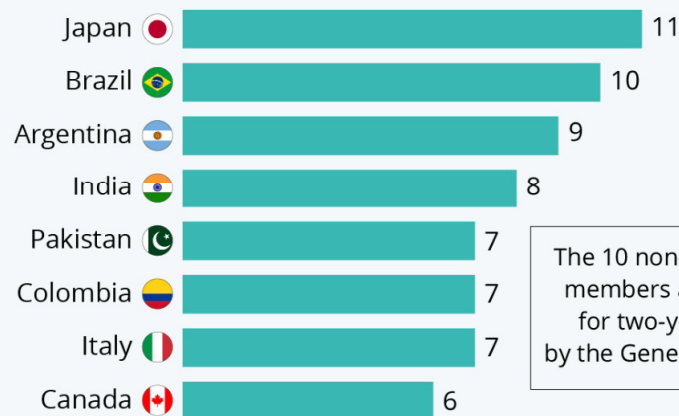
- Countries including Albania, Brazil, Gabon, Ghana and United Arab Emirates (UAE) have been elected unopposed to powerful UN Security Council (UNSC) as non-permanent members for 2022-23 term.

Background:

- UN General Assembly (UNGA) has held elections to elect five non-permanent members for UNSC. They will take their seats on Council for two-year term from January 1, 2022.
- Five countries won elections unopposed because they were the only candidates from their respective regional groups.
- As per regional distribution for 2021 election, three seats were available from African & Asian States. Gabon, Ghana and United Arab Emirates won these three seats. Apart from that, one Latin American and Caribbean Group seat was available for which Brazil was elected. While, Albania won Eastern European Group seat.

The Most Frequently Elected UN Security Council Members

Non-permanent UN Security Council members with the most terms since 1946*



The 10 non-permanent members are elected for two-year terms by the General Assembly

* Including members already elected to serve their two-year terms in 2021. Belgium, Germany, the Netherlands and Poland have also been elected 6 times.
Source: United Nations



statista

- Estonia, Niger, Saint Vincent & Grenadines, Tunisia and Vietnam will complete their two-year terms on UNSC in 2021. Thus, to fill this seat, new non-permanent members were elected.
- They will sit the table along with five permanent members China, France, Russia, United Kingdom & United States and five non-permanent members India, Ireland, Kenya, Mexico & Norway. India will also assume rotating Presidency of Security Council in August.
- Election for the non-permanent members of UNSC is held by secret ballot. Candidates require a two-thirds majority in UNGA to be elected as non-permanent member. Five countries are elected to Council of 15-member (UNSC) as non-permanent members for two-year term.

MISCELLANEOUS**AWARDS****Indian Railway Electrification: New record**

The Indian Railways has achieved the highest ever electrification of sections during 2020-21. It has covered 6,015 kilo metres of electrification in a single year. This is 37% higher than that achieved in 2019-20.

- The Broad-Gauge network of Indian Railway currently stand at 63,949 kilo metres. Of this 71% has been electrified.
- Some of the major routes electrified in 2020-21 are Delhi-Darbhanga-Jaynagar, Mumbai-Howrah, Gorakhpur-Varanasi, Chennai-Trichy and Jabalpur-Nainpur-Gondia-Ballarshah.

A Traction Substation is an electrical substation. It converts electric power provided by the electric power industry to a suitable power to be used in electric trains.

Electric Rail Transport in India

- India uses 25 KV 50 Hz AC traction on its electrified tracks. DC traction is used for metros.
- The first railway electrification in India began between Chhatrapati Shivaji Terminus and Kurla in 1925.
- In 2017, Indian Railways announced that the entire rail network in the country is to be electrified by 2022. The deadline has been extended to 2024.
- Central Organisation for Railway Electrification
- The CORE is the centralised agency for railway electrification of Indian Railways. It was founded in 1961. The headquarters of CORE is located in Prayagraj, Uttar Pradesh.

Chloe Zhao

- The Chinese born film maker Chloe Zhao has become the first Asian woman to win the Best director at the Academy Awards. She won the award for her film Nomadland.
- Zhao was born in China and went to a boarding school in London. She then moved to Los Angeles where she completed her high school. Her debut film was Songs My Brothers Taught me. It was premiered at Sundance Film Festival. Her second film was The Rider. It received nominations at the Independent Spirit Award for the Best Film and Best Director.
- Nomadland won three major awards namely Best Director, Best Actress for Frances McDormand and Best Picture. The film is about a woman who leaves town after her husband dies. She also becomes houseless as sole industry closes down. She then lives in a van and travels around the US.

Whitley Awards

Whitley Awards are called “Green Oscar”. In 2021, the Whitley Award was won by Nuklu Phom of Nagaland. He is the only Indian to receive the award.

About the award:

- Whitley Awards are presented annually by the Whitley Fund for Nature. It is presented to recognise grass root level conservation leaders.
- It involves process of reference, application and interview.
- The Whitley Fund for Nature was established by Edward Whitley in 1994. It has so far given 16 million pounds to support the work of two hundred environmental heroes.

Whitley Fund for Nature

- It works to find out local conservationists in the regions of resource-poor, biodiversity rich countries.
- It supports projects based on science and community involvement
- It also works to boost the national and international winners who address challenges faced by biodiversity worldwide.
- The winners receive 40,000 pounds.

Nuklu Phom

- Over the years, Phom has been working towards creating what he calls a “Biodiversity Peace Corridor”, a network of villages across four districts in Nagaland to promote community conservation. The idea is an extension of the “Yaongyimchen Community Biodiversity Area”, a ten-sq-km area in Yaongyimchen, Phom’s ancestral village in Longleng district, where he set up a community-based conservation model.
- Apart from conservation of wildlife and environmental protection he also extends his works to health, education and micro finance.
- Lemasachenlok Society was founded by him. It has worked towards sensitising the locals about the Amur Falcons. It has set up three reserves that helped to increase the number of roosting Falcons.
- Nuklu Phom is popularly known as the “Amur Falcon Man of Nagaland”.
- Nagaland is called the “Falcon Capital of the World”.

Amur Falcon

- The Amur falcon (*Falco amurensis*) is a small raptor of the falcon family. It breeds in south-eastern Siberia and Northern China before migrating in large flocks across India and over the Arabian Sea to winter in Southern Africa.

- The increasing concern is that people have started hunting Amur Falcon. In India, more than 14,000 are hunted annually. The State Governments have declared ban on hunting Amur Falcons. In spite of the ban, the hunting of Amur Falcon is increasing.
- It is listed as “Least Concern” by the IUCN.



India Biodiversity Awards 2021

Recently, India Biodiversity Awards 2021 were presented on the occasion of International Day for Biological Diversity on May 22.

The winners

- Krishi Avam Paristhitiki Vikas Sansthan (KRAPAVIS) won the award under the category ‘Sustainable Use of Biological Resources.’ KRAPAVIS won the prestigious award for its support to communities in restoring water harvesting structures, recharge wells & water tables. It also helped to plant million trees of local varieties in Orans.
- Shaji N.M., who is also called as ‘Tuber Man’ of Kerala has won in individual category of ‘Conservation of domesticated species. Mr. Shaji was conferred the award as he conserves about 200 tuber crops such as greater yam, elephant foot yam, lesser yam, arrowroot, sweet potato, Chinese potato and colocasia, in his farm. He has received State awards seven times for his contribution.
- Khonoma Nature Conservation & Tragopan Sanctuary (KNCTS) in Nagaland won the award under ‘Sustainable Use of Biological Resources’ category. KNCTS was established on December 11, 1998. Sanctuary was awarded as it helps in maintaining biodiversity in Khonoma area which is inhabited by several endemic plants and animals.

The India Biodiversity Awards initiative was started jointly by ministry of environment, forest & climate change; National Biodiversity Authority (NBA) and United Nations Development Programme (UNDP) in 2012. It recognizes and honour outstanding models from grassroot level for biodiversity conservation, sustainable use of biological resources and governance.

Assam Awards

- On the line of Bharat Ratna and Padma Awards, Assam cabinet has decided to institute Asom Ratna Award.
- Asom Ratna Award award will be presented every year to one person for his significant contribution to society.
- Cabinet also decided to constitute Asom Bibhushan, Assam Bhushan Award and Asom Shree award which will be conferred every year to three people, five people and ten people, respectively.
- Awards will be accompanied by a cash reward.
 - Rs 5 lakhs for Asom Ratna Award,
 - Rs 3 lakhs for Asom Bibhushan Award,
 - Rs 2 lakhs for Assam Bhushan Award and
 - Rs 1 lakh for Asom Shree Award.
- Awardee would be provided with other benefits also such as free medical treatment of critical illness, free travel on ASTC buses, free stay at Assam Bhawans.

Other Awards

- Literary Pension will be conferred in the name of litterateur Dr Homen Borgohain on his birthday (December 7).
- Sports Pension will be given in the name of Arjun Bhogeswar Barua on his birthday (September 3) while
- Artiste Award will be given on January 17 every year.
- Awards will be announced seven days prior to presentation ceremony.

