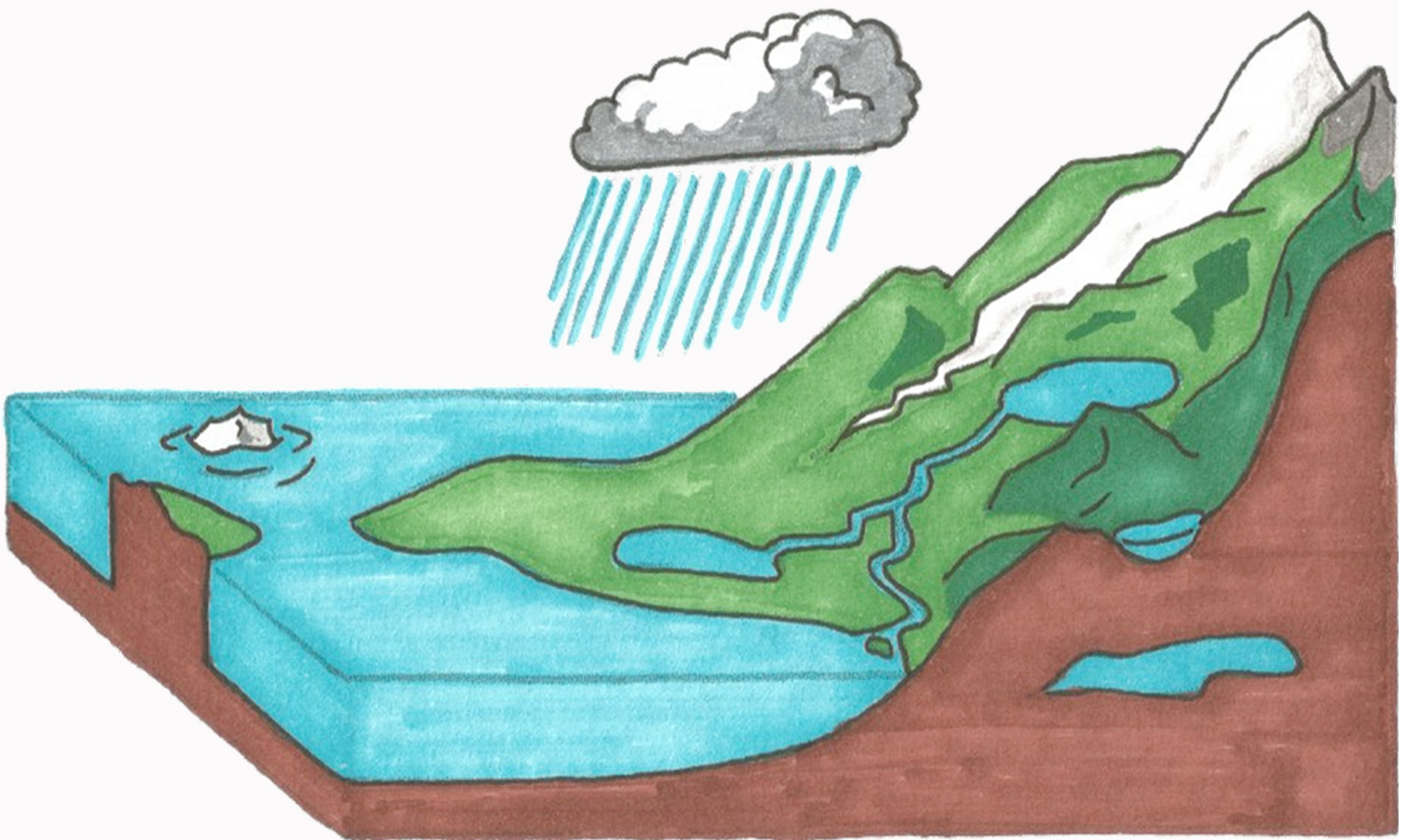# IAS
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CONTENTS
Cover Story – Galcial Burst
1. ECONOMY

Glacial burst

HOW THE RIVERS FLOW

The glacier is located within the Nanda Devi Sanctuary and drains west into the Rishiganga

Yamunotri   Gangotri   Kedarnath   Badrinath

Dhauli Ganga

Joshimath

Vishnu Prayag

Nand Prayag

Nanda Devi

Karna Prayag

Pindar Ganga

Rudra Prayag

Rishiganga later joins Dhauliganga river

Deva Prayag

ALAKNANDA

Dhaulinganga is one of the tributaries of river Ganga. It later merges into Alaknanda river

Dhauliganga river passes through places like Joshimath & Karnaprayag

HOW GLACIERS BURST

A glacier can break due to multiple reasons, such as erosion, water pressure, an avalanche of snow or rocks, earthquake etc

It can also happen if there is a massive displacement of water in the glacial area when a large portion of an adjacent glacier collapses

NEWS 18 creative

A glacier break is suspected to have caused the flash floods in Uttarakhand's Chamoli on 7 February 2021. Last October, the **National Disaster Management Authority (NDMA)**, which is headed by PM Narendra Modi, had issued detailed guidelines on how to reduce and deal with disasters caused by what is scientifically called **Glacial Lake Outburst Floods (GLOFs)**.

When glaciers melt, the **water in glacial lakes accumulates behind loose**, natural "glacial/moraine dams" made of ice, sand, pebbles and ice residue. A **GLOF refers to the flooding** that occurs when the water dammed by a glacier or a moraine is released suddenly. Unlike earthen dams, the weak structure of the **moraine dam** leads to the abrupt failure of the dam on top of the glacial lake, which holds a large volume of water. A failure of the dam has the **potential of releasing millions of cubic metres of water** in a short period, causing **catastrophic flooding downstream**. Peak flows as high as 15,000 cubic metre per second have been recorded in such events.

According to NDMA, **glacial retreat due to climate change occurring in most parts of the Hindu Kush Himalaya** has given rise to the formation of numerous new glacial lakes, which are the **major cause of GLOFs**. Since glaciers in the Himalayas are in a retreating phase, glacial lakes are growing and pose a potentially large risk to downstream infrastructure and life.

An "**Inventory and Monitoring of Glacial Lakes / Water Bodies in the Himalayan Region of Indian River Basins**", sponsored by Climate Change Directorate, Central Water Commission, and done by **National Remote Sensing Centre** during 2011-15, found that there are 352, 283 and 1,393 glacial lakes and water bodies in the Indus, Ganga and Brahmaputra basins respectively.

The NDMA guidelines say that risk reduction has to begin with identifying and mapping such lakes, taking structural measures to prevent their sudden breach, and establishing mechanisms to save lives and property in times of a breach.

Potentially dangerous lakes can be identified based on field observations, records of past events, **geomorphologic** and **geotechnical characteristics of the lake/dam** and surroundings, and other physical conditions.

NDMA has recommended use of Synthetic-Aperture Radar imagery to automatically detect changes in water bodies, including new lake formations, during the monsoon months. It

has said methods and protocols could also be developed to allow remote monitoring of lake bodies from space.

To manage lakes structurally, the **NDMA recommends reducing the volume of water** with methods such as controlled breaching, pumping or siphoning out water, and making a tunnel through the moraine barrier or under an ice dam.

A landslide occurred along the **Phuktal (tributary to Zanskar river) on December 31, 2014 in Kargil district of Ladakh**, leading to a potential flood situation on May 7, 2015. The NDMA created an Expert Task Force which, along with the Army, used explosives to channel water from the river using controlled blasting and manual excavation of debris.

While some work on identification of such lakes has been done by CWC, other aspects are still a work in progress: a robust early warning system, and a broad framework for infrastructure development, construction and excavation in vulnerable zones.

"In contrast to other countries, **there are no uniform codes for excavation**, construction and grading codes in India. Restricting constructions and development in **GLOF/LLOF prone areas** is a very efficient means to reduce risks at no cost," the NDMA guidelines say.

The guidelines say **construction of any habitation should be prohibited in the high hazard zone**. "Existing buildings are to be relocated to a safer nearby region and all the resources for the relocation have to be managed by Central/State governments. New infrastructures in the medium hazard zone have to be accompanied by specific protection measures."

The **guidelines emphasise the importance of land use planning**: "There are no widely accepted procedures or regulation in India for land use planning in the **GLOF/LLOF prone areas**. Such regulations need to be developed… There should be monitoring systems prior to, during, and after construction of infrastructure and settlements in the downstream area."

The number of implemented and operational **GLOF EWS is still very small**, even at the global scale. In the Himalayan region, there are at three reported instances (two in Nepal and one in China) of implementation of sensor- and monitoring-based technical systems for GLOF early warning.

India, though, has a **remarkable history of successful warnings** in relation to **Landslide Lake Outburst Floods (LLOFs)**, dating back to the 19th century. In 1894, a landslide in Gohna,

Uttarakhand dammed the main river. On July 5 that year, the engineer in charge estimated the lake would overflow the dam in mid-August, which eventually happened.

Despite the devastating impact of the flood, including washing away of most buildings along the river and severe destruction in Srinagar, no victims were reported, thanks to the precise prediction and the early warning to the population. This was made possible by the installation of a telephone line between the lake and the downstream towns of Chamoli, Srinagar etc.

Apart from pressing specialised forces such as **NDRF, ITBP and the Army**, NDMA has emphasised the need for trained local manpower.

"Experience has shown that **over 80 percent of search and rescue is carried out by the local community** before the intervention of the state machinery and specialised search and rescue teams. Thus, **trained and equipped teams consisting of local people must be set up in GLOF and LLOF prone areas**," NDMA has said. These local teams, it has said, will also assist in planning and setting up emergency shelters, **distributing relief packages**, **identifying missing people**, and addressing the needs for food, healthcare, water supply etc.

It has also called for a **comprehensive alarm systems**. "Besides classical alarming infrastructure consisting of **acoustic alarms by sirens**, modern communication technology using cell and smartphones can complement or even replace traditional alarming infrastructure," NDMA has said.

It has asked for provision of heavy earthmoving and search and rescue equipment, as well as motor launches, country boats, inflatable rubber boats, life jackets etc. Acknowledging that a disaster spot in the Himalayas can at times be inaccessible to earthmovers, NDMA has recommended "**innovative methods using locally available natural resources**". "It is important to innovate and design lighter machinery, which are more suitable to be carried in the mountains in a disassembled form," it has said, suggesting these parts can be carried in a helicopter.

For emergency medical response, **NDMA has called for Quick Reaction Medical Teams**, mobile field hospitals, Accident Relief Medical Vans, and heli-ambulances in areas inaccessible by roads. The guidelines also call for psychological counselling of victims, apart from dissemination of accurate information through press conferences and mass media.

ECONOMY

1.1 IFSCA becomes member of IOSCO

Recently, the **International Financial Services Centres Authority (IFSCA)** has become an Associate Member of the **International Organization of Securities Commissions (IOSCO)**.

International Financial Services Centres Authority (IFSCA)

It has been established in 2020 under the **International Financial Services Centres Authority Act, 2019**.

It is headquartered at **GIFT City, Gandhinagar** in Gujarat.

It is a unified authority for the **development and regulation** of financial products, financial services and financial institutions.

The GIFT IFSC is the **maiden international financial services centre** in India.

The main objective of the IFSCA is to **develop a strong global connect** and **focus on the needs of the Indian economy** as well as to serve as an international financial platform for the entire region and the global economy as a whole.

Significance for IFSCA's membership of IOSCO

The membership of IOSCO would provide IFSCA the platform to **exchange information at the global level and regional level** on areas of common interests.

The IOSCO platform would enable **IFSCA to learn from the experiences and best practices of the regulators** of other well established financial centres.

The IOSCO's membership is a significant milestone in **connecting IFSCA with the regulators of securities markets globally.**

It would contribute immensely towards the **development and regulation of the financial products, financial services and financial institutions** at the Gujarat International Finance Tec-City International Financial Services Centre.

International Organization of Securities Commissions (IOSCO)

It is the international organization that **brings together the world's securities regulators**, covering more than 95% of the world's securities markets.

It is the **global standard setter** for the securities sector.

It works closely with the **G20 and the Financial Stability Board (FSB)** in setting up the standards for strengthening the securities markets.

The **IOSCO Objectives and Principles of Securities Regulation** have been endorsed by FSB as one of the key standards for sound financial systems.

1.2 GST collection is an all-time high

Recently, the **Goods and Services Tax (GST) collections** in December rose 11.6 per cent year-on-year which is the highest level since the July 2017 rollout of the indirect tax regime.

The **GST revenue collections had been posting a contraction** and were at a lower level than the previous year following the outbreak of Covid-19 pandemic.

The GST revenue collections **remained in negative territory** for the first five months of FY 2020-21.

The month of December marked the fourth month in which **GST revenue collections** have posted a year-on-year growth.

Reasons for Increase in GST Collections

The GST collections in December have gained support from **higher festive season sales** on account of Diwali in November.

The **rollout of new technological systems** of e-invoicing and action against tax evaders has up-ticked the GST collections.

The tax experts noted that the **government should provide a breakup of the GST revenues collected** through the filing of returns and through recovery drives by the GST authorities to help in assessing the true picture of the extent of economic recovery.

The proposed extension of **electronic invoicing to all businesses** will further prevent leakages in GST revenues.

Under GST laws, e-invoice for B2B transactions has been made **mandatory for companies with turnover of over Rs 500 crore** in 2020.

It was notified to be **extended to businesses with over Rs 100 crore turnover** from January 2021 and is likely to be extended for all businesses beginning April 1 2021.

The E-invoicing system is connected to a central portal that **receives and validates invoices in real-time** and over time will eventually replace the e-way bill system.

The **revenues from import of goods was 27% higher** and the **revenues from domestic transactions** (including import of services) are **8% higher** that the revenues from these sources during

1.3 Digital Payment Index

Recently, the Reserve Bank of India has released the **Digital Payment Index**.

The RBI-DPI has been constructed with March **2018 as the base period**.

The **DPI for March 2019 and March 2020 work out to 153.47 and 207.84** respectively, indicating appreciable growth.

The RBI-DPI comprises **five broad parameters** that enable the measurement of **deepening and expansion of digital payments** in the country over different time periods.

The parameters are including **Payment Enablers (weight 25%), Payment Infrastructure – Demand-side factors and (10%), Payment Infrastructure – Supply-side factors (15%), Payment Performance (45%)** and **Consumer Centricity (5%).**

The RBI-DPI shall be published on RBI's website on a **semi-annual basis from March 2021** onwards with a lag of 4 months.

Highlights

According to the latest RBI data, **digital transactions exhibited a sustained recovery** and **momentum picked up** in November 2020, supported by both wholesale and retail transactions.

In the retail segment, **national electronic funds transfer (NEFT) transactions** volume grew 24.6 percent year-on-year in November 2020, much higher than the growth (13.9 percent).

In value terms, **UPI transactions** to the tune of Rs 3.9 lakh crore has happened while **IMPS transactions** worth Rs 2.76 lakh crore has happened.

The data showed that **RTGS transactions** worth Rs 79.8 lakh crore and **NEFT** worth Rs 22.18 lakh crore were reported.

Among other digital transaction modes, **national electronic toll collection (NETC)** held on to a **buoyant growth trajectory and immediate payment service (IMPS)** showed stronger growth in November 2020 than in the previous month.

Significance of Digital Payment Index

It aims to capture the **extent of digitisation of payments** across the country.

Under payment performance, which carries the **highest weight in the index**, the regulator would

measure factors such as the volume and value of digital payments, unique users, paper clearing, and currency in circulation and cash withdrawals.

The RBI and government have been **pushing for digital transactions** over the years to bring in more transparency and efficiency in the financial system.

The objective of DPI is to **reflect accurately the penetration and deepening** of various digital payment modes.

1.4 New Industrial Infrastructure Projects

Recently, the **Cabinet Committee on Economic Affairs (CCEA)** has approved three infrastructure proposals worth **Rs 7,725 crore** for setting up **greenfield industrial cities** with **connectivity to major transportation corridors.**

The cabinet also approved a modified scheme for **interest subvention for Ethanol production** expanding the scheme to **include grain based distilleries and not just molasses based ones.**

The scheme would **encourage ethanol production** from grains like barley, maize, corn and rice and **boost production and distillation capacity** to 1,000 crore litres and help in meeting the **goal of 20% ethanol blending with petrol by 2030.**

These projects are based on major transportation corridors like **Eastern & Western Dedicated Freight Corridors, Expressways and National Highways, proximity to ports, airports.**

This will **attract investments into manufacturing and position India as a strong player in the global value chain.**

These projects will generate **ample employment opportunities through** development of Industrial Corridors.

Industrial Corridors

Industrial corridors offer **effective integration between industry and infrastructure,** leading to overall **economic and social development.**

Economic Significance:

Avenues for Exports: The Industrial Corridors are likely to lower the cost of logistics thereby increasing the efficiency of industrial production structure. Such an **efficiency lowers the cost of production which makes the Indian made products more competitive in international markets.**

Job Opportunities: Development of Industrial Corridors would attract investments for the

development of Industries which is likely to **create more jobs in the market.**

Logistics: These corridors would **provide necessary logistics infrastructure needed to reap economies of scale,** thus enabling firms to focus on their areas of core competence.

Investment Opportunities: Industrial corridor **provides opportunities for private sector investment** in the provision of various infrastructure projects associated with the exploitation of industrial opportunity.

Improved Functioning: Apart from the **development of infrastructure,** long-term advantages to business and industry along the corridor include benefits arising from smooth access to the industrial production units, **decreased transportation and communications costs, improved delivery time and reduction in inventory cost.**

Environmental Significance:

The establishment of Industrial Units in a scattered manner along the industrial corridor across the length of the state will **prevent concentration of industries in one particular location which exploited the environment beyond its carrying capacity** and caused environmental degradation.

Socio-Economic Significance:

The cascading effect of industrial corridors in socio-economic terms are many such as setting up of industrial townships, educational institutions, hospitals. These will further **raise the standards of human development.**

Moreover, people would find job opportunities close to their homes and would not have to migrate to far-off places (would prevent distress migration).

National Industrial Corridor Development Programme:

Aim: The Government of India is developing various Industrial Corridor Projects as part of the **National Industrial Corridor programme** which is aimed at development of futuristic industrial cities in India which can compete with the best manufacturing and investment destinations in the world.

Administration:

National Industrial Corridor Development and Implementation Trust (NICDIT) is under the administrative control of **Department for Promotion of Industry and Internal Trade (DPIIT)** for coordinated and unified development of all the industrial corridors which are at various stages of development and implementation.

It is India's most ambitious infrastructure programme aiming to develop new industrial cities

as **"Smart Cities"** and **converging next generation technologies** across infrastructure sectors.

11 Industrial Corridors Projects are being taken up for development with 30 Projects to be developed in **04 phases up to 2024-25:**

Road Ahead

To make the corridors successful, India has to be part of the **Industrial Revolution 4.0,** which will be **shaped by a fresh wave of innovation** in areas such as smart robotics, materials that are lighter and tougher, and a manufacturing process built around 3D printing and analytics.

Industrial corridors will help India's efforts to lead the world in the fourth wave of industrial revolution. Effective execution of this plan could make India take a major leap in the race of development

1.5 Remission of Duties and Taxes on Exported Products (RoDTEP) Scheme

Recently, the government has said that it has decided to **extend the benefit** of the **Remission of Duties and Taxes on Exported Products (RoDTEP) scheme to all goods.**

The benefit of RoDTEP would be **available subject to the conditions, restriction, exclusions, ineligibility and fulfilment** of the procedural requirements as notified by the government.

The Cabinet Committee on Economic Affairs has approved the **introduction of scheme** of Remission of Duties and Taxes on Exported Products (RoDTEP) in **March 2020.**

It is a **WTO-compliant scheme for reimbursement of taxes and duties** and would replace the existing scrip-based scheme.

An Inter-Ministerial Committee will be **responsible for the determination of rates and items** for which the reimbursement of taxes and duties would be provided.

Significance of RoDTEP Scheme

The annual savings of Rs 40,000 crore be **utilised to roll out production-linked incentive (PLI) schemes** in "sectors of strength to create global champions", once the RoDTEP scheme replaces the MEIS, .

It will enhance the **contribution of Indian exports** in the international markets.

The scheme will be implemented with **end to end digitization.**

The refunds under the RoDTEP scheme would be a step towards **"zero-rating" of exports,** along with refunds such as Drawback and IGST.

It will enhance the **employment opportunitie**s in the export oriented manufacturing industries.

Certain taxes/duties/levies are outside the purview of GST, such as, VAT on fuel used in transportation, Mandi tax, Duty on electricity used during manufacturing and are not refunded for exports as these would be covered for **reimbursement under the RoDTEP Scheme.**

When the rates under the RoDTEP Scheme are announced for a tariff line or item, the **Merchandise Exports from India Scheme (MEIS) benefits on such tariff line or item will be discontinued.**

1.6 Faceless Tax Scheme

Recently, the government's **faceless tax assessment scheme** has managed to deliver about 24,000 final orders since its introduction in August 2020.

In the Union Budget 2019, the Finance Minister proposed the **introduction of a scheme of faceless e-assessment.**

The scheme seeks to **eliminate the human interface** between the taxpayer and the income tax department.

The scheme lays down the **procedure to carry out a faceless assessment** through electronic mode.

All provisions introduced under **Faceless Assessment**, under the Income Tax Act, 1961, are introduced to:

Eliminate the interface between the Assessing Officer and the assessee during the course of proceedings, to the extent that is technologically feasible;

Optimise the utilisation of resources through the economies of scale and functional specialisation; and

Introduce a team-based determination of arm's length price with dynamic jurisdiction.

As per the Taxation and Other Laws (Relaxation and Amendment of Certain Provisions) Bill, 2020, Faceless Assessment will now bring other **provisions of the Income Tax Act, 1961** under its purview.

The Central Board of Direct Taxes (CBDT) decides the **scope of the faceless assessment** such as territorial area, persons, class of persons, incomes, class of incomes, cases or class of cases to whom this faceless assessment is applicable.

Why Faceless Tax Scheme was introduced?

It is an attempt of the government to **remove individual tax officials' discretion** and potential harassment for income tax payers.

In the faceless regime, the main objective is to **remove physical interaction** as much as possible, and the taxpayers may not have the opportunity to explain (in person) business-related complexities and explain various positions they have taken while filing their income-tax returns.

The Central Government introduced the Faceless Assessment Scheme to **provide greater transparency, efficiency and accountability** in Income Tax assessments.

Faceless jurisdiction of income-tax authorities

The Section 130 gives power to the **Central Government** to make a scheme by notifying the same in the Official Gazette, for the purposes of:

The **exercise of any or all powers and performance of any or all the functions**conferred on or assigned to the income-tax authorities under the Income Tax Act, as referred to in section 120; or

To **vest the jurisdiction with the Assessing Officer,** as referred to in section 124; or

To **exercise the power to transfer cases** under section 127; or

To **exercise jurisdiction in case of change of incumbency**, as referred to in section 129

1.7 SEBI moots entry norms to set up stock exchanges

Recently, the Securities and Exchange Board of India (SEBI) has proposed a new framework for ownership of market infrastructure institutions (MIIs) to facilitate new entrants to set up stock exchanges and depositories.

The stock exchanges and depositories fundamentally represent the intersection of technology and markets and SEBI said there is a concern that excessive concentration may lead to abuse of one's dominant position in the business.

The entities may fall behind the curve in embracing innovations which have a direct bearing on enhancing efficiency in trading and record-keeping space and improving supervision and risk management practices.

According to SEBI, there is a need to forge a competitive landscape in MIIs' space by way of creating an enabling ownership framework which facilitates not only the entry of new players but also enables merger and acquisition of the existing entities.

Key Highlights

The proposal said that a resident promoter setting up an MII may hold up to 100% shareholding, which will be brought down to not more than (either 51% or 26%) in 10 years.

The SEBI provided that a foreign promoter from Financial Action Task Force FATFmember jurisdictions setting up an MII may hold up to 49% shareholding, which shall be brought down to not more than (either 26% or 15%) in 10 years.

The foreign individuals or entities from other than FATF member jurisdictions may acquire or hold up to 10% in an MII.

The proposal also states that any person other than the promoter may acquire or hold less than 25% shareholding.

The SEBI's proposal has also called atleast 50% of ownership of the MII may be represented by individuals or entities with experience of five years or more in the areas of capital markets or technology related to financial services.

The proposal has called for Market Infrastructure Institution (MII) to be a public limited company.

It has been proposed that the appointment of MD and CEO of the MII should be for maximum three terms of three years each, subject to the age limit of 65 years.

