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Current Issues

(January - April 2020)

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15 All India 1st Ranks in ESE

57 All India 1st Ranks in GATE

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Foreword

Dear Students,



This book is intended to help students, prepare current affairs on a monthly basis. The topics covered give a comprehensive understanding on issues related to Socio, Economic, Industrial Development, Energy and Environment and ICT based tools.

Apart from technical knowledge, current affairs help an aspirant to understand issues in a multi-dimensional approach and contributes to a holistic personality development. The coverage of news and events given are the most pertinent for ESE Revised pattern.

The key to master current affairs is a 'piece-meal preparation' over a period of time and this material is an endeavor to help students prepare in a systematic manner.

With best wishes to all the Students

**Y.V. Gopala Krishna Murthy,
M Tech. MIE,
Chairman & Managing Director,
ACE Engineering Academy,
ACE Engineering Publications.**

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Current Issues

(January - April 2020)

ECONOMY

GROWTH & DEVELOPMENT

GREEN ECONOMY

- As per the United Nations Environment Programme (UNEP), Green Economy is the one that “improves human well-being and builds social equity, while significantly reducing environmental risks and ecological scarcities.”
- It has emerged as an alternative to today's dominant economic model, which exacerbates inequalities, encourages waste, triggers resource scarcities, and generates widespread threats to the environment and human health.
- It aims to transition to an economy that is low-carbon, resource efficient, and socially inclusive.
- It is based on the idea of qualitative growth, where low-carbon and environmentally friendly technologies, as well as international cooperation play a key role.
- In 2008, UNEP launched the Green Economy Initiative (GEI), a programme of global research and country level assistance designed to motivate policymakers to support environmental investments.
- Recently, renowned environmental economist Pavan Sukhdev was awarded the 2020 Tyler Prize for his work in the domain of green economy.
- Pavan Sukhdev’s ground-breaking 2008 report on The Economics of Environment and Biodiversity (TEEB), was hosted by UNEP and became the foundation for the Green Economy movement.
- Established in 1973, it is one of the oldest international environmental awards, recognizing individuals who have contributed in an outstanding manner to the scientific knowledge and public leadership to preserve and enhance the global environment.
- Its recipients encompass the spectrum of environmental concerns, including environmental policy, health, air and water pollution, ecosystem disruption and loss of biodiversity, and energy resources.

Shared economy

- The sharing economy, also known as collaborative consumption or peer-to-peer-based sharing, is a concept that highlights the ability of individuals to rent or borrow goods rather than buy and own them.
- The ‘shared economy’ includes segments such as co-working (Awfis, WeWork India), co-living (Stanza Living, OYO Life, Oxford Caps), shared mobility (Uber, Ola, Shuttl) and furniture rental (Furlenco, Rentomojo.)

The shared economy in India is estimated to be an about \$2 billion industry by the end of the current year, according to a recent report by Maple Capital Advisors.

MPLADS suspended

The Union Cabinet has approved a 30% cut in the salaries of all Members of Parliament and a two-year suspension of the MP Local Area Development (MPLAD) scheme so that the amount saved can go to the Consolidated Fund of India to fight COVID-19.

In this regard, it approved an ordinance to amend the Salaries, Allowances and Pension of Members of Parliament Act, 1954, to cut the salaries of MPs by 30%.

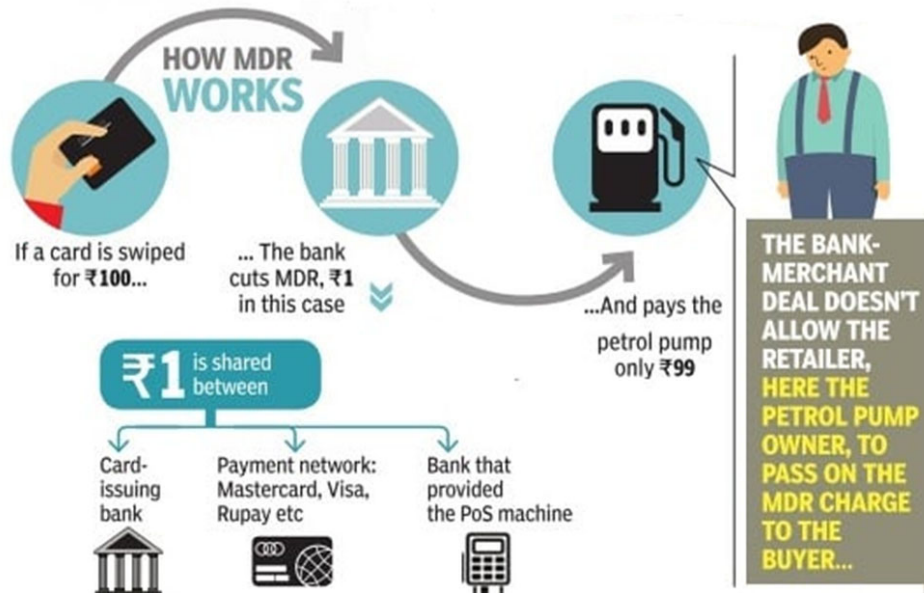
Now, the consolidated amount of MPLAD Funds for 2 years – Rs 7,900 crores – will go to Consolidated Fund of India.

The MPLADS is a Plan Scheme fully funded by Government of India. The annual MPLADS fund entitlement per MP constituency is Rs. 5 crore.

It was launched in December, 1993, to provide a mechanism for the Members of Parliament to recommend works of developmental nature for creation of durable community assets and for provision of basic facilities including community infrastructure, based on locally felt needs.

BANKING**Merchant Discount Rate**

- It is a fee charged from a merchant by a bank for accepting payments from customers through credit and debit cards in their establishments.
- MDR compensates the card issuing bank, the lender which puts the PoS terminal and payment gateways such as Mastercard or Visa for their services.
- MDR charges are usually shared in pre-agreed proportion between the bank and a merchant and is expressed in percentage of transaction amount.
- From January onwards, all companies with a turnover of Rs 50 crore or more need to provide the facility of payment through RuPay Debit card and UPI QR code to their customers, under which no MDR fee will be charged from customers as well as merchants.



Juice jacking

- SBI has publicly issued a warning of ‘Juice Jacking’ through its twitter handle.
- The bank has advised its customers and general public to “think twice before plugging-in their phone at charging stations, as hackers can maliciously infect their smartphone with a malware.”
- It is an attack carried out by hackers through a USB charging cable.





Do you often charge your mobile device from public ports while travelling? Did you know this can lead to **"Juice Jacking"** ?

Beware of Juice Jacking

Attackers use USB charging ports available at public places to install malware, steal data or even take complete control of your device.



Tips to stay safe

 <p>Disable data transfer feature on your mobile phone while charging</p>	 <p>Get a charge only cable instead of cable supporting charging and data transfer capabilities</p>
 <p>Try to carry a power bank</p>	 <p>If possible, switch off the device while charging from public ports</p>

- When a user plugs in the charging cable in his mobile's charging port, and connects it to any of the rigged charging stations installed at public spaces such as airports, train stations, hotels, cafes etc – it gives a back-door entry to hackers into the compromised device.
- The charging port which is also used for data transfer over the USB, is pointed as the main cause of concern over here.
- Installing malware, cleaning user data, asking ransom in exchange for access to personal data on the phone, personal and financial account hijacking are just some of the many nefarious things that a hacker can do with this unrestricted access.

Merger of Banks

- The government has approved a scheme for the amalgamation of 10 state-owned banks into four.
- After the process is complete, India will have 12 PSBs instead of 27 back in 2017.

New mergers include:

1. Punjab National Bank, Oriental Bank of Commerce and United Bank of India will combine to form the nation's second-largest lender.
 2. Canara Bank and Syndicate Bank will merge.
 3. Union Bank of India will amalgamate with Andhra Bank and Corporation Bank.
 4. Indian Bank will merge with Allahabad Bank.
- After merger, Indian Banks can manage their liquidity – short term as well as long term – position comfortably.
 - Synergy of operations and scale of economy in the new entity will result in savings and higher profits.
 - Mergers can diversify risk management.
 - The burden on the central government to recapitalize the public sector banks again and again will come down substantially.

Narasimham committee (1991 and 1998) suggested merger of strong banks both in public sector and even with the developmental financial institutions and NBFCs.

Khan committee in 1997 stressed the need for harmonization of roles of commercial banks and the financial institutions.

Verma committee pointed out that consolidation will lead to pooling of strengths and lead to overall reduction in cost of operations.

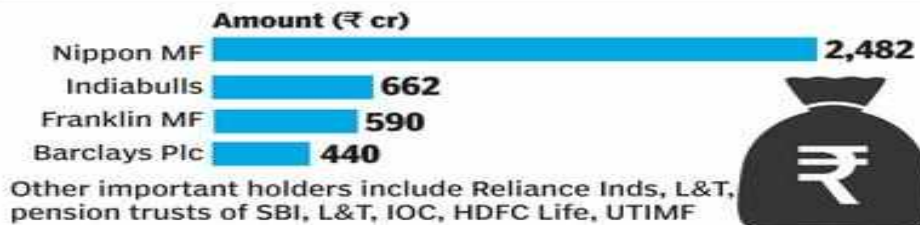
Additional Tier-1 bonds

The YES Bank crisis has led to huge risk for a new class of investors, apart from retail investors and mutual funds. Additional tier -1 (AT-1) bonds also called perpetual bonds issued by YES Bank will cause a loss of around Rs 10,800 crore to their holders since Reserve Bank of India has proposed writing-down the AT-1 bonds as part of restructuring process of the private lender.

- Additional Tier-1 bonds are a type of unsecured, perpetual bonds that banks issue to shore up their core capital base to meet the Basel-III norms.
- These bonds have no maturity date.
- The issuing bank has the option to call back the bonds or repay the principal after a specified period of time.
- The attraction for investors is higher yield, than secured bonds issued by the same entity.
- Individual investors too can hold these bonds, but mostly high net worth individuals (HNIs) opt for such higher risk, higher yield investments.
- Given the higher risk, the rating for these bonds is one to four notches lower than the secured bond series of the same bank.

FEELING THE HEAT

Top holders of Yes Bank's AT1 bonds/debentures



“ This is for the first time in the history of the Indian banking sector that a bank's T1 bonds are being written down at the 'point of non-viability' (PONV) that is the investors have to take a hit on both principal and the balance interest payments — A MARKET PLAYER

- There is an additional trigger in Indian regulations, called the 'Point of Non-Viability Trigger' (PONV).
- In a situation where a bank faces severe losses leading to erosion of regulatory capital, the RBI can decide if the bank has reached a situation wherein it is no longer viable.
- The RBI can then activate a PONV trigger and assume executive powers.
- By doing so, the RBI can do whatever is required to get the bank on track, including superseding the existing management, forcing the bank to raise additional capital and so on.
- However, activating PONV is followed by a write down of the AT1 bonds, as determined by the RBI.

Counter cyclical capital buffer (CCyB) for banks

- Reserve Bank has deferred implementation of countercyclical capital buffers (CCyB) and extended the realisation period for export proceeds.
- The countercyclical capital buffer is intended to protect the banking sector against losses that could be caused by cyclical systemic risks increasing in the economy.
- Countercyclical capital buffers require banks to hold capital at times when credit is growing rapidly so that the buffer can be reduced if the financial cycle turns down or the economic and financial environment becomes substantially worse.

A countercyclical capital buffer is an additional layer of capital that regulators could require banks to hold to guard against loan losses if the economy takes a downturn.



The idea is to require **more capital during expansions** to **protect against losses** in tough economic times.

- Banks can use the capital buffers they have built up during the growth phase of the financial cycle to cover losses that may arise during periods of stress and to continue supplying credit to the real economy.
- The rule was first introduced in Basel III as an extension of another buffer (called the capital conservation buffer). Basel III is a voluntary set of measures agreed upon by central banks all around the world. These measures were drafted by the Bank of International Settlements' Basel Committee on Banking Supervision in response to the financial crisis of 2007-09, in order to strengthen regulation of banks and fight risks within the financial system.

Helicopter money

- This is an unconventional monetary policy tool aimed at bringing a flagging economy back on track. It involves printing large sums of money and distributing it to the public. American economist Milton Friedman coined this term.
- Amid rising concerns over economic crisis that has been triggered by the COVID-19 lockdown; Helicopter Money is one concept that is being considered by authorities' world over.
- In fact, Telangana Chief Minister K. Chandrashekar Rao has suggested RBI to adopt the concept of Helicopter Money to help state governments tide over the current crisis and kickstart economic activity in India.
- It basically denotes a helicopter dropping money from the sky. Friedman used the term to signify "unexpectedly dumping money onto a struggling economy with the intention to shock it out of a deep slump." Under such a policy, a central bank "directly increases the money supply and, via the government, distributes the new cash to the population with the aim of boosting demand and inflation."



- Simply put, Helicopter Money means extension of non-repayable money transfer from the central bank to the state and central governments, to infuse liquidity in the system.

- The policy aims at putting more money into the pockets of people to nudge them to spend more money and in turn pick-up economic activity in the country.
- The direct impact of Helicopter Money is rise in disposable incomes of the people, increase in money supply with an intention to boost demand and inflation in the economy.

Operation Twist

- The Reserve bank of India has decided to bring back its bond swapping programme billed as India's Operation Twist with an aim to help monetary transmission.
- 'Operation Twist' is RBI's simultaneous selling of short-term securities and buying of long term securities through open market operations (OMO). Under this mechanism, the short-term securities are transitioned into long-term securities.
- There is an inverse relationship between the bond prices and their yields. As the central bank buys long-term securities (bonds), their demand rise which in turn pushes up their prices.
- However, the bond yield comes down with an increase in prices. Yield is the return an investor gets on his (bond) holding/investment.
- The interest rate in an economy is determined by yield. Thus, lower long-term interest rates mean people can avail long-term loans (such as buying houses, cars or financing projects) at lower rates.
- This also results in a dip in the expected returns from long-term savings which tilts the balance from saving towards spending. Hence, cheaper retail loans can help encourage consumption spending which is the largest GDP component in the economy.
- The RBI manages and controls the liquidity, rupee strength and monetary management through purchase and sale of government securities (G-Secs) in a monetary tool called Open market Operations.

FINANCIAL MARKETS

Masala Bonds

- Asian Development Bank (ADB) has listed its 10-year masala bonds worth Rs 850 crore on the global debt listing platform of India INX. The proceeds would be used to support local currency lending and investment in India.
- India INX is the country's first international exchange, located at International Financial Services Centre, GIFT City in Gujarat. ADB's masala bonds are listed on both Luxembourg exchange and India INX.

What are Masala Bonds?

Masala Bonds are debt securities which are INR denominated issued by eligible entities in India to overseas investors, however, **settled in foreign currency**. In other words, they are rupee denominated bonds issued to overseas buyers.

Though masala bonds are issued to overseas investors, **still the same is denominated in Indian rupees**. Accordingly, the term 'masala' is used to give Indian flavor to the said bonds.

The best part: **Currency risk is borne by the investor** and hence, during repayment of bond coupon and maturity amount, if rupee depreciates, RBI will realize notional saving.