Pulitzer Prize 2021

- Pulitzer Prize 2021 was recently conferred recently. Megha Rajagopalan, an Indian-origin journalist, has won this top journalism award of USA on June 11, 2021.
- She has won Prize for innovative investigative reports exposing infrastructure of prisons and mass internment camps which were built secretly by China and detained Muslims in Xinjiang region.
- Megha won the prize along with two contributors. Other two winners are Tampa Bay Times' Neil Bedi who won for local reporting and Kathleen McGrory who has been awarded for series exposing a Sheriff's Office initiative which used computer modelling to identify some 1000 people who could be future criminals.

Pulitzer Prize

This prize is awarded since 1942 for a distinguished example of reporting on international affairs. Till 1947, this award was called as Pulitzer Prize for Telegraphic Reporting – International. It is an award for achievements in newspaper, magazine and online journalism, musical composition and literature within the United States. It was established by provisions in the will of Joseph Pulitzer. These prizes are awarded yearly in twenty-one categories. Winners receive a certificate and a US\$15,000 cash award.

Smart City awards 2020

- Smart City Awards 2020 was announced under the ‘Smart Cities Mission’.
- Uttar Pradesh was ranked as top performing state under India Smart Cities Award Contest 2020.
- Madhya Pradesh came second while Tamil Nadu at third position.
- Surat and Indore won best award for their overall performance in 2020.
- Best union territory award was conferred to Chandigarh.
- These awards were announced to mark six years of three urban transformative missions by Central government namely, Smart Cities Mission, Atal Mission for Urban Rejuvenation and Urban Transformation (AMRUT) and Pradhan Mantri Awas Yojana-Urban.
- These awards were given under the themes of Social Aspects, Governance, Urban Environment, Sanitation, Culture, Economy, Water, Built Environment and Urban Mobility. Some other interesting themes were added this year namely, Sustainable Business model of ICCD and Innovation award specially in COVID Management.

Category Wise winner:

- Under this theme, Tirupati won award for Health Benchmark for Municipal Schools while Bhubaneswar won for Socially Smart Bhubaneswar.
- Tumakuru won award for Digital Library Solution.
- In governance category, Vadodara received the first rank.
- In urban environment category, joint winners are Bhopal and Chennai.
- Smart Cities Leadership Award was conferred on Ahmedabad, Varanasi and Ranchi.

Fukuoka Grand Prize

- Noted journalist P. Sainath has been selected as one of the three recipients of the Fukuoka Prize for 2021. Mr. Sainath will receive the ‘Grand Prize’ of the Fukuoka Prize while the Academic Prize and the Prize for Arts and Culture will go to Kishimoto Mio of Japan and filmmaker Prabda Yoon of Thailand, respectively.

- In a statement issued by the Secretariat of the Fukuoka Prize Committee, Mr. Sainath was described as a “very deserving recipient of the Grand Prize of Fukuoka Prize”.
- The Secretariat noted his work for creating a new form of knowledge through his writings and commentaries on rural India and for “promoting civil cooperation”.
- The Fukuoka Prize is given annually to distinguished people to foster and increase awareness of Asian cultures, and to create a broad framework of exchange and mutual learning among the Asian people.
- The Grand Prize has earlier been awarded to Muhammad Yunus from Bangladesh, historian Romila Thapar, and sarod maestro Amjad Ali Khan. Eleven Indians have received the Fukuoka Prize so far.
- A total of 115 people from 28 countries and areas have received the prize in the past 30 years. The prize was established in 1990.
- Professor Mio has been recognised for her understanding of Chinese history. Prabda Yoon will receive the prize for increasing understanding of Japan in Thailand and for pursuing “a deeper philosophical insight into the future of humanity”, said the statement from the Secretariat of the Fukuoka Prize Committee.
- This year’s award ceremony will be held online on September 29.

BOOKS AND AUTHORS

June 2021

Authors Name	Book Name
Salman Rushdie	Languages of Truth: Essays 2003-2020
Amish Raj Mulmi	All Roads Lead North: Nepal's Turn To China
Vinod Kapri	'1232km: The Long Journey Home
Ronnie Screwvala	Skill It, Kill It
Amartya Sen	'Home in the World'
Suresh Raina	'Believe-What Life and Cricket Taught Me'
Amitav Ghosh	'The Nutmeg's Curse: Parables for a Planet in Crisis'
Ashok Pangariya	'Monk in a Merc'
Tahira Kashyap Khurrana	'The 7 Sins of Being a Mother'
Kajal Suri	'Habba Khatoon'
Dr Vipin Gupta	'What is Consciousness?'
Dr Vipin Gupta	'What is Para Consciousness?'
Will Smith and Mark Manson	'Will'
Krishna Saksena	'My Joys and Sorrows- as a Mother of a Special Child'
Ruskin Bond	'It's a Wonderful Life'
Sundeeep Mishra	'Fiercely Female: The Dutee Chand Story'
Kaushik Basu	'Policymaker's Journal: From New Delhi to Washington DC'

May 2021

Authors Name	Book Name
Aakash Ranison	‘Climate Change Explained—For One and All’
Meghan Markle	‘The Bench’
Kalki Koechlin	‘Elephant in the Womb’
Shakoor Rather	Life in the Clock Tower Valley
Ruskin Bond	‘All Time Favorites for Children’
Preet Mohan Singh Malik	‘Sikkim: A History of Intrigue and Alliance’
Sunita Dwivedi	‘Buddha in Gandhara’
Avtar Singh Bhasin	‘Nehru, Tibet and China’
Shivshankar Menon	‘India and Asian Geopolitics: The Past, Present’
Neena Gupta	‘Sach Kahun Toh’
Ravi Shastri	‘Stargazing: The Players in my Life’
Vikram Sampath	‘Savarkar: A Contested Legacy (1924-1966)’

April 2021

Authors Name	Book Name
Jeet Thayil	‘Names of the Women’
Dr Shailendra Joshi	‘Suparipalana’
Dr Mohan Kanda	‘Agriculture in India: Contemporary Challenges- in the context of doubling farmers income’
Prachand Praveer	‘Cinema Through Rasa: A Tryst with Masterpieces in the Light of Rasa Siddhanta’
R Gopalakrishnan and R Narayanan	‘Wisdom for Start-ups from Grownups: Discovering Corporate Ayurveda’
Nitin Gokhale	‘Manohar Parrikar: Brilliant Mind, Simple Life’
Utkal Keshari Harekrushna Mahtab	‘Odisha Itihaas’
Yatindra Mishra	Akhtari: The Life and Music of Begum Akhtar’
Sanjay Baru	India’s Power Elite: Class, Caste and a Cultural revolution’
Suresh Raina and Co-authored by Bharat Sundaresan	‘Believe- What Life and Cricket Taught Me’
JK Rowling	‘The Christmas Pig’
Peggy Mohan	‘Wanderers, Kings, Merchants: The Story of India through its Languages’
Amitav Ghosh	‘The Living Mountain: A Fable for Our Times’

INDICES AND REPORTS

Press freedom index

- The World Press Freedom Index, 2021, produced by Reporters Without Borders (RSF), a French non-governmental organisation, has again ranked India at 142nd out of 180 countries.
- This is despite the fact that for a year, on directions from Cabinet Secretary Rajiv Gauba, an index monitoring cell worked to improve the rankings, even holding a meeting between the Indian Ambassador to France and the RSF officials to lobby for a change in the ranking.
- In 2016, India's rank was 133, which has steadily climbed down to 142 in 2020
- The RSF report says India is one of the world's most dangerous countries for journalists trying to do their job properly. They are exposed to every kind of attack, even police violence against reporters, ambushes by political activists, and reprisals instigated by criminal groups or corrupt local officials
- In February last year, fearing such an adverse assessment, the cell was set up in 18 Ministries to find ways to improve the position on 32 international indices
- The Information and Broadcasting Ministry was delegated to look at the freedom of press index.

2021 World Press Freedom Index

(Selected countries and territories)

Ranking		Country/ territory	Ranking		Country/ territory
2020	2021		2020	2021	
1	→ 1	Norway	119	→ 113	Indonesia
2	→ 2	Finland	101	→ 119	Malaysia
4	→ 3	Sweden	140	→ 137	Thailand
9	→ 8	New Zealand	136	→ 138	Philippines
26	→ 25	Australia	139	→ 140	Myanmar
42	→ 42	South Korea	142	→ 142	India
43	→ 43	Taiwan	158	→ 160	Singapore
45	→ 44	U.S.	175	→ 175	Vietnam
66	→ 67	Japan	177	→ 177	China
80	→ 80	Hong Kong	180	→ 179	North Korea

Source: Reporters Without Borders

NSO report: Women and Men in India, 2020

The National Statistical Office operating under Ministry of Statistics and Programme Implementation (MoSPI) recently released the Women and Men in India report.