1.8 Key takeaways from India's latest GDP data

Recently, the Ministry of Statistics and Programme Implementation released the First Advance Estimates (FAE) for the current financial year.

India's economy had grown at 4.2% in 2019-20, but entered a recessionary phase with two successive quarters of sharp contraction triggered by the COVID-19 national lockdowns beginning March 2020.

Following a 23.9% collapse in the economy between April to June 2020 period, the GDP fell by 7.5% in the second quarter, leading to a real GDP contraction of 15.7% in the first half of 2020-21.

Highlights

According to MoSPI, India's gross domestic product (GDP) i.e. the total value of all final goods and services produced within the country in one financial year, will contract by 7.7 per cent in 2020-21.

The advance estimate suggests that the second half of the year will surface to record near-zero growth or a mere 0.1% contraction.

The sector-wise estimates are obtained by extrapolating indicators such as:

Index of Industrial Production (IIP) of first 7 months of the financial year

Financial performance of listed companies in the private corporate sector available up to quarter ending September, 2020

The 1st Advance Estimates of crop production,

The accounts of central & state governments,

Information on indicators like deposits & credits, passenger and freight earnings of Railways, passengers and cargo handled by civil aviation, cargo handled at major sea ports, sales of commercial vehicles, etc., available for first 8 months of the financial year.

Seven key takeaways from the First Advance Estimates for 2020-21

GDP Growth Rate: In the context of recent history, the 7.7 per cent contraction in GDP is a sharp one considering that India has registered an average annual GDP growth rate of 6.8 per cent since the start of economic liberalisation in 1992-93.

The big reason for the contraction has been the disruption caused by Covid-induced lockdowns which saw the economy contract by almost 24 per cent in the first quarter and by 15.7 per cent during the first half (H1) of the year.

The government expects the economy will produce almost exactly the same amount of goods and services that it produced in the second half of the last financial year (2019-20).

In the H1 of 2020-21, India produced goods and services worth Rs 60 lakh crore which is much lower than the Rs 71 lakh crore worth of goods produced in H1 of 2019-20.

Absolute level of real GDP: India's real GDP i.e. GDP without the influence of inflation in 2020-21 will be lower than the 2018-19 level.

Per Capita GDP: While the GDP provides an all-India aggregate, per capita GDP is a better variable if one wants to understand how an average India has been impacted.

While the overall real GDP will fall by 7.7 per cent, per capita real GDP will fall by 8.7 per cent.

Absolute level of real Gross Value Added (or GVA): The Gross Value Added provides a picture of the economy from the supply side.

It maps the value-added by different sectors of the economy such as agriculture, industry and services.

The GVA provides a proxy for the income earned by people involved in the various sectors.

According to MoSPI's First Advance Estimates, India's real GVA level will fall below the 2018-19 level.

Absolute level of Private Final Consumption Expenditure (PFCE): The biggest demand for goods and services comes from private individuals trying to satisfy their consumption needs.

Per capita PFCE: The per capita PFCE is a relevant metric as it shows how much an average Indian spends in his/her private capacity.

Absolute level of Gross Fixed Capital Formation (GFCF): The second biggest component of GDP is called GFCF and it measures all the expenditures on goods and services that businesses and firms make as they invest in their productive capacity.

1.9 Regulation S Bond

Recently, the State Bank of India (SBI) has raised $600 million of **'Regulation S' bonds** via its London branch at a coupon rate of 1.8%.

The Regulation S Bond is priced at a spread of 140 basis points over the 5-year U.S. Treasury rate and will be **listed on SGX-ST and India INX.**

The issuance represented **SBI's return to the international public bond markets** after a gap of close to two years.

The successful issuance demonstrates the **strong investor base SBI has created** for itself in offshore capital markets.

Regulation S Bond

Regulation S is a **"safe harbor"** that defines when an **offering of securities is deemed to be executed in another country** and therefore not be subject to the registration requirement under section 5 of the 1933 Act.

Regulation S offerings are typically referred to as **"Offshore Offering"** because they mainly have to either do with a foreign company creating an offering, or an US company that is offerings its debt or equity overseas, i.e. outside the United States.

A Reg S offering is **typical of many European offerings** and the larger clearing firms in Europe often grant access to their systems via a Regulation S offering.

The **Rule 144A** modifies the Securities and Exchange Commission (SEC) restrictions on trades of privately placed securities so that these investments can be traded among qualified institutional buyers.

1.10 Role of agriculture: Why this economic slump is different from past ones

Recently, first advance estimates has been released by the National Statistical Office according to which there is 7.2% fall in gross value added (GVA) for 2020-21, and it would be the sharpest ever recorded in India.

Earlier Slumps

There have been four earlier occasions when the country's GVA has suffered contraction.

GVA is GDP net of all taxes and subsidies on products and, hence, it is a more accurate measure of economic activity.

The extent of negative growth in those years — 1979-80 (minus 5.2%), 1972-73 (minus 0.3%), 1965-66 (minus 3.7%) and 1957-58 (minus 1.2%) — was lower than the 7.2% being projected for the current fiscal.

The main reason is that all four were drought years — and the farm sector (agriculture, forestry and fishing) registered minus 12.8% growth in 1979-80, minus 5% in 1972-73, minus 11% in 1965-66 and minus 4.5% in 1957-58. In effect, the woes of 'Bharat' impacted the rest of the economy.

In 1979-80, agriculture's share in India's GDP at constant prices was 33.9%; in 1957-58, it was 48.2%. A drought year in those times invariably translated into low/negative growth rates.

Present Situation

This has not been the case in 2020-21. While overall GVA is expected to shrink 7.2%, agriculture and allied activities are set to post 3.4% growth.

Agriculture's relatively better performance in the last two years is largely a result of consecutive years of good monsoon (and also post-monsoon) rains.

Recharged groundwater tables and reservoirs getting filled to near capacity — besides farming operations being exempted from lockdown restrictions — led to higher production.

The share of agriculture in real GVA was only 14.6% in 2019-20. That is estimated to go up to 16.3% this fiscal, but not enough to make a different even in a bountiful monsoon year.

1.11 Govt: Equalisation levy not discriminatory, will take appropriate action

Recently, the Office of the United States Trade Representative (USTR) Section 301 has said that the digital taxation regime in India, Italy and Turkey is not in sync with US companies such as Google,

Facebook, Apple and Amazon.com, referred to as the GAFA tax and are inconsistent with international tax principles.

The issues of contention are the application of taxation to revenue rather than income, extraterritorial application, and failure to provide tax certainty.

USTR is responsible for **developing and coordinating US international trade**, commodity, and direct investment policy, and overseeing negotiations with other countries. **It** is an agency of professionals dealing with trade issues.

The Section 301 report (US Trade Act), a flagship publication of USTR, gives the USTR broad authority to investigate and respond to a foreign country's action which may be unfair or discriminatory as well as negatively affect US commerce. It also allows the US President to impose tariffs or other curbs on foreign nations.

DIGITAL SERVICES TAXES (DSTs)

It is a tax on selected gross revenue streams of large digital companies. Each country's proposed or implemented DST differs slightly. All DSTs have domestic and global revenue thresholds, below which companies are not subject to the tax.

The OECD is currently hosting negotiations with over 130 countries that aim to adapt the international tax system. One goal is to address the tax challenges of the digitalization of the economy.

India's Digital Service Tax

It imposes a 2% tax on revenue generated from a broad range of digital services offered in India, including digital platform services, digital content sales, digital sales of a company's own goods, data-related services, software-as-a-service, and several other categories of digital services.

India's DST explicitly exempts Indian companies—only "non-residents" must pay the tax.

India has described the 2% equalisation levy **as a fair, reasonable and non-discriminatory tax** against U.S. companies aimed at all offshore digital economy firms accessing the local market. It applies uniformly across all non-resident e-commerce operators.

According to the Commerce and Industry Ministry, the intention of imposing such a levy is to create an ecosystem that fosters fair competition and reasonableness.

It also aims to exercise the sovereign right of the government to tax businesses that have a close nexus with the Indian market through their digital operations.

Road ahead

There needs to be **international consensus on taxation on a digital economy.**

2% DST should be negotiated to avoid any hurdles in its implementation.

1.12 Government looks at 'expenditure' budget to aid higher growth

The Union Finance Ministry is of the view that **higher spending at the stage of uptick in the economy will give a bigger push to growth**. This growth is better than what most economists estimated post easing of lockdown restrictions.

In a pandemic year, the government restricted additional spending to less than 1.5 percent of the GDP but it will **expand its spending in financial year 2021-22**.

It will be more an **'expenditure Budget'** than a revenue Budget; after consultations with various stakeholders.

The areas where the ministry of Finance is keen to increase spending are **healthcare and construction-related activities**, be it **infrastructure or housing**.

Public spending in these activities have a huge trickle down effect, and benefit many industries from cement to steel besides creating durable jobs.

High spending will mean high growth, and this itself will be an antidote to bring deficit down.

With the GDP expected to post a negative growth of 7.7 percent in 2020-21, the government expects a strong rebound next financial year. But even a 14 percent in 2021-22 (over 2020-21), would mean a growth rate of not more than 5.5 percent over 2019-20.

While the combined debt of the Centre and states as a percentage of GDP stood at 72 percent last year, it is expected to touch 85 percent given the shrinking of the GDP this year, and higher government borrowings.

It is in this backdrop that the Finance Ministry may announce **making debt-GDP ratio as the primary target for fiscal policy**, and provide a new glide path for reducing debt levels.

The Revised Estimate for fiscal deficit for the current financial year may be around 6.5 percent of GDP.

In making projections for next year, the government may budget only normal increases in departmental and ministerial allocations given that capacities to spend cannot improve suddenly

Towards this end, the Finance Ministry is also considering **a review of the Fiscal Responsibility**

and Budget Management Act in line with the recommendations of the NK Singh panel, which suggested that the debt-GDP ratio (as opposed to fiscal deficit) be taken as the primary target for fiscal policy.

Under the amended FRBM Act, the government was expected to reduce its fiscal deficit to 3 percent of GDP in 2020-21.

But while presenting the Budget, Finance Ministry had invoked the escape clause for having deviated from the target for 2019-20 and 2020-21 to the extent of 0.5 percent of GDP; the Budget Estimate of fiscal deficit for 2020-21 was 3.5 percent of GDP.

KEYNES MODEL

British economist John Maynard Keynes had argued that **free markets cannot be relied upon to fuel GDP growth** when there is a recession as India and the world witnessed in 2020 following the Covid-19 pandemic.

In 2020, consumer confidence hit a new low, and they avoided discretionary spending; this led to a demand collapse, forcing firms to stop investing. In depressing times like these, Keynes said only government intervention through higher spending can revive demand and restore stability.

1.13 Q3 private investment in manufacturing jumps 102%

A **continued rise in private investments** in the third quarter (Q3) of 2020-21, led by a **102% surge in manufacturing investments**, helped India register a healthy **10.3% increase in fresh project** spending in Q3 over the previous quarter.

The Q3 project investment numbers suggest a reversal from recent years' trend of government capital expenditure propping up the economy while the private sector remained reluctant to invest due to flat consumer demand and weak balance sheets.

However, new capital expenditure proposals from the government collapsed between October and December 2020, as funding constraints began to pinch the States, dragging their new project investments down nearly 25% from the previous quarter.

The sequential increase registered in fresh projects by the private sector of 102.5% in the second quarter, and 36.5% in the third quarter, indicates willingness of private promoters to undertake capacity building in the future.

1.14 'Stretched valuations threaten stability'

Reserve Bank of India (RBI) Governor Shaktikanta Das has flagged the growing disconnect between exuberant equity markets and real economic activity and warned that the 'stretched valuations of financial assets' threaten overall financial stability.

The disconnect between certain segments of financial markets and the real economy has been accentuating in recent times, both globally and in India.

Stretched valuations of financial assets pose risks to financial stability.

Pointing to the interconnected nature of the financial system, the RBI Governor urged banks and financial intermediaries to be cognisant of the risk.

India's stock markets have been on a tear since plunging to their lowest levels in more than three years in March in the wake of the COVID-19 pandemic's outbreak and ensuing lockdowns.

As of Monday's close, the benchmark S&P BSE Sensex had appreciated almost 90% from its March 23, 2020, low.

The pandemic could also trigger balance sheet impairments and capital shortfalls, especially as regulatory reliefs are rolled back, Mr. Das cautioned.

<div align="center">'OBSCURE TRUE PICTURE'</div>

Congenial liquidity and financing conditions have shored up the financial parameters of banks, but it is recognized that the available accounting numbers obscure a true recognition of stress.

As per the FSR, the gross non-performing assets (GNPA) and net NPA (NNPA) ratios of banks fell to 7.5% and 2.1%, respectively, by September 2020.

But the RBI warned that the withdrawal of pandemic-triggered reliefs could see a jump in bad loans at lenders.

"The improvements were aided significantly by regulatory dispensations extended in response to the COVID-19 pandemic.

1.15 New Foreign Trade Policy to come into effect from April 1

The meeting of the Parliamentary Consultative Committee of the Ministry of Commerce and Industry was held on the subject "New Foreign Trade Policy 2021-26".

During the meeting, it was informed that that the new Foreign Trade Policy-FTP will come into effect from 1st April 2021 for a period of five years. District Export Hubs initiative will form an important component of the new FTP.

The policy will strive to make India a leader in the area of international trade and channelize the synergies gained through merchandise and services exports for growth and employment with a goal to make India a 5 trillion dollar economy.

The FTP 2015-20 came into effect on 1st April 2015 and the same was extended by one year till 31 March this year due to Covid-19 pandemic.

1.16 Indian inflation slows to hit central bank's target range

Recently, data has been released by National Statistical Office (NSO) (Ministry of Statistics) which shows that India's retail inflation decelerated to 4.59% in December 2020, from 6.93% in November, dipping below 6% for the first time since March 2020 as food prices cooled.

It also showed that a nascent industrial recovery, which had begun in September, retreated in November as industrial output shrank 1.9%.

The lowest consumer price inflation (CPI) print in 14 months was due to sharp slowdown in food price inflation, which eased to 3.4% in December.

India's index of industrial production (IIP) for November gets lower by mining and manufacturing, which both shrank.

Electricity production grew, rising 3.5% year-on-year. The NSO also revised upwards the index for the preceding three months by incorporating more production data. As per the final data for August 2020, the IIP had shrunk 7.1% in the month, narrower than the 8% estimated earlier.

In September, industrial output had edged up 0.5% — higher than the 0.2% growth estimated earlier — after shrinking for six months. Industrial output grew 4.19% in October, higher than the 3.6% quick estimate.

The November data once again shows that the uptick witnessed in the month of September and October was due to a combination of festive and pent-up demand and the recovery is still shallow and fragile. The unevenness and fragility of the current recovery is evident with only 10 out of 23 industry group showing positive growth in November.

INFLATION SURPRISE

Vegetable prices witnessed a 10.4% deflation in December, compared with inflation of 15.5% inflation in November. An accompanying moderation in the inflation rates for meat and fish, eggs and pulses, helped the consumer food price index record its slowest pace of increase in 16 months at 3.4%.

Core inflation too eased marginally to 5.5% in December, helping overall inflation moderate after

having remained above the central bank's tolerance band for price gains — of plus or minus two percentage points from its medium-term target of 4% — for a prolonged period.

1.17 First rice, now wheat: India rides on global grain trade bandwagon

India will become a major exporter of wheat after rice due to increasing international prices from Chinese stockpiling and ultra-low interest rate money increasingly finding its way into agri-commodity markets.

The US Department of Agriculture (USDA) increased its forecast of Indian wheat exports for 2020-21 (July-June) to 1.8 million tonnes (mt), as against its earlier estimate of one mt. That would be the highest ever in the last six years.

Reason: Rising global prices opened up possibilities for Indian exports to nearby markets, especially Bangladesh that buys mostly from Russia. Bangladesh "is beginning to shift its purchases towards India". Traders, however, believe that Indian wheat is still not competitive at the government's minimum support price (MSP) of Rs 19,750 per tonne.

The above price is higher than the major exporters such as Australia, France, US, Russia and Canada are quoting for March-April shipments. In all, given our MSP, India is $25 or so per tonne costlier today.

This can be overcome if wheat is sourced at below MSP from Uttar Pradesh, Bihar, Gujarat and Maharashtra, where not much government procurement happens.

The new crop arriving in these markets from March onwards and this wheat can be exported by rail rakes to Bangladesh or shipped to the Middle East (UAE, Oman and Bahrain) and Southeast Asia (Indonesia, Vietnam and Malaysia).

The USDA report, meanwhile, has also estimated India's rice imports to have hit a record. The country's closest competitors – Thailand and Vietnam – have seen their exports during this period fall. Both have had drought-reduced crops, with Vietnam recently even contracting 70,000 tonnes of Indian rice for the first time, following China in December 2020.

USDA has projected India's rice imports in 2021 at 14 mt. Bangladesh, which imported just 80,000 tonnes in 2020, is expected to buy one mt this year. The beneficiary of it will again be India.

Despite concerns about the availability of shipping containers, which is impacting rice exports from Vietnam and Thailand, India can export to Bangladesh via rail and truck.

All this export demand isn't bad at a time when India's own domestic production of rice and wheat touched an all-time-high in 2019-20. Government agencies also procured a record amount of rice and wheat. This year, too, similar bumper crops are likely.

The key driver of global price turnaround seems to be China. USDA data has forecast record Chinese imports of oilseeds (mainly soyabean) and coarse grain (maize and sorghum) in 2020-21 (October-September), apart from end-year stocks of rice and wheat. The reasons for its building strategic stockpiles of everything aren't as fully clear as their effect on international prices.

1.18 RBI forms working group on digital lending

The Reserve Bank of India (RBI) has constituted a working group on digital lending — including online platforms and mobile apps — to study all aspects of digital lending activities in the regulated financial sector as well as by unregulated players.

The working group consists of both internal and external members. This aims to ensure that an appropriate regulatory approach is put in place.

The working group will evaluate digital lending activities and assess the penetration and standards of outsourced digital lending activities in RBI regulated entities; identify the risks posed by unregulated digital lending to financial stability, regulated entities and consumers; and suggest regulatory changes to promote orderly growth of digital lending.

It will also recommend measures for expansion of specific regulatory or statutory perimeter and suggest the role of various regulatory and government agencies. It will also recommend a robust fair practices code for digital lending players.

Digital Lending

Digital lending has the potential to make access to financial products and services more fair, efficient and inclusive.

FinTech-led innovation is now at the core of the design, pricing and delivery of financial products and services. While penetration of digital methods in the financial sector is a welcome development, the benefits and certain downside risks are often interwoven in such endeavours.

A balanced approach needs to be followed so that the regulatory framework supports innovation while ensuring data security, privacy, confidentiality and consumer protection.

1.19 To spur growth & jobs, booster for construction and low-cost housing

Budget 2021-22 is expected to give a special focus to construction development and affordable housing as increased activity in these areas provide a higher boost to overall demand in the economy because of their forward and backward linkages.

The government plans further liberalisation of foreign direct investment (FDI) regulations for the construction development sector while a higher allocation is expected towards a credit-linked subsidy scheme for affordable housing.

One factor behind the exodus of migrants from cities during the pandemic was their lack of access to safe, affordable housing in urban clusters.

Significantly, as part of the pandemic slowdown stimulus, several state governments provided various concessions in stamp duty and other charges to kickstart transaction activity in the construction and real estate sector. The Centre, too, set up a fund to provide last-mile funding to stressed housing projects across the country.

Revival of construction development sector is also seen as crucial for employment creation. While 100 per cent FDI is already permitted in construction development sector, certain legal structures such as LLP are not allowed to receive foreign investment in this sector.

There has also been demand to raise allocation under Pradhan Mantri Awas Yojana (PMAY) from the Rs 27,500 crore allocated in the Union Budget 2020-21 to ensure every Indian has a home in the near future.

To provide relief to stressed home buyers, funds could also be set aside for the National Building Construction Corporation to complete stalled projects which have been stuck due to fund shortage.

This would boost consumer sentiment and revive up the demand cycle. There could be a provision to recover the costs involved once the project is completed.

1.20 Indian economy 'weak,' credit growth bottoming out: BofA

According to the American brokerage BofA Securities, the Indian economy continues to be 'weak,' pointing to activity indicators tracked by it.

POSITIVE NEWS:

It has been noted that on the positive side, credit demand is decreasing and the real lending rates, adjusted for wholesale price inflation, are falling. It can also be noted that there has been a slew of reports

lately about a stronger recovery being underway after the jolt caused by the pandemic. The government expects the GDP to contract 7.7% in financial year 2021 because of the reverses.

BAD NEWS:

The continued drop in our BofA India Activity Indicator reinforces our view that the economy still remains weak. The indicator fell by 0.6% in November on top of the 0.8% decline in October, and 4.6% drop in the September quarter.

This supports our call of GVA (gross value added) contractions of 1% in the December quarter and 6.7% in FY21.

The credit growth for FY22 will come at 12%. It can be noted that credit growth had been declining for the last few years, in sync with a dip in the overall economic growth which has been on a downward spiral since demonetisation in late 2016 as borrowers went slow on expansion.

The real lending rates adjusted for WPI will be one of the prime reasons for the faster credit growth estimate in financial year 2022.

1.21 First time in 10 mths, imports in positive zone; exports inch up

Recently, an estimate has been released by the Commerce Ministry which showed that Merchandise Exports increased in December 2020, for a second time since February 2020, while imports advanced for the first time in 10 months, suggesting a gradual return towards normalcy.

Exports rose 0.1 percent on year to $27.15 billion in December, better than a 0.8 percent contraction announced earlier.

Imports rose at a much faster pace of 7.6 percent last December to $42.59 billion, inflating trade deficit to a 25-month high of $15.44 billion.

This reflects a nascent revival of domestic demand, following the Covid-induced compression since March 2020, as businesses go through a "reset" phase, taking advantage of the lifting of lockdown curbs. Some amount of pent up demand for raw materials may also have contributed to the rise in imports.

If inbound shipments continue to rise, import-sensitive exports, too, will get a boost but it will also mark are turn to the usual high trade deficit trend.

The outbound shipment of core products (goods excluding petroleum and gems & jewellery), which reflects the economy's competitiveness, grew 5.5 per cent in December, against a 0.4per cent fall in November 2020.

Similarly, core imports rose 8 per cent in December 2020,compared with a 1.7 per cent fall in November.

Overall, merchandise exports is still down by 15.7 percent up to December this fiscal, while imports shrunk by 29 per cent.

1.22 Govt. may raise import duties by 5-10%

India is considering raising import duties by 5%-10% on more than 50 items including smartphones, electronic components and appliances in the upcoming budget.

The move to increase import duties is part of Prime Minister's self-reliant India campaign that aims to promote and support domestic manufacturing.

Government was seeking to target additional revenue of about ?200 billion to ?210 billion, as it looks to shore up revenue amid the COVID-19 pandemic-driven slowdown that has stung the economy.

The list of items likely to attract steeper duties is set to include appliances such as refrigerators and air conditioners too.

Last year, India raised duties on a range of products such as footwear, furniture, toys, electrical and electronics items by up to 20%.

1.23 Banks red-flag: Loans to street vendors in pandemic turning NPAs

Banks are reporting that many of collateral free loans disbursed under the PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) programme are turning into non-performing assets (NPAs). Some banks are asking local authorities — who pushed for these loans — to help recover them.

This scheme was launched in June 2020 to help vendors amid the COVID-19 pandemic, the PM SVANidhi scheme is a micro credit facility that provides street vendors a collateral-free loan of Rs 10,000 at concessional rates of an estimated 7.25%.

On timely or early repayment of the loan, an interest subsidy at 7% per annum is credited to the bank accounts of beneficiaries through Direct Benefit Transfer on a six-monthly basis.

Despite this interest subvention – making this an effectively interest-free loan — many accounts have turned NPAs.

As loans under the scheme have no collateral, banks typically have no recourse in case of default.

As per the guidelines, Urban Local Bodies (ULBs) and Town Vending Committees (TVCs) are

responsible for identifying eligible borrowers and issue Certificate of Vending, Identity Card and Letter of Recommendation to them.

1.24 RBI: Cost of green bonds issuance high in India

A study by Reserve Bank of India (RBI) noted that the cost of issuing green bonds has generally remained higher than other bonds in India, largely due to asymmetric information.

The average coupon rate for green bonds issued since 2015 with maturities between 5 to 10 years have generally remained higher than the corporate and government bonds with similar tenure.

For the US dollar-denominated green bonds with tenure of more than or equal to 10 years, the coupon rate was, however lower than the corporate bonds.