A form of covered bonds and source of on balance sheet funding



- Masala Bonds - They are bonds issued outside India by an Indian entity or corporate. These bonds are issued in Indian currency than local currency. Indian corporates usually issue Masala Bonds to raise funds from foreign investors. As it is pegged into Indian currency, if the rupee rates fall, investors bear the risk. The first Masala bond was issued in 2014 by IFC for the infrastructure projects in India.
- Investors from outside of India who would like to invest in Indian assets can invest in Masala bonds. Indian entities like HDFC, NTPC and Indiabulls Housing have raised funds via Masala Bonds.

Swap Ratio

- Swap ratio is the ratio at which an acquiring company will offer its own shares in exchange for the target company's shares during a merger or acquisition.
- To calculate the swap ratio, companies analyze financial ratios such as book value, earnings per share, profits after tax, and dividends paid, as well as other factors, such as the reasons for the merger or acquisition.
- The current market prices of the target and acquiring company's stock are compared along with their respective financial situations.

SHARE EXCHANGE MATHS

Punjab National Bank

1,150 shares of PNB for every 1,000 shares of OBC

121 shares of PNB for every 1,000 shares of United Bank

Union Bank

325 shares of Union Bank for every 1,000 shares of Corporation Bank

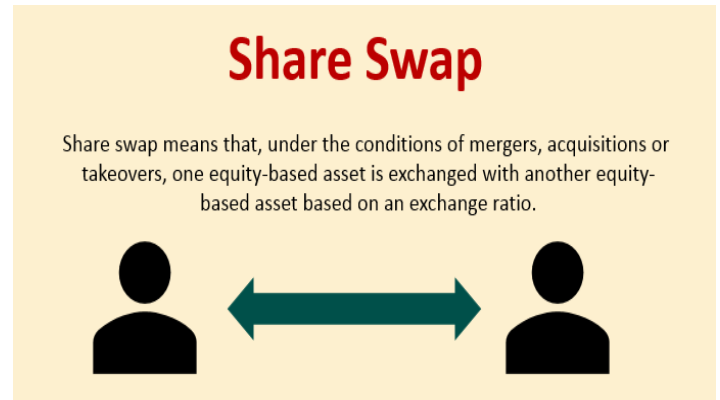
330 shares of Union Bank for every 1,000 shares of Andhra Bank

Canara Bank

158 shares of Canara for every 1,000 shares of Syndicate Bank

Indian Bank

115 shares of Indian Bank for every 1,000 shares of Allahabad Bank



- Eight state-owned banks have announced swap ratios for the proposed mergers.

Blue chip stocks

Blue chip stocks are shares of very large and well-recognised companies with a long history of sound financial performance.

These stocks are known to have capabilities to endure tough market conditions and give high returns in good market conditions.

Blue chip stocks generally cost high, as they have good reputation and are often market leaders in their respective industries.

TAXES

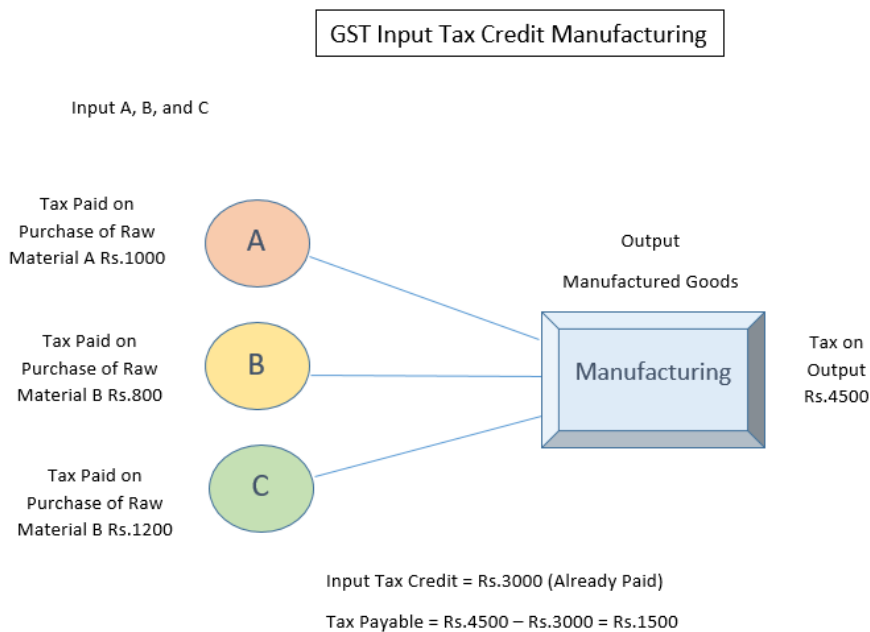
Dividend Distribution Tax

- Dividend Distribution Tax shifted to individuals instead of companies, says Finance Minister.
- It is a tax levied on dividends that a company pays to its shareholders out of its profits.
- The Dividend Distribution Tax, or DDT, is taxable at source, and is deducted at the time of the company distributing dividends.
- The dividend is the part of profits that the company shares with its shareholders.
- The law provides for the Dividend Distribution Tax to be levied at the hands of the company, and not at the hands of the receiving shareholder.
- However, an additional tax is imposed on the shareholder, who receives over Rs. 10 lakh in dividend income in a financial year.

- Other than Dividend Distribution Tax (DDT), the Securities Transaction Tax (STT) and Long-Term Capital Gains (LTCG) tax are other major taxes levied on market instruments.

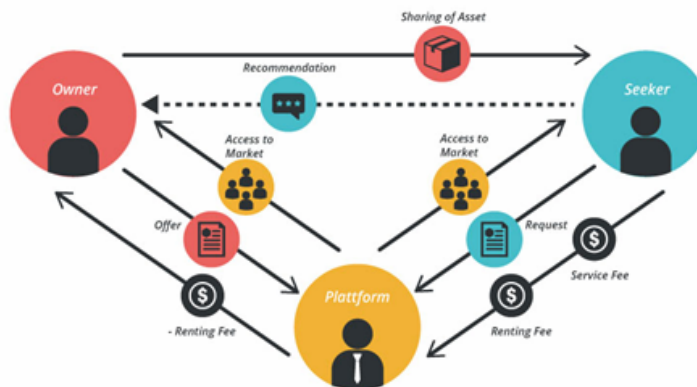
Input Tax Credit

- It is the tax that a business pays on a purchase and that it can use to reduce its tax liability when it makes a sale.
- In simple terms, input credit means at the time of paying tax on output, you can reduce the tax you have already paid on inputs and pay the balance amount.



Exceptions: A business under composition scheme cannot avail of input tax credit. ITC cannot be claimed for personal use or for goods that are exempt.

Sharing Economy



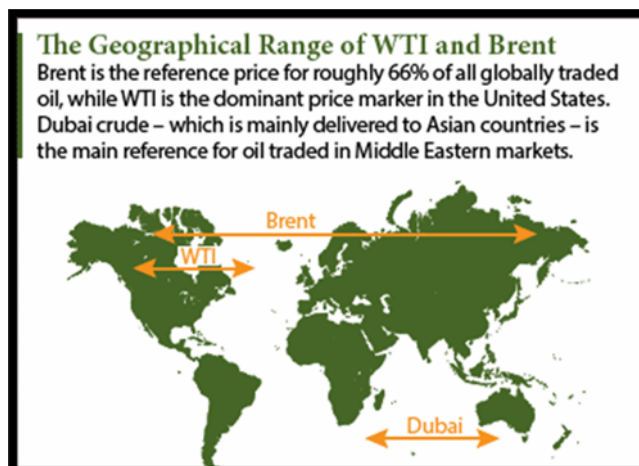
EXTERNAL SECTOR:

Govt. imposes curbs on drug exports

- India has restricted the export of common medicines such as paracetamol and 25 other pharmaceutical ingredients and drugs made from them, as it looked to prevent shortages amid concerns of the COVID-19 outbreak turning into a pandemic.
- Besides over-the-counter painkiller and fever reducer paracetamol, drugs restricted for exports included common antibiotics metronidazole, those used to treat bacterial and other infections, as well as vitamin B1 and B12 ingredients.
- Although India is source of about 20% of the world's generic drug supply, pharmaceutical companies in the country are dependent on China for two-thirds of the chemical components needed to make them. The outbreak of COVID-19 has shut factories in China and impacted supplies, leading to fears of a shortage.
- This restriction has not gone down well with the exporters. For exporters, it is going to be a problem and will have an impact on reputation too.

Flux in oil prices

- Prices of West Texas Intermediate (WTI) in the US recently fell to “minus” \$40.32 a barrel.
- This is the lowest crude oil price ever recorded (the previous lowest was immediately after World War II).
- At this price, the seller of crude oil would be paying the buyer \$40 for each barrel that is bought.
- Firstly, WTI oil is traded as futures contracts in the NYMEX (New York Mercantile Exchange) where traders buy and sell monthly futures.



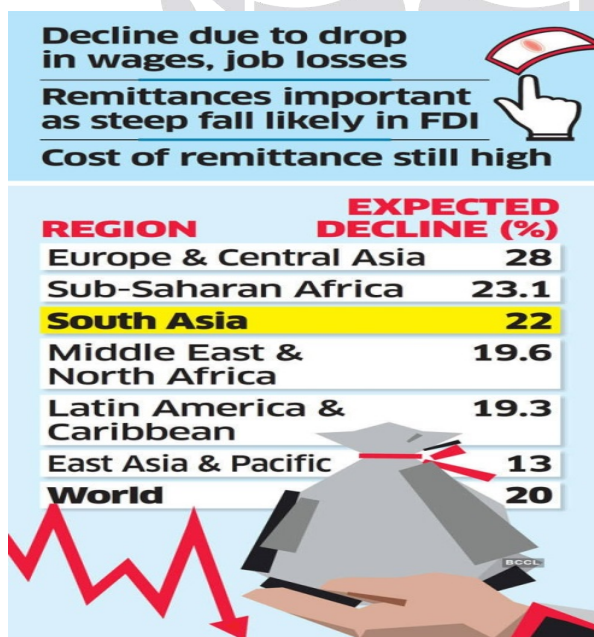
- The contract for West Texas intermediate crude, or WTI, is the benchmark for US crude oil prices. On Monday, it crashed 300 per cent from US\$17.85 a barrel to minus US\$37.63.

- The price of a barrel of crude varies based on factors such as supply, demand and quality. Supply of fuel has been far above demand since the coronavirus forced billions of people to stop travelling.
- Even before the COVID-19 outbreak induced lockdowns across the world, crude oil prices had been falling over the past few months.
- The reason was too much supply and too little demand.
- The Indian crude oil basket does not comprise WTI — it only has Brent and oil from some of the Gulf countries — so there is no direct impact.

There are three primary benchmarks, West Texas Intermediate (WTI), Brent Blend, and Dubai Crude.

World Bank report on remittances

- The World Bank has released a report on the impact of the COVID-19 on migration and remittances.
- Remittances to India are likely to drop by 23 per cent from \$83 billion last year to \$64 billion this year due to the coronavirus pandemic, which has resulted in a global recession.
- India is the world’s biggest recipient of remittances.
- In 2019, India is estimated to have received \$83.1 billion in remittances from people working overseas, about 12% of the total expected global inflow.
- International remittances in 2018 (2020 report) reached \$689 billion, out of which India received \$78.6 billion from the 17.5 million living abroad.
- Globally remittances are projected to decline sharply by about 20 per cent this year due to the economic crisis induced by the pandemic and shutdowns.



INDUSTRY

Mission Purvodaya:

- The Centre unveils Mission Purvodaya to develop eastern region into an integrated steel hub.
- The eastern belt has the potential to add over 75 percent of the country’s incremental steel capacity envisioned by the National Steel Policy.
- Through this programme, the government aims to transform logistics and utilities infrastructure which would change the socio-economic landscape in the eastern India.
- The steps, under mission, also include growth of steel industry along with employment opportunities across the entire value chain.

Categorisation of industries:

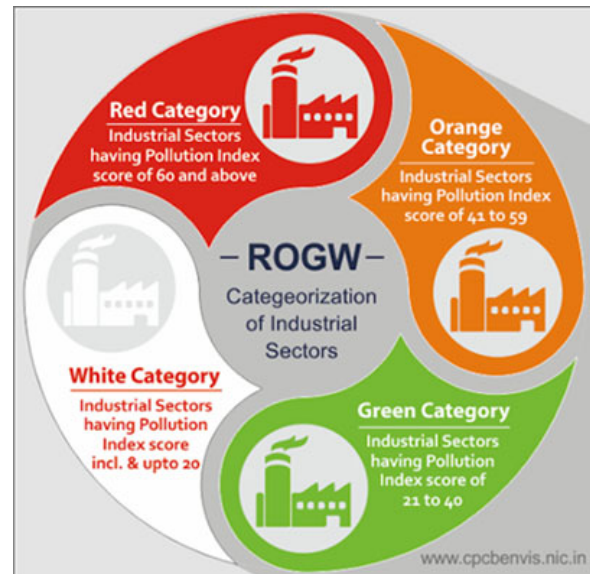
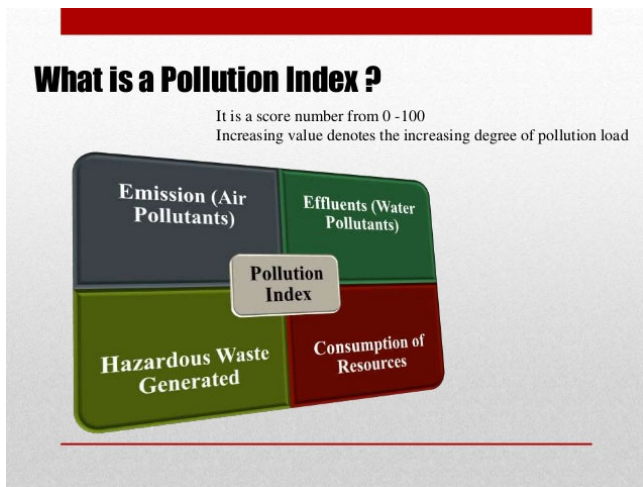
The Ministry of Environment, Forest and Climate Change (MoEFCC) has developed the criteria of categorization of industrial sectors based on the Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources.

1. Red category: Includes Cement industry, Petrochemicals, pharmaceuticals, sugar, paper and pulp, nuclear power plants, organic chemicals, fertilizers, fire crackers.
2. Orange category: Includes coal washeries, glass manufacturing, paints, stone crushers, and aluminium and copper extraction from scrap.
3. Green category: Includes aluminium utensils, steel furniture, soap manufacturing and tea processing.
4. White category: Includes the industries that are “practically non-polluting”. These industries, like air cooler or air conditioning units, chalk factories, biscuit tray units, won’t need a green clearance enabling easier financing.

4 Broad categories based on the pollution potential:

Based on - Use of raw material
 Manufacturing Process
 Pollutants likely to be generated

S. No.	Category	Pollution Potential	Example
1.	RED	Highly Polluting industries	<ul style="list-style-type: none"> • Mining and ore beneficiation • Ship Breaking • Pharmaceuticals
2.	ORANGE	Moderately polluting industries	<ul style="list-style-type: none"> • Building and Construction • Stone crushers
3.	GREEN	Marginally polluting industries	<ul style="list-style-type: none"> • Tamarind powder manufacturing • Candy • Dal mills
4.	WHITE	None polluting industries They are not required to obtain any consent from the board.	<ul style="list-style-type: none"> • Biscuit Trays • Cotton and woolen hosiers



Industries scoring 60 and above on a scale of 1 to 100 have been rated red. An index between 41 and 59 earns an orange category, while a score between 21 and 40 gets a green. Pollution index of 20 or less have been rated white.