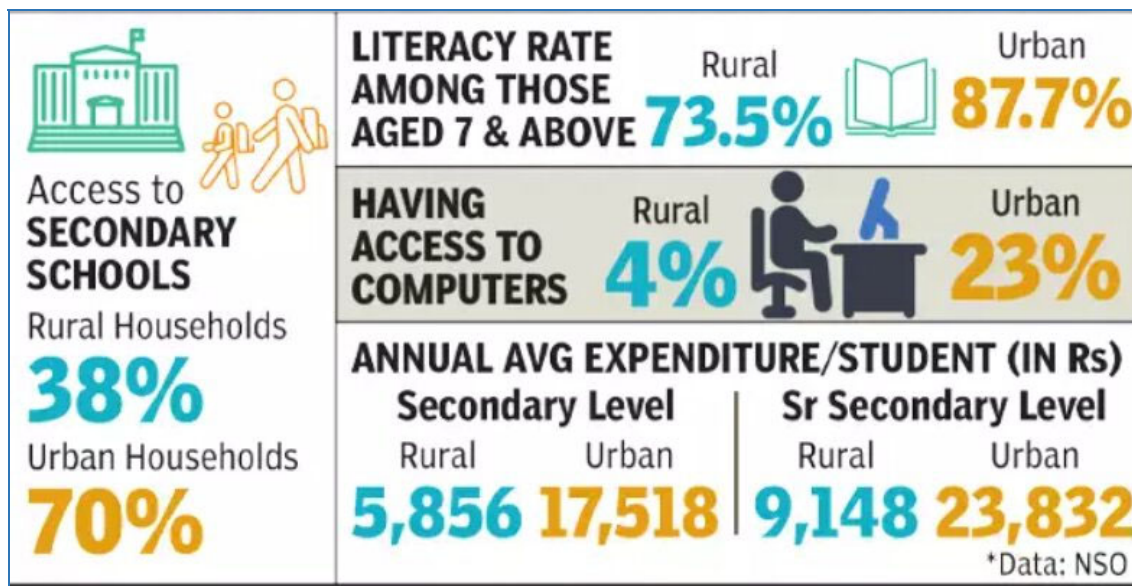
The report consolidates the crucial socio-economic indicators that portray gender situation in the country. This is the twenty second issue in its series. The report is published annually by the MoSPI.

Report:

- The projected population of India in 2021 is 136.13 crores.
- Sex ratio has increased from 933 in 2001 to 943 in 2011.
- Delhi recorded the highest increase in sex ratio followed by Chandigarh, Arunachal Pradesh.
- On the other hand, Daman and Diu had the highest decline in sex ratio.
- Health Statistics
- The Age Specific Fertility Rate for the females belonging to the age group 25-29 years was the highest at 146.4.
- The Infant Mortality Rate decreased from 39 in 2014 to 32 in 2018.
- The Maternal Mortality Rate decreased from 212 in 2007-09 to 113 in 2016-18.
- The Total Fertility Rate of rural India was 2.3 in 2018. It was 1.7 in urban areas in 2018.
- The Adolescent Fertility Rate declined from 13 in 2017 to 12.2 in 2018.
- According to National Family Health Survey-5 (NFHS-5), almost 100% institutional delivery was observed in the states of Goa, Kerala, Lakshadweep.
- The HIV incidence per 1000 people decreased from 0.07 in 2017 to 0.05 in 2019.

Education

- The literacy rate of India increased from 73 in 2011 to 77.7 in 2017.
- The Gender gap in literacy rates was the highest in Rajasthan, Bihar, UP.
- Only 8.3% of females of age 15 years had completed graduation. On the other hand, 12.8% of males of the same age had completed graduation.
- 8% of female students were pursuing education up to tenth standard.



Participation in Economy

- According to the Periodic Labour Force Survey, 2018-19, the worker population ratio in rural sector was 52.1 for males and 19 for females. In urban areas, it was 52.7 for males and 14.5 for females.
- The average wage per hour earned by female population in the age group of 15 years was highest in Andaman and Nicobar Islands (Rs 147 per hour). It was followed by Lakshadweep, Nagaland. The lowest was in the states/UTs of Daman and Diu, Odisha.
- The average wage per hour earned by male population in the age group of 15 years was the highest in Lakshadweep (Rs 121 per hour).

Participation in Decision Making

- The representation of women in the Central Council of Ministers is 9.26% in 2020.
- In 2019 Lok Sabha election, there were 437.8 million women electors. This is higher as compared to that of the 2014 election (397 million).
- Highest women participation in the Panchayati Raj institutions was observed in the states of Rajasthan, Uttarakhand and Chhattisgarh.

Global food policy report

- The Global Food Policy Report is published by the International Food Policy Research Institute. This year the institute has released the report based on the theme “Transforming Food Systems After COVID-19”.
- The lockdown imposed due to the COVID-19 crisis closed schools and day care centres. This affected the availability of nutritious perishable food products. Several households shifted from expensive nutritious foods such as fruits and vegetables towards cheaper staple foods.

- The midday meal programme of India that covers 80% of primary school age children in the country was affected due to the COVID-19 lockdown. The school closures are likely to exacerbate nutrition and food insecurity in the country especially in girls and disadvantaged population.
- 50% of households in India reported that women spent more time in fetching firewood and water in comparison with the previous year.
- Efforts of India to incorporate migrant workers into social protection programmes was a huge success.
- Around 80 million hectares of land in India have been classified as commons. This included forest, water bodies, and pastures. The Commons provide source of livelihood for more than 350 million people in the country. They are dependent on these areas for their forest products and fodder.



Recommendations

- The governments should use global events such as COP26, UNFSS (United Nations Food Systems Summit) and Nutrition for Growth Summit to put food system transformation rightly on the development agenda.
- The resilience for all food systems should be increased.
- The flexibility of social protection policies to protect the vulnerable population during the time of health crisis should be expanded.

Key Findings of the Report: World

- Around 95 million people, mostly in Africa are living in extreme poverty.
- Number of poor people living under poverty are to increase by 150 million as compared to the pre-pandemic levels.
- Women accounted to 39% of employment globally. However, they incurred 54% of job losses during pandemic.

Global Forest Goals Report, 2021

- The United Nations recently released the Global Forest Goals Report, 2021. According to the report, the COVID-19 has increased the challenges faced by countries in managing their forests.

According to the report,

- Around 1.6 billion people rely on forests. This is 25% of global population.
- Of the rural areas in the world, more than 40% live in Savannah and forests. This is 20% of the global population.

Key goals as identified by the report

- ✓ Australia: To plant 20 million trees by 2020. This is to be increased to billion plantations by 2030
- ✓ Brazil: To increase the planted areas to two million hectares
- ✓ India: To add 200,000 hectares of tree and forest cover per year
- ✓ Kenya: To increase tree cover by 10%
- ✓ Myanmar: To increase forest cover to 30%
- ✓ Japan: To maintain the 25 million hectares of forest area
- ✓ New Zealand: To plant 1 billion trees by 2028
- ✓ Thailand: To increase forest cover to 55%
- ✓ Sri Lanka: To increase forest cover to 32%
- ✓ Nigeria: To increase forest cover from 6% to 25% by 2030

The report provides an overview of the six Global Forest Goals out of the twenty-six targets of National Strategic Plan for Forests. The six goals are as follows:

1. Reverse Forest Cover Loss
2. Improve Forest Benefits and Livelihoods
3. Protect Forests and use sustainable forest products
4. Mobilise resources
5. Promote inclusive forest governance
6. Cooperate and work across the sectors

The United Nations Strategic Plan for forests was created to promote sustainable forest management. It was to be implemented between 2017 and 2030. The main objective of the plan is to increase the forest area in the world by 3% by 2030. That is, to bring 120 million hectares of land under forest cover.



United Nations Strategic Plan for Forests 2017–2030

GLOBAL FOREST GOALS



Cities with environmental risk

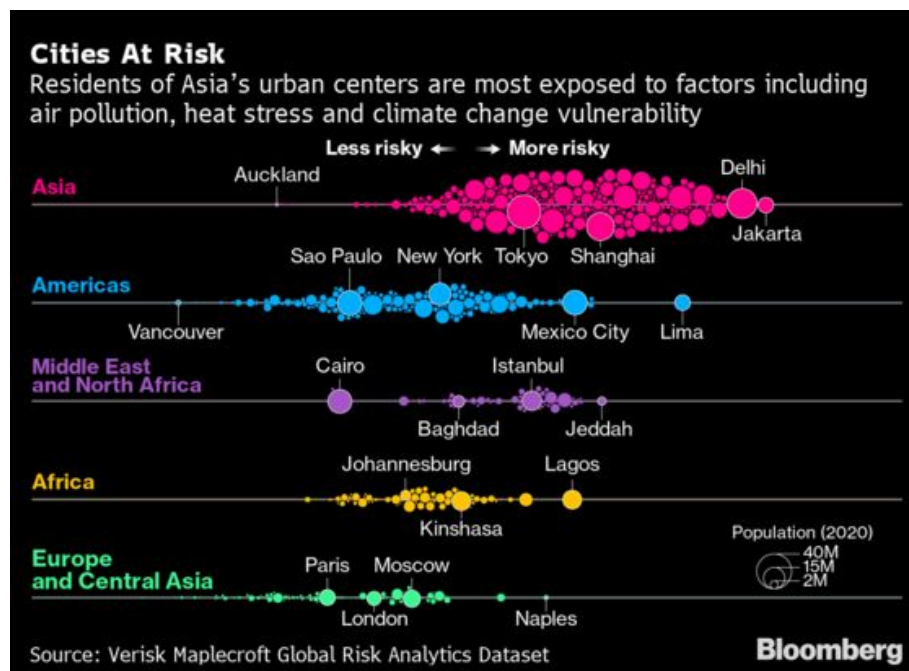
The news:

A private firm Verisk Maplecroft has found that the Asian cities face the greatest risk from environmental issues. This includes natural disasters and air pollution.