It may be mentioned that most of the green bonds in India are issued by the public sector units 17 or corporates with better financial health.

It is evident from the fact that the private sector issuers of green bonds, on average, reported lower debt-to-assets ratio compared to the non-issuers of green bond.

Green bonds constituted only 0.7percen to fall the bonds issued in India since 2018, and bank lending to the non-conventional energy constituted about 7.9 percent of outstanding bank credit to the power sector, as of March 2020.

High borrowing cost has been perhaps the most important challenge and analysis indicates that it could be due to the asymmetric information

Therefore, developing a better information management system in India may help in reducing maturity mismatches, borrowing costs and lead to efficient resource allocation in this segment.

1.25 'Pandemic pushes States' borrowings up by 82.5%'

States' borrowings during April-December 2020 were 82.5% higher compared with the corresponding period of the previous year, on account of the pandemic. Till December 11, 2020, the States netted ?4.6 lakh crore through market borrowings.

GST SHORTFALL

The figure included ?36,000 crore borrowed by the Centre and passed on to the States to meet the shortfall in revenue arising on account of the Goods and Services Tax (GST) implementation.

The current financial year's figure of borrowings pertained to net borrowings, which excluded repayments, and this was compared with similar borrowings made in the previous year.

A perusal of data available on revenue receipts of 21 states reveals that while the states raised only 37% of the full-year target during April-October 2020, they generated 52% of their annual revenue in the corresponding period of 2019.

1.26 RBI moots scale-based tighter regulatory framework for NBFCs

The Reserve Bank of India (RBI) has suggested a tougher regulatory framework for the non-banking finance companies' (NBFC) sector to prevent recurrence of any systemic risk to the country's financial system.

The banking regulator released a discussion paper on the revised regulatory framework which is formulated on a scale-based approach.

It will be based on a four-layered structure — the base layer (NBFC-BL), middle layer (NBFC-ML), upper layer (NBFC-UL) and the top layer.

If the framework is visualised as a pyramid, the bottom of the pyramid, where least regulatory intervention is warranted, can consist of NBFCs currently classified as non-systemically important NBFCs (NBFC-ND), NBFCP2P lending platforms, NBFCAA, NOFHC and Type I NBFCs.

Moving up, the next layer may comprise NBFCs currently classified as systemically important NBFCs (NBFC-ND-SI), deposit-taking NBFCs (NBFC-D), HFCs, IFCs, IDFs, SPDs and CICs.

The regulatory regime for this layer shall be stricter compared to the base layer. Adverse regulatory arbitrage vis-à-vis banks can be addressed for NBFCs falling in this layer in order to reduce systemic risk spill-overs, where required.

The next layer may consist of NBFCs identified as 'systemically significant'. This layer will be populated by NBFCs having a large potential of systemic spill-over of risks and the ability to impact financial stability.

The extant regulatory framework for NBFC-NDs will now be applicable to base layer NBFCs, while the extant regulatory framework applicable for NBFC-NDSI will be applicable to middle layer NBFCs. NBFCs residing in the upper layer will constitute a new category.

The revisions applicable to lower layers of NBFCs will automatically be applicable to NBFCs in the higher layers, unless there is a conflict or otherwise stated.

The current threshold for systemic importance, which is ?500 crore now, is proposed to be revised to ?1,000 crore.

As per the proposals, the extant NPA classification norm of 180 days will be reduced to 90 days. The regulatory framework for NBFCs needs to be reoriented to keep pace with changing realities in the financial sector.

1.27 Economic Survey predicts 11% growth next fiscal

India's economy is firmly in the middle of a V-shaped recovery and will bounce back to record 11% growth in 2021-22 after an estimated 7.7% contraction this year, as per a "conservative" estimate in the Economic Survey for 2020-21.

Economic Survey 2020-21 has termed this a "lockdown dividend" from the country's stringent response to the COVID-19 pandemic.

NEED GOVERNMENT SPENDING:

Survey has made a strong pitch for the government to loosen its purse strings to spur the economy with a "counter-cyclical fiscal push" till the country returns to its pre-COVID-19 growth path.

The Survey which was tabled in Parliament on Friday, defended the conservative fiscal stimulus during the initial phase of the pandemic, stating that pushing down on the accelerator while the brakes are clamped "only wastes fuel".

With Indian economy's resurgence from the collapse in the first two quarters, Chief Economic Adviser Krishnamurthy Subramanian indicated that it was time to switch fiscal gears to a more aggressive approach.

GROWTH HOPEFUL:

CEC indicated that the Union Budget for 2021-22 could be cautiously expansionary.

"The V-shaped economic recovery while avoiding a second wave of infections make India a sui generis case in this unique, synchronised global recession," the Survey said.

It added that a rapid vaccination roll-out this year could boost recovery in the services sectors as well as stir up private consumption and investment.

While absolute growth numbers may be remarkable in 2021-22 due to the low base effect, returning to pre-pandemic growth and output levels would take longer.

India is expected to emerge as the fastest growing economy in the next two years as per International Monetary Fund.

The Survey argued that the country's 'mature policy response to this "once-in-a-century" crisis

provides important lessons for democracies to avoid myopic policy-making and demonstrates the significant benefits of focusing on long-term gains'.

SETBACK:

The global economy, including India, has been set back in time by the pandemic induced crisis.

In the five years before 2020-21, Indian economy grew at an average growth of 6.7%. In 2021-22, a sharp recovery of real GDP growth of 10%-12% is expected based on a low base effect and inherent strengths of the economy.

It is assumed that the economy grows at its trend growth rate of 6.5% in 2022-23 and 7% in 2023-24, aided by the structural reforms.

If two scenarios of 12% growth and 10% growth in 2021-22 are envisaged, India would be 91.5% and 90% below the trend level of output, respectively, by 2023-24," the Survey noted.

CEA says it is time to switch fiscal gears from cautious stance to 'counter-cyclical' push Rapid vaccine roll-out can boost ailing services sectors, spur consumption and investmentIndia's response to 'once-in-a-century' crisis a lesson for democracies to avoid myopic policy.

1.28 To assess equity, Economic Survey introduces a bare necessities index

Inequalities in access to bare necessities like drinking water, sanitation, hygiene and housing conditions continue to exist between urban and rural India despite "widespread" improvements in each of these aspects, the Economic Survey for 2020-21 has shown, using a newly constructed "Bare Necessities Index" (BNI).

The BNI builds on the idea of Thalinomics in the Economic Survey for 2019-20, through which it had sought to examine the access to food in the country.

The BNI summarises 26 indicators on five dimensions — water, sanitation, housing, micro-environment, and other facilities — and has been created for all states for 2012 and 2018 using NSO data.

The index classifies areas on three levels of access — high, medium, low — to bare necessities.

REDUCING VARIATIONS:

The Survey has underlined the need to focus on reducing variations in the access to bare necessities across states, between rural and urban areas, and between income groups.

"Government schemes such as the Jal Jeevan Mission, SBM-G (Swachh Bharat Mission-Gramin), PMAY-G (Pradhan Mantri Awaas Yojana), may design appropriate strategy to address these gaps.

This should be done to enable India to achieve the SDG (UN Sustainable Development Goals)

goals of reducing poverty, improving access to drinking water, sanitation and housing by 2030.

There should be effective targeting of the needier population be they in urban or rural areas or across states," it has said.

VARIATIONS AMONG STATES:

In 2018, access to bare necessities was the highest in states such as Kerala, Punjab, Haryana, and Gujarat, and lowest in Odisha, Jharkhand, West Bengal and Tripura, the Survey has said.

In terms of urban-rural divide, all states barring Delhi, Punjab, Goa, Kerala, and Sikkim had medium or low access to bare necessities in their rural areas. In 2012, only rural Delhi had high access to bare necessities.

In 2018, the lowest access in rural India was recorded in Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, West Bengal, Odisha, Assam, Manipur, and Tripura.

J&K, Punjab, Rajasthan, Gujarat, Maharashtra, Karnataka, Chhattisgarh, Tamil Nadu, Andhra Pradesh, Kerala, Goa, Meghalaya, and Arunachal Pradesh showed improvement in access to bare necessities in rural areas between 2012 and 2018.

By contrast, in urban India, no state showed the lowest level of BNI in 2018. In 2012, urban areas of only Bihar and Manipur fell in the lowest BNI category.

Conclusion

Between 2012 and 2018, access to bare necessities for the poorest households improved disproportionately more when compared to the richest households, across both rural and urban areas.

"The improvement in equity is particularly noteworthy because while the rich can seek private alternatives, lobby for better services, or if need be, move to areas where public goods are better provided for, the poor rarely have such choices," the Survey noted.

As civic amenities in urban areas are also provided by local self government, there must be effective convergence in scheme implementation at the Centre-state and local levels, the Survey said.

"For this purpose, a BNI based on large annual household survey data can be constructed using suitable indicators and methodology at district level for all/targeted districts to assess the progress on access to bare necessities," it said.

1.29 Why govt borrows off-budget, and how?

Fiscal deficit is the most important metric to understand the financial health of any government's

finances. As such, it is keenly watched by rating agencies — both inside and outside the country. That is why most governments want to restrict their fiscal deficit to a respectable number.

One of the ways to do this is by resorting to **"off-budget borrowings"**. Such borrowings are a way for the Centre to finance its expenditures while keeping the debt off the books — so that it is not counted in the calculation of fiscal deficit.

WHAT IS FISCAL DEFICIT?

It is essentially the gap between what the central government spends and what it earns. In other words, it is the level of borrowings by the Union government.

What are off-budget borrowings?

Off-budget borrowings are loans that are taken not by the Centre directly, but by another public institution which borrows on the directions of the central government. Such borrowings are used to fulfil the government's expenditure needs.

But since the liability of the loan is not formally on the Centre, the loan is not included in the national fiscal deficit. This helps keep the country's fiscal deficit within acceptable limits.

As a result, as a Comptroller and Auditor General report of 2019 points out, this route of financing puts major sources of funds outside the control of Parliament. "Such off-budget financing is not part of the calculation of the fiscal indicators despite fiscal implications".

HOW ARE OFF-BUDGET BORROWINGS RAISED?

The government can ask an implementing agency to raise the required funds from the market through loans or by issuing bonds.

Other public sector undertakings have also borrowed for the government. For instance, public sector oil marketing companies were asked to pay for subsidised gas cylinders for Pradhan Mantri Ujjwala Yojana beneficiaries in the past.

Public sector banks are also used to fund off-budget expenses. For example, loans from PSU banks were used to make up for the shortfall in the release of fertiliser subsidy.

In addition to the borrowings by PSUs, the actual liabilities of the government would include loans taken for the recapitalisation of banks and capital expenditures of the Ministries of Railways and Power.

1.30 GDP to contract 8% in FY21, FICCI survey shows

According to the latest round of FICCI's Economic Outlook Survey, India's GDP is expected to contract by 8% in 2020-21.

The annual median growth forecast by the industry body is based on responses from leading economists representing industry, banking and financial services sectors.

The median growth forecast for agriculture and allied activities has been pegged at 3.5% for 2020-21.

Agriculture sector has exhibited significant resilience in the face of the pandemic. Higher rabi acreage, good monsoons, higher reservoir levels and strong growth in tractor sales indicate continued buoyancy in the sector.

Industry and services sector, which were most severely hit due to the pandemic induced economic fallout, are expected to contract by 10% and 9.2% respectively during 2020-21. The industrial recovery is gaining traction, but the growth is still not broad based.

The consumption activity did spur during the festive season as a result of pent-up demand built during the lockdown but sustaining it is important going ahead.

Some of the contact intensive service sectors like tourism, hospitality, entertainment, education, and health sector are yet to see normalcy.

The quarterly median forecasts indicate GDP growth to contract by 1.3% in the third quarter of 2020-21. The growth is expected to be in the positive terrain by the fourth quarter with a projection of 0.5% growth.

1.31 'Overseas investment by Indian firms dipped to $1.45 bn in Dec.'

According to Reserve Bank data, overseas investment by domestic firms fell by over 42% to $1.45 billion in December 2020

In 2020, companies in India had invested $2.51 billion in their foreign firms (joint ventures / wholly owned units).

In November 2020, the total outward foreign direct investment (OFDI) was of $1.06 billion, down by 27% from a month earlier.

Of the total FDI investment by the Indian companies during the month under review, $775.41 million was in the form of equity infusion and $382.91 million was in the form of loan.

Investment of $287.63 million was in the form of issuance of guarantee.

The **outward FDI** stock is the value of the resident investors' equity in and net loans to

enterprises in foreign economies. The **inward FDI** stock is the value of foreign investors' equity in and net loans to enterprises resident in the reporting economy.

1.32 World Economic Outlook January 2021

Recently, the International Monetary Fund (IMF) has issued the World Economic Outlook Update.

According to the IMF, multiple vaccines currently being rolled out around the world raised the prospect of an eventual end to the coronavirus pandemic in 2021.

Like 2020, 2021 economic outlook is still closely related to COVID-19, which is still the only factor driving everything at this point.

BAD NEWS: The strength of the projected recovery varies across countries, "depending on the **severity of the health crisis**, the **extent of domestic disruptions to activity** (related to the structure of the economy and its reliance on contact-intensive sectors), the **exposure to cross-border spillovers**, and **effectiveness of policy support to limit persistent damage**."

The **pandemic-induced acceleration in inequality** by reiterating that close to **90 million people are likely to fall below the extreme poverty threshold during 2020-21**

K-SHAPED RECOVERY

The global economy is projected to grow **5.5% in 2021** and **4.2% in 2022**.

For the Emerging Market and Developing Economies category, Asian economies are projected to do much better – at 8.3 percent overall, leading by India (11.5 percent) and China (8.1 percent), compared with Sub-Sahara Africa at only 3.2 percent.

China stands out as the only major economy in the world that booked a positive GDP growth figure at 2.3 percent in 2020. The IMF's forecast for China is 8.1 percent in 2021 and 5.6 percent in 2022.

IMF has estimated that India's Gross Domestic Product (GDP) will grow by 11.5% in the Financial Year (FY) 2021-22 , 2.7% higher than the projection made in October, 2020. In FY 2022-23, the economy will likely grow **6.8%**.

This revision for the current fiscal is higher than the **government's first advance estimate of 7.7%** and also the **RBI's estimate of 7.5%**.

This great divergence in growth in the aftermath of a major pandemic has historic precedents, and the economics academic across the world termed it as the K-shaped recovery, valid across different social strata within the same country.

Misallocation of stimulus funds or emergency subsidies makes some areas of the economy recover fast but leaves out others. In economics, this is known as **The Cantillion Effect**, which refers to the change in relative prices resulting from a change in the money supply. When liquidity is injected into the market, there are distributional consequences that operate through the price system. Prices act as viable signals, as relative price changes occur because the change in money supply has a specific injection point, and therefore a specific flow-path through the economy.

If the injected liquidity or subsidies go toward specific industries or market players, it leads to greater inequality, dips in demand curves, and increasing levels of unemployment and private debt. As unemployment and private debt levels increase, so do defaults. And if the institutions that issue the debt are "too big to fail," then the defaults they incur result in government bailouts, effectively converting private debt into public debt. **If we look at changes in employment levels and prices since the beginning of the pandemic, we start seeing the manifestation of the K shape.**

Summing up

Updated version of the World Economic Outlook Report has painted a bright and promising economic prospect for 2021, especially for India.

It would be natural and reasonable to be confident about the robust growth of India's economy, and to believe in the positive impact it has on global economic performance.

INDIA AND WORLD

2.1 India, Pakistan exchange list of nuclear installations

Recently, Pakistan and India have conducted the **annual practice of exchanging the list of their nuclear installations**.

The exchange of information comes despite the **ongoing tensions** between India and Pakistan.

The relationship dipped after **India's war planes pounded a terrorist training camp** deep inside Pakistan in February 2019 in response to the Pulwama terror attack.

Tensions between the two nations spiked further after New Delhi **abrogated provisions of Article 370** of the Constitution to withdraw Jammu and Kashmir's special status and bifurcated it into two Union Territories.

Pakistan downgraded its diplomatic relations with India and expelled the Indian high commissioner following the **revocation of Article 370 in Jammu and Kashmir.**

Agreement to exchange list of nuclear installations

It is **Non-nuclear aggression agreement** and nuclear weapons control treaty between India and Pakistan.

The practice of **exchanging the list of nuclear installations** was carried out under a bilateral arrangement that prohibits them from attacking each other's atomic facilities.

The exchange was made in accordance with **Article-II of the Agreement on Prohibition of Attacks against Nuclear Installations and Facilities** between Pakistan and India.

According to Foreign Office (FO), the exercise is **carried out consecutively since January 1, 1992.**

Provisions under Agreement on Prohibition of Attacks against Nuclear Installations and Facilities

Each party shall **refrain from undertaking, encouraging or participating in,** directly or indirectly, any action aimed at causing the **destruction of, or damage to**, any nuclear installation or facility in the other country.

The term **"nuclear installation or facility"** includes nuclear power and research reactors, fuel fabrication, uranium enrichment, isotopes separation and reprocessing facilities.

It covers any other installations with **fresh or irradiated nuclear fuel and materials in any form** and establishments storing significant quantities of radio-active materials.

Each Contracting Party shall inform the other on **1st January of each calendar year of the latitude and longitude of its nuclear installations** and facilities and whenever there is any change.

2.2 India to chair three-key subsidiary bodies of UNSC

Recently, the Permanent Representative of India at the United Nations Security Council has announced that **India will be chairing three-key subsidiary bodies of the United Nations Security Council (UNSC)**.

The three-key subsidiary bodies are **Counter-Terrorism Committee (for 2022), Taliban Sanctions Committee, and Libya Sanctions committee**.

The chairing of the **Counter-Terrorism Committee** has a special resonance for India which has not only been at the **forefront of fighting terrorism** especially cross border terrorism but has also been one of its biggest victims.

The Counter-Terrorism Committee was **formed in September 2001** soon after the **tragic terrorist attack of 9/11 in New York**, while India had chaired this Committee in the Security Council in 2011-12.

The **Taliban Sanctions Committee** (1988 Sanctions Committee) has always been a high priority for India keeping in mind its **strong interest and commitment to peace, security, development, and progress of Afghanistan.**

India will be assuming the chair of the **Libya Sanctions Committee** (1970 Sanctions Committee) at a critical juncture when there is an **international focus on Libya** and on the peace process.

2.3 Johnson invites PM to G7 in June, says will visit India before summit

British Prime Minister invited the Indian Prime Minister to the UK for the G7 summit in June 2021.

The proposed summit will be the first in-person G-7 summit in almost two years, as it will be held in the English region of Cornwall from June 11 to 13.

Besides India, Australia and South Korea have also been invited as guest countries as a testament to UK's commitment to ensuring multilateral institutions better reflect today's world.

G7 PLUS India, Australia and South Korea is seen as a gathering of D-10 —10 leaders who represent over 60% of people living in democracies around the world. This is also seen as a signal to China.

India had attended the G-7 summit in Biarritz in France in August 2019 and was also invited for the 2020 summit hosted by the US — which could not take place due to the pandemic.

This is expected to be second G-7 summit in the tenure of present PM; his predecessor had attended the G-8 summit (it became G-7 from G-8 with the expulsion of Russia in 2014) five times between 2005 and 2009.

G7 is the most prominent grouping of democratic countries, and it has long been the catalyst for decisive international action to tackle the greatest challenges. From cancelling developing world debt to our universal condemnation of Russia's annexation of Crimea, the world has looked to the G7 to apply our shared values and diplomatic might to create a more open and prosperous planet.

The G7, which includes UK, Canada, France, Germany, Italy, Japan, the USA and the EU, is the only forum where the world's most influential and open societies and advanced economies gather for discussions.

The summit itself will be held in the coastal town of Carbis Bay, supported by neighbouring St. Ives and other towns across the Cornwall region.

In February, UK will assume the Presidency of the UN Security Council, and, later this year, it will host the COP26 climate summit in Glasgow and a global education conference.

2.4 India to send 20 lakh vaccines to Dhaka, Pak explores options

India plans to send 20 lakh doses of Covid-19 vaccines to Bangladesh and on the other hand, Pakistan is exploring options to get made-in-India vaccines, either through a global alliance for vaccines or through the bilateral route.

On 20 January 2021, a specially equipped plane will carry 20 lakh doses of the Oxford Astra Zeneca vaccine—manufactured in India by the Serum Institute of India under the name Covishield — to Dhaka.

The consignment will be handed over to the Bangladesh government by the Indian High Commission in Dhaka.

Pakistan's move to source Indian vaccines comes after the country's drug regulator, the Drug Regulatory Authority of Pakistan (DRAP), approved Oxford-AstraZeneca's Covid-19 vaccine for emergency use.

Pakistan is planning that it can get the vaccine through Covax, an alliance set up by the Global Alliance for Vaccines and Immunisation (GAVI), Coalition for Epidemic Preparedness Innovations (CEPI) and World Health Organisation.

The alliance has pledged free vaccines for 20 per cent of the population of around 190 countries, including Pakistan. Pakistan expects to get the first consignment from Covax just after the start of the second quarter of 2021.

But, for the remaining population, the Oxford-Astra Zeneca vaccine as well as Bharat Biotech-ICMR's Covaxin can be procured through bilateral arrangements.

Alternatively, Pakistan can procure the India-made vaccines through a third country, but that may push up costs.

While tensions between India and Pakistan have impacted bilateral trade between the two countries, the supply of "life-saving medicines" is exempted from restrictions.

Bilateral trade between the two neighbours has almost come to a standstill — first after the

Pulwama terror attack in February 2019 and later, after the special status of Jammu and Kashmir was withdrawn.

Given the tensions, vaccine diplomacy could be key to unlocking the ties.

2.5 India to fly out vaccines to neighbours

India will begin to ship out lakhs of doses of the novel coronavirus vaccine to neighbouring countries, with the first batches expected to reach Bhutan and the Maldives among several countries by special planes as a grant or gift.

Shipments to Bhutan, the Maldives, Bangladesh, Nepal, Myanmar and the Seychelles would commence this week, while those to Sri Lanka, Afghanistan and Mauritius were awaiting "necessary regulatory clearances".

India is deeply honoured to be a long-trusted partner in meeting the healthcare needs of the global community.

The "pharmacy of the world would deliver to overcome the COVID challenge".

The release of the shipments is part of the government's "Neighbourhood First" initiative, and will make India the first country to reach COVID-19 vaccines in South Asia, ahead of China, which has promised but not so far delivered, the World Health Organization and GAVI's vaccine alliance programme.

The region's preference for Indian vaccines, including the Covishield from the Serum Institute of India (SII) developed with Oxford University and AstraZeneca, and Bharat Biotech's Covaxin, are due to cost, easier storage requirements and the geographical proximity.

The only exception to India's regional vaccine diplomacy would be Pakistan, which has cleared the AstraZeneca vaccine for use, but has neither requested nor discussed any doses from India yet.

NEIGHBOURHOOD FIRST POLICY

It is part of India's foreign policy that focuses on improving ties with India's immediate neighbours.

It focuses on vigorous regional diplomacy by engaging with neighbouring nations and building political connectivity through dialogue.

Focus is on resolving bilateral issues through mutual agreement.

India has entered into MoU with members of the South Asian Association for Regional Cooperation (SAARC). These agreements ensure a free flow of resources, energy, goods, labour, and

information across borders.

It focuses on enhancing trade ties with neighbours. India has participated and invested in SAARC as a vehicle for development in the region like Bangladesh-Bhutan-India-Nepal (BBIN) grouping.

India's offer cooperation on disaster response, resource management, weather forecasting and communication and also capabilities and expertise in disaster management for all South Asian citizens.

India is also focusing on deepening security in the region through military cooperation.

India's immediate neighbourhood directly impacts it geopolitically, geo-strategically and geo-economically because of its vicinity. Thus, working with them is important for India to rise as a superpower.

India's soft power and common culture provide an opportunity for India to strengthen its cultural roots further in the region.

Emphasis must be on sustainable and inclusive development.

2.6 Trade with China shrank in 2020, deficit at five-year low

According to new figures from China's General Administration of Customs (GAC), India's trade with China declined in 2020 to the lowest level since 2017. Trade deficit narrowed to a five-year low as India imported far fewer goods from China.

Bilateral trade decreased 5.6% to $87.6 billion, India's imports from China shrank by 10.8% to $66.7 billion, marking the lowest level of inbound shipments since 2016.

India's exports to China, however, jumped 16%, crossing the $20 billion-mark for the first time to a record high of $20.86 billion.

The trade deficit, a source of friction in bilateral ties, shrank to $45.8 billion, the lowest level since 2015.