AGRICULTURE

PM – KISAN scheme

- Under this programme, vulnerable landholding farmer families, having cultivable land upto 2 hectares, will be provided direct income support at the rate of Rs. 6,000 per year. This income support will be transferred directly into the bank accounts of beneficiary farmers, in three equal installments of Rs. 2,000 each.
- The complete expenditure of Rs 75000 crore for the scheme will borne by the Union Government in 2019-20.
- A small and marginal landholder family comprises of husband, wife and minor children up to 18 years of age, who collectively own cultivable land up to two hectares as per the land records of the concerned states.
- Around 12 crore small and marginal farmer families are expected to benefit from this. It would not only provide assured supplemental income to the most vulnerable farmer families, but would also meet their emergent needs especially before the harvest season. It would pave the way for the farmers to earn and live a respectable living.

Similar programmes by states:

- Bhavantar Bhugtan Yojana in Madhya Pradesh was sought to provide relief to farmers by providing the differential between MSPs and market prices.
- The Rythu Bandhu scheme of the Telangana provides ₹4,000 per acre for every season to all the farmers of the state. Similar initiatives have also be framed in Jharkhand and Odisha.
- Krushak Assistance for Livelihood and Income augmentation (KALIA) of Odisha is more complicated in design and implementation. It commits to give Rs 5,000 per SMF, twice a year, that is Rs 10,000 a year.

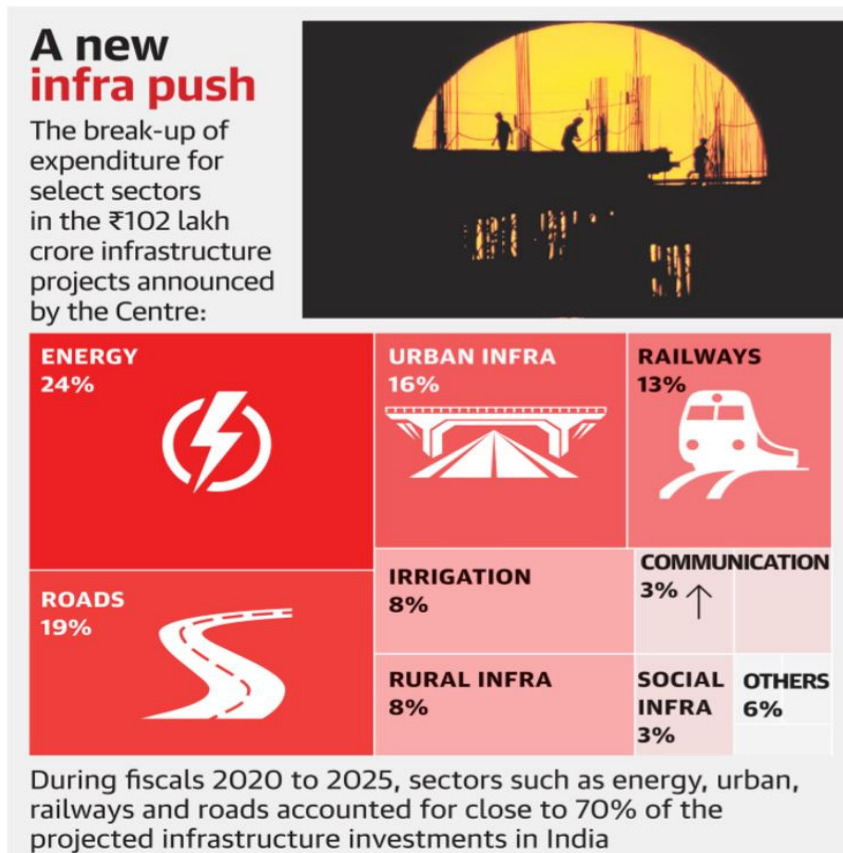
INFRASTRUCTURE

National Infrastructure Pipeline

Finance Minister Nirmala Sitharaman has unveiled a ₹102 lakh crore national infrastructure pipeline, in accordance with the Narendra Modi government’s vision to make India a \$5 trillion economy by 2024-25.

Sector- specific:

- Irrigation and rural infrastructure projects would account for ₹7.7 lakh crore each. ₹3.07 lakh crore would be spent on industrial infrastructure. Agriculture and social infrastructure would account for the rest.
- Road projects will account for ₹19.63 lakh crore while another ₹13.68 lakh crore would be for railway projects.
- Port projects would see spending of ₹1 lakh crore and airports another ₹1.43 lakh crore. ₹16.29 lakh crore would be spent on urban infrastructure and ₹3.2 lakh crore in telecom projects.
- According to the sector-wise break-up of projects made available by the Finance Ministry, ₹24.54 lakh crore investment will flow in the energy sector, and of that ₹11.7 lakh crore would be in just the power sector.



- ₹42 lakh crore NIP projects which are in the implementation stage now include expressways, national gas grid and PMAY-G.
- It is estimated that India would need to spend \$4.5 trillion on infrastructure by 2030 to sustain its growth rate. The endeavour of the National Infrastructure Pipeline (NIP), is to make this happen in an efficient manner.
- The central government and state governments would have an equal share of 39% each in the NIP. The private sector, on the other hand, would have 22% share which the government expects to increase to 30% by 2025.
- National Infrastructure Pipeline will ensure that infrastructure projects are adequately prepared and launched.

Kolkata port renamed:

- Centre has renamed the Kolkata Port Trust after Bharatiya Jana Sangh founder Dr Syama Prasad Mookerjee.
- The Kolkata port is the only riverine port in the country, situated 203 km from the sea. The river Hooghly, on which it is located, has many sharp bends, and is considered a difficult navigational channel.
- The Farakka Barrage, built in 1975, reduced some of the port's woes as Ganga waters were diverted into the Bhagirathi-Hooghly system.

Vadhavan port

- The Union Cabinet has approved a proposal to set up a major port at Vadhavan near Dahanu in Maharashtra with a total cost of ₹65,545 crore.
- This will be 13th major port in India. Currently, India has 12 major ports at Deendayal (erstwhile Kandla), Mumbai, JNPT, Mormugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), VO Chidambaranar, Visakhapatnam, Paradip and Kolkata (including Haldia).
- With the development of this port, India will become one of the countries in the top-10 container ports in the world.
- The port will be developed on the landlord model.
- In the landlord port model, the publicly governed port authority acts as a regulatory body and as landlord while private companies carry out port operations—mainly cargo-handling activities.
- Here, the port authority maintains ownership of the port while the infrastructure is leased to private firms that provide and maintain their own superstructure and install own equipment to handle cargo.
- In return, the landlord port gets a share of the revenue from the private entity.
- The role of the landlord port authority would be to carry out all public sector services and operations such as the award of bids for cargo terminals and dredging.

‘Fruit train’

- A ‘fruit train’, said to be the first of its kind in the country, was recently flagged off from Tadipatri Railway Station in Andhra Pradesh.
- The fruit train was carrying a load of 980 metric tonnes of locally grown bananas to the Jawaharlal Nehru Port in Mumbai, from where the consignment will be exported to Iran.
- This is the first time in India that an entire train is being sent to the gateway port (JNPT) for export.
- This helps save both time and fuel as 150 trucks would have been required to send a consignment of this size by road to JNPT, which is over 900 km away, before the temperature-controlled containers are loaded on ships.

Railways’ corporate train model

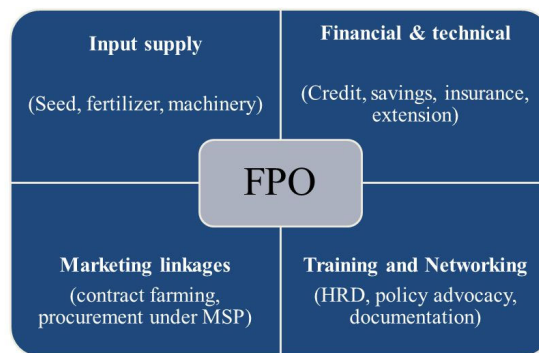
- The Kashi Mahakal Express is the country’s third ‘corporate’ train after the two Tejas Express trains between Delhi-Lucknow and Mumbai-Ahmedabad started over the past few months.
- Corporate train model is a new model being actively pushed by Indian Railways- to ‘outsource’ the running of regular passengers’ trains to its PSU, the Indian Railway Catering and Tourism Corporation (IRCTC).
- In this model, the corporation takes all the decisions of running the service– fare, food, onboard facilities, housekeeping, complaints etc. Indian Railways is free from these encumbrances and gets to earn from IRCTC a pre-decided amount, being the owner of the network.
- This amount has three components- haulage, lease and custody.
- Haulage charge includes use of the fixed infrastructure like tracks, signalling, driver, station staff, traction and pretty much everything needed to physically move the rake.
- Lease charges on the rake have to be paid as Indian Railways coaches are leased to its financing arm, the Indian Railway Finance Corporation (IRFC).
- Custody charge has to be paid for keeping the rake safe and sound while it is in the custody of the PSU.
- IRCTC has to pay Indian Railways a sum total of these three charges, roughly Rs 14 lakh for the Lucknow Tejas run in a day (up and down) and then factor in a profit over and above this. This money is payable even if the occupancy is below expectation and the train is not doing good.
- Indian Railways doesn’t have to suffer the losses associated with running these trains thanks to under-recovery of cost due to low fares and its own hefty overheads. The lease on its coaches is also taken care of.

Farmers Producer Organisations

- Prime Minister Narendra Modi launched 10,000 Farmers Producer Organisations (FPOs) all over the country, on 29 February, in Chitrakoot, Uttar Pradesh.
- It is a Producer Organisation (PO) where the members are farmers. Small Farmers’ Agribusiness Consortium (SFAC) is providing support for the promotion of FPOs.

- FPOs help in the collectivization of such small, marginal and landless farmers in order to give them the collective strength to deal with such issues.
- Members of the FPO will manage their activities together in the organization to get better access to technology, input, finance and market for faster enhancement of their income.
- The government has launched a new dedicated Central Sector Scheme titled “Formation and Promotion of Farmer Producer Organizations (FPOs)” with a clear strategy and committed resources to form and promote 10,000 new FPOs.
- Nearly 86% of farmers are small and marginal with average land holdings in the country being less than 1.1 hectares.

Farmer Producer Organizations (FPOs)
Typical range of services provided



- These small, marginal and landless farmers face tremendous challenges during agriculture production phase such as for access to technology, quality seed, fertilizers and pesticides including requisite finances.
- They also face tremendous challenges in marketing their produce due to lack of economic strength.
- FPOs help in the collectivization of such small, marginal and landless farmers in order to give them the collective strength to deal with such issues.

National Interlinking of Rivers Authority (NIRA)

- The Central government is working on the establishment of an exclusive body to implement projects for linking rivers- To be called the National Interlinking of Rivers Authority (NIRA).
- Functions of NIRA:
- It is expected to take up both inter-State and intra-State projects.
- It will also make arrangements for generating funds, internally and externally.

National River Linking Project (NRLP): The NRLP formally known as the National Perspective Plan, envisages the transfer of water from water 'surplus' basins where there is flooding to water 'deficit' basins where there is drought/scarcity, through inter-basin water transfer projects.

- As of now, six ILR projects — the Ken-Betwa, Damanganga- Pinjal, Par-Tapi-Narmada, Manas-Sankosh-Teesta-Ganga, Mahanadi-Godavari and Godavari-Cauvery (Grand Anicut) — have been under examination of the authorities.
- Interlinking of rivers will lead to destruction of forests, wetlands and local water bodies, which are major groundwater recharge mechanisms.
- It causes massive displacement of people. Huge burden on the government to deal with the issue of rehabilitation of displaced people.
- Due to interlinking of rivers, there will be decrease in the amount of fresh water entering seas and this will cause a serious threat to the marine life.

Deccan Queen Express

- Indian Railways' Deccan Queen, which has been running between Mumbai and Pune since 1930, is the country's first superfast train.
- Deccan Queen is the first long-distance electric-hauled train, first vestibuled train, first train to have a 'ladies only' car and the first train to feature a dining car.
- Deccan Queen Express will be upgraded to German design Linke Hofmann Busch (LHB) coaches. With the up gradation to LHB coaches, the train will have better safety features and improved travelling experience – better suspension system and better riding comfort.
- It is operated by the Central Railway Zone of the Indian Railways.

SOCIAL DEVELOPMENT

HEALTH

H9N2

- Indian scientists have detected the country's first case of infection with a rare variant of the virus- H9N2- that causes avian influenza, or bird flu.
- The H9N2 subtype was isolated for the first time in Wisconsin, US in 1966 from turkey flocks.
- H9N2 viruses are found worldwide in wild birds and are endemic in poultry in many areas.
- H9N2 viruses could potentially play a major role in the emergence of the next influenza pandemic.
- According to the World Health Organization (WHO), with avian influenza viruses circulating in poultry, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected poultry or contaminated environments.

Vaccine-derived poliovirus

- Vaccine-derived poliovirus is a strain of the weakened poliovirus that was initially included in oral polio vaccine (OPV) and that has changed over time and behaves more like the wild or naturally occurring virus.
- This means it can be spread more easily to people who are unvaccinated against polio and who come in contact with the stool or respiratory secretions, such as from a sneeze, of an infected person. These viruses may cause illness, including paralysis.
- Oral polio vaccine (OPV) contains an attenuated (weakened) vaccine-virus, activating an immune response in the body. When a child is immunized with OPV, the weakened vaccine-virus replicates in the intestine for a limited period, thereby developing immunity by building up antibodies.
- During this time, the vaccine-virus is also excreted. In areas of inadequate sanitation, this excreted vaccine-virus can spread in the immediate community (and this can offer protection to other children through 'passive' immunization), before eventually dying out.
- In January 2014, India was declared polio-free after three years on zero cases.
- In 2018, there was a brief scare when some vials of the polio vaccine were found contaminated with the polio 2 virus that had been eradicated from the country in 1999. However, WHO quickly issued a statement saying that all vaccines used in the government programme in India were safe.
- The last case due to wild poliovirus in the country was detected on January 13, 2011.

H1N1 infection

- Five judges of the Supreme Court of India have been affected by Swine Flu which is caused by the H1N1 virus.
- It is also called pig influenza, swine flu, hog flu and pig flu. It is an infection caused by any one of several types of swine influenza viruses. Swine influenza virus is any strain of the influenza family of viruses that is endemic in pigs.

- H1N1 influenza (or swine flu) is a highly contagious acute respiratory disease of pigs caused by type A influenza virus that regularly causes outbreaks of influenza in pigs.
- Swine flu viruses do not normally infect humans. However, sporadic human infections with swine flu have occurred.
- Most commonly, these cases occur in people with direct exposure to pigs (e.g., children near pigs at a fair or workers in the swine industry).
- However, there have been cases of human-to-human spread of swine flu.
- Typical treatment includes rest, pain relievers and fluids. In some cases antiviral medication and IV fluids may be required.