Key Findings of the report

- Of the hundred most vulnerable cities, ninety-nine are located in Asia.
- Of the 100, around thirty-seven are in China and forty three are in India. China and India are the first and third largest greenhouse gas emitters in the world.

- Around 1.5 billion people spread out in 414 cities of the world are living in high risks of water shortage, pollution, natural hazards, extreme heat and other physical impacts of climate change.
- India is home to thirteen of the top twenty riskiest cities. This was mainly due to air and water pollution.
- Jakarta topped the list and was the riskiest city in the world.
- The flood prone cities of China namely Dongguan and Guangzhou topped the list of cities that are facing threats from natural hazards. They were followed by Osaka and Tokyo of Japan. The Japanese cities are vulnerable to typhoons and earthquakes.
- Lima is the only city outside Asia to enter in top hundred riskiest cities in the world.
- Glasgow was ranked as the safest city.
- The report says that Asia is the most densely populated region in the world. This puts pressure on water sources. Also the air in the region is polluted due to burning of coal and biomass fuels. There are large number of natural hazards that are built into its Geography. This why the risks due to environmental issues are the highest in these cities.



Around 576 cities in different parts of the world were scored based on the following factors:

- ✓ Water Quality
- ✓ Heat Stress
- ✓ Vulnerability to Climate Change
- ✓ Water Scarcity
- ✓ Economies and infrastructure to natural hazards such as tsunamis, earthquakes and landslides

Data on Global Remittance

The news:

The World Bank recently released its “Migration and Development Brief”. The report said that the remittance flows to the low-income and middle-income countries were 1.9% lower in 2020 as compared to that of 2019. It was 540 billion USD in 2020 and 548 billion USD in 2019.

The report:

- The reduction in remittance inflows were smaller than that of 2009 Global Financial Crisis.
- However, the remittance inflows to China reduced by 30% in 2020.
- The inflows to the Caribbean and Latin countries increased by 6.5%
- Increased by 5.2% in south Asia
- Increased by 2.3% in North Africa
- In Pacific and East Asia, it fell by 7.9%
- Fell by 2.3% in North Africa and Middle East
- Fell by 9.7% in Central Asia and Europe
- Fell by 12.5% in Sub-Saharan Africa
- Apart from China, the remittance inflows declined greatly in Nigeria. It fell by 28%.
- In 2019, India received 83.3 billion USD remittances. This fell by 0.2% in 2020. This was maximum in remittance from UAE. The remittance from UAE to India reduced by 17%.
- In Pakistan, the remittances increased by 17%. The biggest growth in remittances to Pakistan came from Saudi Arabia.
- The remittances in Bangladesh increased by 18.4%
- In Sri Lanka, it increased by 5.8%
- In Nepal, it fell by 2%

Remittance is a sum of money sent from one country to other country. It can be business payments or remittances paid to a family member, friends.

They help the currency to hold its value against a foreign currency.

The World Bank says that the remittances are the second largest resource inflow for developing countries after FDI.

As the flow of remittances increases, the currency value of receiving country increases and the value of foreign currency depreciates.

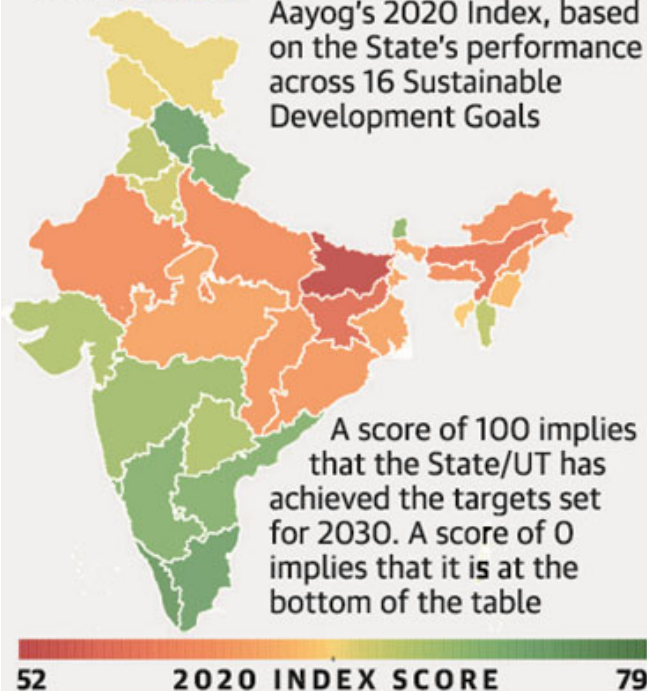
NITI index

- India saw significant improvement in the Sustainable Development Goals (SDGs) related to clean energy, urban development and health in 2020, according to the NITI Aayog's 2020 SDG Index. However, there has been a major decline in the areas of industry, innovation and infrastructure as well as decent work and economic growth.
- Although the index shows improvement on the inequality SDGs, the NITI Aayog has omitted key economic indicators used to measure inequality in income and expenditure last year and given greater weightage to social indicators instead.
- Kerala retained its position at the top of the rankings in the third edition of the index, with a score of 75, followed by Tamil Nadu and Himachal Pradesh, both scoring 72. At the other end of the scale, Bihar, Jharkhand and Assam were the worst performing States.
- However, all the States showed some improvement from last year's scores, with Mizoram and Haryana seeing the biggest gains.
- Developed by a global consultative process on holistic development, the 17 SDGs have a 2030 deadline.
- In 2019, the indicators for inequality included the growth rates for household expenditure per capita among the bottom 40% of rural and urban populations, as well as the Gini coefficient — a measure of the distribution of income — in rural and urban India. The 2018 indicators included the Palma ratio, another metric for income inequality.
- Such economic measures have been omitted from the indicators used for this SDG in the 2020 edition of the Index.
- Instead, it gives greater weightage to social equality indicators, such as the percentage of women and Scheduled Caste/Scheduled Tribe representatives in State Legislatures and the panchayati raj institutions and the levels of crime against the SC/ST communities.

THE  HINDU

KERALA ON TOP AGAIN

With a composite score of 75, Kerala topped the NITI Aayog's 2020 Index, based on the State's performance across 16 Sustainable Development Goals



Goal	Top States
No poverty	Tamil Nadu
Zero hunger	Kerala
Good health and well-being	Gujarat
Quality education	Kerala
Gender equality	Chhattisgarh
Clean water and sanitation	Goa
Decent work and economic growth	Himachal Pradesh
Industry, innovation and infrastructure	Gujarat
Reduced inequality	Meghalaya
Sustainable cities and communities	Punjab
Responsible consumption and production	Tripura
Climate action	Odisha
Life below water	Odisha
Life on land	Arunachal Pradesh
Peace, justice and strong institutions	Uttarakhand

Top 5 positions

State	Score
Kerala	75
Himachal Pradesh,	74
Tamil Nadu	
Andhra Pradesh, Goa,	72
Karnataka, Uttarakhand	
Sikkim	71
Maharashtra	70

Bottom 5 positions

State	Score
Chhattisgarh,	61
Nagaland, Odisha	
Arunachal Pradesh,	60
Meghalaya, Rajasthan,	
Uttar Pradesh	
Assam	57
Jharkhand	56
Bihar	52

GOAL-WISE TOP STATES/UTs

Goal 1: No Poverty
Tamil Nadu, Delhi



Goal 2: Zero Hunger
Kerala, Chandigarh

Goal 3: Good Health and Well-being
Gujarat, Delhi



Goal 4: Quality Education
Kerala, Chandigarh

Goal 5: Gender Equality
Chhattisgarh, Andaman and Nicobar Islands



Goal 6: Clean Water and Sanitation
Goa, Lakshadweep

Goal 7: Affordable and Clean Energy
Andhra Pradesh, Goa, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Mizoram, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, Andaman and Nicobar Islands, Chandigarh, Delhi, Jammu and Kashmir, Ladakh



Goal 8: Decent Work and Economic Growth
Himachal Pradesh, Chandigarh

Goal 9: Industry, Innovation and Infrastructure
Gujarat, Delhi



Goal 10: Reduced Inequality
Meghalaya, Chandigarh

Goal 11: Sustainable Cities and Communities
Punjab, Chandigarh



Goal 12: Responsible Consumption and Production
Tripura, Jammu and Kashmir, Ladakh