India's biggest import in 2019 was electrical machinery and equipment, and fertilisers, while India's top exports that year were iron ore, organic chemicals, cotton and unfinished diamonds.

Demand for iron ore increased in China, as new infrastructure projects aimed at reviving growth after the COVID-19 slump lifted consumption of steel. Total iron ore imports in Asia's largest economy rose 9.5% in 2020.

The drop in India's imports from China largely mirrored a decline in overall inbound shipments last year as domestic demand slumped in the wake of the pandemic.

That makes it difficult to determine whether 2020 is an exception or marks a turn away from the recent pattern of India's trade with China, especially since there is, as yet, no evidence to suggest India has replaced its import dependence on China by either sourcing those goods elsewhere or manufacturing them at home.

'POSITIVE GROWTH'

China was "the world's only major economy to have registered positive growth in foreign trade in goods, with China's foreign trade and exports in the first 10 months of the year accounting for a record 12.8% and 14.2% share of the global totals, respectively.

China posted sharp increases with most of its major trading partners. Exports to the ASEAN bloc, China's largest trading partner last year with bilateral trade rose 6.7%, while exports to the EU, China's second-largest trading partner, also rose 6.7% as total trade reached $649 billion.

Despite the trade war with the U.S. and the pandemic, two-way trade was up 8.3% to $586 billion, with China's exports rising 7.9% to reach a record $451 billion.

2.7 Nepal raises Kalapani boundary issue with India

Nepal has raised the Kalapani boundary dispute with India during the Joint Commission meeting between both countries Foreign ministers since the issue erupted in November 2019 prompting Nepal to unveil a new political map that showed the Kalapani-Lipulekh-Limpiyadhura region of Pithoragarh district as part of the country's sovereign territory.

Nepal also requires vaccines to fight the COVID-19 pandemic and it has approved Serum Institute of India's (SII) Covishield vaccine.

Mapping of territory

Indo-Nepal boundary dispute existed in "two segments" and Kathmandu wished to find a solution to the matter urgently.

Nepal has started the demarcation and mapping of the boundary since 1981. At that time, a Joint Technical Committee was founded which had tenure till 2007.

It produced 182 strip maps which depicts the border but for various reasons [work on] two segments — Susta and Kalapani — were not completed.

2.8 'Land under PLA control since 1959'

Recently, NDTV showed satellite images of a new Chinese settlement in Arunachal Pradesh and after that the Ministry of External Affairs (MEA) remarked that it was not aware of infrastructure construction by China in the past several years "along the Line of Actual Control (LAC)" and that India has also stepped up its construction.

Satellite images show the construction of a big village on the banks of Tsari Chu river in Upper Subansiri district between November 2019 and November 2020.

Village lies south of the McMahon Line, the demarcation between Tibet and India's Northeast which New Delhi believes marks the boundary between India and China in the region. This line is disputed by Beijing.

Construction of this village appears to be a violation of a key part of multiple agreements reached with India that ask both countries to "**safeguard due interests of their settled populations in the border areas**" and decree that **"Pending an ultimate settlement of the boundary question, the two sides should strictly respect and observe the line of actual control and work together to maintain peace and tranquility in the border areas**."

This is the first time the government has acknowledged Chinese construction, although the land has been under the Chinese People's Liberation Army's (PLA) control since 1959.

Prior to that, there was an Assam Rifles post there which was overrun. They have been doing construction there on and off. There were some temporary constructions few years back. They have now done permanent construction there.

2.9 Centre nod for Chenab hydel project despite Pak objections

The Centre decided to go ahead with the long pending 850 megawatt Ratle hydroelectric power project for the Rs 5,822 crore on the river Chenab in Jammu and Kashmir's Kishtwar district, despite objections raised by the Pakistan government over the same. The Project to be built near Drabshalla village in Kishtwar, the then Prime Minister had laid the foundation stone for the project on June 25, 2013.

However, the Pakistan government had objected to the construction of the dam, claiming that it was not in conformity with the Indus Water Treaty.

In August 2017, the World Bank allowed India to construct the dam and the following year, the erstwhile state government approached the Centre with a proposal to resume construction.

An MoU was signed between the National Hydel Power Corporation (NHPC) and the Jammu and Kashmir State Power Development Corporation Limited (JKSPDCL) at Vijaypur in Samba district on February 3, 2019 and work on the project began in December 2019.

The project will be a joint venture between the NHPC and the JKSPDC having an equity of 51 per cent and 49 per cent, respectively, and will be completed in five years.

The JKSPDCL equity will be paid by the Centre.

The power share of J&K from the project will start from 8 per cent and increase to 12 per cent in the 12th year. It will be the first hydel power project in the country from which we will start getting power from the day it gets commissioned.

If calculated in terms of money, Jammu and Kashmir will get electricity worth Rs 5,289 crore free of cost and the Union Territory will also get water usage charges worth Rs 9,581 crore over a period of 40 years.

The project will generate direct and indirect jobs for 4,000 people in addition to the 2,000 jobs created directly and indirectly in the commissioning of the 540 MW K war hydroelectric power project on the Chenab.

INDUS WATER TREATY:

Under the treaty signed between India and Pakistan in 1960, all the waters of three rivers, namely Ravi, Sutlej and Beas (Eastern Rivers) were allocated to India for exclusive use.

While, the waters of Western rivers – Indus, Jhelum, and Chenab were allocated to Pakistan except for specified domestic, non-consumptive and agricultural use permitted to India as provided in the Treaty.

2.10 Curtain Raiser: Indo-French Exercise Desert Knight-21

Indian Air Force (IAF) and French Air and Space Force will conduct a bilateral Air exercise, Ex Desert Knight-21 at Air Force Station Jodhpur from 20 to 24 January 2021. Unique exercise as it includes fielding of Rafale aircraft by both sides.

Indicative of the growing interaction between the two premier Air Forces.

Presently, the French detachment for Ex Desert Knight-21 is deployed in Asia as part of their 'SKYROS Deployment'.

2.11 Indian military personnel for Moscow soon for S-400 training

The first Indian group of military specialists will soon depart for Moscow (Russia) to undergo training courses on the S-400 Triumf missile defence system.

Despite objections from the US and the threat of sanctions under Countering America's Adversaries Through Sanctions Act (CAATSA), India signed a 5.43 billion USD deal with Russia for the S-400 Triumf missile system in October 2018.

S-400 TRIUMF MISSILE SYSTEM:

A mobile, surface-to-air missile system (SAM) designed by Russia.

Engage all types of aerial targets including aircraft, unmanned aerial vehicles (UAV) and ballistic and cruise missiles within the range of 400km, at an altitude of up to 30km.

Track 100 airborne targets and engage six of them simultaneously.

SIGNIFICANCE

Most dangerous operationally deployed modern long-range SAM (MLR SAM) in the world

Considered much ahead of the US-developed Terminal High Altitude Area Defense system (THAAD)

India's acquisition is crucial to counter attacks in a two-front war, including even high-end F-35 US fighter aircraft.

2.12 5th India – Singapore Defence Ministers' Dialogue

5th Defence Ministers' Dialogue (DMD) was recently held between India and Singapore through a video conferencing and continues the substantial increase in bilateral cooperation and defence partnership over the years.

Defence and security engagements between India and Singapore have broadened significantly in scale and scope across all three Services of the Armed Forces as well as in the areas of defence technology and industry.

Both countries have also found common ground on multilateral fora and engagements.

Both navies signed **Implementing Agreement on Submarine Rescue Support and Cooperation**.

Full support was conveyed by both countries towards the early conclusion of agreements to establish reciprocal arrangements for the cross-attendance of military courses and facilitate conduct of live firings.

Both also welcomed the initiatives to expand bilateral defence cooperation including the implementing agreement on Humanitarian Assistance and Disaster Relief (HADR) cooperation in August 2020.

STAND OF INDIA

Conveyed gratitude for the role of the Singapore Armed Forces, in supporting foreign workers, many of whom were Indian Nationals, at the peak of pandemic.

Reaffirmed Association of Southeast Asian Nations (ASEAN) centrality in the regional security architecture

Pledged its support to all endeavours of the ASEAN Defence Ministers' Meeting (ADMM)-Plus.

STAND OF SINGAPORE

Complimented India's successes in bringing down Covid-19 cases despite challenges in geography and population.

Expressed support for India's upcoming co-chairmanship of the ADMM-Plus Experts' Working Group on HADR.

2.13 'Delink boundary dispute from ties'

China recently said it "appreciates" External Affairs Minister S. Jaishankar emphasising the importance of India-China relations, but reiterated its calls for the boundary dispute to "not be linked with the overall bilateral relations".

In a speech on Thursday, Mr. Jaishankar said the relationship needed to be built on "mutual respect, mutual sensitivity and mutual interests".

The Minister outlined eight propositions to take the ties forward after what he called a year of "exceptional stress".

'PREREQUISITE FOR TIES':

Mr. Jaishankar underlined India's view that peace on the border was a prerequisite for the rest of the relationship to develop.

China's actions last year had "not only signalled a disregard for commitments about minimising troop levels", but also "showed a willingness to breach the peace and tranquillity" on the border that had been the foundation of the relationship.

The advancement of ties, he added, was "predicated on ensuring that peace and tranquillity was not disturbed, and the Line of Actual Control [LAC] was both observed and respected by both sides".

Asked by the official media in Beijing to respond to his remarks, China's Foreign Ministry spokesperson Zhao Lijian said the Ministry "noted Minister Jaishankar's remarks".

"He stressed the importance of India-China relations; it shows the Indian side attaches importance to the ties with China, we appreciate this," Mr. Zhao said.

'WORK WITH US':

China stresses that the boundary issue shall not be linked with the overall bilateral relations.

That is important experience we have gathered through the countries many years efforts to keep the ties moving forward.

We hope the Indian side will work with us to properly manage difference, promote practical cooperation and bring bilateral relations back on track.

China has in recent months hit out at India's economic measures, such as the banning of apps and tightening the curbs on investment, saying events on the border should not be linked to other aspects of

relations.

India has reiterated its view that such a proposition is untenable, and normal relations can't be restored until there is peace on the border and a full restoration of the status quo, prior to last summer's transgressions.

Mr. Jaishankar underlined that view in his speech, saying that any expectation that the events on the border "can be brushed aside and that life can carry on undisturbed despite the situation in the border is simply not realistic".

2.14 India, Bangladesh foreign secys review ties, discuss PM Modi's visit to Dhaka

FOREIGN SECRETARIES of India and Bangladesh carried out a comprehensive review of the overall bilateral ties and held discussions on preparations for Prime Minister Narendra Modi's likely visit to Dhaka on March 26.

The Ministry of External Affairs (MEA) said both sides reviewed progress in the bilateral relationship, including in the areas of defence and security, border management, trade, connectivity, power, energy and cooperation in dealing with the coronavirus pandemic.

Bangladesh Foreign Secretary Masud Bin Momen arrived here on Thursday on a three-day visit, primarily to prepare ground for Modi's upcoming visit to Dhaka.

DIMENSIONS IN COOPERATION

In the talks held under the framework of India-Bangladesh foreign office consultations, Foreign Secretary Harsh Vardhan Shringla and Momen agreed to maintain the steady momentum of bilateral cooperation and people-to-people ties.

"Both sides held a comprehensive review of the progress achieved in the bilateral relationship, including in the areas of Covid-19 cooperation, trade, connectivity, development partnership, power, energy and water resources, regional and multilateral cooperation as well as border management and security and defence cooperation," the MEA said in a statement.

At a virtual summit with his Bangladesh counterpart Sheikh Hasina last month, Modi described the neighbouring country as a "key pillar" of India's 'Neighbourhood First' policy.

The MEA said discussion also focussed on preparations for the forthcoming visit of Modi to Dhaka and events relating to the commemoration of the 50th anniversary of establishment of diplomatic ties between the two countries.

"Both sides also agreed to hold the next home secretary level talks, commerce secretary level talks

and the secretary level meeting of joint rivers commission before the March summit," it said.

It said both sides noted with appreciation the cooperation on the coronavirus-related issues, including India's gift of two million doses of Covishield vaccine to Bangladesh in keeping with its 'Neighbourhood First' policy.

The two countries underscored the importance of the year 2021 in the context of the 50th anniversary of the liberation of Bangladesh, the 50th year of bilateral diplomatic ties as well as the birth centenary of Bangabandhu Sheikh Mujibur Rahman.

2.15 'Chinese using Indian roads for trespass'

As India and China started the ninth round of Corps Commander talks to address the nine-month-long standoff along the Line of Actual Control (LAC) at the Moldo border personnel meeting point on the Chinese side opposite Chushul in Eastern Ladakh , the head of one of the border villages claimed that Chinese vehicles were using Indian roads to enter Indian territory.

The area where the Chinese are trying to assert themselves is close to Patrolling Point 38.

Indian nomads have not been there for winter grazing for the past two years due to some illness in the livestock.

Chinese sauntering in Indian areas this time around has never happened. They are using roads built by India to encroach on our territory.

There was no commonly delineated LAC and there was an overlap in the perception of the LAC in many areas.

DISENGAGEMENT PLAN

It has to be a comprehensive disengagement plan beginning with all friction points in Eastern Ladakh and then de-escalation along the Line of Actual Control, referring to China's insistence on discussions centred on the South Bank of Pangong Tso first and taking up other friction areas later.

Any withdrawal will be phased and will take time, given the large number of troops and equipment deployed by both sides and also verify compliance on the ground by the Chinese side at each step.

2.16 Supply of COVID-19 vaccines to South Africa

South African Health Products Regulatory Authority (SAHPRA) has granted approval to the world's largest drug Manufacturer of India (SII) to supply COVID-19 vaccines to the country.

SII is producing the COVID-19 vaccines in collaboration with University of Oxford and AstraZeneca, to supply the drug to the country.

The approval comes amid growing concerns that the 1.5 million vaccine doses to be shipped to South Africa in the next few weeks had not been approved by the local regulator.

2.17 India inks MoU with International Energy Agency for global energy security, sustainability

India has signed a Strategic Partnership Agreement with the International Energy Agency (IEA) to strengthen cooperation in global energy security, stability and sustainability. This agreement aims to promote and encourage strategic and technical cooperation in the energy sector.

IEA

Established in **1974 as per framework of the OECD,** IEA is **an autonomous intergovernmental** organisation.

Mission

To ensure reliable, affordable and clean energy for its member countries and beyond.

Its mission is guided by **four main areas of focus:** energy security, economic development, environmental awareness and engagement worldwide

Headquarters (**Secretariat**)

Paris, France.

Roles and functions:

Established in the wake of **the 1973-1974 oil crisis,** to help its members respond to major oil supply disruptions, a role it continues to fulfil today.

IEA's mandate has expanded over time to **include tracking and analyzing global key energy trends, promoting sound energy policy, and fostering multinational energy technology cooperation.**

Composition and eligibility:

It has **30 members at present.** IEA family also includes **eight association countries.**

A candidate country must be **a member country of the OECD.** But all OECD members are not IEA members.

INTERNATIONAL RELATIONS

3.1 Iran plans to enrich uranium to up to 20% purity

Uranium enrichment process
Increasing the concentration of U-235 atoms, by removing U-238, means it can be used for nuclear fuel or bombs
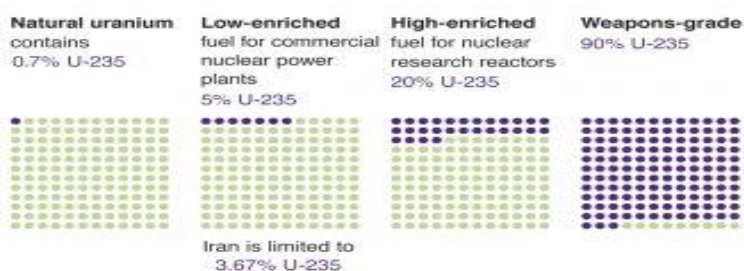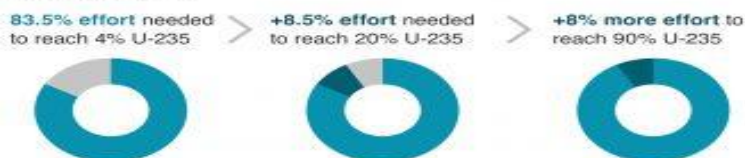
Recently, Iran has informed the **International Atomic Energy Agency (IAEA)** that it intends to produce **uranium enriched** to up to 20% purity.

Key Highlights

The enrichment of uranium to up to **20% purity is well beyond the threshold** set by the 2015 Vienna Accord.

Iran has breached the **deal's 3.67% limit on the purity** to which it can enrich uranium, but it has only gone up to 4.5% so far.

The deal's main aim was to extend the time **Iran would need to produce enough fissile material** for a nuclear bomb.

About Vienna Accord on Nuclear Safety

The Vienna Declaration on Nuclear Safety has been **unanimously adopted in 2015** by the Contracting Parties to the **Convention on Nuclear Safety (CNS).**

The Declaration contains a series of principles to **guide countries in the implementation** of the objectives of the CNS.

The objective is to **achieve and maintain a high level of nuclear safety worldwide**through the

enhancement of national measures and international cooperation.

India **signed the international convention** on compensating nuclear accident victims.

Additional Information

International Atomic Energy Agency (IAEA)

It is the **world's central intergovernmental forum** for scientific and technical co-operation in the nuclear field.

It works for the **safe, secure and peaceful uses of nuclear science and technology**, contributing to international peace and security and the United Nations' Sustainable Development Goals.

It was **created in 1957** in response to the **deep fears and expectations** generated by the discoveries and diverse uses of nuclear technology.

3.2 Tampon Tax – UK Abolishes

Recently, the United Kingdom has begun 2021 by abolishing the **"tampon tax".**

The UK was a part of the EU, where **period products such as sanitary napkins and tampons are classified as non-essential**, and member states are required to levy a 5 per cent tax on them.

The UK is out of the 27-member bloc and it is **not bound by its directives**, under which sanitary products had been subjected to five different VAT rates since 1973.

In 2001, the British government led by the Labour Party had **moved sanitary products to the 5 per cent tax slab**, which was the lowest possible rate under EU regulations.

In 2015, the Conservative Party government had established a **'Tampon Tax Fund'** which allocated the funds generated from VAT on period products to projects supporting vulnerable women and girls.

Key Highlights

Tampon Tax is a **5 per cent Value Added Tax (VAT)** on **women's sanitary products.**

UK now joins the list of countries which have already eliminated this tax, which includes **India, Australia and Canada.**

It is part of a wider UK government effort called **'End Period Poverty'.**

Significance of removal of Tampon Tax

The British government has estimated that the move to abolish the tampon tax would **save the average woman about 40 pounds** during her lifetime.

The main argument made against **taxing menstrual hygiene products** is that it is **unfair and inequitable** because they are necessities in today's society.

The other main argument made in favor of repealing tampon taxes is that it would **increase the affordability (and thus accessibility)** of menstrual hygiene products by lowering consumer prices.

3.3 UK-Spain pact on Gibraltar

Recently, **Spain** has signed a deal before the **Brexit transition period ended** with **United Kingdom** to maintain free movement to and from **Gibraltar.**

Gibraltar is a **small portion of land** on the southern tip of the **Iberian Peninsula** that Britain controls but Spain claims as its own.

Officially remaining a **British Overseas Territory,** Gibraltar will now be part of the **Schengen zone and follow EU rules.**

Gibraltar, with an area of just 6.8 sq km and a population of around 34,000 people, has been the subject of **intense dispute between Spain and Britain for centuries.**

The territory, which is **connected to Spain by a small strip of land** and surrounded by sea on three sides, serves as the only opening from **the Atlantic Ocean into the Mediterranean Sea.**

It is a key location on the **shortest sea route** between Europe and Asia via the Suez Canal.

History of Gibraltar

Gibraltar fell into **British hands after a war in 1713**, and has since remained with Britain despite several attempts by Spain to retake it.

Due to its strategic importance, Gibraltar came to be highly fortified by Britain since the 18th century, thus earning its commonly known name **"the Rock".**

Gibraltar's port was **critically important for the Allies during the World War II** and it continues to be a key base for NATO.

Spain-UK post-Brexit deal

The result of the 2016 Brexit referendum gave **rise to the possibility of a hard border** coming up between Gibraltar and the rest of Europe.

Gibraltarians mainly voted **'Remain'** because the **territory's economy depends on an open border with Spai**n, which sends over 15,000 workers and 200 trucks there daily.

The **free movement will now continue** because of the Spain-UK deal, as Gibraltar is being placed in the Schengen area, with Spain acting as a guarantor.

The Schengen passport-free zone includes **22 countries from the EU**, and four others i.e. **Norway, Switzerland, Iceland and Liechtenstein.**

The EU will now place Frontex border guards for the next four years to ensure **free movement to and from Gibraltar.**

The **territory's port and airport** would become the external borders of the Schengen area.

3.4 Grand Renaissance Dam Hydropower Project

Recently, **Ethiopia, Sudan and Egypt** agreed to resume negotiations to resolve their decade-long complex dispute over the **Grand Renaissance Dam hydropower project** in the Horn of Africa.

The **Nile**, Africa's longest river, has been at the center of a **decade-long complex dispute** involving several countries that are dependent on the river's waters.

At the forefront of this dispute are **Ethiopia and Egypt**, with **Sudan** having found itself dragged into the issue.

The main waterways of the Nile run through **Uganda, South Sudan, Sudan and Egypt**, and its drainage basin runs through several countries in East Africa, including Ethiopia.

The construction of the dam was initiated in 2011 on the **Blue Nile tributary** of the river that runs across one part of Ethiopia.

The Nile is a **necessary water source in the region** and Egypt has consistently objected to the dam's construction, saying it will impact water flow.

Conflict over Grand Renaissance Dam Hydropower Project

Given the dam's location on the Blue Nile tributary, it would **potentially allow Ethiopia to gain control** of the flow of the river's waters.

Egypt lies further downstream and is concerned that **Ethiopia's control over the water could**

result in lower water levels within its own borders.

Egypt proposed a **longer timeline for the project** over concerns that the water level of the Nile could dramatically drop as the reservoir fills with water in the initial stages.

Sudan's location between Egypt up north and Ethiopia down south has caused it to become an **inadvertent party to this dispute.**

Grand Ethiopian Renaissance Dam (GERD)

It was formerly known as the **Millennium Dam** and sometimes referred to as **Hidase Dam.**

It is a gravity dam which is situated on **Blue Nile River** in Benishangul-Gumuz region of Ethiopia.

The reservoir and dam will offer major benefits to **Ethiopia, Egypt and Sudan.**

After completion, it will be **Africa's biggest hydroelectric power plant.**

It is a **bone of contention** between Egypt and Ethiopia.

Nile River

It empties into **Mediterranean Sea** after traveling for over 6,600 kilometers (4,100 miles).

It flows from **south to north through eastern Africa.**

It begins in the rivers that flow into **Lake Victoria** (located in modern-day Uganda, Tanzania, and Kenya).

In addition to Egypt, the Nile runs through or along the border of 10 other African countries, namely, **Burundi, Tanzania, Rwanda, the Democratic Republic of the Congo, Kenya, Uganda, Sudan, Ethiopia** and **South Sudan.**

Its three main tributaries are the **White Nile, the Blue Nile** and **the Atbara.**

Blue Nile River

It is a river originating in natural springs above **Lake Tana in Ethiopia.**

Along its upper reaches in Ethiopia the river is called the **Abbai.**

The **Blue Nile joins the White Nile at Khartoum, Sudan**, and, as the Nile, flows through Egypt to the Mediterranean Sea at Alexandria.

3.5 Solidarity and Stability Deal

Recently, the **Saudi Arabia's Crown Prince** has said that the Gulf States had signed **Solidarity and Stability Deal**.

Qatar has remained under an **air, land and sea embargo** imposed by Saudi Arabia, the United Arab Emirates, Bahrain and Egypt since 2017.

The Saudi-led bloc also **severed diplomatic relations with the gas-rich country**, accusing it of funding terrorism and backing its regional rival Iran.

Doha denies supporting terrorist groups, but admits to **supporting Islamist movements** including Egypt's outlawed Muslim Brotherhood.

Solidarity and Stability Deal

It is an agreement on **regional "solidarity and stability"** aimed at **resolving a three-year embargo against Qatar.**

The accord emphasizes **Gulf, Arab and Islamic solidarity and stability** as well as the strengthening of friendship and brotherhood.

The deal is seemingly influenced by a **desire to pre-empt pressure** from an incoming Biden administration, more than a genuine commitment to conflict resolution.

Under the agreement, Saudi Arabia, UAE, Bahrain and Egypt will **lift the blockade on Qatar**, and Doha will drop related lawsuits.