WHO declares coronavirus a pandemic

As fresh coronavirus cases continue to be reported from different countries, the World Health Organization has finally declared the novel coronavirus a ‘pandemic’.

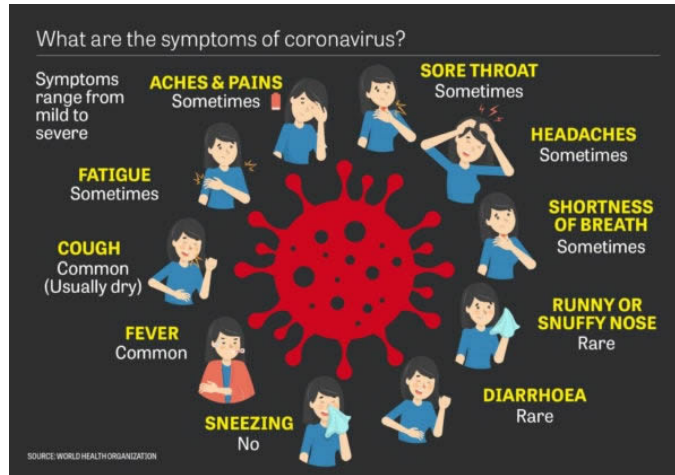
Earlier, on January 30 the WHO declared it was a “Public Health Emergency of International Concern”.

An outbreak is understood to be a sudden rise in the cases of a disease in a particular place.

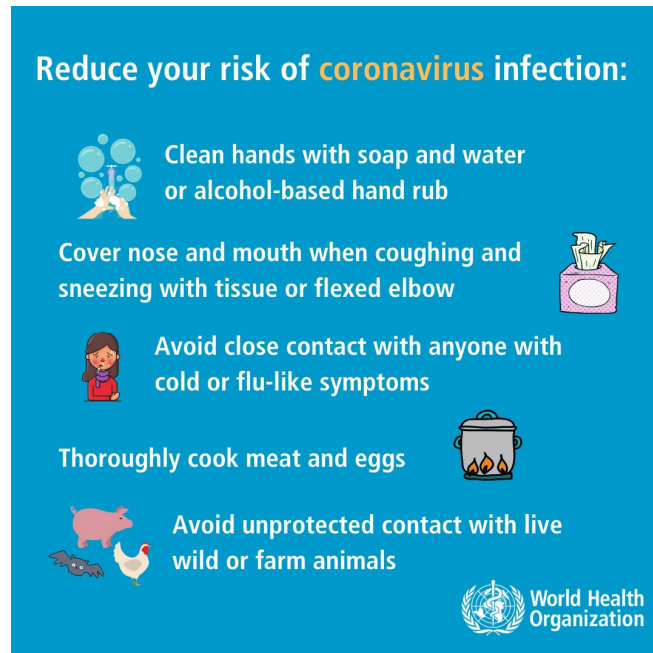
An epidemic is a large outbreak among a particular population or region (such as the current situation in China).

A pandemic is “the worldwide spread of a new disease”. There is no specific number of countries that a disease must touch for WHO to classify it as a pandemic.

- The novel coronavirus disease that emerged in Wuhan, China, in the final days of last year, is now in at least 47 countries around the world, spanning every continent except Antarctica. More than 82,000 people have been infected, and over 2,800 are dead.
- COVID-19 is the official name given to the virus by the World Health Organization. Before WHO officially named the virus, it was also referred to as coronavirus, the novel coronavirus and 2019-nCoV (to indicate the year when the virus was first detected).
- COVID-19 is a respiratory infection. There are many types of coronavirus, some linked to the common cold, but this one is new and was detected toward the end of 2019.
- The coronavirus gets its name from the way it looks: It has a core of genetic material covered by an envelope with protein spikes that resemble a crown. In Latin, a crown is a corona. It’s called a novel coronavirus because it’s new and hasn’t been detected in people before.



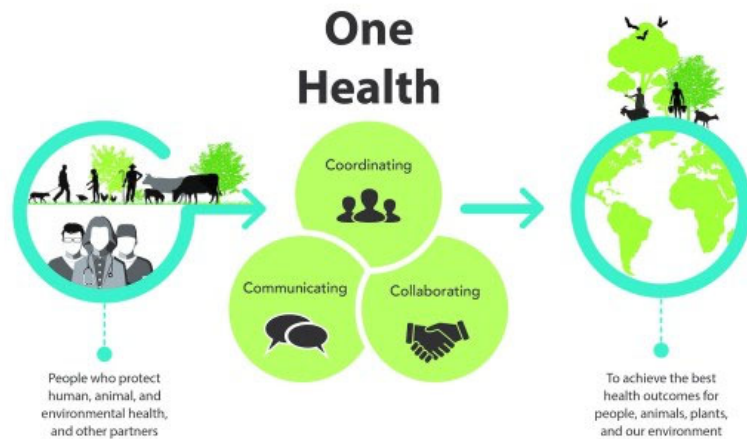
- It may take up to 14 days after exposure for symptoms to appear.
- COVID-19 is transmitted through liquid droplets or particles when a person coughs or sneezes. These droplets, if containing the virus, can infect a person by entering through the eyes, nose or throat. It's not believed to be airborne and it's not known to infect via the skin.
- However, the virus can survive on some surfaces so if a person sneezes into their hand, shakes your hand and you then rub your eye with your hand, transmission is possible through self-inoculation.



OneHealth concept

- One Health is the collaborative efforts of multiple disciplines working locally, nationally, and globally, to attain optimal health for people, animals and our environment, as defined by the One Health Initiative Task Force.

- The concept of ‘One Health’, which recognises that health of human beings is connected to health of animals and environment, is gaining importance as most of the contagious diseases affecting humans are zoonotic (animal to man origin) in nature.
- The concept of One Health can be effectively implemented for reducing incidence of emerging zoonotic threats like COVID-19.
- One Health issues include zoonotic diseases, antimicrobial resistance, food safety and food security, vector-borne diseases, environmental contamination, and other health threats shared by people, animals, and the environment. Even the fields of chronic disease, mental health, injury, occupational health, and non-communicable diseases can benefit from a One Health approach involving collaboration across disciplines and sectors.



The One Health Triad

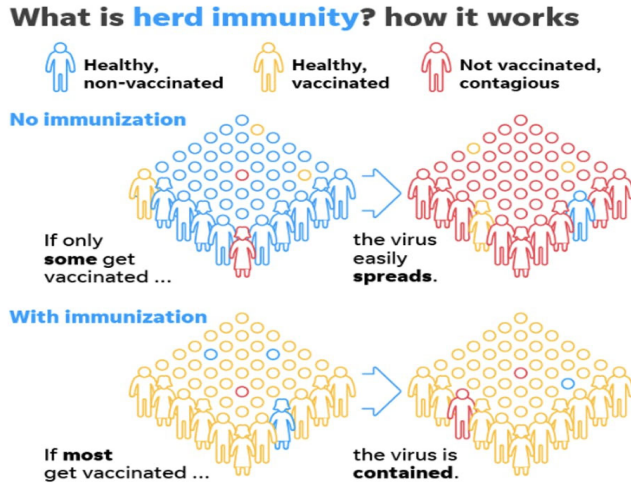


Need of the hour is to scale up such a model across the country and to establish meaningful research collaborations across the world.

Herd immunity:

Herd immunity is when a large number of people are vaccinated against a disease, lowering the chances of others being infected by it. When a sufficient percentage of a population is vaccinated, it slows the spread of disease. It is also referred to as community immunity or herd protection.

Herd protection of the unvaccinated occurs when a sufficient proportion of the group is immune.



The decline of disease incidence is greater than the proportion of individuals immunized because vaccination reduces the spread of an infectious agent by reducing the amount and/or duration of pathogen shedding by vaccines, retarding transmission.

The 'rapid test'

A rapid test is conducted to determine whether there has been any kind of recent viral infection in a person's body.

To tackle suspicions of whether the novel coronavirus has spread into the community and if not prevent such a scenario, the Kerala government has announced 'rapid tests' that will ensure speedy results within half an hour.

When a pathogen enters a human body, specific antibodies are released as a response to the virus.

A rapid test can detect the presence of such antibodies in blood, serum or plasma samples quickly, indicating a viral infection. Rapid testing is conducted usually to check for community transmission of a virus during an epidemic.

According to the health department, it is a simple test that can be done with a person's blood sample and will give out results within 10-30 minutes. It is also a low-cost test.

AarogyaSetu:

It is mobile app developed in public-private partnership to bring the people of India together in a resolute fight against COVID-19.

The App joins Digital India for the health and well-being of every Indian.

It will enable people to assess themselves the risk for their catching the Corona Virus infection.

It will calculate this based on their interaction with others, using cutting edge Bluetooth technology, algorithms and artificial intelligence.

WATER & SANITATION

Swachh Survekshan league

- Swachh Survekshan 2020 is the 5th edition of the annual urban cleanliness survey conducted by the Ministry.
- Performance of various states:
- Cleanest city: Indore for the fourth time in a row.
- Worst performer: Bhopal, Rajkot, Surat, Navi Mumbai.
- Among cantonment boards, Best performer: Tamil Nadu's St.Thomas Mount Cantonment and Delhi cantonment
- Worst performer: Secunderabad Cantonment.
- The process of ranking cities and town of India on the basis of cleanliness was first conducted in 2016, which covered 73 cities.
- The annual cleanliness survey aims to encourage large scale participation of citizens in cleanliness drives.
- It aims to ensure sustainability of initiatives taken towards garbage free and open defecation free cities.
- It aims to create awareness among all sections of the society regarding the importance of working together towards making towns and cities a better place to live in.

1000 springs initiative

- It is an online portal on GIS-based Spring Atlas with the hydrological and chemical properties of the springs mentioned.
- Aim: To improve access to safe and adequate water for the tribal communities living in difficult and inaccessible part of rural areas in the country. It is an integrated solution around natural springs.
- It includes the provision of infrastructure for piped water supply for drinking; provision of water for irrigation; community-led total sanitation initiatives; and provision for water for backyard nutrition gardens, generating sustainable livelihood opportunities for the tribal people.
- Under this initiative, more than 70 young tribal youths from the rural belt of three districts of Odisha namely, Kalahandi, Khandamal and Gajapati have been trained as barefoot hydro geologists by combining traditional and scientific knowledge for identification and mapping of springs, and undertaking rejuvenation and protection measures in their habitations.
- Springs are natural sources of groundwater discharge and have been used extensively in the mountainous regions across the world.
- In the central and eastern Indian belt with more than 75% tribal population, it remains largely unrecognized and under-utilized.
- The initiative will help in harnessing the potential of perennial springs' water to address the natural scarcity of water in tribal areas.

POVERTY ALLEVIATION & SOCIAL SECURITY

Inner Line Permit (ILP)

- Tribal organisations in Meghalaya have been demanding the ILP system for restricting the entry of outsiders into the State. These demands have turned into violent protests across the state in the past few days.
- ILP is a document required by non- natives to visit or stay in a state that is protected under the ILP system.
- At present, four Northeastern states are covered, namely, Arunachal Pradesh, Mizoram, Manipur and Nagaland.
- Both the duration of stay and the areas allowed to be accessed for any non-native are determined by the ILP.
- The ILP is considered the only mechanism to contain influx in the state. Influx is perceived as dangerous because it could upset the fragile demographic balance of the tribals of Meghalaya.

Ekam Fest:

Exhibition-cum-Fair “EKAM Fest” is being organised by National Handicapped Finance Development Corporation (NHFDC) under M/o Social Justice & Empowerment.

Aim: To promote craftsmanship & products of divyang (physically-challenged) artisans and entrepreneurs.

Schemes/policies for minorities in various States:

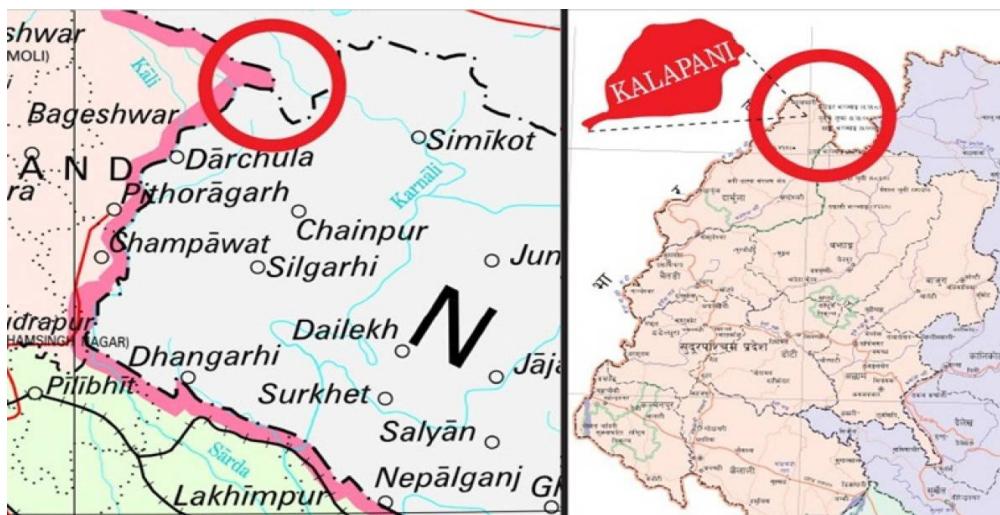
1. Maulana Azad National Fellowship Scheme – Provide fellowships in the form of financial assistance.
2. Naya Savera – Free Coaching and Allied Scheme – The Scheme aims to provide free coaching to students/candidates belonging to minority communities for qualifying in entrance examinations of technical/professional courses and Competitive examinations.
3. Padho Pardesh – Scheme of interest subsidy to students of minority communities on educational loans for overseas higher studies.
4. Nai Udaan – Support for students clearing Prelims conducted by Union Public Service Commission (UPSC), State Public Service Commission (PSC) Staff Selection Commission (SSC) etc.
5. Nai Roshni – Leadership development of women belonging to minority communities.
6. Seekho Aur Kamao – Skill development scheme for youth of 14 – 35 years age group and aiming at improving the employability of existing workers, school dropouts etc.
7. Pradhan Mantri Jan Vikas Karyakram (PMJVK) restructured in May 2018 earlier known as MsDP – Implemented for the benefit of the people from all sections of the society in identified Minority Concentration Areas for creation of assets in education, skill and health sectors.
8. Jiyo Parsi – Scheme for containing population decline of Parsis in India.
9. USTTAD (Upgrading the Skills and Training in Traditional Arts/Crafts for Development) launched in May 2015.
10. Nai Manzil – A scheme for formal school education & skilling of school dropouts launched in Aug. 2015.

11. Hamari Dharohar- A scheme to preserve rich heritage of minority communities of India under the overall concept of Indian culture implemented since 2014-15.

INTERNATIONAL ISSUES

Kalapani Territory

- Kalapani is located at an altitude of 3600m on the Kailash Manasarovar route.
- It borders Uttarakhand in India and Sudurpashchim Pradesh in Nepal.
- Since the Indo-China war of 1962, Kalapani is controlled by India's Indo-Tibetan Border Police.
- Nepal claims that the river located towards the west of the territory is the main Kali river and thus it falls in its territory, India claims a ridgeline towards the east of the Kalapani territory and hence, includes it in the Indian Union.
- In the latest map, India included Kalapani into the Pithoragarh district of Uttarakhand.