Goal 13: Climate Action
Odisha, Andaman and Nicobar Islands



Goal 14: Life Below Water
Odisha

Goal 15: Life on Land
Arunachal Pradesh, Chandigarh



Goal 16: Peace, Justice and Strong Institutions
Uttarakhand, Puducherry

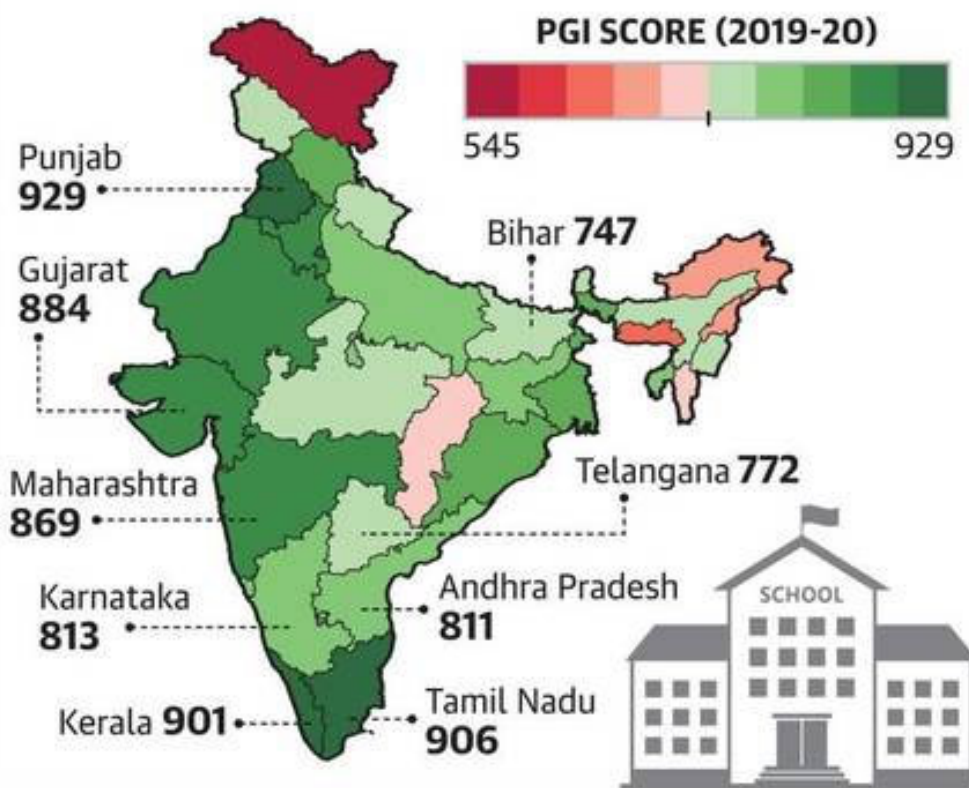
- The only economic indicator this year is the percentage of population in the lowest two wealth quintiles.
- The SDGs that do deal directly with wages and industrial growth better reflect the fact that India's economy has taken a beating over the last year.
- The country's score on the SDG related to industry and infrastructure dropped 10 points to 55, while the scores on decent work dropped three points to 61. The Clean Water and Sanitation SDG also saw a five-point drop, despite flagship government schemes in this sector.
- In a more welcome development, the SDGs on eradication of poverty and hunger both saw significant improvement.

Education index ranking

- Punjab, Tamil Nadu and Kerala have all scored higher than 90% in the Education Ministry's Performance Grading Index for 2019-20.
- Gujarat dropped from second to eighth rank in the index, while Madhya Pradesh and Chhattisgarh are the only States which have seen actual regression in scores over this period.
- The index monitors the progress that the States and Union Territories have made in school education with regard to learning outcomes, access and equity, infrastructure and facilities, and governance and management processes.
- Punjab recorded the highest score of almost 929 out of a possible 1,000, showing a huge jump from 769 last year. The State topped the charts in terms of equity, infrastructure and governance, and shared the top spot in the domain of access with Kerala.
- In fact, Punjab overtook the Union Territory of Chandigarh, which topped both previous editions of the index, but has now slid to second place with a score of 912.
- Tamil Nadu also overtook Kerala, with a score of 906, largely driven by improvements in the State's educational governance and management, as well as in terms of infrastructure and facilities.
- Gujarat, which had the second highest score in the previous edition, dropped to eighth place. It regressed in the key domain of access, which measures enrolment of students in school and the ability to keep them from dropping out as well as mainstreaming out-of-school students. Its progress in other areas also did not keep pace with other States.
- Madhya Pradesh and Chhattisgarh saw a glaring drop in their scores, pushing both States to an overall performance that was worse than in the previous edition. The new Union Territory of Ladakh was included separately for the first time in this edition, and had the lowest score of just 545.

Grade sheet

Three States, Punjab, Tamil Nadu and Kerala, attained a score of more than 900 out of 1,000 in the Education Ministry's Performance Grading Index for 2019-20



HOW THE REGION FARED

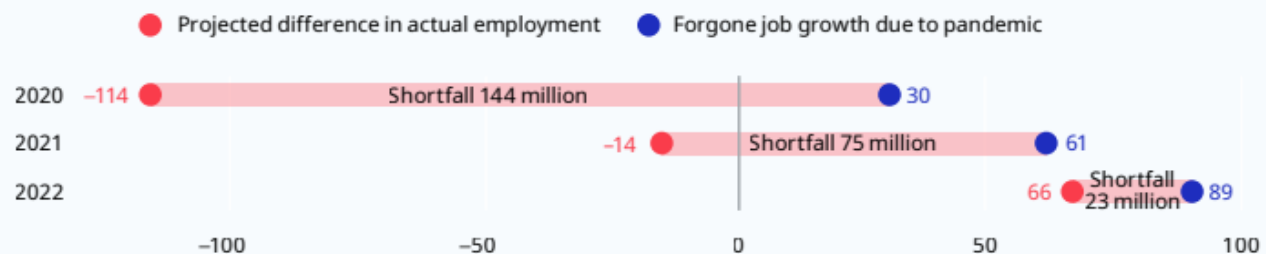
The states and UTs were scored on 70 parameters under five main heads

State (Rank)	Learning outcomes, quality (180)	Access (80)	Infra and facilities (150)	Equity (230)	Governance processes (360)	Total (1000)
Punjab (1)	126	79	150	228	346	929
Delhi (6)	124	77	149	224	324	898
Haryana (11)	134	75	131	217	305	862
HP (13)	140	77	131	220	271	839
J&K (26)	132	55	114	208	254	763

World Employment and Social Outlook 2021

- According to World Employment and Social Outlook 2021, global unemployment is expected to be increased to 205 million in 2022 as compared to 187 million in 2019.
- As per the report, jobs shortfall amid COVID-19 pandemic was 75 million in 2021 and it will increase to 23 million in 2022.
- Covid-19 has worsened inequalities because women workers are dropping out of labour force. Years of progress to achieve gender equality is now at risk.
- Informal and low-skilled workers have no option to work from home. They faced huge health risks to keep their jobs.
- 108 million workers and their family members now live-in poverty.
- Pandemic has hit African countries hard because of fall in trade disrupted supply chains, remittances shrunk and halt in tourism. It will induce jobs gap of nearly 17 million Africa in 2020.
- Covid-19 reversed the progress made in reducing poverty in Africa.

► Pandemic-induced global shortfall in jobs, relative to 2019 (millions)



Note: The red dots denote the projected difference in actual employment relative to 2019. The blue dots denote the development that would have been expected had there been no pandemic, hence showing forgone employment growth. The numbers inside the bars refer to the total pandemic-induced shortfall in jobs in a given year (that is, the shortfall due to the combination of actual employment losses and forgone employment growth).

- As per report, Covid-19 has caused an unprecedented disruption to labour markets worldwide. It has affected lives of younger generation caused disruption to their education.
- Regions where digital infrastructure is less developed were highly affected. It is now difficult for them to enter labour market and hold on to jobs. Thus, unemployment is going to increase.

Top 1,000 universities

- Jawaharlal Nehru University has entered the top 1,000 of the QS World University rankings for the first time, as its new undergraduate engineering programme now makes it eligible for the rating.
- It debuted at the 561-570 ranking band in the rankings, which only rate institutions offering both undergraduate and postgraduate programmes.

Top varsities | JNU, featuring for the first time in the QS World Universities Ranking list, is among the top-600 in the world

= indicates shared ranking

2022 global rank	Name
177=	Indian Institute of Technology, Bombay
185	Indian Institute of Technology, Delhi
186=	Indian Institute of Science, Bengaluru
255=	Indian Institute of Technology, Madras
277=	Indian Insitute of Technology, Kanpur
280	Indian Insitute of Technology, Kharagpur
395=	Indian Insitute of Technology, Guwahati
400=	Indian Institute of Technology, Roorkee
501-510 (ranking band)	University of Delhi
561-570 (ranking band)	Jawaharlal Nehru University, Delhi

- Overall, there are 22 Indian institutions in the top 1,000 list compared to 21 last year, with the Indian Institutes of Technology (IITs) in Guwahati, Kanpur, Kharagpur and Madras making major strides in rankings.
- However, some institutions are still worried that the rankings do not accurately reflect the quality of education in India, as they are largely dependent on international perception factors.
- IIT Bombay maintained its position as the top Indian institution for the fourth consecutive year, although it fell five places in the global rankings to the joint 177th position.