The leaders of the six-member Gulf Cooperation Council signed the **Al-Ula declaration**.

Gulf Cooperation Council

Gulf Cooperation Council (GCC) is a **political and economic alliance** of six Middle Eastern countries.

The member nations are **Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman.**

The GCC was established in **Riyadh, Saudi Arabia**, in May 1981.

The GCC promotes **economic, security, cultural and social cooperation** between the six states and holds a summit every year to discuss cooperation and regional affairs.

The purpose of the GCC is to achieve **unity among its members based on their common objectives** and their similar political and cultural identities, which are rooted in Arab and Islamic cultures.

The presidency of the council **rotates annually.**

3.6 25th Amendment of the US Constitution

Recently, the immediate aftermath of Donald Trump supporters storming the US Capitol building,

there are calls by many to either **impeach President Trump or invoke the 25th Amendment.**

What is the 25th Amendment of the US Constitution?

The amendment lays out **how a US president and vice president may be succeeded or replaced**.

The Twenty-fifth Amendment was an effort to **resolve some of the continuing issues**revolving about the office of the President.

The issues included what happens upon the **death, removal, or resignation of the President** and what is the course to follow if for some reason the President becomes disabled to such a degree that he cannot fulfill his responsibilities.

The amendment has four sections:

The first section codified the **traditionally observed process of succession** in the event of the death of the president that the vice president would succeed to the office.

It also introduced a change regarding the **ascent of the vice president to president** should the latter resign from office.

In the event of **resignation**, the vice president would assume the title and position of president (not acting president) effectively prohibiting the departing president from returning to office.

The second section of the amendment **addresses vacancies** in the office of the vice president.

The third section of the amendment **set forth the formal process for determining the capacity of the president** to discharge the powers and duties of office.

In case the president is unable to declare his/her incompetence, the fourth section of the amendment requires the **vice president and the cabinet to jointly ascertain** this and if they do so, then the vice president immediately assumes the position of acting president.

Background of 25th Amendment of the US Constitution

In the aftermath of the **assassination of President John F. Kennedy**, the 25th Amendment was proposed by Congress in 1965, and ratified by the states in 1967.

The **Watergate scandal of the 1970s** saw the application of these procedures, first when Gerald Ford replaced Spiro Agnew as Vice President, then when he replaced Richard Nixon as President, and then when Nelson Rockefeller filled the resulting vacancy to become the Vice President.

The **fourth section** of the 25th Amendment has **never been invoked**.

Removal of President of India

The President can be removed from office by a process of **impeachment for 'violation of the Constitution'**.

The Constitution **does not define** the meaning of the phrase 'violation of the Constitution'.

The impeachment charges can be **initiated by both House of Parliament** and these charges should be signed by one-fourth members of the House.

After the impeachment resolution is passed by a **majority of two-thirds of the total membership of that House**, it is sent to the other House, which should investigate the charges.

If the **other House** also sustains the charges and passes the **impeachment resolution by a majority of two-thirds of the total membership**, then the President stands removed from his office from the date on which the resolution is so passed.

An impeachment of President of India is a **quasi-judicial procedure** in the Parliament.

The two things should be noted that:

The **nominated members of either House of Parliament** can participate in the impeachment of the President though they do not participate in his election;

The **elected members of the legislative assemblies of states and the Union Territories of Delhi and Puducherry** do not participate in the impeachment of the President though they participate in his election.

3.7 Growth silver lining but food inflation may be dark cloud

United Nations (UN) Food and Agriculture Organization (FAO) released its latest Food Price Index (FPI) number for December 2020.

This index – reflecting international prices of a basket of food commodities against a base year (2014-16) value of 100– averaged 107.5 points for the month. It was the highest since November 2014. This marks the seventh month of consecutive increase.

Highlights

FPI has soared since May 2020. From falling to a four year low of 91 points then, it has hit a more than six-year high in December.

This extreme global price volatility can be seen across farm commodities.

There are three main reasons for international agri-commodity prices firming up in the past few months.

The first is a steady normalization of demand as most countries, including India, have unlocked

their economies after May 2020. Even as demand has gradually recovered, restoration of supply chains post-Covid is taking time. Dry weather in major producing countries such as Thailand, Brazil, Argentina and Ukraine, plus a shortage of shipping containers, has only aggravated the supply- demand imbalances.

The second reason is stockpiling by China, which has stepped up imports of everything – from corn, wheat, soyabean and barley to sugar and milk powder– to build strategic food reserves amid rising geopolitical tensions and pandemic uncertainties.

The third reason may have to do the ultra-low global interest rates and floodgates of liquidity opened by major central banks. This money, which has already flowed into equity markets, could well find a home next in agricommodities– more so, in a scenario of tightening world supplies.

Food Price Index

Introduced in 1996 as a public good to assist in monitoring developments in the **global agricultural commodity markets.**

It is a measure of the monthly change in international prices of a basket of food commodities like cereals, oilseeds, dairy products, meat and sugar.

Base Period: 2014-16.

FAO

It is a specialized UN agency which takes international efforts against hunger, **based in Rome (Italy)**.

It was founded on 16 October 1945 and on the same day World food Day is also celebrated every year around the world. On 75th Anniversary of FAO i.e., in 2020, India released a **commemorative coin of Rs. 75 denomination** to mark its **75th Anniversary**.

Sister bodies: **International Fund for Agricultural Development (IFAD) and** World Food Programme

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3.8 China holds third South Asia multilateral meet in new push

China has held its third multilateral dialogue virtually with 5 countries from South Asia (Pakistan, Nepal, Afghanistan, Sri Lanka and Bangladesh) except India, Bhutan and the Maldives.

All three dialogues have been attended by Pakistan and Nepal.

It aims to take forward closer cooperation on fighting COVID-19 and coordinating their economic agendas, reflecting a new approach in China's outreach to the region.

It brought together every country in the region barring, and was aimed at "anti-epidemic cooperation and poverty reduction cooperation".

The two virtual meets appear part of China's growing engagement in the region, in the wake of the global pandemic.

The arising geopolitical turbulence is unpredictable. There is a transition from multilateralism to unilateralism, from cooperation to competition.

China in South Asia

In July 2020, at quadrilateral dialogue with Afghanistan, Nepal and Pakistan, China proposed to extend the China-Pakistan Economic Corridor (CPEC) to Afghanistan.

It also proposed taking forward an economic corridor plan with Nepal, called the Trans-Himalayan Multi-dimensional Connectivity Network.

China is the largest overseas investor in the Maldives, Pakistan, and Sri Lanka. According to the American Enterprise Institute's China Global Investment Tracker, it has committed around 100 billion USD in Afghanistan, Bangladesh, the Maldives, Pakistan, Nepal and Sri Lanka.

China was a part of the **trilateral China-Pakistan-Afghanistan** foreign ministers dialogue to facilitate Afghan domestic political reconciliation, enhancing regional connectivity, and improving regional common development.

China and Bangladesh pledged to deepen "defense industry and trade, training, equipment and technology" areas together.

Sri Lanka handed over Hambantota port (geostrategically located on the Indian Ocean) on a 99-year lease to China to repay its loan back to China.

3.9 US House plans vote demanding Pence seize Trump's powers

In the immediate aftermath of Donald Trump supporters storming the US Capitol building, which houses both the US Senate as well as the House of Representatives, Democrats in the House of Republicans introduced an article of impeachment against U.S. President.

25th Amendment US Constitution

The 25th Amendment to the US Constitution is primarily designed to clarify the presidential order of succession. Impeachment is a provision that allows Congress to remove the President of the United States.

The fourth section of the amendment provides a multistep process for the vice president and a majority of the officials who lead executive agencies — commonly thought of as the cabinet — to declare that the president is "unable to discharge the powers and duties of his office."

That process ultimately requires a two-thirds vote of both houses of Congress.

The Twenty-fifth Amendment was an effort to resolve some of the continuing issues revolving about the office of the President; that is, what happens upon the death, removal, or resignation of the President and what is the course to follow if for some reason the President becomes disabled to such a degree that he cannot fulfill his responsibilities.

Under the US Constitution, the House of Representatives (Lower House) has the "the sole power of impeachment" while the Senate (Upper House) has "the sole power to try all impeachments". The Chief Justice of the US Supreme Court has the duty of presiding over impeachment trials in the Senate.
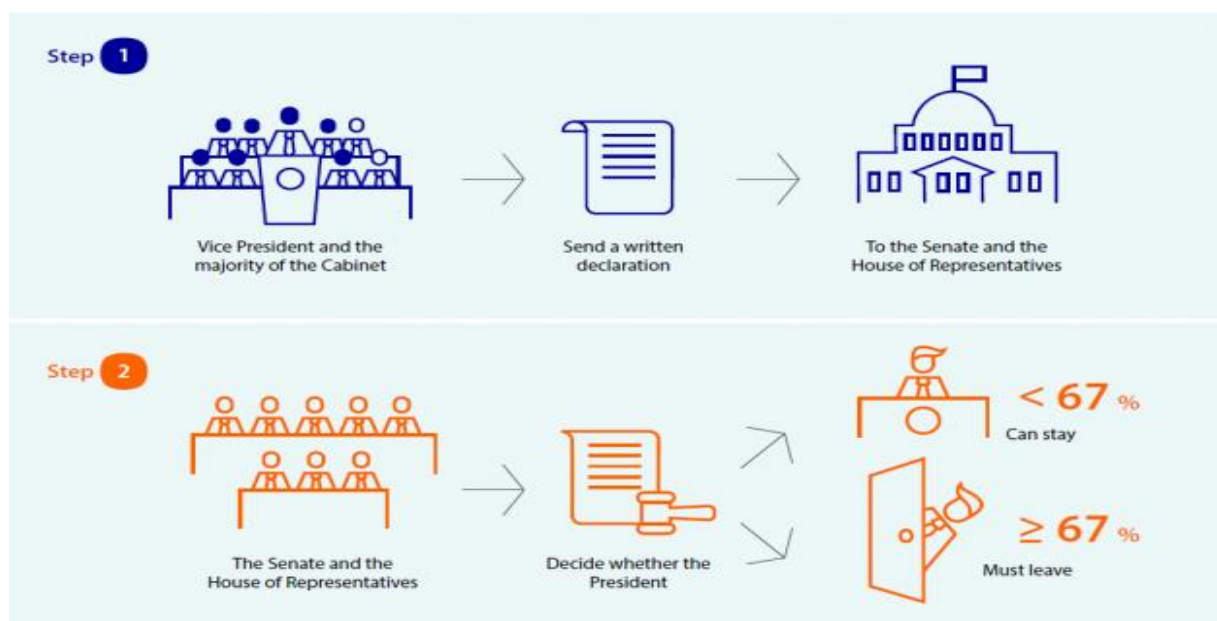
Past

In the aftermath of the assassination of President John F. Kennedy, the 25th Amendment was proposed by Congress on July 6, 1965, and ratified by the states on February 10, 1967.

Grounds for impeachment: The President can be removed from office for "treason, bribery, or other high crimes and misdemeanors".

3.10 This 45,500-year-old pig painting is the world's oldest animal art

ANCIENT CAVE PAINTING FOUND

Archaeologists think they've found the oldest cave painting in the world in Leang Tedongnge Cave on the Indonesian island of Sulawesi

Archaeologists have discovered the world's oldest known cave art — a life-sized picture of a wild pig that was painted at least 45,500 years ago in in the limestone cave of Leang Tedongnge in South Sulawesi, Indonesia.

The cave painting consists of a figurative depiction of a warty pig, a wild boar that is endemic to this Indonesian island.

The finding also represents some of the earliest archaeological evidence for modern humans in the region.

The cave is in a valley that is enclosed by steep limestone cliffs, and is only accessible by a narrow cave passage in the dry season, as the valley floor is completely flooded in the wet season.

It shows a pig with a short crest of upright hairs and a pair of horn-like facial warts in front of the eyes, a characteristic feature of adult male Sulawesi warty pigs.

Painted using red ochre pigment, the pig appears to be observing a fight or social interaction between two other warty pigs.

These pigs were the most commonly portrayed animal in the ice age rock art of the island, suggesting they have long been valued both as food and a focus of creative thinking and artistic expression.

The previously oldest dated rock art 'scene' at least 43,900 years old, was a depiction of hybrid human-animal beings hunting Sulawesi warty pigs and dwarf bovids.

It was discovered by the same research team at a nearby limestone cave site.

Rock art produced in limestone caves can sometimes be dated using Uranium-series analysis of

calcium carbonate deposits ('cave popcorn') that form naturally on the cave wall surface used as a 'canvas' for the art.

3.11 US puts Cuba back on 'state sponsor of terrorism' list

The US State Department put Cuba back on a blacklist designating it a "state sponsor of terrorism".

The U.S. has punished Cuba for decades with harsh sanctions, hoping that the Castro regime would eventually collapse. But the Cuban communists survived even the fall of the Soviet Union.

Cuba was removed from the list in 2015 by then-president US President to normalize relations with the country.

Cuba was being blacklisted again for "repeatedly providing support for acts of international terrorism" as well as harboring US fugitives and Colombian rebel leaders.

The U.S., the world's largest military power that had cooperated with communist China since the early 1970s, still treats this tiny communist country that lies off the Florida coast as an enemy.

Impact

Foreign investors will now risk US prosecution for transactions in Cuba.

The reinstated sanctions also include major restrictions barring most travel between the US and Cuba.

The sanctions also curb money transfers between the two countries, hitting hard the incomes of Cubans who have relatives in the US.

Only three other countries are currently on the "state sponsor of terrorism" list, including: North Korea, Syria and Iran.

India's Stand

In 2019, the US opposed Cuba's membership in UNHRC, then India raised its voice in the United Nations General Assembly to end economic blockade against Cuba by the US, as this contravenes world opinion, undermines multilateralism and the credibility of the UNO.

3.12 Post COVID-19, ILO calls for national-level policy on those working from home

According to the **International Labour Organization (ILO)** in the report titled **Working from home: From invisibility to decent work**, there is a need to develop effective policies for home-based workers and ensure their proper implementation even as the practice had increased since the novel

coronavirus disease (COVID-19) pandemic.

10 countries had ratified the Convention on Homework nearly 25 years since it was adopted by the International Labour Conference June 20, 1996.

Few governments had a comprehensive policy for working from home in place. As a result, those working from home, especially in low-income countries, continued to work in poor working conditions.

Despite contributing significantly to the economy, home-based working had remained "invisible".

It also noted that the propensity of women to work from home — 11.5 per cent — was much higher than that of men (5.6 per cent).

Types

Industrial home-based workers, who are involved in the production of goods including artisanal production, such as making of handicrafts, rolling of *beedis*, making of laces, etc

Teleworkers, who use information and communication technologies to perform their work remotely

Home-based digital platform workers, who are 'crowdworkers' that perform service-sector tasks as specified by employers or intermediaries

ILO's Recommendations

Governments need to play a major role to protect home-workers. It strongly recommended them to **adopt a national policy on home-based work**.

It called upon governments to **develop and implement a gender-responsive legal and policy framework** that provided equal treatment for all categories of home-based workers in relation to other wage earners.

This included facilitating the **transition of informal workers to formal employment**.

Home-based workers needed to be **counted better** to record their earnings, hours worked and other conditions of employment.

The **labour registries needed to be revised** to incorporate "place of work" and count those home-based workers who went missing due to poor labour registries. **Few countries had labour inspection schemes** adapted for home-based work.

Need for **better compliance, legal protection, occupational safety and social security** for industrial home-based workers.

3.13 The houbara: hunted by UAE royals at Pak invite

UAE's royal family members arrived in Panjgur district in Balochistan recently to hunt the internationally protected and vulnerable houbara bustard under a licence issued by the Pakistan Foreign Ministry to strengthen the country's relations with Gulf nations. They kill the bird for sport and also because its meat is supposed to have aphrodisiac qualities.

This is not the first time royals from the Gulf and their wealthy friends have reached the deserts of Pakistan to hunt the rare bird. These controversial private hunting expeditions date back over four decades and have continued even after Pakistan's Supreme Court imposed a blanket ban on the killing of the houbara bustard in 2015, which was later reversed in 2016.

HOUBARA BUSTARD

It is a large **terrestrial bird** found in parts of **Asia, the Middle East and Africa**. The North African houbara (Chlamydotis undulata) and the Asian houbara (Chlamydotis macqueenii) are separate species.

The Asian houbara is related to the critically endangered great Indian bustard native to India.

After breeding in Central Asia during the spring, Asian houbara bustards migrate south to spend the winter in Pakistan, the Arabian peninsula and nearby Southwest Asia. Some Asian houbara bustards live and breed in parts of Iran, Pakistan and Turkmenistan.

According to the International Fund for Houbara Conservation (IFHC), roughly 42,000 Asian houbara bustards and over 22,000 of the North African houbara bustards remain today.

THREATS: Poaching, unregulated hunting and the degradation of its natural habitat.

3.14 Russia announces exit from Open Skies treaty citing US withdrawal

Recently, Russia announced that it was pulling out of the Open Skies treaty as this pact allows unarmed surveillance flights over member countries, had been seriously compromised by the withdrawal of the US.

The US left the Open Skies arms control and verification treaty in November, accusing Russia of violating it, something denied by Moscow as it had made specific proposals to other members to mitigate against the impact of the US exit but that those proposals were not backed by Washington's allies.

The Open Skies treaty allows surveillance flights from member countries to gather information on military activities. Russia fears that even though the US has exited the treaty, it will continue to have

access to overflight intelligence gathered by its allies who are still signatories.

Russia exited the pact reportedly after others refused to give assurances that they would not share this intelligence with US.

3.15 China's economy grows 2.3%, slowest pace in 44 years

China's economy expanded in 2020 by 2.3% , the slowest pace of growth since the end of Mao Zedong's Cultural Revolution in 1976

China will, however, likely be the only major economy to have avoided a contraction in a pandemic-hit year, underlining its strong recovery after weeks of lockdown at the start of the year brought economic activity in the Asian giant to a near-standstill.

China will be the only major economy to have avoided a contraction in a pandemic-hit year.

It underlined its strong recovery after weeks of lockdown at the start of the year brought economic activity in the Asian giant to a near-standstill.

China's economy contracted 6.8% in the first quarter. The stringent lockdown allowed it to curb the spread of COVID-19.

The economy recovered to grow 3.2% in the second quarter, 4.9% in the third and 6.5% in the last quarter of 2020.

While China is currently dealing with the return of clusters of local outbreaks, the fact that the spread was limited and controlled meant the impact on the economy would be "controllable".

China had also crossed the landmark of 100 trillion yuan ($15.4 trillion) for the first time in 2020.

A range of stimulus measures, largely led by spending on infrastructure projects, was the main driver of growth in 2020 along with a rebound in exports, which grew 10.9% in December and 4% last year.

Value-added industrial output was up 2.8%, as the last quarter saw growth of 7.1%. Fixed asset investment grew 2.9%. Retail sales, however, contracted by 3.9% last year, after expanding 8% in 2019.

The post-pandemic government support measures helped create 11.86 million new urban jobs, beating the 9 million target and marking a turnaround after the first quarter's massive job losses.

3.16 Pakistan successfully tests medium-range missile

Pakistan has successfully test-fired the Shaheen-III missile.

Aimed at revalidating various design and technical parameters of the weapon system.

Nuclear-capable surface-to-surface ballistic missile which can strike targets up to 2,750 km.

Pakistan is one of eight nations worldwide with stated nuclear weapons capability.

Its eastern neighbour and rival India, with whom it has fought three full-scale wars since both countries gained independence from Britain in 1947, also has nuclear weapons.

The Shaheen III is Pakistan's longest-range missile system, developed with the intention of being capable of reaching Indian island territories to deny Indian forces the ability to establish a "second strike capability".

Both South Asian countries routinely conduct missile tests, of which they notify the other in advance as per a 2005 bilateral missile test pact.

3.17 In Google and FB's Australian tussle, issues of concern for India as well

Due to slugfest between the **Australian government and global tech platforms** over the sharing of royalties with news publishers, Google has threatened to remove its search engine from the country, and Facebook could block Australian users from posting or sharing news links if proposed norms on royalty payments are rolled out

Policymakers in India have so far **focused on the dominance of intermediaries** such as Google and Facebook, which are positioned in a way that service providers cannot reach customers except through these platforms.

The showdown is being closely watched by regulators and digital platforms across geographies.

The issues being thrashed out in Australia and elsewhere could have broader implications for the regulation of the digital economy in India in the longer term.

Media industry is already benefiting from traffic being routed to them by each of the digital platforms, and that the new rules proposed by the Australian authorities would expose them to "unmanageable levels of financial and operational risk."

3.18 President Joe Biden rejoining the Paris climate agreement

New President of the United States signed an order to restore America's participation in the United Nations Paris Agreement on climate change.

This decision will take effect on 19 February 2021. In 2001, the U.S., under George W. Bush, had pulled out of the previous pact, the Kyoto Protocol.

Joining the Paris Agreement meant that the U.S. is now bound by its national pledge made under the pact: to achieve an economy-wide reduction of its GHG emissions by 26%-28% below the 2005 level in 2025.

Earlier, with the withdrawal from the Paris Agreement, America also stopped its contribution to the UN's Green Climate Fund, to which it had pledged $3 billion, after transferring an estimated $1 billion.

US has promised an "enforcement mechanism to achieve net-zero emissions no later than 2050", including a target no later than the end of his term in 2025, aided by a planned federal investment that will total $1.7 trillion over ten years, besides private investments.

The plan revolves around 10 million well-paying clean energy jobs with a focus on solar and wind power.

This year's UN climate conference in Glasgow will see the new administration engaging UNFCCC member-nations to raise global ambition.

3.19 UN: FDI inflows fall in major economies; India, China outliers

Recently, an 'investment trends monitor' namely World Economic Situation and Prospects has been issued by the United Nations Conference on Trade and Development (UNCTAD).

According to the United Nations, Foreign Direct Investment (FDI) into India rose by 13 per cent in 2020, boosted by interest in the digital sector.

Fund flows "declined most strongly" in major economies like the UK, the USA and Russia due to the Covid-19 pandemic, India and China "bucked the trend".

Global foreign direct investment (FDI) collapsed in 2020 by 42 per cent to an estimated $859 billion from $1.5 trillion in 2019.

Such a low level was last seen in the 1990s and is more than 30 per cent below the investment trough that followed the 2008-2009 global financial crisis.

The decline in FDI in flows was concentrated in developed countries, where fund flows decreased by 69 per cent to an estimated $229 billion. However, FDI in India rose 13 percent, boosted by investments in the digital sector.

The government policies and reforms have made India a preferred destination for foreign direct investments and the inflows grew at the fastest rate among top economies.

India's economy is estimated to contract by 9.6 per cent in 2020, as lockdowns and other efforts to control Covid-19 slashed domestic consumption without halting the spread of the disease, and the growth is expected to recover and grow at 7.3 percentin2021.

In 2020, the world economy shrank by 4.3 per cent, over two and half times more than during the global financial crisis of 2009.

3.20 Biju Patnaik

A room in Indonesian embassy was designated as Biju Patnail room to honour his contribution towards Indonesian's Independence.

He was conferred Indonesia's 'Bintang Jasa Utama' award for the heroic role he had played when Dutch colonialists had tried to gain control over the country in 1947.

He started his training as an ace pilot at the Delhi Flying Club in 1930 and joined the Royal Indian Air Force in 1936.

He played an important role in the Indian freedom struggle.

He had air dropped leaflets on the Quit India Movement for Indian soldiers fighting against Maynmar as part of the British Indian armed forces.

He helped ferry freedom fighters from one place to another during the independence struggle.

During this time, he became friends with Jawaharlal Nehru.

3.21 Russia gives nod to extend START treaty

Russia approved the extension of the New START treaty **for five years.**

Treaty between the United States of America and the Russian Federation

Last remaining nuclear Russia-USA arms control treaty which is about to expire in February 2021.

AIM: Further reduction and limitation of strategic offensive arms (nuclear warheads **deployed by Strategic Nuclear Delivery Vehicles ('SNDVs')**).

Enforcement: 5th February, 2011

3.22 Information, incentives, institutions key to limit air pollution: World Bank

World Bank studies air pollution in three major cities — Delhi, Beijing and Mexico City.

A study has found that the key to policy and behavior change to improve air quality depended on: high quality information to generate popular support for pollution mitigation; a strong incentive programme to ensure implementation of measures to curb pollution; and for institutions to work together to create air pollution management strategies.