- Nepal government says that Kalapani is an integral part of the country and that talks are still on between New Delhi and Kathmandu over this “unresolved” area.
- Foreign secretaries of both countries have been assigned the responsibility to resolve the remaining border-related issues between India and Nepal.
- Nepal and India are planning to resolve the Kalapani border issue through dialogue. India has clarified that the latest political map of India reflects the sovereign territory of India.

Killing of Qassem Soleimani

- Major General Qassem Soleimani, the Iranian Revolutionary Guards commander, was recently killed in a US strike at Baghdad International Airport.

- He was the long-serving head of Iran's Quds ("Jerusalem") Force and has been seen as a deadly adversary by America and its allies.
 - The US Department of Defense has stated that the US military had taken the "decisive step to protect US personnel abroad by killing Soleimani, the head of Quds Force, which is the overseas operations wing of the IRGC (Islamic Revolutionary Guard Corps) and a US-designated Foreign Terrorist Organisation."
- Islamic Revolutionary Guard Corps (IRGC), also called Pasdaran, is a branch of the Iranian armed forces, independent of Iran's regular army.
 - It is tasked with preserving the Islamic Republic of Iran and the ideals of the 1979 revolution.
 - The IRGC is Iran's primary instrument for exporting the ideology of the Islamic Revolution worldwide. It is rigidly loyal to Iran's clerical elite.
 - Quds Force is a wing of IRGC which is responsible primarily for its foreign operations. Quds is the Arabic word for Jerusalem, and is responsible for carrying out unconventional warfare and intelligence activities.
- The force is responsible for training, financing and providing assistance to some extremist groups overseas.
 - It also undertakes Iranian missions in other countries, including covert ones.
 - Soleimani's death would result in a dramatic escalation in relations between the US and Iran.
 - The killing could have a ripple effect in any number of countries across the Middle East where Iran and the US compete for influence.

Hormuz peace initiative

- The meeting of Hormuz Peace Initiative was recently held in Iran.
- The meeting saw participation from key regional players including Oman and India besides Afghanistan and China.
- It aims to stabilise the Strait of Hormuz, the gateway for a significant amount of global oil supplies.
- The Strait of Hormuz is the waterway that separates Iran and Oman, linking the Gulf to the Gulf of Oman and the Arabian Sea.



- On the north coast lies Iran, and on the south are the UAE and Musandam, an enclave of Oman.
- The Strait is 21 miles (33 km) wide at its narrowest point, but the shipping lane is just two miles (three km) wide in either direction.
- The Strait of Hormuz is one of the world’s most strategically important choke points.
- Two-thirds of the oil and half the liquefied natural gas India imports come through the strait between Iran and Oman.
- As much as 18 million barrels of oil pass through the Strait of Hormuz every day, accounting for one-third of the global oil trade. A third of the world’s LNG trade also passes through the strait.

Bhutan’s new tourism fee:

- Bhutan will now impose a “sustainable development fee” (SDF) on Indian, Bangladeshi and Maldivian tourists.
- To promote tourism in the less popular Eastern Bhutan, the SDF will not be levied on tourists travelling to 11 districts in the region.
- The decision has been taken to protect the ecology of the country, amid a spike in visitors from India.



- So far, tourists from the three countries had been exempt from a levy that other nationals had to pay — \$250 per person per day during the peak season, and \$200 per person per day during the low season. The low season is in the winter from December to February, and during the rains from June to August.

Pakistan retained on 'Grey List' of FATF

- The Financial Action Task Force (FATF) has given an extension of four months to Pakistan to act against organisations involved in terror financing.
- All deadlines given to Pakistan to check terror funding have ended and it has failed to complete its action plan in line with an agreed timeline and failed to check terror funding risks emanating from its jurisdiction.
- If Pakistan fails to prosecute, it will be penalised on terror funding acts by June.
- Implications:
- With Pakistan's continuation in the 'Grey List', it will be difficult for the country to get financial aid from the IMF, the World Bank, the ADB and the European Union.
- This will further enhance problems for the nation which is in a precarious economic situation.
- Also, there is every possibility that the global body may put the country in the 'Black List' along with North Korea and Iran.
- Pakistan has been under the FATF's scanner since 2018, when it was put on the grey list for terror financing and money laundering risks, after an assessment of its financial system and law enforcement mechanisms. Pakistan has largely addressed 14 of 27 action items.
- Grey List: Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.
- Black List: Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities. The FATF revises the blacklist regularly, adding or deleting entries.

Saudi hosts G20 financial leaders

- G20 meeting was held recently in Riyadh (Saudi Arabia).
- Saudi Arabia is the first Arab nation to hold the G20 presidency.
- Theme: "Realizing Opportunities of the 21st Century for All".

Focus areas:

- Action plan to shield the world economy from the impact of Coronavirus Epidemic.
- Discuss ways to achieve a fairer global taxation system for the digital era.
- Discuss global economic outlook and possible policy responses to support growth and safeguard against downside risks.

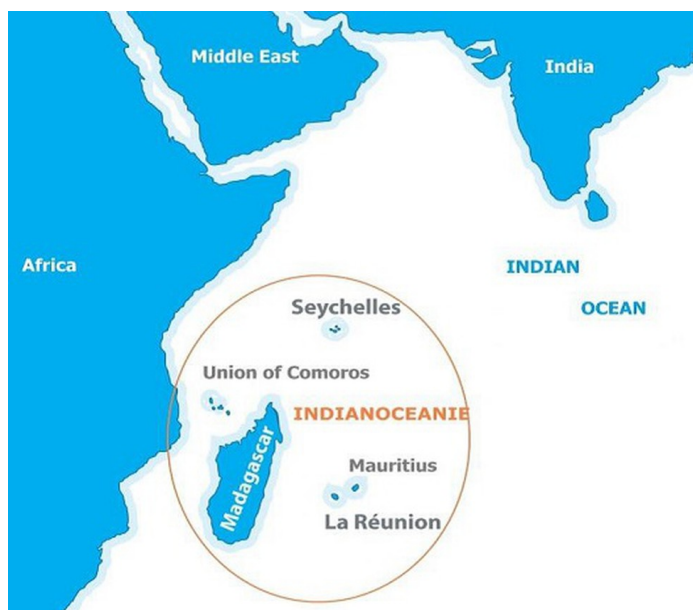
Peace to Afghanistan

- US and Taliban have signed a historic agreement- "Agreement for Bringing Peace to Afghanistan"- in Doha, Qatar. It outlines a series of commitments from the US and the Taliban related to troop levels, counterterrorism, and the intra-Afghan dialogue aimed at bringing about "a permanent and comprehensive ceasefire."

- The agreement could pave the way to ending America’s longest-fought war. However, it is unclear whether India, which is not a U.S. ally, is included in this definition, and whether Pakistan-backed groups that threaten India would still operate in Afghanistan. The Taliban perceived India as a hostile country, as India had supported the anti-Taliban force Northern Alliance in the 1990s.
- It lays out a 14-month timetable for the withdrawal of “all military forces of the United States, its allies, and Coalition partners, including all non-diplomatic civilian personnel, private security contractors, trainers, advisors, and supporting services personnel.”
- The agreement also calls for the release of 5,000 Taliban prisoners and 1,000 “prisoners of the other side” on the first day of intra-Afghan negotiations. The relevant sides have the goal of releasing all the remaining prisoners over the course of the subsequent three months.
- Taliban will take steps “to prevent any group or individual, including al-Qa’ida, from using the soil of Afghanistan to threaten the security of the United States and its allies.”

Indian Ocean Commission

- India was recently accepted as an observer in the Indian Ocean Commission, getting a seat at the table of the organization that handles maritime governance in the western Indian Ocean.
- India will get an official foothold in a premier regional institution in the western Indian Ocean, boosting engagement with islands in this part of the Indian Ocean.
- India’s entry is a consequence of its deepening strategic partnership with France as well as its expanding ties with the Vanilla Islands.
- These island nations are increasingly important for India’s strategic outreach as part of its Indo-Pacific policy.



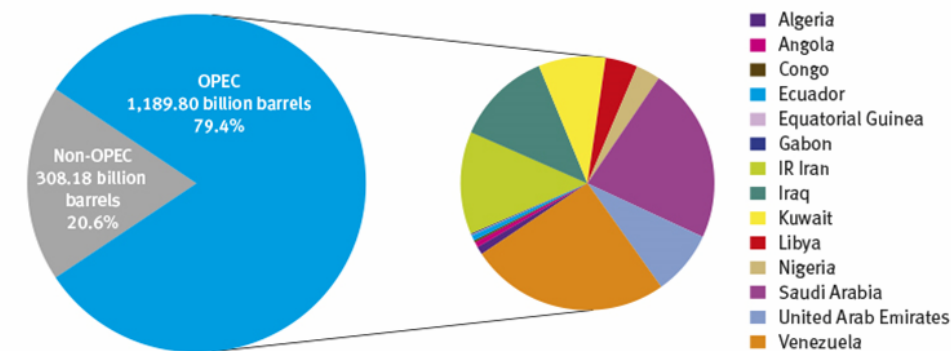
- It lends depth to India’s SAGAR (security and growth for all in the region) policy unveiled by PM Modi in 2015.
- The move would lead to greater security cooperation with countries in East Africa.
- The COI is composed of five African Indian Ocean nations: Comoros, Madagascar, Mauritius, Réunion (an overseas region of France), and Seychelles.

Opec+

- Saudi Arabia, the world’s top oil exporter, plans to raise its crude oil production significantly above 10 million barrels per day (bpd) in April, after the collapse of the OPEC+ supply cut agreement with Russia.
- A three-year pact between OPEC and Russia ended in acrimony recently after Moscow refused to support deeper oil cuts to cope with the outbreak of the coronavirus and OPEC responded by removing all limits on its own production.
- Opec+ refers to the alliance of crude producers, who have been undertaking corrections in supply in the oil markets since 2017.
- OPEC plus countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

The Organization of the Petroleum Exporting Countries (OPEC) was founded in Baghdad, Iraq, with the signing of an agreement in September 1960 by five countries namely Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. They were to become the Founder Members of the Organization.

OPEC share of world crude oil reserves, 2018



- OPEC membership is open to any country that is a substantial exporter of oil and which shares the ideals of the organization.

- OPEC's 13 members control nearly 35 percent of global oil supplies and 82 percent of proven reserves. With the addition of the 10 Non-OPEC nations, notable among them Russia, Mexico and Kazakhstan, those shares increase to 55 percent and 90 percent respectively. This affords OPEC+ a level of influence over the world economy never seen before.

India's Permanent Mission to the United Nations

- India has appointed diplomat T S Tirumurti, currently serving as Secretary in the Ministry of External Affairs, as its Permanent Representative to the United Nations.
- According to Article 1 (7) of the Vienna Convention on the Representation of States in their Relations with International Organizations of a Universal Character, a "Permanent Mission" is a: "mission of permanent character, representing the State, sent by a State member of an international organization to the Organization".
- The Permanent Mission is the diplomatic mission that every member state deputed to the United Nations.
- It is headed by a Permanent Representative, who is also referred to as the "UN ambassador".
- The first Indian delegates at the United Nations included statesman Arcot Ramasamy Mudaliar, and freedom fighters Hansa Mehta, Vijayalakshmi Pandit, and Lakshmi Menon. Mehta and Pandit were among the 15 women members of the Indian Constituent Assembly.
- India was among the select members of the United Nations that signed the United Nations Declaration at Washington on January 1, 1942.

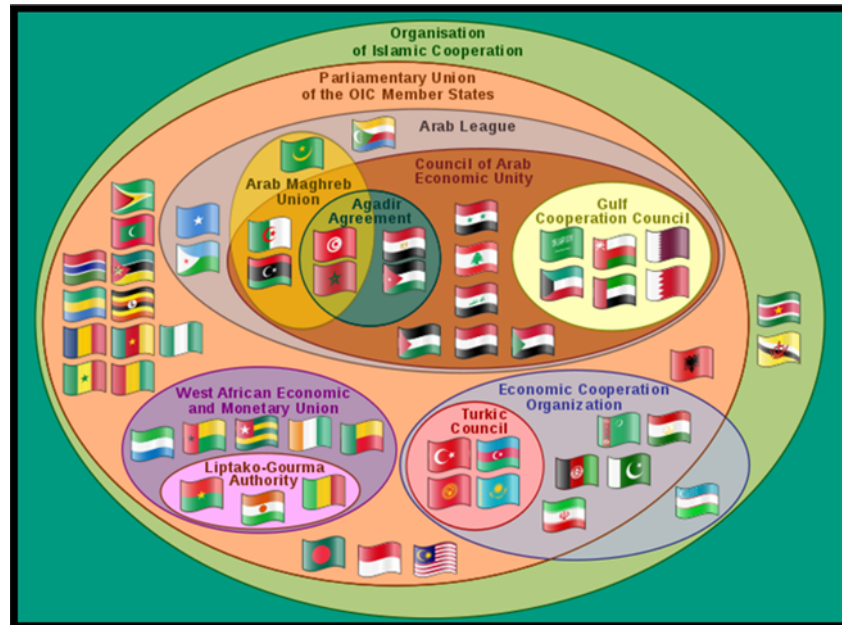
Islamophobia and IOC

- Organisation of Islamic Cooperation (OIC) has criticised India for what it called "growing Islamophobia".
- IOC said, Muslim minorities are being "negatively profiled," facing "discrimination and violence" amidst the COVID-19 crisis in India.
- It has urged the Indian Government to take urgent steps to stop the growing tide of Islamophobia in India and protect the rights of its persecuted Muslim minority as per its obligations under international Human Rights law.
- A religious gathering of Muslims (Tablighi Jamaat) was held in Delhi in March. The event was linked to many of the Covid-19 positive cases in India. After this most sections of the media, people on social media blamed the Tablighi jamaat and muslims for deliberately spreading the Covid-19 in India.

Organisation of Islamic Cooperation is an international organization founded in 1969, consisting of 57 member states.

It is the second largest inter-governmental organization after the United Nations.

Permanent Secretariat is in Jeddah, Saudi Arabia.



DEFENCE

RaIDer-X

- The Defence Research and Development Organisation (DRDO) and the Indian Institute of Science in Bangalore have developed a new bomb detection device called Raider-X.
- It is an explosives detection device. It can detect up to 20 explosives from a stand-off distance of two meters. It is developed by the High Energy Material Research Laboratory (HEMRL), an arm of the DRDO in Pune and the Indian Institute of Science in Bangalore. It can also discern bulk explosives even if they have been concealed.
- Most of the recent terrorist attacks had explosives that were made from easily available ingredients like petrol and gelatin sticks rather than high-end materials. And devices like RaIDer-X are incremental to thwarting the threat from homemade explosives.

TECHNOLOGY & DIGITAL INITIATIVES

Gaganyaan mission

The ISRO Chairman announced in a press briefing that four astronauts have been selected for the country’s first manned mission to space, called Gaganyaan.