- IIT Delhi (185th rank) overtook the Indian Institute of Science, Bangalore (186th rank), giving India three institutions in the world's top 100. IISc was also declared the world's top research university by the indicator of most citations per faculty member, when adjusted for faculty size.
- The citations per faculty metric were also key to the 75 rank jump by IIT Guwahati and the 73 rank jump by IIT Kanpur, according to QS regional director Ashwin Fernandes.

ILO- UNICEF Report on Child Labour

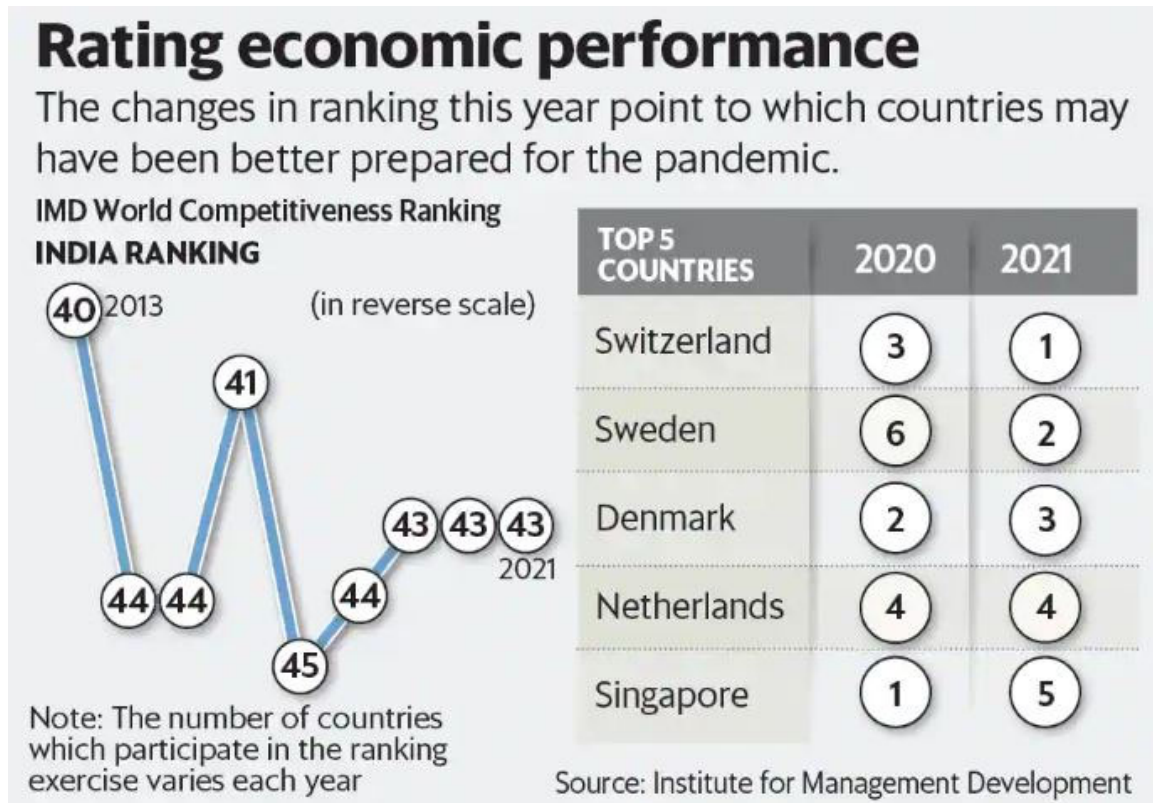
- International Labour Organisation (ILO) and UNICEF jointly published report on child labour. As per report, world has marked rise in child labour in two decades.
- Report highlights, coronavirus crisis might push millions more youngsters toward child labour.
- As of 2020, number of child labour stands at 160 million. It has increased by 8.4 million in four years.
- Number started increasing before covid-19 pandemic hit, marking dramatic reversal of downward trend where numbers decreased by 94 million in between 2000 and 2016.
- Amid the covid-19 pandemic, 1 in 10 children globally were engaged in child labour.
- Sub-Saharan Africa is the worst affected country.
- Boys are more likely to be affected. They will account for 97 million out of 160 million children engaging into child labour at start of 2020.
- Number of children, between ages 5 and 17 doing hazardous work, has increased. About 79 million children were considered to be engaged in hazardous work. This could affect child's development, education or health.
- ILO and UNICEF have warned if urgent action is not taken to ballooning numbers of families going into poverty, about 50 million more kids could be forced into child labour in next two years.

World Competitiveness Index

- World Competitiveness Index was compiled by Institute for Management Development (IMD) which examine the impact of COVID-19 on economies worldwide.

Key Points

- India was ranked at 43rd position among 64 countries.
- Switzerland has topped the list and is followed by Sweden (2nd), Denmark (3rd), Netherlands (4th) and Singapore (5th).
- Taiwan was ranked at 8th position, reaching among top-10 for the first time in 33 years.
- UAE (9th) and USA (10th) maintains the same spots as in 2020.
- Top performing Asian economies include Singapore (5th), Hong Kong (7th), Taiwan (8th) and China (16th).

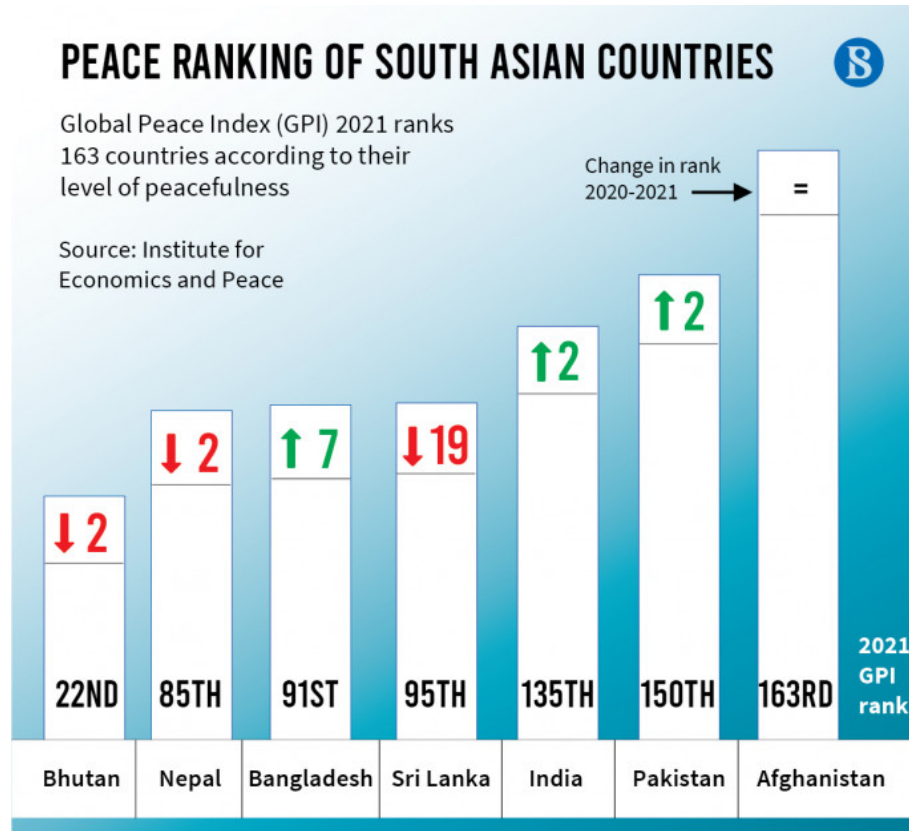


- This index ranks 64 economies and assesses extent to which any country promotes prosperity of its people.
- This index started ranking countries 33 years ago by measuring countries well-being through hard data and survey responses from executives.
- India witnessed improvements in government efficiency factor because of relatively stable public finances amid covid-19 pandemic.
- As per the report, qualities like investment in innovation, welfare benefits & leadership, digitalization have helped countries to get higher ranks.

Global Peace Index 2021

- 15th edition of Global Peace Index (GPI) was announced by Institute for Economics and Peace (IEP) Sydney.
- GPI is world's leading measure of global peacefulness.
- Index ranks 163 independent states and territories as per level of their peacefulness.
- Report provides a comprehensive data-driven analysis on trends in peace, its economic value and recommends on how to develop peaceful societies.

- Iceland is most peaceful country worldwide since 2008.
- Iceland is joined by other top countries like Denmark, New Zealand, Portugal and Slovenia.
- Afghanistan is the least peaceful country again for fourth consecutive year.



- Afghanistan is followed by Yemen, Syria, South Sudan, and Iraq.
- India has moved up by two position from its last year's ranking. It has become 135th most peaceful country while, 5th in South Asia region.
- Bhutan and Nepal are first and second most peaceful in this region.
- Bangladesh was 91th out of 163 countries across the world while being 3rd in South Asia.
- Sri Lanka slipped by 19 position to become 95th peaceful country while, 4th in South Asia region.
- Pakistan witnessed the most improvement in peacefulness with 150th rank globally and 6th in South Asia region.