The study noted that while air pollution in a number of developing countries had reached a turning point, South Asian countries including India, Pakistan and Nepal were witnessing a rise in pollution intensity with economic growth.

Delhi has consistently featured in the World Health Organization's list of most polluted cities in the world over the past few years.

The government has committed to reducing India's emissions intensity by 33-35 percent from 2005 levels by 2030.

Bihar, Delhi, Haryana, Jharkhand, Punjab, Uttar Pradesh, and West Bengal are witnessing the greatest increase in air pollution relative to growth in incomes according to the report.

NATIONAL

4.1 Agri India Hackathon

Recently, the Union Minister of Agriculture & Farmers' Welfare has inaugurated the **Virtual Agri-hackathon 2020.**

It is organised by the **Department of Agriculture and Cooperation and Farmers' Welfare** in association with **IARI, Pusa-New Delhi.**

It will bring together the most important **stakeholders from industry & government** alongside **India's young bright minds, creative startups and smart innovators** who will build new, fast and frugal solutions to tackle the big questions

The hackathon will happen in 3 elimination rounds and the final 24 winners will get a **cash prize of Rs 1 Lakh** along with **incubation support, tech & business mentoring** and various other benefits.

The hackathon will accept innovations & ideas on **farm mechanization, precision agriculture, supply chain & food technology, waste to wealth, green energy,** etc.

Agri India Hackathon

It is the **largest virtual gathering** to create dialogues, and accelerate innovations in agriculture.

It is organized by **Pusa Krishi, ICAR – Indian Agricultural Research Institute (IARI), Indian Council of Agricultural Research (ICAR)** & **Department of Agriculture, Cooperation & Farmers' Welfare.**

It works on the principle of 3 C's i.e. **Create, Connect and Collaborate.**

Eligibility under Agri India Hackathon

Indian nationals only

Students studying at any Indian university/ institute

Start-ups, farmers, and professionals/ employed individuals

Solo founders, entrepreneurs, and other individuals

4.2 Global Pravasi Rishta Portal

Recently, the Minister of State for External Affairs has launched the **Global Pravasi Rishta portal** and mobile App.

The Global Pravasi Rishta Portal aims to **connect with Indian Diaspora** across the world.

The portal will act as a **dynamic communication platform** between the Pravasis of India.

The mobile app will be used by the **diaspora and the Indian nationals**, while the portal web interface will be used by the missions.

The portal is created to **enable the registration of Indian diaspora members** i.e. NRIs, PIOs and the OCIs.

The portal is going to facilitate the Indian government to **connect with the overseas Indian community.**

It will **facilitate NRIs, OCIs and PIOs community by connecting them** to various new and existing government schemes benefiting them in various areas of interest.

The Rishta portal will **enable communication with the diaspora on a real-time basis**and will have the ability to issue emergency alerts and advisories.

Need for Global Pravasi Rishta Portal

The government recognises the **importance of India diaspora** and has been engaging with them in various ways.

Presently there are nearly **3.12 crore overseas Indians** globally of which nearly 1.34 crore are

PIOs and 1.78 crore are NRIs.

There is **no effective communication channel available** with the ministry to connect with the Indian diaspora worldwide.

4.3 National Police K-9 Journal

Recently, the Union Home Minister has released the inaugural issue of the **"National Police K-9 Journal"**.

A special **'Police K9 Cell'** was established in November 2019 under the **Police Modernization Division** of the Ministry of Home Affairs with the mandate of '**Mainstreaming and Augmentation of Police Service K9s in the country'**.

National Police K-9 Journal

It is the **first such publication** in the country on the subject of **Police Service K9s (PSKs) i.e. Police Dogs.**

It is a unique initiative that will further **enrich the subjects related to Police Service Dog (K-9) (PSK) teams** in the country.

The police dog squad can act as a **force multiplier to ensure the safety of society** similar to drones or satellites are being used in the country.

The publication of the Police K9 Journal is a step in **creating an ecosystem** in the country to train and learn on augmenting this vital resource.

It is a **biannual journal** which will be released in April and October every year.

4.4 203rd Anniversary of the Bhima-Koregaon Battle

The **victory pillar (also known as Ranstambh or Jaystambh)** in Bhima-Koregaon village (Pune district of Maharashtra) celebrated the **203rd anniversary of the Bhima-Koregaon battle of 1818** on **1st January, 2021.**

In 2018, **incidents of violent clashes between Dalit and Maratha groups** were registered during the celebration of the **200th anniversary** of the Bhima-Koregaon battle.

History

A **battle** was fought in Bhima Koregaon between the **Peshwa forces and the British on 1st January, 1818.**

The **British army,** which **comprised mainly of Dalit soldiers,** fought the **upper caste-dominated Peshwa army.**

The **British troops defeated the Peshwa army.**

Peshwa Bajirao II had **insulted the Mahar community** and terminated them from the service of his army.

This caused them to side with the English against the Peshwa's numerically superior army.

Mahar, caste-cluster, or group of many endogamous castes, living chiefly in Maharashtra state and in adjoining states.

They mostly speak Marathi, the official language of Maharashtra.

They are officially **designated Scheduled Castes.**

The defeat of Peshwa army was considered to be a **victory against caste-based discrimination and oppression.**

It was one of the last battles of the **Third Anglo-Maratha War (1817-18), which ended the Peshwa domination.**

Babasaheb Ambedkar's visit to the site on 1st January, 1927, revitalised the memory of the battle for the Dalit community, making it a rallying point and an assertion of pride.

The Victory Pillar Memorial:

It was **erected by the British** in **Perne village** in the district **for the soldiers killed in the Koregaon Bhima battle.** It has attained **legendary stature in Dalit history.**

4.5 Revival of Monpa Handmade Paper

Recently, **the Monpa Handmade Paper** (1000-year old heritage art) of Arunachal Pradesh has been revived by **Khadi and Village Industries Commission (KVIC).**

The fine-textured handmade paper, which is called **Mon Shugu** in the local dialect, is **integral to the vibrant culture** of the local tribes in Tawang.

The paper has great historic and religious significance as it is the paper **used for writing Buddhist scriptures and hymns in monasteries.**

The **Monpa handmade paper** is made from the **bark of a local tree called Shugu Sheng,** which has medicinal values too.

Monpa Handmade Paper Industry:

The art of making **Monpa handmade paper** originated over **1000 years ago.** Gradually the art became an **integral part of local custom and culture** in Tawang in Arunachal Pradesh.

Once produced in every household in Tawang, this **handmade paper was a major source of livelihood for the locals.**

The handmade paper industry almost disappeared in the last 100 years.

Revival Program:

An **attempt** for the revival of this handmade paper industry was made **in 1994** but **failed.**

KVIC commissioned a Monpa handmade paper making unit in Tawang which not only aimed at reviving the art but also **engaging the local youths with this art professionally and earn.**

The revival is aligned with the Prime Ministers Mantra of **Vocal for Local**.

Future Programs:

Tawang is also known for **two other local** crafts:

Handmade pottery

Handmade furniture

KVIC announced that within six months **plans will be rolled out for revival of these two local arts.**

Revival of **handmade pottery** will be taken up on priority under **Kumhar Sashaktikaran Yojana** very soon.

Kumhar Sashaktikaran Yojana (KSY): It was launched in 2018 to strengthen and improve the living of potters in the country by making them self reliant.

Khadi and Village Industries Commission (KVIC)

KVIC is a statutory body established under the **Khadi and Village Industries Commission Act, 1956.**

The KVIC is charged with the **planning, promotion, organisation and implementation of programmes for the development of Khadi and other village industries** in the rural areas in coordination with other agencies engaged in rural development wherever necessary.

It functions under the **Ministry of Micro, Small and Medium Enterprises.**

4.6 Savitribai Phule – 190th birth anniversary

Recently, the 190th birth anniversary of **Savitribai Phule** was celebrated in Maharashtra

as **Balika Din**.

Krantijyoti Savitribai Phule was born on **January 3, 1831**, in a village called Naigaon in the **Satara district of Maharashtra**.

She was a **feminist and social reformer** who fought for women's empowerment and education in India.

She started the **first-ever school for girls** in the country in 1848 at Bhide Wada, Pune.

She also fought against social injustices of the time like **Sati, child marriage and the still prevalent caste system.**

She opened a **well for 'untouchables'** at her residence in a defiant act against the caste system and also started a care centre for pregnant rape victims called **'Balhatya Pratibandhak Griha'**.
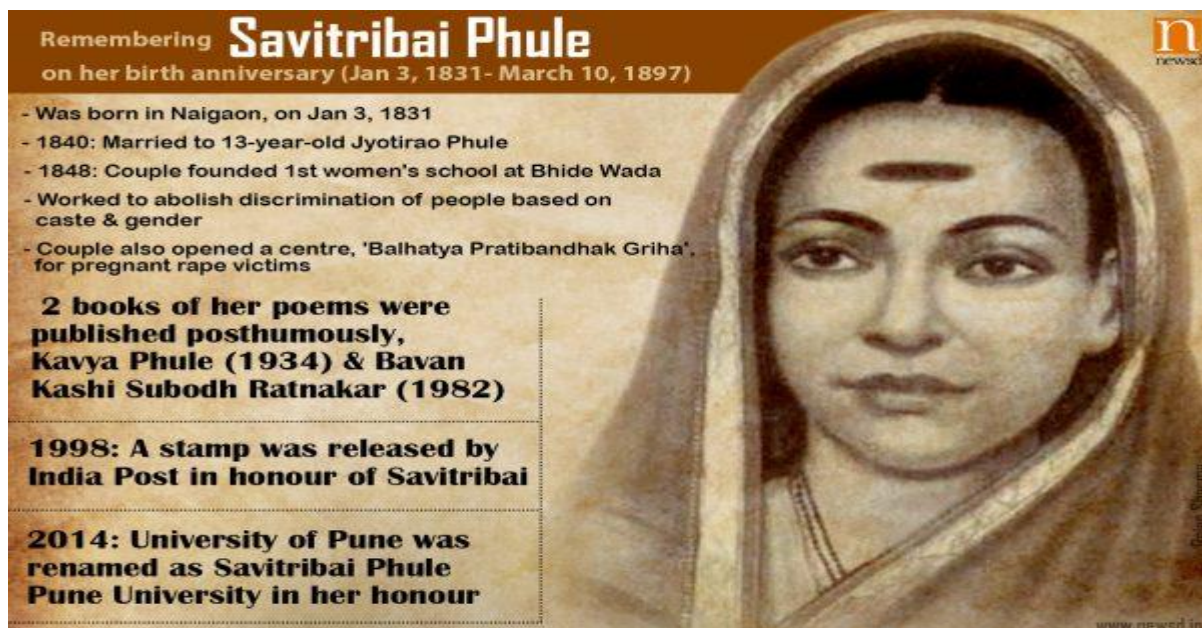
She set up a **'Mahila Seva Mandal'** where women would gather and she would raise awareness about women's rights.

In 1873, Savitribai Phule and Jyotiba Phule set up **Satya Shodhaka Samaja**, a platform which was open to all, irrespective of their caste, religion or class hierarchies, with the sole motto to bring about social equity.

They started **'Satya Shodhaka Marriage'** where the marrying couple has to take a pledge to promote education and equality.

4.7 Kochi-Mangaluru Natural Gas Pipeline

Recently, the Prime Minister has decided to dedicate the **Kochi-Mangaluru Natural Gas Pipeline** to the nation.

Kochi-Mangaluru Natural Gas Pipeline

It is a **450 km long pipeline** which has been built by **GAIL (India) Ltd.**

It has transportation capacity of **12 Million Metric Standard Cubic Metres per day.**

It will carry natural gas from the **Liquefied Natural Gas (LNG)** Regasification Terminal at **Kochi (Kerala) to Mangaluru (Dakshina Kannada district, Karnataka)**, while passing through Ernakulam, Thrissur, Palakkad, Mallapuram, Kozhikode, Kannur and Kasaragod districts.

The pipeline will supply environment friendly and affordable fuel in the form of **Piped Natural Gas (PNG) to households** and **Compressed Natural Gas (CNG) to the transportation sector.**

Urja Ganga Gas Pipeline Project

It was **inaugurated by Prime Minister** in 2018 in Varanasi.

The first phase of the **Pradhan Mantri Urja Ganga (PMUG) project** was commissioned by GAIL India Ltd taking natural gas to cities in **eastern Uttar Pradesh and Bihar.**

It is a 2,655-km long gas pipeline worth Rs 12,940 crore from **Jagdishpur in UP to Haldia in West Bengal**, with branch lines to Bokaro in Jharkhand and Dhamra in Odisha.

The project will not just supply **CNG to automobiles and cooking gas to household kitchens** in cities along the route, but also to industries to meet their feedstock or fuel requirement.

4.8 Sagarmala Seaplane Services (SSPS)

Recently, the Ministry of Ports, Shipping and Waterways is kicking off its ambitious **Project of Sagarmala Seaplane Services (SSPS)**.

The Seaplane Service is already in operation between **Kevadia and Sabarmati Riverfront** in Ahmedabad, which was inaugurated by Prime Minister on 31st October 2020.

Sagarmala Seaplane Services (SSPS)

The project aims at initiating the process of **commencing operations of the Seaplane services**, on the select routes, under a Special Purpose Vehicle (SPV) framework through prospective airline operators.

The project execution and implementation would be through **Sagarmala Development Company**

Ltd **(SDCL)**.

The SDCL is under the **administrative control** of the Ministry of Shipping.

The **proposed Origin-Destination pairs** under Hub and Spoke model include:

Islands of Andaman & Nicobar and Lakshadweep,

Guwahati Riverfront & Umranso Reservoir in Assam,

Yamuna Riverfront / Delhi (as Hub) to Ayodhaya, Tehri, Srinagar (Uttarakhand), Chandigarh and many other tourist places of Punjab & HP;

Mumbai (as Hub) to Shirdi, Lonavala, Ganpatipule;

Surat (as Hub) to Dwarka, Mandvi & Kandla, Khindsi Dam, Nagpur & Erai Dam and Chandrapur (in Maharashtra)

The joint development and operation of **"Sagarmala Seaplane Services (SSPS)"** will be undertaken by forming a **Special Purpose Vehicle (SPV)** with **Sagarmala Development Company Limited (SDCL).**

Significance of Sagarmala Seaplane Services (SSPS)

SDCL is exploring plans to **leverage the potential of the vast coastline and numerous water bodies/rivers** across India by commencing seaplane operations to provide connectivity and easier accessibility to remote locations.

The Sea Plane will **utilize the nearby water bodies for take-off and landing** and thus connect those places in a much economical way as conventional airport infrastructure.

The seaplanes services will be a game-changer **providing a supplementary means of faster and comfortable transportation** across the nation.

It will **boost tourism** for domestic and international holidaymakers.

It will **save travel time and stimulate localized short distance travelling** especially in the hilly regions or across the rivers/lakes etc.

4.9 National Metrology Conclave

Recently, the Prime Minister Shri Narendra Modi has delivered inaugural address at the **National Metrology Conclave 2021**.

Key Highlights of National Metrology Conclave 2021

The Conclave was organised by **Council of Scientific and Industrial Research-National**

Physical Laboratory (CSIR-NPL).

The theme of the conclave is **'Metrology for the Inclusive Growth of the Nation'**.

The Prime Minister dedicated **National Atomic Timescale** and **Bhartiya Nirdeshak Dravya Pranali** to the Nation.

It would help the **industry to make quality products** in sectors like Heavy metals, Pesticides, Pharma and Textiles by drafting a 'Certified Reference Material System'.

He also laid the Foundation Stone of **National Environmental Standards Laboratory**.

Significance of Metrology

Manufacturing of Quality Products: Metrology allows manufacturers to produce products more accurately, more quickly and to a higher standard.

Increase in Knowledge: The research will need measurements even in the final phases of his or her research which usually involve determining whether the results obtained after a research are accurate or significant.

Characterization of gravitational fields, rock dating, determination of certain physical or chemical constants is all areas of research that call for metrology.

Protection of People: Measurement of radiation in radiotherapy and dosage of drugs stand out as vital areas in the health sector.

They call for measuring units that are vital for the safety of patients and precision is important because it can save lives.

Helps in Different Areas of The Law: Labor law involves systems designed to monitor the hours worked, lighting levels in professional premises, noise levels and measurement of ambient atmospheres such as fibres and mercury vapors.

Environmental law is yet another legal field that cannot survive without metrology because protection of the environment solely requires statutory requirements on the quality of air and water.

Bhartiya Nirdeshak Dravya (BND)

The CSIR-National Physical Laboratory, India (NPLI) is committed to ensure the **quality of products in every manufacturing and consumer sector** by providing SI traceable measurements.

Reference materials (RM) play pivotal role in maintaining the quality infrastructure of any economy through testing and calibration with precise measurements traceable to SI units.

NPLI has released two important certified RMs as **Bharatiya Nirdeshak Dravyas (BNDs)** i.e.

BND-4201 for 4N purity gold and BND-5101A for Bituminous coal.

The **Certified Indian Reference Material program** was started in 1986 by CSIR-NPLI.

4.10 Six Years of UJALA and SLNP

Recently, the Government of India's **Unnat Jyoti by Affordable LEDs for All (UJALA)** and **Street Lighting National Programme (SLNP)** have completed their six years of implementation.

Six Years of UJALA and SLNP

Under UJALA, **Energy Efficiency Services Limited (EESL)** has distributed over 36.69 crore LED bulbs across India.

It has resulted in estimated **energy savings of 47.65 billion kWh per year** with avoided peak demand of 9,540 MW.

It estimated **Greenhouse Gas (GHG) emission reduction** of 38.59 million tonnes CO2 per year.

Over 72 lakh **LED tube lights** and over 23 lakh **energy efficient fans** have also been distributed at affordable price under this programme.

With SLNP, EESL has installed about **1.14 crore LED streetlights across India.**

It has resulted in an **estimated energy savings** of 7.67 billion kWh per year with avoided peak demand of 1,280 MW.

It has estimated **GHG emission reduction** of 5.29 million tonnes CO2 per year.

The programmes have bagged global awards like the prestigious **South Asia Procurement Innovation Award (SAPIA) 2017.**

The highly successful UJALA and SLNP have also bagged the **Global Solid State Lighting (SSL) award of excellence** for the transformational contribution to the LED sector.

Significance of UJALA and SLNP

Both UJALA and Street Lighting National Programme have been at the heart of **large scale socio-economic transformation.**

They have **not only reduced emissions** and **enabled sustainable development,** but have revamped household and public lighting systems, across the country.

The switch from **inefficient incandescent bulbs to LEDs** is helping families reduce their electricity bills while also enabling them to access better brightness in homes.

Unnat Jyoti by Affordable LEDs for All (UJALA)

The **Unnat Jyoti by Affordable LEDs for All** was launched in 2015 with a target of **replacing 77 cr incandescent lamps with LED bulbs**.

The scheme was implemented to set up **phase wise LED distribution across the nation** to provide people with affordable LED bulbs and energy efficient appliances.

The objective is to **promote efficient lighting, enhance awareness on using efficient equipment** that will reduce electricity bills and preserve the environment.

Street Lighting National Programme (SLNP)

It was launched in 2015 to **replace conventional street lights** with **smart and energy efficient LED street lights** across India.

EESL replaces the conventional street lights with LEDs at its own costs and the consequent reduction in energy and maintenance cost of the municipality is used to repay EESL over a period of time.

The **Energy Efficiency Services Limited**, a Public Energy Services Company under the administration of Ministry of Power, Government of India (GoI) is the **implementing agency for SLNP.**

It is the **world's largest streetlight replacement programme.**

4.11 Project to Improve Waterways in West Bengal

Recently, the **Government of India, the Government of West Bengal and the World Bank**have signed a $105 million project to improve the **inland water transport infrastructure** in Kolkata, West Bengal.

The West Bengal Inland Water Transport, Logistics and Spatial Development Project will**facilitate passenger and freight movement across the Hooghly River.**

The project will undertake spatial planning to **improve accessibility** in the Kolkata Metropolitan Area; **enhance the quality of life** of its residents; and contribute to the **growth of the state's logistics sector.**

The Project will help improve the **river transport infrastructure in West Bengal** and help in the economic development of the state by connecting the hinterland with markets and job centers in Kolkata's Metropolitan Area.

The operation will allow the state to **invest in Kolkata's economic productivity** by making its waterways and ferry services part of an efficient and safe urban mobility strategy.

The project is also ensuring that the metropolitan area **emerges as a transport and logistics hub for the sub-region**, leveraging the EDFC and connecting to the north-east and the land-locked countries of Nepal and Bhutan.

Hooghly River

The Hooghly weaves through the Indian state of **West Bengal** from the **Ganges**, its parent river, to the sea.

It is a **Ganges River distributary**.

It **separates** the Kolkata port from its **large consumption centers**, which are, its wholesale market and its vast hinterland.

In its **upper reaches**, the river is generally known by the name **Bhagirathi**, until it reaches Hooghly.

It is formed by the junction of the **Bhagirathi and Jalangi rivers** at Nabadwip.

It is a **perennial natural water resource** for the state of West Bengal.

The river's lower reaches are fed by the **Ajay, Damodar, Rupnarayan, and Haldi rivers**, which rise to the northwest on the Chota Nagpur plateau area.

4.12 Rashtriya Kamdhenu Aayog (RKA)

Recently, the **Rashtriya Kamdhenu Aayog (RKA)** has come out with a noble initiative of making Study materials about Cow Science available and conduct **"Kamdhenu Gau-Vigyan Prachar-Prasar Examination"**.

Highlights

It is the **first-ever exam** of this kind which will be held annually.

The students of **primary, secondary and college levels** and **general public** can take part in the 'Kamdhenu Gau-Vigyan Prachar-Prasar Examination' without any fee.

The RKA decided to conduct a **national exam on cow scienc**e for raising mass awareness about the indigenous cows among young students and every other citizen.

The exam will **infuse the curiosity into all Indians about cows** and make them aware of the unexplored potential and business opportunities a cow can offer, even after it stops giving milk.

Rashtriya Kamdhenu Aayog (RKA)

It has been constituted by the Government of India for the c**onservation, preservation,**

protection and development of cows and their progenies.

It is a **high-powered permanent body** to formulate policies and to provide directions for the implementation of schemes related to cattle.

It comes under the **Ministry of Fisheries, Animal Husbandry and Dairying.**

It aims at **transmission and application of improved technology and management practices** at the farmers' doorstep through coordination with dairy cooperatives, farmer producer companies and dairy industry.

Rashtriya Kamdhenu Aayog will function as an integral part of **Rashtriya Gokul Mission.**

4.13 International Akhand Conference EDUCON 2020

Recently, the Union Education Minister has inaugurated the two-day Virtual **International Akhand Conference 'EDUCON 2020'**.

Highlights

It is being organized by **Central University of Punjab, Bathinda (CUPB)** in collaboration with the **Global Educational Research Association (GERA).**

The focal theme of EDUCON-2020 is **Envisioning Education for Transforming Youth to Restore Global Peace**.

The Akhand Conference will pass on the message to the **researchers and students across the globe** that the **research is a 24X7 exercise** and requires strong perseverance.

The international conference will help the **prospective teachers to become familiar with different technologies** and their functioning to bring transformational change in the field of education.

The conference is the **first of its kind in India** where scholars across the world would be continuously having **non-stop marathon dialogue sessions for 31 hours** exploring the possibilities of the use of ICT in the higher education.

The conference will also **provide a platform** for discussions on emerging trends in education viz.:

Likely scenario of higher education and school education by 2050;

Developing disruptive technologies for STEAM (Science, Technology, Engineering, Arts and Mathematics) Education;

Training youth for strategic future jobs in Universities;

Skill training programme for future graduates; and

Relevance of ancient education system in 21st century

Global Educational Research Association (GERA)

It is a **Society having its own constitution**.

It was **founded in 2010** under the leadership of Late Prof. B. K. Passi.

The **objectives of GERA** are to develop and promote educational research:

to provide an international forum for discussion of problems related

to conduct workshops, seminars, conference etc.

to disseminate findings of research,

to publish journals, monographs and other types of literature on educational research,

to co-operate with organisations engaged in educational research, and

to carry out all such other activities as may be conducive to the attainment of the objectives.

4.14 I&B Minister launches Govt's Digital Calender, Diary App

Information and Broadcasting Ministry launched Government's Digital Calender and Diary App.

This will now adorn mobile phones and Digital calender is an environment-friendly initiative.

The app will do away with the need for a new calendar every year.

It is available in Hindi and English, but it will be available in 11 languages from 15 January 2021.

The calender has a theme for every month and it will also have all information of 100 revolutionary programmes of the government.