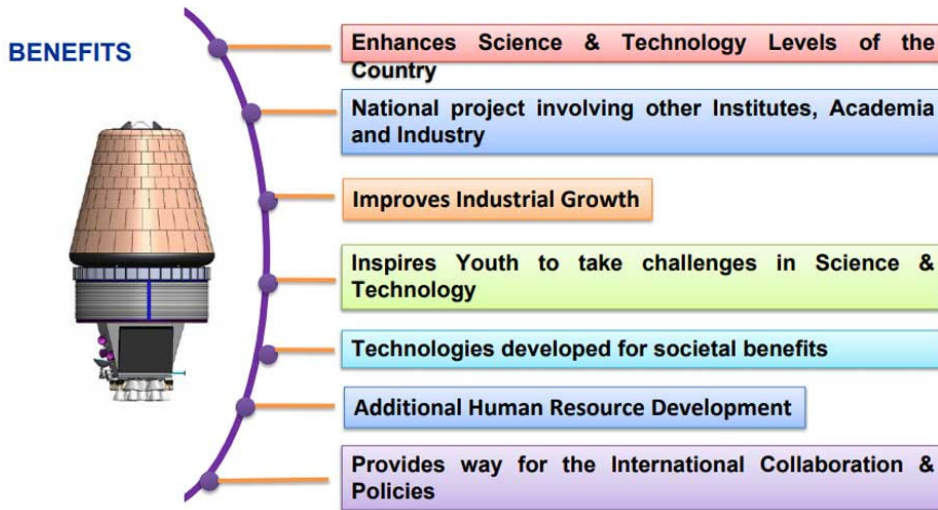
ISRO aims to launch its maiden Human Space Mission, Gaganyaan before the 75th anniversary of India’s independence in 2022.

GAGANYAAN : OBJECTIVES & BENEFITS



Statement of Honourable Prime Minister

“ ... a son or a daughter of India will go to Space from Indian Soil by an Indian Vehicle by 2022 (75th Year of India’s Independence) or earlier”



Objectives of the Mission:

- Enhancement of science and technology levels in the country
- Improvement of industrial growth
- Inspiring youth
- Development of technology for social benefits
- Improving international collaboration
- Relevance of a Manned Space Mission for India:

‘Virtual human’ NEONs

- The first project of Samsung’s Star Labs, NEONs are being called the world’s first artificial humans.
- NEONs are computationally created virtual humans — the word derives from NEO (new) + humaN.
- For now the virtual humans can show emotions when manually controlled by their creators.
- But the idea is for NEONs to become intelligent enough to be fully autonomous, showing emotions, learning skills, creating memories, and being intelligent on their own.

Uses:

- NEONs might be the interface for technologies and services.
- They will answer your queries at a bank, welcome you at a restaurant, or read out the breaking news on television at an unearthly hour.

- This form of virtual assistance would be more effective, for example, while teaching languages, as NEONs will be capable of understanding and sympathising.

HSN Code

- Harmonised System, or simply ‘HS’:
- HS Code is also known as HSN Code in India. Goods are classified into Harmonized System of Nomenclature or HSN. It is used up to 8 digit level.
- It is developed by the World Customs Organization (WCO).
- Also called the “universal economic language” for goods.
- It is a multipurpose international product nomenclature.
- The system currently comprises of around 5,000 commodity groups.



- HSN classification is widely used for taxation purposes by helping to identify the rate of tax applicable to a specific product in a country that is under review. It can also be used in calculations that involve claiming benefits.
- HS code is used by Customs authorities, statistical agencies, and other government regulatory bodies, to monitor and control the import and export of commodities.
- India decided not to allow imports without HSN code. This will enable India’s exports to be accepted globally due to the quality of goods and services.
- Over 200 countries use the system as a basis for their customs tariffs, gathering international trade statistics, making trade policies, and for monitoring goods.
- The system helps in harmonising of customs and trade procedures, thus reducing costs in international trade.

Biorock or mineral accretion technology

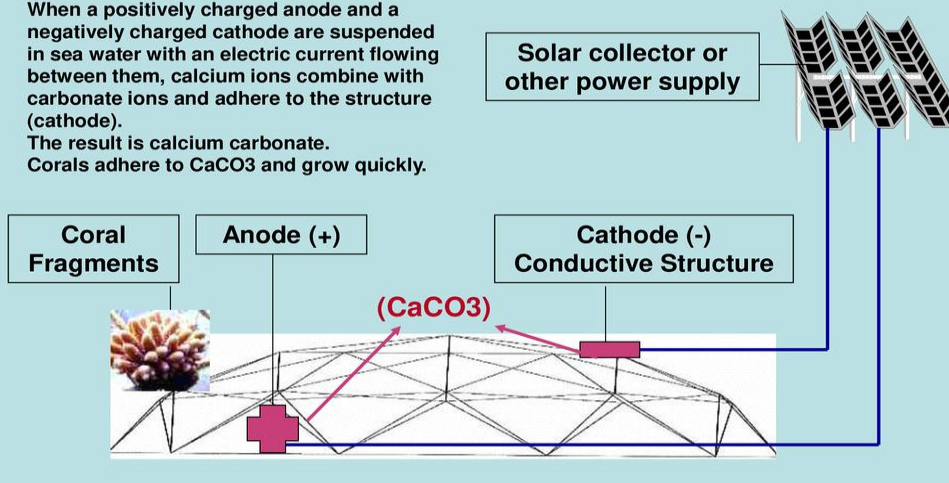
- The Zoological Survey of India (ZSI), with help from Gujarat’s forest department, is attempting for the first time a process to restore coral reefs using biorock or mineral accretion technology in the Gulf of Kachchh.

- It is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source, in this case solar panels that float on the surface.
- The technology works by passing a small amount of electrical current through electrodes in the water.



How a Biorock™ Reef works

When a positively charged anode and a negatively charged cathode are suspended in sea water with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).
The result is calcium carbonate.
Corals adhere to CaCO_3 and grow quickly.



- When a positively charged anode and negatively charged cathode are placed on the sea floor, with electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).

- This results in calcium carbonate formation. Coral larvae adhere to the CaCO_3 and grow quickly.
- Fragments of broken corals are tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they need not spend their energy in building their own calcium carbonate skeletons.

Sophisticated Analytical & Technical Help Institutes (SATHI)

- The Department of Science & Technology has launched a unique scheme called “Sophisticated Analytical & Technical Help Institutes (SATHI)”.
- Its aim is to address the need for building shared, professionally managed and strong S&T infrastructure in the country which is readily accessible to academia, start-ups, manufacturing, industry and R&D labs etc.
- These Centres are expected to house major analytical instruments to provide common services of high-end analytical testing, thus avoiding duplication and reduced dependency on foreign sources.
- These would be operated with a transparent, open access policy.
- DST has already set up three such centres in the country, one each at IIT Kharagpur, IIT Delhi and BHU.

Objectives of the Scheme:

- To address the problems of accessibility, maintenance, redundancy and duplication of expensive equipment in the institutions.
- This will also foster a strong culture of collaboration between institutions and across disciplines to take advantage of developments, innovations and expertise in diverse areas.

Blue dot network

- The first meeting of the Blue Dot Network’s embryonic steering committee was held recently in Washington, with Australia and Japan as partners.
- The U.S., Australia and Japan announced the network during the November 4, 2019, Indo-Pacific Business Forum in Bangkok. The initiative aligns with the G20’s Principles for Quality Infrastructure Investment, particularly on governance, environmental standards and transparency.



- At present the project is led by the U.S. International Development Finance Corporation (boasting access to \$60 billion in capital), in partnership with the government-owned Japan Bank for International Cooperation and Australia's Department of Foreign Affairs.
- It will act as a globally recognized seal of approval for major infrastructure projects, letting people know the projects are sustainable and not exploitative.

Aditya- L1 mission

- It is India's first solar mission. It will be launched using the Polar Satellite Launch Vehicle (PSLV) in XL configuration. The space-based observatory will have seven payloads (instruments) on board to study the Sun's corona, solar emissions, solar winds and flares, and Coronal Mass Ejections (CMEs), and will carry out round-the-clock imaging of the Sun.

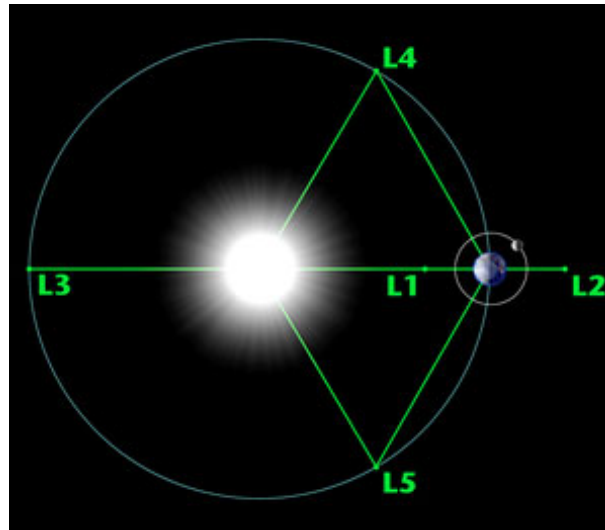
Objectives:

- Study the sun's outer most layers, the corona and the chromospheres.
- Collect data about coronal mass ejection, which will also yield information for space weather prediction.

Significance of the mission:

- The data from Aditya mission will be immensely helpful in discriminating between different models for the origin of solar storms and also for constraining how the storms evolve and what path they take through the interplanetary space from the Sun to the Earth.

- In order to get the best science from the sun, continuous viewing of the sun is preferred without any occultation/ eclipses and hence, Aditya- L1 satellite will be placed in the halo orbit around the Lagrangian point 1 (L1) of the sun-earth system.



- Lagrangian points are the locations in space where the combined gravitational pull of two large masses roughly balance each other. Any small mass placed at that location will remain at constant distances relative to the large masses. There are five such points in Sun-Earth system and they are denoted as L1, L2, L3, L4 and L5. A halo orbit is a periodic three-dimensional orbit near the L1, L2 or L3.

Chatbot ASKDISHA

- The Indian Railways Catering & Tourism Corporation Limited (IRCTC) has powered voice-enabled ASKDISHA Chatbot to converse with customers in the Hindi language. The customers can now ask queries to ASKDISHA in Hindi by voice as well as text.
- It is an Artificial Intelligence-based chatbot. It is a special computer programme designed to simulate conversation with users, especially over the internet. Initially launched in the English language in October 2018.
- Since its initial launch, passengers seeking help on the reservation of tickets, cancellation, enquiry of refund status, fare, PNR search, train running status, enquiry about retiring rooms and tourism products have been benefited.

Geofencing

Geofencing is a location-based service in which an app or other software uses GPS, RFID, Wi-Fi or cellular data to trigger a pre-programmed action when a mobile device or RFID tag enters or exits a virtual boundary set up around a geographical location, known as a geofence.

The centre has tested an application that triggers e-mails and SMS alerts to an authorised government agency if a person has jumped quarantine or escaped from isolation, based on the person's mobile phone's cell tower location. The "geo-fencing" is accurate by up to 300 m.

Depending on how a geofence is configured it can prompt mobile push notifications, trigger text messages or alerts, send targeted advertisements on social media, allow tracking on vehicle fleets, disable certain technology or deliver location-based marketing data.

TriboE masks and triboelectricity

- A team of researchers at the Centre for Nano and Soft Matter Sciences (CeNS), Bangalore, an autonomous institute of the Department of Science and Technology (DST), have come up with an idea for making face masks, termed as TriboE Mask, that can hold electric charges to restrict the entry of infections but interestingly, without any external power.
- It relies on electrostatics. When two non-conducting layers are rubbed against each other, the layers develop positive and negative charges instantly and continue to hold the charges for some time. This electric field, quite strong at proximity, is used to deactivate or possibly even kill the germs.
- The mask is three-layered –a layer of nylon cloth sandwiched between polypropylene layers, the latter sourced from commonly used non-woven grocery bags.



- In place of nylon, silk fabric from an old saree or shawl may also be cut and used.
- When layers are rubbed against each other, the outer layers develop negative charges, while nylon will hold the positive charges.
- This will act as double electric wall protection against the infectious entities crossing.
- As the mask is made out of commonly available fabrics, it can be washed just like any other cloth and can be reused.

Triboelectric charging is a type of contact electrification on which certain materials become electrically charged after they are separated from a different material with which they were in contact.

Rubbing the two materials each with the other increases the contact between their surfaces, and hence the triboelectric effect.

ENVIRONMENT

Forest cover in India

- The Union Minister for Environment, Forest and Climate Change, released the biennial “India State of Forest Report (ISFR)”.
- The report is published by the Forest Survey of India (FSI) which has been mandated to assess the forest and tree resources of the country including wall-to-wall forest cover mapping in a biennial cycle.
- ISFR 2019 is the 16th report in the series.
- The principal aim of India State of Forest Report (ISFR) is to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which is vital for sustenance of all life forms, human, animal and plant. The derivation of direct economic benefit must be subordinate to this principal aim.
- The report provides information on forest cover, tree cover, mangrove cover, growing stock inside and outside the forest areas, carbon stock in India’s forests, Forest Types and Biodiversity, Forest Fire monitoring and forest cover in different slopes & altitudes.

Report findings:

- Area-wise Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.

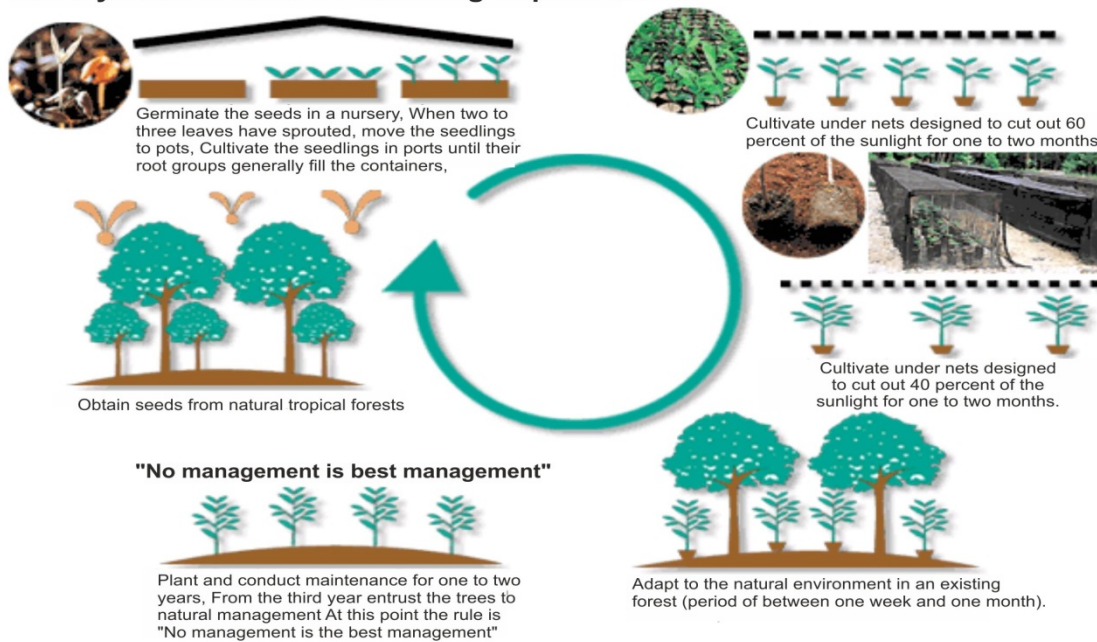


- In terms of forest cover as percentage of total geographical area, the top five States are Mizoram (85.41%), Arunachal Pradesh (79.63%), Meghalaya (76.33%), Manipur (75.46%) and Nagaland (75.31%).
- Top three states showing mangrove cover increase are Gujarat (37 sq km) followed by Maharashtra (16 sq km) and Odisha (8 sq km).
- Under the current assessment the total carbon stock in country's forest is estimated 7,124.6 million tonnes and there an increase of 42.6 million tonnes in the carbon stock of country as compared to the last assessment of 2017.