OTHERS

Prince Philip passes away

- Prince Philip, the longest serving royal consort in British history who was a constant presence at Queen Elizabeth II's side for decades, died aged 99, Buckingham Palace has announced.
- The death of the Duke of Edinburgh is a profound loss for the 94-year-old monarch, who once described him as her “strength and stay all these years”.
- Queen Elizabeth announced his passing “with deep sorrow” after he died peacefully in the morning at Windsor Castle, west of London, the palace said in a statement.
- The outspoken former Navy commander devoted much of his life as the Queen's husband to charity work — but was notorious for numerous gaffes, some of them causing offence.
- Announcing his passing, BBC television played the national anthem over a picture of Prince Philip in his prime, dressed in military dress uniform.
- Flags were lowered to half-mast on royal and government buildings and a notice announcing his death pinned to the gates of Buckingham Palace.
- The couple, who celebrated their 73rd wedding anniversary in November, had been living largely in isolation at Windsor Castle, west of London, because their age put them at heightened risk from COVID-19.
- Prince Philip and the Queen — isolated in what they called “HMS Bubble” — received their first vaccinations against the virus in January.

Odisha Itihaas

- The Prime Minister Narendra Modi recently released the Hindi translation of “Odisha Itihaas”. The book is available in Odia and English so far. It was translated to Hindi by Shankarlal Purohit.
- The book was written by Utkal Keshari Dr Harekrushna Mahatab.
- He wrote the book Odisha Itihaas in Ahmednagar Fort Jail. He was imprisoned here for two years between 1942 and 1945.

Harekrushna Mahatab

- He was the first Chief Minister of Odisha. He served as the Chief Minister of Odisha between 1946 and 1950 and again between 1956 and 1961.
- Utkal Keshari was the leader of the Indian National Congress.
- He was the chairman of the Balasore District Board between 1924 and 1928.
- He founded the Prajatantra Prachar Samiti.

- He started the weekly magazine Prajantantra in 1923. It later became the Daily Prajatantra.
- Roles of Mahatab after independence
- He acted as the Governor of Bombay from 1955 to 1956.
- He played a significant role in the merger and integration of princely states. Dr Mahatab wanted to integrate twenty six Oriya speaking princely states with the Odisha province in 1946 and took several steps to achieve it.
- He shifted the capital of Odisha from Cuttack to Bhubaneshwar.

Little Guru

- The Indian Council for Cultural Relations (ICCR) tied up with the Gamapp Sportswizz Tech Private Limited to launch “LITTLE GURU” application. It is a specialized mobile application for learning Sanskrit.
- It teaches Sanskrit in an interactive platform. This makes learning easier.
- The app was launched during the celebrations of the 71st Foundation Day of ICCR.
- It is world’s first Gamified Sanskrit learning application.
- It will help people to learn Sanskrit in an easy manner based on competition, games, peer to peer interactions, etc.



- The application is of great help to the Indian Diaspora wishing to stay connected with their roots.
- It will also help number of students and faculties associated with Sanskrit Universities located all over the world.

- The ICCR has provided scholarships to more than three hundred Chinese students. The aim of these scholarships is to promote cultural, intellectual, and academic exchanges between India and China.
- There are several Chinese kids learning Indian culture in the country. During the 71st foundation celebrations of ICCR, Chinese kids of age 6-7 years who are learning Indian dance forms in India performed Indian dances. Their dance performances were based on the theme “Azadi ka Amrit”.
- The idea of Azadi ka Amrit Mahotsav was launched by PM Modi in March 2021. It is a series of events organized by the Government of India to commemorate the 75th anniversary of independence. It was launched 75 weeks ahead of the 75th anniversary. It was launched on March 12, 2021 to commemorate 91 years of Dandi March.

UAE names first Female Astronaut

- Noura al-Matroushi was selected as the first female astronaut of UAE from four thousand other applicants. She is to be trained with NASA for future space exploration missions. Noura is to be accompanied by Mohammed al-Mulla. Both astronauts are to be trained with Johnson Space Centre of NASA located in Houston, Texas.
- UAE does not have any manned mission in near future. However, the country has plans to send unmanned space mission to the moon in 2024. Also, UAE has launched “Amal Satellite” to the Mars in 2020.
- In 2019, Hazza al-Mansoori was the first UAE astronaut to enter the space. He spent eight days at the International Space Station.
- Noura is the first Arab woman to enter space. However, the first Muslim woman to enter space was Anousheh Raissyan. She was also the first Iranian woman to enter space. She is an Iranian American telecommunications entrepreneur. In 2006, she paid 20 million USD to travel to the International Space Station as a self-funded tourist.

Justice N.V. Ramana is CJI

- Justice N.V. Ramana was sworn in as the 48th Chief Justice of India (CJI) by President Ram Nath Kovind at the Rashtrapati Bhavan.
- The ceremony to administer the oath of office, held as per COVID-19 protocol, was attended by Vice-President M. Venkaiah Naidu, Prime Minister Narendra Modi, Lok Sabha Speaker Om Birla and Law Minister Ravi Shankar Prasad, among others.
- Justice Ramana will have a tenure of one year and four months as CJI and will demit office on August 26, 2022.
- After Justice K. Subba Rao, Justice Ramana is the second CJI from Andhra Pradesh.

- Born to agriculturist parents in 1957, Justice Ramana was known for his activism regarding issues involving farmers and industrial workers. Before turning to legal practice, he was a journalist with a prominent Telugu newspaper.
- He practised at the Andhra Pradesh High Court, Central and A.P. Administrative Tribunals and the Supreme Court before being appointed a permanent Judge of the Andhra Pradesh High Court on June 27, 2000.
- He functioned as acting Chief Justice of Andhra Pradesh High Court between March 10 and May 20, 2013, and was elevated as the Chief Justice of Delhi High Court on September 2, 2013. He was appointed a judge of the Supreme Court on February 17, 2014.

World's Largest Airplane

- The World largest airplane built by Stratolaunch recently completed its second test flight from Mojave Air and Space Port in California.
- The flight reached an altitude of 4,267 metres during its test flight.
- It reached a top speed of 320 kilometre per hour.
- The plane can carry more than 220 tonnes of payload.
- The wingspan of the aircraft is 117 metres. This is greater than an American football field.
- Its use will be to launch rockets and space vehicles from high atmospheric locations, into the stars.
- It has been named “Roc”. Roc is an enormous bird usually addressed in the mythological stories of the Middle East. It is quite popular from “Sinbad, the Sailor”.
- It carries a twin-fuselage configuration. Fuselage is the main body section of the aircraft. It holds the cargo, crew and the passengers. A twin-fuselage design has two fuselages.
- The fuselages are supported by twelve main landing gear wheels and two nose gear wheels.
- The left fuselage cockpit is unmanned. It only houses support equipment. Both the fuselage cockpits are pressurised and separated from the unpressurised vehicle.
- Stratolaunch was established by Paul Allen in 2011. He was a co-founder of Microsoft.
- Stratolaunch is also developing a reusable hypersonic flight vehicle that shall be used to launch satellites.



Glyphosate ban

The news:

The Telangana Government recently imposed a total ban on Glyphosate.

Background:

- The Glyphosate is a controversial herbicide usually use to kill weeds in cotton farms.
- The usage of Glyphosate is banned because it is carcinogenic. Also, it is being banned to control the illegal cultivation of HTBt cotton.
- Glyphosate is absorbed through foliage (plant leaves). It is minimally absorbed by roots.
- In 2015, World Health Organisation classified Glyphosate under Category 2A, that is, a “Probably Carcinogenic in Humans”.
- Around eight to ten lakh acres of land in Telangana are under herbicide tolerant HTBt cotton. These cultivations have not received proper permission for commercial use. The Genetic Appraisal Engineering Committee (GEAC) has not yet approved HTBt cotton.
- The Glyphosate leaches into food and water and causes chronic kidney diseases in humans.
- The Glyphosate is also used as Crop Desiccant. A crop desiccant is applied to the crops just before harvest. The crop desiccants kill out leaves/plants allowing the plants to dry quickly and evenly from environmental conditions.