The Government of India (GOI) Calender and the Diary App is available for download on both Google Play store and iOS App Store.

The app has been designed and developed by **Bureau of Outreach and Communication, Ministry of Information and Broadcasting**.

4.15 Pravasi Bharatiya Divas Convention

The 16th Pravasi Bharatiya Divas (PBD) Convention will be organized on 9 January 2021, despite the ongoing COVID-19 pandemic.

The celebration starts on the 7th of January and goes till 9th January, sometimes on other dates too.

The theme of 16th PBD Convention 2021: "Contributing to Aatmanirbhar Bharat".

PBD

PBD or Non Resident Day is celebrated every year on 9 January since 2003 to mark the contribution of Overseas Indian community in the development of India.

On 9 January in 1915, Mahatma Gandhi, the greatest Pravasi, returned to India from South Africa, led to India's freedom struggle and changed the lives of Indians forever.

Since 2015, its format has been revised to celebrate the PBD once every two years and has been celebrated in (2015, 2017, 2019).

PBD Convention is the flagship event of the Ministry of External Affairs (MEA). Every other year, the Government of India (MEA), selects an Indian city to observe this day.

Sponsors: MEA, Federation of Indian Chambers of Commerce and Industry (FICCI), Confederation of Indian Industry (CII), Ministry of Development of North Eastern Region.

To represent and concerning Indian diaspora, a forum is organised and at the same, Pravasi Bharatiya Samman Awards are given.

The following cities were selected to mark the day:

Pravasi Bhartiya Diwas 2015 – Gandhinagar, Gujarat

Pravasi Bhartiya Diwas 2017 – Bengaluru, Karnataka

Pravasi Bhartiya Diwas 2019 – Varanasi, UP

Significance

These conventions provide a platform to the overseas Indian community to engage with the government and people of the land of their ancestors for mutually beneficial activities.

These conventions are also very useful in networking among the overseas Indian community residing in various parts of the world and enable them to share their experiences in various fields.

4.16 World Hindi Day

World Hindi Day is observed on **10 January 2021**.

The day is commemorated every year with the objective to promote use of the Hindi language abroad.

On this day in 2006, the **First World Hindi Conference** was held in Nagpur with the aim to promote the language worldwide and since then, every year 10th January is being observed as the World Hindi Day.

The **Ministry of External Affairs and Indian Missions abroad** also observe the day annually.

The languages play an important role in the social, political and cultural development of a country.

It is an important link in the unity and integrity of the entire nation. The Hindi language is the key to establishing unity in diversity.

Hindi is one of the most spoken languages of the world. On World Hindi Day, people celebrate linguistic diversity to better understand each other.

4.17 30th National Energy Conservation Awards

Ministry of Power, in association with Bureau of Energy Efficiency (BEE), organised the 30th National Energy Conservation Awards (NECA) function as a Hybrid event due to the COVID pandemic.

During the event, the **Standards and Labelling Programme for Air Compressors and Ultra High Definition (UHD) TV on voluntary basis was initiated; SAATHEE (State-wise Actions on Annual Targets and Headways on Energy Efficiency) – A portal for State Designated Agency for state level activities was also launched**.

During the award ceremony, it was specifically mentioned that the impact of PAT Cycle II achieved emission reduction of 61 million ton of CO_2.

1. The event included a virtual exhibition on achievements on Energy Efficiency. The awards were presented to the winners from different industries and sector establishments.

2. Energy Efficiency is not only good for the world but also for companies and industries themselves.

3. Despite this the country has made ambitious commitments to meet the global challenge posed by climate change. **Our country has target to reduce the emission intensity to 33-35% by 2030 compared to 2005 level, as part of commitments made during COP 21.**

NATIONAL ENERGY CONSERVATION AWARDS PROGRAMME:

1. It was launched by the Ministry of Power in 1991, to provide national recognition to those

industries and establishments which have taken special efforts to reduce energy consumption while maintaining their production.

2. The awards were given away for the first time on 14th December, 1991, which was declared as the **'The National Energy Conservation Day'**. It recognizes the energy efficiency achievements in 56 sub-sectors across industry, establishments and institutions.

Standards and Labelling Programme for Air Compressors and UHD TV

1. Aim: To enhance the level of energy conservation, this can then be used for a different purpose in the home or workplace. Besides saving energy, this programme could also facilitate reducing energy bills.

2. It is to be carried out on a voluntary basis.

SAATHEE PORTAL:

1. BEE has developed a **Management Information System (MIS) portal called SAATHEE for the State Designated Agency (SDA)** for state level activities.

2. Useful in capturing the physical and financial status/ progress of Energy Efficiency activities being implemented by States/ UTs across the country. Thus, it will facilitate Real Time Monitoring.

3. Help in decision making, coordination, control, analysis, and implementation and enforcement of the compliance process for various energy consumers at the pan India level.

4.18 10% of CSIR staff exposed to virus, says survey

A first such pan-India survey tracking nearly 10,000 employees of the Council of Scientific and Industrial Research (CSIR) on the prevalence of COVID-19 found that nearly 10% of the staff were infected.

1. Key neutralising antibodies that protect against the virus waned after infection, but were at "detectable levels" even after six months — a proxy for the period of effectiveness of future vaccination and general immunity.

2. About three-fourths of the respondents could not recall having experienced a single one of the symptoms commonly associated with the disease, and a vegetarian diet and smoking appeared to be "protective" against the infection.

'LONGITUDINAL STUDY'

This is a first-of-its-kind longitudinal study anywhere in the world. An association between

smoking and protection against SARS-CoV-2, or lower odds of infection by the virus, has also been reported in studies in China and France.

CSIR staff and family members who volunteered to be part of the survey filled out questionnaires on their lifestyle, food and disease histories. They were also tested with two different kinds of antibody tests to study the kinds of antibodies that were produced following infection.

It usually takes a week to a fortnight after being infected for antibodies to be detected in the blood.

A serology survey by the Indian Council of Medical Research (ICMR) has estimated 7% exposure to SARS-CoV-2 until mid-August, and a modelling exercise by the National Supermodel Committee estimated that 30% may have been exposed by September.

Bias

The study also revealed a distinct class bias in those affected. Those able to work from home and able to access private transport were nearly twice less likely to be exposed to the virus than the "outsourced staff" involved with sanitation and security, and using public transport.

Higher sero-prevalence among outsourced staff and public transport users in our cohort is more likely to be representative of general population of cities and towns that are part of the cohort.

Millions of migrant workers trapped in Indian cities during the lockdown returned to villages in June in packed public transport.

Outsourced workers, with highest seropositivity, reflect the high infection rate of this subgroup and it can be reasonably assumed that the pandemic had already reached rural India by September 2020.

There was even a distinction in blood groups. "Sero-prevalence was highest for blood group type AB, followed by group B, group O and the lowest for group A . Blood group O was observed to be protective".

 The overarching aim is to be able to build a medical cohort to give long-term perspective on the malaises that affect Indians, and determine if such a data bank can be used to help with predicting, say, the onset of diabetes or cardiovascular disease.

4.19 'Explore crowdfunding to help two children with rare disease'

Delhi High Court (HC) has ordered the Ministry of Health and Family Welfare to explore "crowdfunding" to help two children, who are suffering from a Rare Disease known as Duchenne Muscular Dystrophy.

HC also give a specific timeline to the Ministry in respect of the finalisation and notification of the Draft Health Policy for Rare Diseases, 2020. The draft policy has a section where the government proposed crowdfunding for treatment of high-cost Rare Diseases.

'Right to Health and Healthcare' is a fundamental right and it has been recognised by the Supreme Court to be a part of the 'Right to life' under Article 21.

HC directed the society in general and authorities in particular to ensure that the life of such children is not compromised, even if there is a small window of improving their chances of survival or even providing a better quality of life.

CROWDFUNDING

Method of raising capital through the collective effort of a large pool of individuals, primarily online via social media and crowdfunding platforms and leverages their networks for greater reach and exposure.

The 3 primary types are donation-based, rewards-based, and equity crowdfunding.

Donation-based crowdfunding – Any crowdfunding campaign in which there is no financial return to the investors or contributors.

Rewards-based crowdfunding – Any crowdfunding campaign that involves individuals contributing to business in exchange for a "reward," typically a form of the product or service your company offers.

Equity-based crowdfunding – Any crowdfunding campaign that allows contributors to become part-owners of your company by trading capital for equity shares.

RARE DISEASE:

There is **no universally accepted definition of rare diseases** and the definitions usually vary across different countries.

A rare disease is a **health condition of low prevalence** that **affects a small number of people** compared with other prevalent diseases in the general population.

Duchenne Muscular Dystrophy : Genetic disorder characterized by progressive muscle degeneration and weakness due to the alterations of a protein called dystrophin that helps keep muscle cells intact.

4.20 CRPF gets 21 DRDO-developed bike ambulances for remote area operations

Defence Research and Development Organisation (DRDO) hands over Motor Bike Ambulance 'Rakshita' to Central Reserve Police Force (CRPF).

Rakshita is handed by the Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi based DRDO laboratory, to CRPF.

Rakshita is a bike-based casualty transport emergency vehicle and is fitted with a customized reclining Casualty Evacuation Seat (CES), which can be fitted in and taken out as per requirement.

The bike ambulance will help in overcoming the problems faced by Indian security forces and emergency healthcare providers.

It will provide life-saving aid for evacuation of injured patients from low intensity conflict areas.

This bike ambulance is useful not only for the paramilitary and military forces but has potential civil applications too.

4.21 Karnataka most innovative major state: NITI index

The Innovation Index has been released by the NITI Aayog.

These rankings were part of NITI Aayog's India Innovation Index Report 2020. The exercise was initiated in 2019 and is on the lines of the Global Innovation Index (GII), which ranks countries annually.

The framework of the index includes globally considered parameters for measuring innovation, such as the percentage of GDP spent on research and development, while keeping them specific to the Indian economy.

The indicators that the survey uses includes the level and quality of education especially in research, number of PhD students, enrolment in engineering and technology, number of highly skilled professionals, investment in R&D, FDI inflows, internet subscribers, knowledge intensive employment, number of patents and trademark applications filed, business environment, and safety and legal environment, among others.

GII:

In 2015, India ranked 81 among 141 countries in the GII. By 2020 it ranked 48 among 131 countries.

There were a number of areas in which India needed to improve to meet global competitiveness in innovation, including increased expenditure in R&D by the private sector.

The Indian government is a major spender in R&D, while the investment of the private sector is

very low.

Compare this to Israel where private companies account for 70 percent of private investment in R&D, In 2017-18, the Indian government had the lion's share of investment in R&D at 41 per cent.

India also spends only 0.7per cent of its GDP on R&D, much lower than the top spenders such as Israel (4.95 per cent).

PERFORMANCE OF STATES:

The Innovation Index is divided in to three categories—major states, Union Territories, and hill and North East states.

Karnataka has been ranked the most innovative among major states by the NITI Aayog with a score of 42.5 for the second year running.

As states become more innovative, they have higher per capita GDP. The state's success has been attributed to a high number of venture capital deals, registered GIs and ICT exports, and high FDI inflow.

Delhi has scored the highest on the index in the country with a score of 46.6, while Lakshwadeep has the lowest score at 11.7. Delhi recorded the highest number of trademark and patent applications, along with the establishment of new start-ups and companies in the last financial year.

Delhi also stood out as the top performer among both states and UTs.

The Index pointed out a North-South divide in the findings of the report, with the southern states having fared much better.

Maharashtra follows with a score of 38, while Bihar finishes last at 14.5. Four southern states – Karnataka, Tamil Nadu, Telangana and Kerala —occupy the top positions on the index, apart from Maharashtra.

Amongst North East and hill states, Himachal Pradesh has the highest score of 25.

4.22 The Gujarat govt wants dragon fruit to be renamed

GUJARAT state proposes to rename dragon fruit as 'Kamalam'. This would "boost awareness and expansion" , "and contribute to reducing import dependence in line with 'Atmanirbhar Bharat'".

Across the world it is known as dragon fruit and one thinks of China.

Dragon fruit "does not sound appropriate", Kamalam was apt because the characteristic fuchsia 'spikes' or 'petals' of the fruit recall a lotus in bloom.

Dragon fruit is the fruit of a species of wild cactus indigenous to South and Central America,

where it is called pitaya orpitahaya.

The fruit's flesh is usually white or red — although there is a less common yellow pitaya too — and is studded with tiny seeds rather like the kiwi fruit.

The world's largest producer and exporter of dragon fruit is Vietnam, where the plant was brought by the French in the 19th century.

The Vietnamese call it thanh long, which translates to "dragon's eyes", believed to be the origin of its common English name.

Dragon fruitis also cultivated in—a part from its native Latin America — Thailand, Taiwan, China, Australia, Israel, and Sri Lanka.

It was brought to India in the 1990s, and is grown in Karnataka, Kerala, Tamil Nadu, Maharashtra, Gujarat, Odisha, West Bengal, Andhra Pradesh, and Andaman and Nicobar Islands.

It grows in all kinds of soil, and does not require much water.

Dragon fruit is not a species native to India and any change in its nomenclature in official annals can lead to international litigation. Hence, the opinion of BSI and NBA matters.

ICAR does not do everything in this respect. ICAR is the recommending body. Whatever nomenclature, release of varieties, production, it is all done by the Department of Agriculture and Cooperation, the other wing, and not the research wing.

4.23 Launch of Regulatory Compliance Portal to minimize Regulatory Compliance Burden for Businesses and Citizens

Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry has launched a **regulatory compliance portal**.

First-of-its-kind central online repositoryof all central and State-level compliances.

All **Central Ministries/Departments and States/UTs**would **examine laws**/regulations/rules under their purview

Then they will implement an Action Plan torationalize and simplify all the processes and **remove burdensome compliances, decriminalize laws and repeal redundant Acts.**

These **details would be captured and tracked on the Regulatory Compliance Portal.**

The steps taken will be instrumental in achieving the vision of Atmanirbhar Bharat and help usher ease of doing business for industry and ease of living for citizens.

Aims

Act as a bridge for citizens, industries and the government to **minimise burdensome compliances**.

Reduce the compliance burden

Simplify further the citizen-government interface whether online or offline

Remove antiquated and obsolete acts which don't add value

DPIIT

It is acting as the nodal department for coordinating the exercise of minimizing regulatory compliance burden for citizens and businesses which have an adverse impact on time and cost of businesses.

4.24 TRIPURA CM PROMOTING THE RISA

Risa is a customary hand woven cloth used by Tripura's indigenous tribal communities.

It is one of the three parts of customary Tripura female attire, the other two being the Rignai and Rikutu.

The Risa is used as a head gear, stole and female upper cloth or presented to honour a distinguished recipient.

4.25 Govt. tightens oversight on funds received by NGOs

The Union Home Ministry has laid down a charter for banks.

It says that "donations received in Indian rupees" by non-governmental organisations (NGOs) and associations from "any foreign source even if that source is located in India at the time of such donation" should be treated as "foreign contribution".

FCRA regulates foreign donations and ensures that such contributions do not adversely affect the internal security of the country.

CURRENT RULES:

As per the existing rules, all banks have to report to the Central government within 48 hours the "receipt or utilisation of any foreign contribution" by any NGO, association or person whether or not they are registered or granted prior permission under the FCRA.

Last September, the Foreign Contribution (Regulation) Act, 2010, was amended by Parliament and a new provision that makes it mandatory for all NGOs to receive foreign funds in a designated bank account at the State Bank of India's (SBI) New Delhi branch was inserted.

All NGOs seeking foreign donations have to open a designated FCRA account at the SBI branch by March 31.

The NGOs can retain their existing FCRA account in any other bank but it will have to be mandatorily linked to the SBI branch in New Delhi.

PENAL PROVISIONS:

The Ministry has laid out a series of guidelines and charter to make the NGOs and the banks comply with the new provisions.

The charter for the banks said, it may be noted that foreign contribution has to be received only through banking channels and it has to be accounted for in the manner prescribed.

Any violation by the NGO or by the bank may invite penal provisions of the FCRA, 2010.

It added that "donations given in Indian rupees (INR) by any foreigner/foreign source including foreigners of Indian origin like OCI or PIO cardholders" should also be treated as foreign contribution.

4.26 Training for Joint Operation in Andaman Sea: Exercise Kavach

A large scale Joint Military exercise 'Exercise Kavach' involving assets of Indian Army, Indian Navy, Indian Air Force and Indian Coast Guard will be conducted in January 2021 under the aegis of the Andaman and Nicobar Command (ANC), the only Joint Forces Command of the country.

The exercise would involve participation and deployment of elements of Army's Amphibious Brigade along with supporting forces including Special Forces of Navy, Armour/Mechanised components, Naval Ships comprising Destroyers, ASW Corvettes and Landing Ships with ship-borne helicopters of Eastern Naval Command and ANC, Jaguar Maritime Strike and Transport aircrafts from Indian Air Force and assets of Coast Guard.

The exercise involves synergised application of maritime surveillance assets, coordinated air and maritime strikes, air defence, submarine and landing operations.

Concurrently Joint Intelligence Surveillance and Reconnaissance (ISR) exercise involving various technical, electronic and human intelligence from three services will be conducted.

The ISR exercise will validate the capabilities of intelligence gathering from space, air, land and sea-based assets/ sensors, its analysis and sharing to achieve battle field transparency for quick decision making at different stages of operations.

The joint force would execute multi domain, high intensity offensive and defensive manoeuvres in

the Andaman Sea and Bay of Bengal and carry out amphibious landing operations, air landed operation, helicopters-borne insertion of Special Forces from sea culminating in tactical follow-on operations on land.

The tri-services exercise aims to fine tune joint war-fighting capabilities and SOPs towards enhancing operational synergy.

4.27 Mock trials of remote voting project soon: CEC

Chief Election Commissioner said address on the eve of the National Voters Day that the trials of the Election Commission's remote voting project would be carried out soon.

Reseaech Project

Election Commission of India has already started a research project on remote voting using cutting-edge technology with IIT-Chennai and other leading institutions and it has made good progress. Mock trials of this project will begin soon.

The system being developed by the IIT-M uses blockchain for two-way remote voting at designated centres.

Another significant change look forward to is grant of postal ballot facility to overseas electors".

The proposal was under "active consideration" of the Union Law Ministry.

DIGITAL MOVE

In another development, electors will be able to download electronic versions of the elector photo ID card, or e-EPIC.

The digital version of EPICs would be available for download from the voter helpline app, voterportal.eci.gov.in and nvsp.in.

The e-EPIC would be a non-editable PDF version of the EPIC that can be downloaded on the phone and stored on the DigiLocker app or printed from a computer.

All general voters who have valid EPIC numbers would be able to do so from February 1 and those who applied in November and December will be able to download it from Monday till January 31.

4.28 Vice President launches book of poems of Sree Narayana Guru, 'Not Many But One'

Vice President of India launched a book of poems, "Not Many, But One" (Two Volumes), an English translation of poems of Sree Narayana Guru by Prof G.K. Sasidharan.

SREE NARAYANA GURU (1856 – 1928)

He was a social reformer.

Transformed the social fabric of Kerala and changed the beliefs of Keralites in ways unimaginable at that point in time.

He was born into an Ezhava family in an era when people from such communities, which were regarded as Avarna, faced much social injustice in the caste-ridden society of Kerala.

Rejected casteism, and promoted new values of spiritual freedom and social equality.

Lent his support to **the Vaikkom Satyagraha** which was aimed at temple entry in Travancore for the lower castes. **Mahatma Gandhi met Guru during this time.**

Preached **the 'oneness' of humanity,** crossing the boundaries of caste and creed.

He composed **Atmopadesa Satakam** in 1897.

Founded **an Advaita Ashram in Kalady.**

His birth anniversary is observed on 2nd September.

4.29 UP tops in disbursing vendor loans; Bengal, Kerala lowest

Even as several state governments and their local administrations are pushing the PM SVANidhi Yojana, the Centre's micro-credit scheme for urban street vendors, there are stark differences in the pace of implementation of the scheme across states.

Uttar Pradesh has disbursed over 3.5 lakh loans, and Telangana and Madhya Pradesh have given out over 2 lakh loans each over the past seven months, West Bengal, Assam, and Kerala have disbursed only a small fraction of those numbers.

The PM Street Vendors' Atmanirbhar Nidhi (PM SVANidhi) scheme, launched in June 2020 amid the Covid-19 pandemic, provides street vendors collateral-free loans of Rs10,000 at concessional rates. All vendors who have been vending since March 24, 2020, and have a certificate of vending, can avail of the loan.

UP tops the implementation list, with banks in the state having disbursed loans aggregating to Rs 347.4 crore to 3.54 lakh individuals as of 20 January 2021.

West Bengal sits at the bottom of the list – a mere Rs 9 lakh has been disbursed during this period under the scheme to just 95 individuals across the state, data on the PM SVANidhi website show.

The disbursal numbers in West Bengal are lower than states that are far smaller in area and population, such as Tripura, Mizoram, and Goa.

Kerala is among the worst performers and it has so far disbursed a total Rs 6.09 crore to 6,144 individuals, scoring above only West Bengal and Assam among the bigger states.

4.30 In the works, CSR-like policy for scientific community

The Ministry of Science and Technology has drafted a policy on the lines of the mandatory corporate social responsibility model for the country's scientific community, this was necessitated by scientists' "isolation" from societal needs.

The "Scientific Social Responsibility" policy, under consultation for a year now, has been finalised and will soon be sent to the Union cabinet for approval.

As per the draft policy, every "knowledge worker" has to devote atleast 10 person-days each year to SSR activity, which can include giving lectures in schools and colleges, sharing infrastructure, conducting skill development workshops, and coming up with solutions to local environmental or health issues.

Beneficiaries can include students, school and college teachers, local bodies, communities, women's groups, NGOs and MSMEs, among others.

While the knowledge worker would be given wide latitude in choosing the SSR activity, it should necessarily pertain to the transmission of scientific knowledge to society.

The policy envisages an SSR monitoring system in each institution to assess institutional projects and individual activity.

Institutes are also to publish their SSR activity as part of their annual reports. Individual SSR work is to be given due weightage in "performance evaluation of the knowledge worker, such as the performance-based assessment system the output of university and college teachers".

4.31 Garlanding Ceremony of Statue of Bharat Ratna Pandit Govind Ballabh Pant **Before independence**	**After independence**
In December 1921, he was **elected to the Legislative Assembly of the United Provinces of Agra and Oudh,** which he later renamed Uttar Pradesh. He was elected as a candidate of **the Swaraj Party from Nainital.** In the 1937 provincial elections held under the Government of India Act, 1935, he was appointed premier. He served the post till 1939, when all Congress ministers resigned after the British committed India to the Second World War of its own accord. In the United Provinces election held in 1946, he was once again appointed the premier.	First Chief Minister of Uttar Pradesh. He served as India's home minister from 1955 to 1961. It was during his tenure that states were reorganised on linguistic lines.

Statue of BHARAT RATNA PANDIT GOVIND BALLABH PANT at Pandit Pant Marg, New Delhi was unveiled.

Born on 10 September 1887 at Almora in **Uttarakhand**

He established an organisation called **Prem Sabha** in **Kashipur** that started working towards several reforms.

He also **saved a school from shutting down due to non-payment of taxes** to the British government.

4.32 PM chairs PRAGATI meeting

Recently the Indian Prime Minister chaired the 35th edition of Pro-Active Governance And Timely Implementation (PRAGATI).

Ten projects including Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana were taken for review involving a total investment of Rs. 54,675 crore.

PRAGATI is the Information and Communication Technology (ICT) based multimodal platform, involving Central and State governments.

Launched in 2015

Prime Minister's Office (PMO) team designed with the help of the National Informatics Center (NIC)

It is a **three-tier system** (PMO, Union Government Secretaries, and Chief Secretaries of the States).

It enables the PM to discuss the issues with the concerned central and state officials with full information and latest visuals of the ground-level situation.

Significance

Concerns

Significance	Concerns
Promotes cooperative federalism	Concentration of power in the extra-constitutional office of PMO.
Innovative project in e-governance and good governance	The direct interaction of the PM with the state secretaries without involving the political executives of the states is undermining the state political executive.
Robust system for bringing e-transparency and e-accountability with real-time presence and exchange among the key stakeholders	

4.33 HC vacancies: SC questions govt over delay in action on Collegium recommendations

The Supreme Court expressed its concerns over the government delaying action on the recommendations of the Collegium to fill up vacancies in the High Courts

Collegium System

System of appointment and transfer of judges that has evolved through judgments of the SC, and not by an Act of Parliament or by a provision of the Constitution

The **SC collegium Composition: Head- CJI** and **other four senior most judges** of the court.