Miyawaki method

- The Miyawaki method, developed by a Japanese botanist after whom it is named, involves planting saplings in small areas, causing them to “fight” for resources and grow nearly 10 times quicker.
- It originated in Japan, and is now increasingly adopted in other parts of the world, including our Chennai. It has revolutionised the concept of urban afforestation by turning backyards into mini-forests.

The Miyawaki method for restoring tropical forests



- The Miyawaki method of afforestation is to come up on the government office premises, residential complexes, school premises, and puramboke land in Kerala. The exercise will cost approximately ₹ 20,000 for a 600 sq. ft mini forest.

Smog tower:

Smog towers are structures designed to work as large-scale air purifiers. They are usually fitted with multiple layers of air filters, which clean the air of pollutants as it passes through them. After the cleaning, the tower releases clean air.

The filters installed in the tower will use carbon nanofibres as a major component and will be fitted along its peripheries. The tower will focus on reducing particulate matter load.



In November, the Supreme Court had directed the Centre and the Delhi government to prepare a plan to install 'smog towers' across the capital to deal with air pollution.

Australian Bushfires

- Australia was recently ravaged by the worst wildfires seen in decades, with large swaths of the country devastated since the fire season began.
- All this has been exacerbated by persistent heat and drought, and many point to climate change as a factor making natural disasters go from bad to worse.
- There have been fires in every Australian state, but New South Wales has been hardest hit.
- Blazes have torn through bushland, wooded areas, and national parks like the Blue Mountains.
- Some of Australia's largest cities have also been affected, including Melbourne and Sydney where fires have damaged homes in the outer suburbs and thick plumes of smoke have blanketed the urban center.
- Each year there is a fire season during the Australian summer, with hot, dry weather making it easy for blazes to start and spread.

NEW RAMSAR SITES IN INDIA

The Ramsar Convention has declared 10 more wetlands in India as sites of international importance.

This brings the total number of Ramsar sites in India to 37 from 27.

The 10 new ones are:

1. Nandur Madhameshwar, Maharashtra
2. Saman Bird Sanctuary (Mainpuri, UP)
3. Nawabganj Bird Sanctuary (Unnao, UP)
4. Samaspur Bird Sanctuary (Raebareli, UP)
5. Sandi Bird Sanctuary (Hardoi, UP)
6. Parvati Arga Bird Sanctuary (UP)
7. Sarsai Nawar Jheel (Etawah, UP)
8. Beas Conservation Reserve (Punjab)
9. Nangal Wildlife Sanctuary (Punjab)
10. Keshopur-Miani Community Reserve (Punjab)



Biodiversity management committees (BMC)

- The National Biodiversity Authority (NBA) is set to tell the National Green Tribunal that it created 243,499 biodiversity management committees (BMC) and 95,525 people's biodiversity registers (PBR) as of January 2020.
- As per the Biological Diversity Act 2002, BMCs are created for "promoting conservation, sustainable use and documentation of biological diversity" by local bodies across the country.
- It shall consist of a chair person and not more than six persons nominated by the local body, of whom not less than one third should be women and not less than 18% should belong to the Scheduled Castes/ Scheduled Tribes.
- The Chairperson of the Biodiversity Management Committee shall be elected from amongst the members of the committee in a meeting to be chaired by the Chairperson of the local body.
- The chairperson of the local body shall have the casting votes in case of a tie.
- The main function of the BMC is to prepare People's Biodiversity Register in consultation with the local people. The Register shall contain comprehensive information on availability and knowledge of local biological resources, their medicinal or any other use or any other.

Yongle Blue Hole (YBH):

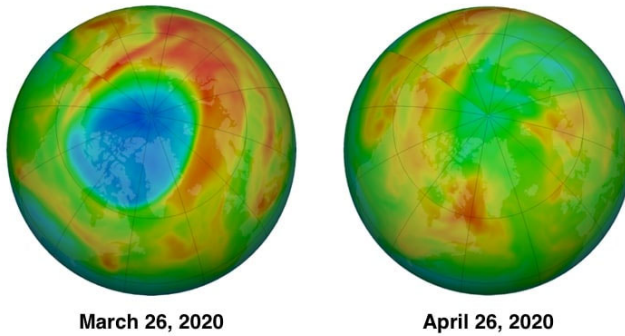
Carbon more than 8,000 years old lies deep inside a yawning sinkhole in the South China Sea.

- It is the deepest known marine cavern.
- Located in the Xisha Islands of the South China Sea (SCS).
- It measures roughly 300 metres from top to bottom.
- Its waters are mostly isolated from the surrounding ocean and receive little fresh water from rainfall, making it a rare spot to study the chemistry of oxygen-deprived marine ecosystems.



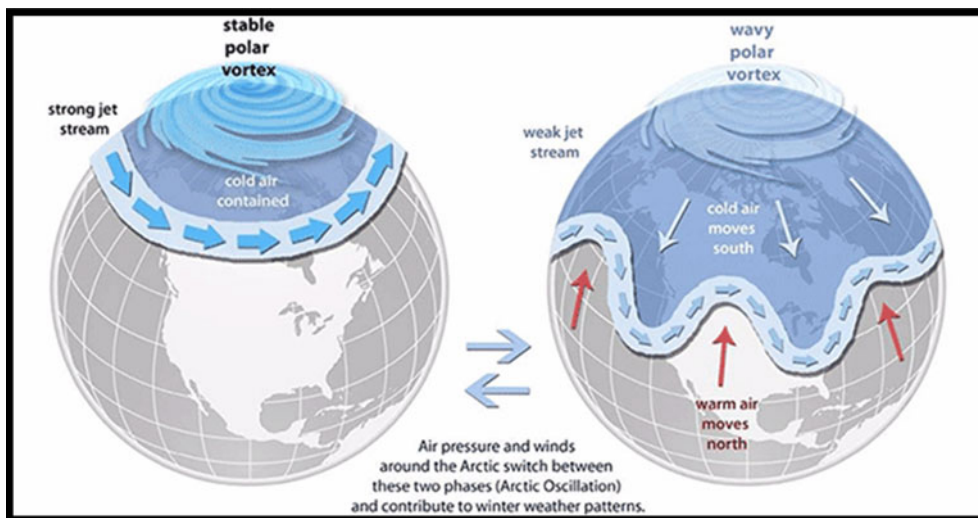
Ozone Hole

- Largest Ozone Hole Ever Recorded over North Pole Has Now ‘Healed Itself’ and Closed. This was announced by Scientists who were tracking the hole at Copernicus’ Atmospheric Monitoring Service (CAMS).
- The ozone hole became the largest one ever recorded in the Arctic region spanning an area of over 620,000 square miles (or 997793.28 kms). It was formed due to unusual climatic conditions.
- The cause of the formation of the hole is attributed to the unusual weather at the poles.



- The unique cocktail of the powerful vortex and low temperatures generates Stratospheric clouds that react with CFCs and destroy the Ozone layer in the process.
- According to the scientists the closure of the hole is not due to the reduced pollution levels due to COVID-19 lock down.
- The closing was because of a phenomenon called the polar vortex.

Polar vortex is described as a whirling cone of low pressure over the poles that is strongest in the winter months due to the increased temperature contrast between the polar regions and the mid latitudes, such as the US and Europe.



BILLS & ACTS

Anti-CAA resolution

- Kerala has become the first state in India to pass a resolution demanding rollback of the controversial Citizenship Amendment Act (CAA).
- The Parliament had passed the Citizenship (Amendment) Bill 2019 on December 11, 2019. The act had triggered widespread protests across India and created fear of discrimination based on religion.
- Kerala has already put on hold all the activities in connection with the National Population Register (NPR) considering the anxiety among people that it relates to the National Register of Citizens (NRC).
- The Centre has clarified that the CAA act will not impact any Indian citizen including Muslims.
- The clarification has failed to have any impact on the protests, with many states announcing that they will not implement the law.
- The Citizenship (Amendment) Act, 2019 seeks to allow illegal migrants from certain minority communities in Afghanistan, Bangladesh and Pakistan eligible for Indian citizenship by amending the Citizenship Act of 1955.
- It seeks to grant citizenship to people from minority communities —Hindus, Sikhs, Buddhists, Jains, Parsis and Christians —after 6 years of stay in India even if they do not possess any proper document. The current requirement is 12 years of stay.
- The Bill provides that the registration of Overseas Citizen of India (OCI) cardholders may be cancelled if they violate any law.
- It makes illegal migrants eligible for citizenship on the basis of religion. This may violate Article 14 of the Constitution which guarantees the right to equality.
- It allows cancellation of OCI registration for violation of any law. This is a wide ground that may cover a range of violations, including minor offences.

Disha law


- Last year, the Andhra Pradesh Legislative Assembly had passed the Andhra Pradesh Disha Bill, 2019 (Andhra Pradesh Criminal Law (Amendment) Act 2019).
- It envisages the completion of investigation in seven days and trial in 14 working days, where there is adequate conclusive evidence, and reducing the total judgment time to 21 days from the existing four months.
- It prescribes life imprisonment for other sexual offences against children and includes Section 354 F and 354 G in IPC.
- In cases of harassment of women through social or digital media, the Act states two years imprisonment for the first conviction and four years for second and subsequent convictions.

Tackling crime

The key aspects of the A.P. Criminal Law (Amendment) Bill, 2019, which will be tabled in the ongoing winter session of the State Legislature

- **Death penalty for heinous offences of rape and gang-rape**
- **Probe and trial will be completed in 7 and 14 working days respectively**
- **Judgment time reduced to 21 days from the existing 4 months**

It will be known as **A.P. Disha Act, 2019**



STOP RAPE

- As per the Bill, the Andhra Pradesh government will establish, operate and maintain a register in electronic form, to be called the 'Women & Children Offenders Registry'. This registry will be made public and will be available to law enforcement agencies.
- The government will establish exclusive special courts in each district to ensure speedy trial. These courts will exclusively deal with cases of offences against women and children including rape, acid attacks, stalking, voyeurism, social media harassment of women, sexual harassment and all cases under the POCSO Act.
- The government will constitute special police teams at the district level to be called District Special Police Team to be headed by DSP for investigation of offences related to women and children.
- The government will also appoint a special public prosecutor for each exclusive special court.

Pesticides Management Bill 2020

- Union Cabinet has approved the Pesticide Management Bill 2020 to promote the use of organic pesticides in the country.
- The bill will empower farmers to get all the information regarding pesticides including their strengths and weaknesses and the risk and alternatives involved, as the data would be made available in open source, in a digital format and in all languages.
- The bill will also include the provision of compensating the farmers in case of losses due to the use of spurious or low quality of pesticides.
- The union government may form a central fund to take care of the compensation.
- Any person who wants to import, manufacture, or export pesticides would have to register under the new bill and provide all details regarding any claims, expected performance, efficacy, safety, usage instructions, and infrastructure available to stock that pesticide. The information will also include details on the pesticide's potential effects on the environment.

- The bill also plans to regulate pesticides-related advertisements to check misleading claims by industries and manufacturers.
- India is the fourth-largest producer of pesticides in the world, with the market segmentation tilted mainly towards insecticides, with herbicides on the increase in the recent past. It is reported that eight states consume more than 70% of the pesticides used in India. Amongst the crops, paddy accounts for the maximum share of consumption (26-28%), followed by cotton (18-20%), notwithstanding all the hype around Bt technology.

Major Port Authorities Bill, 2020

Major Port Authorities Bill 2020 Introduced in The Loksabha. The bill will replace the Major Port Trusts Act, 1963.

Features:

- Decentralise decision making and infuse professionalism in governance of major ports.
- Impart faster and transparent decision making benefiting the stakeholders and better project execution capability.
- Reorient the governance model in central ports to landlord port model in line with the successful global practice.
- This will empower the Major Ports to perform with greater efficiency on account of full autonomy in decision making and by modernizing the institutional framework of Major Ports.

In the landlord port model, the publicly governed port authority acts as a regulatory body and as landlord while private companies carry out port operations—mainly cargo-handling activities.

Here, the port authority maintains ownership of the port while the infrastructure is leased to private firms that provide and maintain their own superstructure and install own equipment to handle cargo.

In return, the landlord port gets a share of the revenue from the private entity.

The role of the landlord port authority would be to carry out all public sector services and operations such as the award of bids for cargo terminals and dredging.

Medical devices as ‘drugs’

- The central government has notified all medical devices as ‘drugs’, effective from April 1, bringing a range of products from instruments to implants to even software intended for medical use in human beings or animals under the purview of the Drugs and Cosmetics Act, 1940. At present, only 37 medical devices are notified as drugs. The health ministry made some amendments to the Medical Devices Rules, 2017.
- Apart from expanding the scope of regulation to ensure safety and efficacy, the move may pave the way for regulation of prices under the Drugs Price Control Order (DPCO).
- Companies will now have to seek approval from the drug controller to manufacture, import and sell any medical device in the country.

- Medical devices shall be registered with the Central Licensing Authority through an identified online portal established by the Central Drugs Standard Control Organisation (CDSCO). Such registration is voluntary for a period of 18 months, after which it will be mandatory.
- The manufacturer of a medical device shall upload the information relating to that medical device for registration on the “Online System for Medical Devices” established by the CDSCO. Importers too will be required to do the same.
- It will also make companies, in case of violations, liable to be penalised in a court of law.

Sukhna Lake is a living entity

- The Punjab and Haryana high court has declared Sukhna Lake a “living entity” or “legal person” with rights, duties and liabilities of a living person.
- It also declared all citizens of Chandigarh as loco parentis (in the place of a parent) to save the lake from extinction.
- All structures in Sukhna’s catchment area (which was demarcated by the Survey of India in 2004) should be demolished, and affected owners whose building plans have been approved should be relocated in the vicinity of Chandigarh and they should be compensated with ₹25 lakh each.
- Punjab, Haryana and Chandigarh have also been told to lower the storage capacity of the check dams to ensure regular flow of water into the lake.
- A legal entity means entity which acts like a natural person but only through a designated person, whose acts are processed within the ambit of law.
- The man-made Sukhna Lake was built in 1958 by Le Corbusier, the architect of Chandigarh. Located in the foothills of the Shivalik Hills, it was designed to collect runoff water from the Hills. The Lake, which is in the process of being officially notified as a wetland, also has a nearby wildlife sanctuary that is home to sambar, pangolin, wild boars, red jungle fowl, cobras and other species.