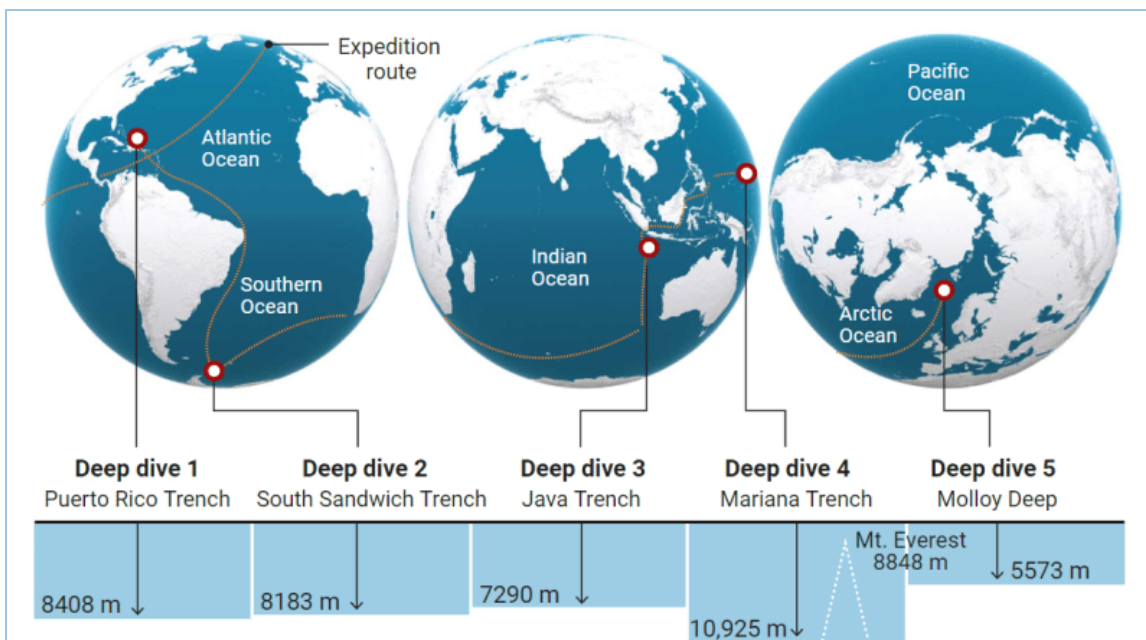
- In 2018, the Telangana Government had put restrictions on the sale of Glyphosate. This was done to curb the illegal use of herbicide-tolerant BT cotton. In spite of the restrictions, the usage did not stop. Again in 2019, the Telangana Government increased the restrictions on usage of Glyphosate. With no outcomes to restrictions being imposed, the State Government has now completely banned the herbicide.
- Kerala has also imposed ban on Glyphosate.
- The Glyphosate is allowed to be used in tea plantations and in non-crop areas.
- Sri Lanka banned Glyphosate in 2014. However, the ban was lifted in 2018 when the tea plantation owners complained of economic losses.
- Argentina tried to ban it in 2017. In 2018, it was found out that in the areas where Glyphosate-tolerant GM Soy was cultivated birth defects increased twice and miscarriages increased thrice.

Five Deeps Expedition

The Five Deeps Expedition has provided data on the deepest points of five oceans in the world. They are the Pacific, Atlantic, Indian, Arctic and the Southern Oceans.

Findings:

- Java Trench is the deepest point in Indian Ocean. There were competing claims for the deepest point in Indian Ocean. This was between Java Trench off coast of Indonesia and Fracture Zone to the Southwest of Australia.
- Factorian Trench is the deepest point in Southern Ocean. Southern Ocean is also called the Antarctic Ocean.
- Puerto Rico Trench is the deepest in Atlantic Ocean.
- Molloy Hole is the deepest point in Arctic Ocean.
- The second deepest trench in the world is the Horizon Deep in the Tonga Trench. This is after the Challenger Deep located in Mariana Trench.
- The expedition has found that some major animals can survive in great depths. Jelly fish at 10,000 metres; Squid at 6,500 metres; Octopus at 2,000 metres.
- Though Mariana Trench, the deepest point on the earth, located in the Western Pacific has been surveyed several times, the Five Deeps Expedition removed several uncertainties. According to the expedition, there is surprising amount of life in Mariana Trench.
- In 2019, Victor became the first person to reach the bottom of all oceans and top of all world continents.



CEO of bad bank

Padmakumar Madhavan Nair of State Bank of India has been appointed as the CEO of Bad Bank. The Bad Bank is a proposed entity of the National Asset Reconstruction Company (NARC).

Current Mr Nair is serving as the Chief General Manager in charge of Stressed Assets of SBI. He has been holding the post since April 2020. Prior to this, he worked as the General Manager in SARG.

Bad Bank

- It is a financial organisation that takes over bad assets of lenders and resolves them. The entities will sell their non-performing assets to the bad banks at market price.
- It was suggested by the Indian Banks Association.
- The Confederation of Indian Industry had asked the Finance Ministry to establish “Multiple Bad Banks”.
- The bad banks free the financial organisations from the burden of Non-Performing Assets. This will help them to focus more on new loans.
- In February 2021, the Indian Banks Association had identified the bad loans that can be transferred to the proposed bad bank of the Central Government.

Citizenship by Investment programme

The news:

- Recently, Prime Minister of Antigua and Barbuda, Gaston Browne, asked neighbouring Dominica to handover India’s fugitive businessman Mehul Choksi to India directly.
- As per Prime Minister, Choksi was living in Antigua and Barbuda since 2018 after taking citizenship in 2017 under the ‘Citizenship by Investment Programme’.
- He will not be having same rights in Dominica as he was having in Antigua and Barbuda.
- Mehul Chinubhai Choksi is a fugitive Indian businessman, residing in Antigua and Barbuda, who is wanted by the Indian judicial authorities for criminal conspiracy, criminal breach of trust, cheating and dishonesty including delivery of property, corruption and money laundering.
- He was allegedly involved in stock market manipulation in 2013. In late May 2021, he had gone missing from Antigua and Barbuda. He was found and arrested in Dominica while trying to flee to Cuba in a boat.

Citizenship by Investment Programme

- It is a program allowing individuals to get residence or citizenship of a country in return for making qualifying investments. These programs offer-
 - ✓ Citizenship by investment in which the person gets “golden passport” or “cash-for-passports”

- ✓ Residence by investment in which person gets a “golden visa” or
- ✓ Hybrid with immediate residence followed by accelerated citizenship.
- Applicants of Program must fulfil multiple qualification criteria. Investment by them can be done in various forms including contribution to government funds, purchase of qualifying real estate, investment in qualifying business or creation of specific number of jobs.
- As of now, five countries in Caribbean – Antigua & Barbuda, Grenada, Dominica, Saint Kitts and Nevis and Saint Lucia); Egypt; Cambodia, Malta; Jordan, Montenegro, Vanuatu and North Macedonia are running the citizenship by investment programme.

2nd highest rainfall

As per Indian Meteorological Department (IMD), May 2021 received second highest rainfall in 121 years.

Details:

- Highest rainfall attributes to two back-to-back cyclones and western disturbances.
- IMD also highlights, average maximum temperature of 34.18 degrees Celsius over India this May was fourth lowest since 1901. In 1917, India had recorded lowest ever temperature May as 32.68 degrees Celsius.
- Temperature was also lowest since 1977 when it was recorded as 33.84 degrees Celsius.
- No significant heat wave spell was observed during may over any parts of India.
- Rainfall over India as a whole for May month of 2021 was recorded as 107.9 millimetres which is 74 percent more than its Long Period Average (LPA) of 62 mm. Highest ever rainfall was occurred in year 1990 with recorded rainfall of 110.7mm.
- May witnessed the formation of cyclone in Arabian Sea as well as Bay of Bengal. Tauktae cyclone formed over Arabian Sea and developed into an extremely severe cyclonic storm hitting Gujarat coast on May 17.
- Cyclone Yaas was developed over Bay of Bengal & intensified severe cyclonic storm hitting Odisha coast on May 26. These two systems brought rainfall over the states as well as in western & eastern coasts.

Western disturbances

Western disturbances are cyclonic storms originating in Mediterranean Sea and traverse across Central Asia before hitting north India. They are critical to northwest India as they act as major source of snow & rainfall during the winters.

Weyan

The news:

- Weyan, a remote village in Bandipora district of Jammu & Kashmir became India's first village to vaccinate all its adult population against COVID-19.

Details:

- This successful vaccination drive in village was the result of healthcare workers.
- Village, located 28 kilometres away from Bandipora district, has an adult population of 362.
- In village, distance of 18 kilometres is required to cover by foot as there is no motorable road.
- Village was covered under 'J & K model', which is a 10-point strategy to vaccinate entire population.
- Under the model, first strategy is booth-level management which involves preparation of eligible population list. It is followed by "Vaccine on Wheels" under which health officials reaches out to people in far-flung areas to vaccinate them.
- Vaccination in the remote village was difficult and challenging as village comprises of nomadic families who go to higher reaches to graze their livestock. There is no internet access in village. Thus, it was not possible for them to get appointments on cowin portal to get vaccination.
- Initially, there were vaccine hesitancy. Despite that, J&K has achieved 70 percent vaccination in 45+ age group which is almost double of nation's average.

'Jahan Vote, Wahan Vaccination' Campaign

- Delhi government launched a vaccination campaign 'Jahan Vote, Wahan Vaccination' to vaccinate people of Delhi against Covid-19. Under the campaign, people aged 45 and above will be given vaccine at the polling booths.
- While launching the campaign, Chief Minister Arvind Kejriwal highlighted, jabs will be provided to people above 45 years at places where they had exercised vote during election. According to him, door-to-door vaccination will also be done soon.
- Under the campaign, booth-level officers will visit door to door to provide vaccination slots to people above 45 years.
- 57 lakh people are there in age group of 45 plus in Delhi out of which, 27 lakhs have been administered the first dose of coronavirus vaccine. 30 lakhs are yet to administered. So, this decision was taken after observing people in 45 plus age group are not coming to vaccination centres and vaccines are not being utilised.