Delimitation of Constituencies

- The government has constituted a Delimitation Commission, to be headed by former Supreme Court judge Ranjana Prakash Desai, to redraw Lok Sabha and assembly constituencies of the Union Territory Jammu and Kashmir and the northeastern states of Assam, Arunachal Pradesh, Manipur and Nagaland.
- The Commission will delimit the constituencies of Jammu and Kashmir in accordance with the provisions of the Jammu and Kashmir Reorganisation Act, and of Assam, Arunachal Pradesh, Manipur and Nagaland in accordance with the provisions of the Delimitation Act, 2002.

Delimitation literally means the process of fixing limits or boundaries of territorial constituencies in a state that has a legislative body.

INDICES

Democracy Index 2019

Democracy Index 2019 has been by The Economist Intelligence Unit.

The report ranks 165 independent states and two territories, covering almost the entire population of the world.

The Index is based on five categories:

1. Electoral process and pluralism.
2. Civil liberties.
3. Functioning of government.
4. Political participation.
5. Political culture.

Based on their scores on 60 indicators within these categories, each country is then itself classified as one of four types of regime: full democracy; flawed democracy; hybrid regime; and authoritarian regime.

Performance of India:

- In 2019, India slipped 10 places to 51st position.
- It is placed in the “flawed democracy” category, which also includes Bangladesh (5.88).
- Its score went down from 7.23 in 2018 to 6.90 in 2019, its lowest ever since the Democracy Index was begun in 2006.
- As per the report, erosion of civil liberties in the country is main reason.
- Norway (top-ranked with 9.87) is counted as a “full democracy”.
- Following Norway at the top of the rankings are Iceland (9.58), Sweden (9.39) and New Zealand (9.26).
- The report describes the year in Asia as one filled with “drama and tumult,” with Hong Kong being the epicentre of protest in the continent.

‘A Future for the World’s Children’ report

- ‘A Future for the World’s Children’ report was recently released by the WHO, UNICEF and the Lancet medical journal. The report calculates the Flourishing Index and Sustainability Index of 180 countries.
- Flourishing is the geometric mean of Surviving and Thriving.
- The parameter of Surviving considers maternal survival, survival in children younger than 5 years old, suicide, access to maternal and child health services, basic hygiene, sanitation, and lack of extreme poverty.
- The parameter of Thriving considers educational achievement, growth and nutrition, reproductive freedom, and protection from violence.

Sustainability Index:

- The Sustainability Index ranks countries on the basis of excess carbon emissions compared with the 2030 target.
- India stands 77th (sustainability index) and is at 131st on a ranking that measures the best chance at survival and well-being for children.
- India has improved in health and sanitation but has to increase its spending on health.

World Air Quality Report 2019

- World Air Quality Report 2019 was released by the pollution tracker IQAir and Greenpeace. The ranking is based on a comparison of PM 2.5 levels. Bangladesh emerged as the most polluted country for PM 2.5. Pakistan, Mongolia, Afghanistan and India followed behind respectively.
- PM 2.5 includes pollutants such as sulfate, nitrates and black carbon. Exposure to such particles has been linked to lung and heart disorders and can impair cognitive and immune functions.
- Twenty-one of the world's 30 cities with the worst air pollution are in India.
- Six cities from India are in the top ten.
- Ghaziabad, an area close to New Delhi in northern Uttar Pradesh state, is ranked as the world's most polluted city, with an average PM 2.5 concentration measurement of 110.2 in 2019.
- National air pollution in India is decreased by 20% from 2018 to 2019, with 98% of cities experiencing of varying levels of improvement.
- The report points to economic slowdown, favorable weather conditions, and efforts towards cleaning the air as reasons behind the decrease.
- The report also points India's launch of the country's first National Clean Air Programme (NCAP) which aims to reduce PM 2.5 and the bigger particulate PM 10 air pollution in 102 cities by 20-30% by 2024 compared to 2017 levels.

MOST POLLUTED CITIES IN 2019

Rank	City	PM2.5 (micrograms/cu. m)
1	Ghaziabad (India)	110.2
2	Hotan (China)	110.1
3	Gujranwala (Pak)	105.3
4	Faisalabad (Pak)	104.6
5	Delhi (India)	98.6
6	Noida (India)	97.7
7	Gurgaon (India)	93.1
8	Raiwind (Pak)	92.2
9	Greater Noida (India)	91.3
10	Bandhwari (India)	90.5

MOST POLLUTED COUNTRIES (ACCOUNTING FOR POPULATION)

Rank	Country	PM2.5 (micrograms/cu. m)	Population
1	Bangladesh	83.30	166 mn
2	Pakistan	65.81	201 mn
3	Mongolia	62.00	3 mn
4	Afghanistan	58.80	36 mn
5	India	58.08	1,354 mn

World Press Freedom Index 2020

- The World Press Freedom Index 2020 has been released by the media watchdog group Reporters Without Borders.
- Norway ranks first for the fourth consecutive year and Finland and Denmark in second and third place.
- The coronavirus pandemic may threaten press freedom and worsen the crises that reporters around the world are facing.
- India has dropped two places to be ranked 142nd.

AWARDS

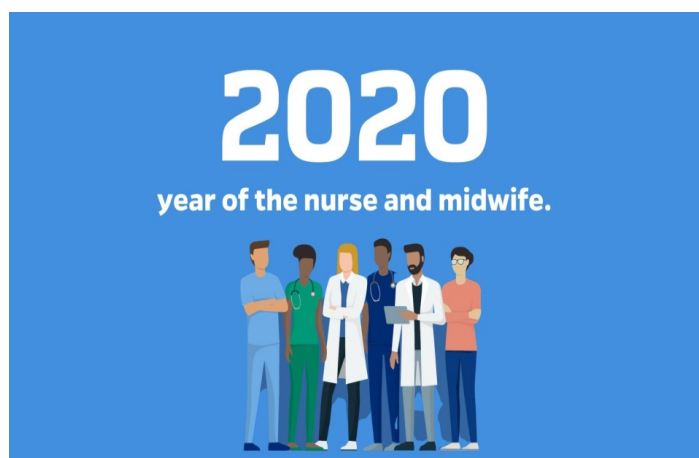
Subhash Chandra Bose Aapda Prabandhan Puraskar

- Subhash Chandra Bose Aapda Prabandhan Puraskar 2020 is announced.
- It is awarded to recognise the excellent work done by individuals and institutions in India in the field of disaster management.
- It is announced every year on 23rd January, the birth anniversary of Netaji Subhash Chandra Bose.
- If the awardee is an institution, it shall receive a certificate and a cash prize of Rs. 51 lakhs. The Institution shall utilize this cash prize for Disaster Management related activities only.
- If the awardee is an individual, the winner shall receive a certificate and a cash prize of Rs. 5.00 lakhs.
- Only Indian nationals and Indian institutions can apply for the award.

MISCELLANEOUS

Year of the Nurse and the Midwife 2020

The World Health Assembly has designated 2020 the International Year of the Nurse and the Midwife. This marks the bicentenary of the birth of Florence Nightingale, the founder of modern nursing.



It celebrates professionals who provide a broad range of essential services to people everywhere.

Besides preventing, diagnosing and treating diseases, and providing expert care during childbirth, nurses and midwives also serve people caught in humanitarian emergencies and conflicts.

Existing gaps: Currently, there are 22 million nurses and two million midwives worldwide. The world will need an additional nine million nurses and midwives to achieve the commitment of providing all people with access to health care by 2030, the World Health Organization (WHO) has warned.

‘8 Wonders of SCO’

- The Shanghai Cooperation Organization (SCO) has included the Statue of Unity among the ‘Eight Wonders of the SCO.
- At 182 metre, the statue is 23 metre taller than China’s Spring Temple Buddha statue and almost double the height of the Statue of Liberty (93 metre tall) in US.
- Located on the Sadhu Bet island, near Rajpipla on the Narmada river, the Statue of Unity is located between the Satpura and the Vindhya mountain ranges.

The Eight Wonders of the SCO are:

1. India: The Statue of Unity.
2. Kazakhstan: The Archaeological Landscape of Tamgaly.
3. China: The Daming imperial palace complex.
4. Kyrgyzstan: Lake Issyk-Kul.
5. Pakistan: The Great Mughals’ heritage at Lahore.
6. Russia: The Golden Ring cities.
7. Tajikistan: The Palace of Nowruz.
8. Uzbekistan: The Poi Kalon complex.

Bharati Script

- Researchers from IIT Madras have developed a unified script for nine Indian languages, named the Bharati Script.
- Now, going a step further, they developed a method for reading documents in Bharati script using a multi-lingual optical character recognition (OCR) scheme.
- Optical Character Recognition (OCR) scheme involves first separating (or segmenting) the document into text and non-text.
- The text is then segmented into paragraphs, sentences words and letters.
- Each letter has to be recognised as a character in some recognisable format such as ASCII or Unicode.

- The letter has various components such as the basic consonant, consonant modifiers, vowels etc.
- Bharati Script is an alternative script for the languages of India developed by a team at the Indian Institute of Technology (IIT) in Madras lead by Dr. Srinivasa Chakravarthy.
- The scripts that have been integrated include Devnagari, Bengali, Gurmukhi, Gujarati, Oriya, Telugu, Kannada, Malayalam and Tamil.

Vowels

ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
अ	आ	इ	ई	उ	ऊ	ऋ	ॠ	ऌ	ॡ
अ	आ	इ	ई	उ	ऊ	ऋ	ॠ	ऌ	ॡ
a	ā	i	ī	u	ū	r̄	r̄	l̄	l̄
ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
	ए	ऐ		ओ	औ	अं	अँ	अः	
ँ	ँ	ँ	ँ	ँ	ँ	ँ	ँ	ँ	ँ
	e/ē	ai		o/ō	au	am	am	ah	

Consonants

क	ख	ग	घ	ङ	च	छ	ज	झ	ञ
क	ख	ग	घ	ङ	च	छ	ज	झ	ञ
ka	kha	ga	gha	ṅa	ca	cha	ja	jha	ña
ट	ठ	ड	ढ	ण	त	थ	द	ध	न
ट	ठ	ड	ढ	ण	त	थ	द	ध	न
ṭa	ṭha	ḍa	ḍha	ṇa	ta	tha	da	dha	na
प	फ	ब	भ	म	य	र	ळ	ल	
प	फ	ब	भ	म	य	र	ळ	ल	
pa	pha	ba	bha	ma	ya	ra	ṛa	la	lla
ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
		श	ष	स	ह				
ॐ	व	श	ष	स	ह	क	ख	ग	ज
la	va	śa	ṣa	sa	ha	qa	khha	ghha	za
ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
	ॐ		य						
ॐ	ॐ	ॐ	ॐ						
dddha	rha	fa	yya						

Format:

- The Bharati characters are made up of three tiers stacked vertically. The consonant at the root of the letter is placed in the centre and the modifiers are in the top and bottom tiers.
- Bharati has, in general, 17 vowels and 22 consonants.
- A common script for the entire country is hoped to bring down many communication barriers in India.

REPUBLIC DAY PARADE 2020

- India celebrated its 71st Republic Day on 26th January, 2020.
- Brazilian President Jair Bolsonaro was the chief guest for this year's ceremony.
- 22 tableaux comprising of 16 States/UTs and 6 Ministries/Departments were presented at the parade.
- Prime minister paid homage at the National War Memorial and the first tri-service formation took part in the celebrations this year.

First-ever Khelo India University Games

- It is an aspirational competition for India's youngsters with the objective of helping them find the balance between sport and education.
- It is the largest ever competition held at the university level in India and will have about 3500 athletes from over 150 universities across the country taking part in it.
- There will be a total of 17 sports namely archery, athletics, boxing, fencing, judo, swimming, weightlifting, wrestling, badminton, basketball, football, hockey, table tennis, tennis, volleyball, rugby and kabaddi.




- The first-ever Khelo India University Games will take off in Odisha.
- It is implemented by the Ministry of Youth Affairs and Sports.
- Under the scheme, the talented players identified in priority sports disciplines at various levels will be provided annual financial assistance of INR 5 lakh per annum for 8 years.
- It will be a Central Sector Scheme (Scheme implemented by the Central Government machinery and 100% funding by the union government).

Central Consumer Protection Authority

- To protect the rights of the consumer by cracking down on unfair trade practices, and false and misleading advertisements that are detrimental to the interests of the public and consumers, the government is all set to establish a Central Consumer Protection Authority.
- It will be headquartered in the National Capital Region of Delhi but the central government may set up regional offices in other parts of the country.

PENALTIES FOR MISLEADING ADVERTISEMENT

<p>MANUFACTURER Jail up to two years with fine of up to ₹10 lakh for first offence</p> <p>Consequent offence to attract jail up to five years with fine up to ₹50 lakh</p>	<p>ENDORSER Up to ₹10 lakh fine & one year ban on future endorsement for first offence</p> <p>Repeat offence to attract fine up to ₹50 lakh & ban on future endorsement up to three years</p>
<p>PUBLISHER/ ADVERTISER Fine up to ₹10 lakh if Central Consumer Protection Authority finds the publisher or advertiser guilty</p> 	

CONSUMER PROTECTION ACT 1986	PROVISIONS	CONSUMER PROTECTION ACT 2019
No separate regulator	Regulator	Central Consumer Protection Authority (CCPA) to be formed
Complaint could be filed in a consumer court where the seller's (defendant) office is located	Consumer court	Complaint can be filed in a consumer court where the complainant resides or works
No provision. Consumer could approach a civil court but not consumer court	Product liability	Consumer can seek compensation for harm caused by a product or service
District: up to ₹20 lakh State: ₹20 lakh to ₹1 cr National: above ₹1 cr	Pecuniary jurisdiction	District: up to ₹1 cr State: ₹1 cr to ₹10 cr National: Above ₹10 cr
No provision	E-commerce	All rules of direct selling extended to e-commerce
No legal provision	Mediation cells	BCCL Court can refer settlement through mediation

Powers and Functions:

- Inquire or investigate into matters relating to violations of consumer rights or unfair trade practices.
- Recall goods or withdrawal of services that are “dangerous, hazardous or unsafe.
- Pass an order for refund the prices of goods or services.
- Impose a penalty up to Rs 10 lakh, with imprisonment up to two years, on the manufacturer or endorser of false and misleading advertisements.

Composition:

- It will have a Chief Commissioner as head, and only two other commissioners as members — one of whom will deal with matters relating to goods while the other will look into cases relating to services.

‘Attukal Pongala’ fest:

‘Attukal Pongala’ is one of the largest religious congregations of women.

Preparing ‘pongala’ (a sweet offering) is considered an auspicious all-women ritual as part of the annual festival of the Attukal Bhagavathy Temple, which is popularly known as the “Women’s Sabarimala”.

As per local legend, the Pongala festival commemorates the hospitality accorded by women in the locality to Kannagi, the heroine of the Tamil epic Silappadhikaram while she was on her way to Kodungallur in Kerala, after destroying Madurai city to avenge the injustice to her husband Kovalan.

Attukal Temple is called the “Women’s Sabarimala” as only women perform rituals, just as predominantly men undertake the pilgrimage to the shrine of Lord Ayyappa.

Force Majeure

A force majeure (FM) means extraordinary events or circumstance beyond human control such as an event described as an Act of God (like a natural calamity).

Indian Railways has decided that the period from 22.03.2020 to 14.04.2020 shall be treated under “Force Majeure”.

During this period no demurrage, wharfage, stacking, stabling, detention and ground usage charge shall be leviable.