A **HC collegium Composition: Head- Chief Justice** and **four other senior most judges of that court.**

Names recommended for appointment by a HC collegium reaches the government only after approval by the CJI and the SC collegium.

WHAT IS COLLEGIUM SYSTEM?

- Under Article 124(2) and Article 217(1) of the Constitution, judges of the Supreme Court and those of a high court respectively have to be appointed by the President (read government) after "consultation" with the CJI. The government was not bound by the CJI's recommendation.

- By a judicial verdict in 1993, the SC took over primacy in appointments by introducing the collegium system under which a group of top judges appoint SC and HC judges.

- Five years later, a nine-judge Constitution Bench ruled that the "consultation" must be effective and the CJI's opinion shall have primacy in the matter.

- The government is bound by the names recommended by the collegium. If the government does not agree on any name, it can only return it once. If the collegium reiterates, the government is bound by the recommendation.

- It works under complete secrecy and it is almost impossible for common people to know about a person being recommended for judgeship until he/she has actually been appointed.

4.34 Centre gives green light to underwater study to determine Ram Setu origins

The historicity and the date of 'Ramayana' remain a debatable subject among historians,

archaeologists and scientists. Hence, the government has approved an underwater research project to ascertain the origins of the Ram Setu — a 48-km-long chain of shoals between India and Sri Lanka.

Ram Setu's age will be ascertained through the study of fossils and sedimentation to see if it correlates with the Ramayana period.

Ram Setu, also known as Adam's Bridge or Nala Setu, holds religious significance because of the Ramayana.

The central advisory board on archaeology, which functions under the Archaeological Survey of India (ASI), has approved the proposal for this underwater exploration project.

The study — to be conducted by the Council for Scientific and Industrial Research (CSIR) and National Institute of Oceanography (NIO) Goa — will focus on the process behind Ram Setu's formation and also whether there are any submerged habitations around the structure.

The agency's research vessel named Sindhu Sadhana will be deployed to collect samples of sediment from 35-40 metres below the water level. Sindhu Sadhana is an indigenous exploration vessel which can stay underwater for up to 45 days.

The proposed study will be based on archaeological antiquities, radiometric and thermoluminescence (TL) dating for geological timescale and other supporting environmental data.

4.35 How CSR expenditure rules have changed for Indian companies?

The Corporate Affairs Ministry has amended the rules for Corporate Social Responsibility (CSR) expenditure by India Inc to allow companies to undertake multi-year projects, and also require that all CSR implementing agencies be registered with the government.

HOW DO THE NEW RULES ENABLE CORPORATIONS TO UNDERTAKE MULTI-YEAR CSR PROJECTS?

All companies with a net worth of Rs 500 crore or more, a turnover of Rs 1,000 crore or more, or net profit of Rs 5 crore or more, are required to spend 2 percent of their average profits of the previous three years on CSR activities every year.

The amended CSR rules allow companies to set off CSR expenditure above the required 2 percent expenditure in any fiscal year against required expenditure for up to three financial years.

There was ambiguity whether the rule would apply for expenditure undertaken prior to the amendment.

WHAT ARE THE CHANGES REQUIRED FOR IMPLEMENTING AGENCIES?

A large number of companies conduct CSR expenditure through implementing agencies, but the new amendment restricts companies from authorising either a Section 8 company or a registered public charitable trust to conduct CSR projects on their behalf.

A Section 8 company is a company registered with the purpose of promoting charitable causes, applies profits to promoting its objectives and is prohibited from distributing dividends to shareholders. Further, all such entities will have to be registered with the government by April 1.

The change would impact CSR programmes of a number of large Indian companies that conduct projects through private trusts.

The change would mean such private trusts would either have to be converted to registered public trusts, or stop acting as CSR implementing agencies "given that a sizeable amount of CSR is being contributed through their private trusts by many companies, including blue-chip companies."

WHAT ARE OTHER KEY CHANGES?

The amended rules require that any corporation with a CSR obligation of Rs 10 crore or more for the three preceding financial years would be required to hire an independent agency to conduct impact assessment of all of their project with outlays of Rs 1 crore or more.

Companies will be allowed to count 5 per cent of the CSR expenditure for the year up to Rs 50 lakh on impact assessment towards CSR expenditure.

POLITICAL ISSUES, HUMAN RIGHTS AND GOVERNANCE

5.1 Nagaland declared as 'Disturbed Area'

History of AFSPA

- On 15 August 1942, the British promulgated the Armed Forces Special Powers (Ordinance) to suppress the Quit India Movement.
- In 1954, country faces insurgency in Naga districts of Assam. Government passes the Armed Forces Special Powers Act (1958).
- In 1964, United National Liberation Front—a separatist militant group seeking independence from India—formed in Manipur, followed by formation of many other insurgent groups. Manipur declared a disturbed area and Armed Forces Special Powers Act imposed in late 1980 (started in a phased manner in late 1970).
- In Tripura, a tribal movement against Bengali migrants from Bangladesh started in 1947. Situation worsens in 1967. By 1970, as the migrants start retaliating, security situation worsens. The government imposes the Armed Forces (Assam and Manipur) Special Powers Act in Tripura in November 1970. This Act was fully imposed in the state on 16 February 1997 following spurt of violence by the ultras. The law has been lifted today.
- In 1990, following large-scale violence perpetrated by the United Liberation Force of Asom (ULFA) in Assam, the entire state was declared as a disturbed area and the Armed Forces (Assam and Manipur) Special Powers Act was enforced.
- The Armed Forces (Punjab and Chandigarh) Special Powers Act enforced in Punjab and Chandigarh on 15 October 1983. It was withdrawn from the state in 1997.
- In September 1990, Parliament passes the Armed Forces (Jammu and Kashmir) Special Powers Act, which was "deemed to have come into force" retrospectively from 5 July 1990.
- Following insurgency by various separatist, leftist and tribal rebels in Arunachal Pradesh, the government extended Afspa to all districts of Arunchal Pradesh that border Assam in March 2015.

Recently, the **entire state of Nagaland** has been declared a **disturbed area** for six more months by the Ministry of Home Affairs.

It enabled the continuation of the controversial **Armed Forces (Special Powers) Act** which empowers security forces to conduct operations anywhere and arrest anyone without any prior warrant.

What is Armed Forces (Special Powers) Act?

The AFSPA gives **armed forces the power to maintain public order in "disturbed areas".**

The AFSPA gives officer the authority to **prohibit a gathering of five or more persons in an area**, can use force or even open fire after giving due warning if they feel a person is in contravention of

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4.36 List of Padma awardees — 2021

This year the **President has approved** conferment of **119 Padma Awards** including 1 duo case (in a duo case, the Award is counted as one) as per list below.

The list comprises **7 Padma Vibhushan, 10 Padma Bhushan and 102 Padma Shri Awards**.

29 of the awardees are women and the list also includes 10 persons from the category of Foreigners/NRI/PIO/OCI, 16 Posthumous awardees and 1 transgender awardee.

Padma Awards – one of the **highest civilian**

Padma Vibhushan (7)

Krishnan Nair Shantakumari Chithra – Art

Tarun Gogoi (Posthumous) – Public Affairs

Chandrashekhar Kambara – Literature and Education

Sumitra Mahajan – Public Affairs

Nripendra Misra – Civil Service

Ram Vilas Paswan (Posthumous) – Public Affairs

Keshubhai Patel (Posthumous) – Public Affairs

Kalbe Sadiq (Posthumous) – Others: Spiritualism

Rajnikant Devidas Shroff – Trade and Industry

Tarlochan Singh – Public Affairs

the law.

The powers assigned to officers under AFSPA are:

Army can also arrest a person without a warrant;

Enter or search a premises without a warrant; and

Ban the possession of firearms.

Any person arrested or taken into custody may be **handed over to the officer in charge of the nearest police station** along with a report detailing the circumstances that led to the arrest.

WHY AFSPA IS CONTROVERSIAL

The Act

- Parliament passed the Armed Forces Special Powers Act (AFSPA) in 1958.
- The Act gives draconian powers to the armed forces to deal with insurgencies.
- The Supreme Court, upheld the Act in 1997.
- In November 2004, a five-member committee under the chairmanship of Justice B.P. Jeevan Reddy suggested that the AFSPA should be "repealed".

The Contentious Sections

Section 4: Empowers the Army to search premises, make arrests without warrants and use extreme force.

Section 6: Stipulates that arrested persons and seized property are to be made over to the police with little delay.

Section 7: Offers protection for army men acting in good faith in their official capacity. Prosecution is permitted only after sanction of the Central Government.

What is a 'disturbed area'?

A disturbed area is one which is declared by notification under **Section 3 of the AFSPA.**

An area can be disturbed due to **differences or disputes between members of different religious, racial, language or regional groups or castes or communities.**

The **Central Government** or the **Governor of the State** or a**dministrator of the Union Territory** can declare the whole or part of the State or Union Territory as a disturbed area.

Origin of AFSPA

The Act came into force in the context of **increasing violence in the Northeastern States** decades ago, which the State governments found difficult to control.

The Armed Forces (Special Powers) Bill was passed by both the Houses of Parliament and it was **approved by the President in 1958.**

It became known as the **Armed Forces Special Powers Act, 1958.**

5.2 Repeal Law allowing seizure of Livestocks

Recently, the Supreme Court has asked the **Centre to "delete" its three-year-old law** which allowed **seizure and subsequent confiscation of livestock** from people who depended on these animals for a livelihood, even before they were found guilty of cruelty towards them.

Key Highlights

The Chief Justice of India warned the government that it would **"stay" the implementation of a 2017 law**, which allowed authorities to seize cattle on a mere suspicion.

The 2017 law prescribes that the **animals who have suffered cruel treatment** at the hands of their owners or were being primed for slaughter would then be lodged in **gaushalas as "case property".**

Concerns depicted by Supreme Court

Under the 2017 law, a farmer, a **livestock owner or a cattle trader loses his animals** before being found guilty of the charge of cruelty.

The rules are plainly **contrary to Section 29 of Prevention of Cruelty to Animals Act**, under which only a person convicted of cruelty can lose his animal.

The top court said the rules will be stayed if not withdrawn or amended by the Centre as the law provides that **animals can be confiscated only if a person is convicted under the Act.**

The Rules have emboldened **"anti-social elements"** to take matters into their own hands and loot cattle traders and it has become a cause for polarisation of society.

Prevention of Cruelty to Animals (Care and Maintenance of Case Property Animals) Rules, 2017

The Rules allow a **magistrate to forfeit the cattle of an owner** facing trial under the Prevention of Cruelty to Animals Act.

The animals are then sent to **infirmaries, gaushalas, pinjarapole**, etc. and the authorities can further give such **animals for "adoption"**.

5.3 Using God's name to sell articles illegal

Recently, the Bombay High Court (Aurangabad Bench) has held that the **sale of items**, claiming that they possess **miraculous or supernatural powers via television advertisement is illegal**.

The petition sought prevention of the telecast of advertisement on TV channels by which there

was **promotion of sale of articles like Hanuman Chalisa Yantra.**

The Petitioner, through his plea, stated that he came across advertisements on TV channels which were **propagating that there were special, miraculous and supernatural properties/qualities in Hanuman Chalisa Yantra**, which the advertiser was selling.

It was contended in the petition that there was a **false propaganda** that the Yantra was prepared by one Baba Mangalnath, who had achieved Siddhi (ability to do anything).

Observations made by Court

The bench held that the TV channel, telecasting such advertisement, would be liable under the provisions of the **Maharashtra Prevention and Eradication of Human Sacrifice and other Inhuman, Evil and Aghori Practices and Black Magic Act, 2013**.

The Bench has also directed the **State to register crimes by giving reports against the persons**, who are making such advertisement and who are selling such articles.

The Bench perused Section 3 of the Black Magic Act, and remarked that it was easy to infer that **extracting money from the people by selling articles** like Hanuman Chalisa Yantra, which is like a pendant, was covered by the said Section.

No person shall either himself or through any other person **commit, promote, propagate or practice or cause to promote, propagate or practice human sacrifice and other inhuman, evil and aghori practices and black magic** mentioned or described in the Schedule appended to this Act.

The Court noted that the **qualities or properties of the Yantra mentioned** in the advertisement, showed that claim was made about its qualities, which are special, miraculous and supernatural.

It may be noted that Section 3 of the Black Magic Act **prohibits not only commission of act of black magic, evil practices** etc., but also **propagation, promotion of such practices and magic.**

Duty to Develop Scientific Temper: Quoting the fundamental duty to develop the scientific temper, humanism and the spirit of inquiry, the Court said that the reformist have worked to remove evil practices and spread awareness against superstition in the society were born in this soil.

Direction issued by the Court

The propagation for sale by advertisement of any article by **giving it name as Yantra or otherwise**, by attaching the name of any God to **such article is illegal.**

The representation of products having **special, miraculous and supernatural properties/qualities is illega**l and such propagation, advertisement falls under Section 3 of the

Maharashtra Black Magic Act, 2013.

The **State and the Vigilance Officers** appointed under the Maharashtra Black Magic Act, 2013, have been **directed to register crimes** by giving reports against the persons, who are making such advertisement and who are selling such articles.

The State Government has also been directed to see that the **telecast of such advertisement on TV channels is stopped immediately** in coordination with the authority created by the Central Government under the Cable Television Networks (Regulation) Act, 1995.

5.4 WhatsApp's New Privacy Policy

Recently, **WhatsApp's updated terms of service and privacy policy** gives more insight into how the messaging platform will use user data and share it with its parent company Facebook going forward.

Important WhatsApp Policy Changes

Rule 1: Defines **'personal sensitive data'** as debit or credit card information, internet passwords, medical records, etc.

Rule 2: Each corporate body should provide a **privacy policy for dealing with sensitive data and personal information**.

The **policy shall be on the website** of the company. The policy should include:

The type of information or data collected.

The use and purpose of collecting such data-It must be clear and easy to interpret the statement of a company's practices and policies.

Security practice and procedures

Disclosure of Information

Rule 3: The provisions that govern the collection of personal information by corporates:

An information provider can decide to opt out of providing such information at any stage

A grievance redressal body should be set up to solve discrepancies

(Sensitive or personal data) should be disclosed to the user. The data cannot be collected without users consent

Data shall not be kept post its time limit or for a period longer than required.

The information collected shall be used only for the intended purpose it was collected.

Rule 4: In order to disclose sensitive information to third parties, the information provider's consent is required. Except in cases mandated by law.

Changes with regard to other Facebook Company products

WhatsApp's new privacy policy notes that when **users rely on third-party services** that are integrated with our Services, those third-party services may receive information about what you or others share with them.

WhatsApp explains that when a user relies on this, **information such as IP address** and the fact that you are a WhatsApp user, may be **provided to the third-party** in question or to another Facebook company product.

The WhatsApp clarifies that when someone is using **third-party services or other Facebook Company Products,** their own terms and privacy policies will govern the use of those services and products.

What sort of hardware information is WhatsApp collecting?

WhatsApp says it is collecting new information around from the device such as **battery level, signal strength, app version, browser information, mobile network, connection information.**

It includes **language and time zone, IP address, device operations information, and identifiers.**

What about data location and storage?

WhatsApp also clearly mentions in the **privacy policy that it uses Facebook's global infrastructure and data centers**, including those in the United States to store user data.

It also states that the data in some cases will be **transferred to the United States** or other parts where Facebook's affiliate companies are based, adding that "these transfers are necessary to provide the global Services set forth in our Terms".

WhatsApp's new policy states that even if a **user does not use their location-relation features**, they collect "IP addresses and other information like phone number area codes to estimate your general location (city, country)".

What does WhatsApp New Privacy Policy meant for Businesses?

WhatsApp says that any businesses that users interact with may **provide the platform with information as well.**

The policy further explains content shared with a business on **WhatsApp will be visible to**

"several people in that business".

It also states that some **"businesses might be working with third-party service providers (which may include Facebook) to help manage their communications with their customers"**.

5.5 Judicial Review

Recently, the Supreme Court on Tuesday refused to treat the **Central Vista project** as a unique one **requiring greater or "heightened" judicial review.**

Highlights

The majority view of the Supreme Court said the government is **"entitled to commit errors or achieve successes"** in policy matters without the court's interference as long as it follows constitutional principles.

Judicial review is **never meant to venture into the mind of the government** and thereby examine validity of a decision.

The majority judgment said there is **absolutely no legal basis to "heighten" the judicial review** by applying yardstick beyond the statutory scheme, especially when the government itself had accorded no special status to the project.

Judicial Review

Judicial review is the **power of the judiciary to examine the constitutionality** of legislative enactments and executive orders of both the Central and State governments.

The doctrine of judicial review **originated and developed in the USA**.

It was propounded for the **first time in the famous case of Marbury V. Madison (1803) by John Marshall**, the then chief justice of the American Supreme Court.

The Judicial Review has been classified into three categories:

Judicial review of constitutional amendments.

Judicial review of legislation of the Parliament and State Legislatures and subordinate legislations.

J**udicial review of administrative action** of the Union and State and authorities under the state.

Constitutional Provisions for Judicial Review

Article 13 declares that all laws that are inconsistent with or in derogation of the Fundamental Rights shall be null and void.

Article 32 guarantees the right to move the Supreme Court for the enforcement of the Fundamental Rights and empowers the Supreme Court to issue directions or orders or writs for that purpose.

Article 226 empowers the High Courts to issue directions or orders or writs for the enforcement of the Fundamental Rights and for any other purpose.

Article 227 vests in the High Courts the power of superintendence over all courts and tribunals within their respective territorial jurisdictions (except military courts or tribunals).

Article 245 deals with the territorial extent of laws made by Parliament and by the Legislatures of States.

Article 246 deals with the subject matter of laws made by Parliament and by the Legislatures of States (i.e., Union List, State List and Concurrent List).

Articles 251 and 254 provide that in case of a conflict between the central law and state law, the central law prevails over the state law and the state law shall be void.

Article 372 deals with the continuance in force of the pre-constitution laws.

5.6 School Bag Policy 2020

Recently, the Directorate of Education has issued a circular asking schools to follow the new **'School Bag Policy 2020'**.

The Ministry of Education had notified the **new school bag policy in December 2020** which is in line with the new **National Education Policy (NEP).**

School Bag Policy 2020

It is formulated by the Expert Committee comprised of members from **NCERT, Kendriya Vidyalaya Sangathan (KVS), Navodaya Vidyalaya Sangathan (NVS) and CBSE.**

It is released by the **National Council of Educational Research and Training (NCERT)**.

The school teachers should **inform the students in advance about the books and notebooks to be brought to school** on a particular day and frequently check their bags to ensure that they are not carrying unnecessary material.

The **weight of the school bags**, as per the policy, should be 1.6 to 2.2 kg for students of Classes I and II, 1.7 to 2.5 kg for Classes III, IV and V, 2 to 3 kg for Classes VI and VII, 2.5 to 4 kg for Class VIII, 2.5 to 4.5 kg for Classes IX and X and 3.5 to 5 kg for Classes XI and XII.

It adds that the **teachers should take the responsibility of checking the weight of school bags** of the students every three months on a day selected for the whole class.

According to new National Education Policy (NEP), the weight of school bags for students between classes 1-10 **should not be more than 10 per cent of their body weight.**

Need for School Bag Policy in India

The heavy school bags are a **serious threat to the health and well-being** of students.

The heavy school bag has **severe/adverse physical effects on growing children** which can cause damage to their vertebral column and knees.

In the schools which are functioning in double or multi-storey buildings, **children have to climb the stairs with heavy school bags** which further aggravates the problem.

5.7 Committee to protect language, culture & land of Ladakh

Recently, the Union Cabinet has decided to form a **committee to protect language, culture & land of Ladakh.**

The committee is aimed at **protecting the language, culture and land of Ladakh** and **ensuring citizen's participation** in the Union Territory's development.

The Committee will be headed by the Minister of State for Home **G Kishan Reddy.**

The Committee will include elected **representatives from Ladakh, Ladakh Autonomous Hill Development Council, central government, and the Ladakh administration.**

Need for Protection of Language, Culture and Land of Ladakh

The decision to form the Committee came after Union Home Minister met a **10-member delegation from Ladakh** who expressed their views about the **need to protect Ladakh's unique cultural identity.**

The delegations stressed upon the **geographic location and strategic importance of Ladakh**, its demographic changes and the need for generating more employment opportunities in the UT.

The Union Home Minister said that the delegation that the government under PM Modi is entirely **committed to the development of the Ladakh region** and for protecting its fascinating culture and land.

5.8 New Industrial Development Scheme for Jammu & Kashmir

Recently, the Cabinet Committee on Economic Affairs has approved the proposal of Department for Promotion of Industry and Internal Trade for **New Industrial Development Scheme for Jammu &**

Kashmir.

The development of reorganization of Jammu & Kashmir into UT of Jammu & Kashmir under the **J&K Reorganisation Act, 2019** is considered as historic development.

Key Features of New Industrial Development Scheme for Jammu & Kashmir

It is a **Central Sector Scheme** for the development of Industries in the UT of Jammu & Kashmir.

The scheme is approved with a total outlay of Rs. 28,400 crore upto the **year 2037**.

The main purpose of the scheme is to **generate employment** which directly leads to the socio economic development of the area.

The smaller units with an investment in plant & machinery upto Rs. 50 crore will get a **capital incentive upto Rs. 7.5 crore** and get capital interest subvention at the rate of 6% for maximum 7 years.

The scheme aims to take **industrial development to the block level in UT of J&K,** which is first time in any Industrial Incentive Scheme of the Government of India and attempts for a more sustained and balanced industrial growth in the entire UT.

The scheme has been simplified on the lines of **ease of doing business** by bringing one major incentive i.e. GST Linked Incentive that will ensure less compliance burden without compromising on transparency.

The scheme envisages **greater role of the UT of J&K in registration and implementation of the scheme** while having proper checks and balances by having an independent audit agency before the claims are approved.

It is **not a reimbursement or refund of GST** but gross GST is used to measure eligibility for industrial incentive to offset the disadvantages that the UT of J&K faces.

Incentives provided under New Industrial Development Scheme for Jammu & Kashmir

Capital Investment Incentive: At the rate of 30% in Zone A and 50% in Zone B on investment made in Plant & Machinery (in manufacturing) or construction of building and other durable physical assets (in service sector) is available.

Capital Interest subvention: At the annual rate of 6% for maximum 7 years on loan amount up to Rs. 500 crore for investment in plant and machinery (in manufacturing) or construction of building and all other durable physical assets (in service sector).

GST Linked Incentive: 300% of the eligible value of actual investment made in plant and machinery (in manufacturing) or construction in building and all other durable physical assets(in service

sector) for 10 years.

The amount of incentive in a financial year will **not exceed one-tenth** of the total eligible amount of incentive.

Working Capital Interest Incentive: All existing units at the annual rate of 5% for maximum 5 years.

The maximum limit of incentive is Rs 1 crore.

Need for Industrial Development of J&K

The present scheme is being implemented with the vision that **industry and service led development of J&K** needs to be given a fresh thrust.

The scheme emphasizes on **job creation, skill development and sustainable development** by attracting new investment and nurturing the existing ones.

It is anticipated that the proposed scheme is likely to **attract unprecedented investment** and give direct and indirect employment to about 4.5 lakh persons.

5.9 Over half of Army personnel under severe stress, says study

According to the findings of a study by United Service Institution of India (USI), a Service think tank, more than half of Indian Army personnel seem to be under severe stress and the Army has been losing more personnel every year due to suicides, fratricides and untoward incidents than in response to any enemy or terrorist activities.

Findings

The research was undertaken during 2019-20, which shows that there has been a significant increase in stress levels amongst Indian Army personnel during approximately last two decades due to operational and non-operational stressors.

While operational stressors are well understood and accepted by Army personnel, but the non-operational stressors that add on "have compounding adverse effects on health and combat efficiency of soldiers and thus affecting their respective units too."

Prolonged exposure of Indian Army personnel to Counter Insurgency and Counter Terrorism (CI/CT) environment has been one of the contributory factors for increased stress levels.

The overall job satisfaction and pride in uniform remains high amongst Junior Commissioned Officers (JCO) and Other Ranks (OR).

Various management measures implemented by the Army and Defence Ministry in the last 15 years have not been able to achieve the desired results.

Units and sub-units under stress are likely to witness an increased number of incidents of indiscipline, unsatisfactory state of training, inadequate maintenance of equipment and low morale, motivation and esprit-de-corps, thereby, adversely affecting their combat preparedness and operational performance.

It seems to be a growing matter of concern amongst Officers, requiring urgent interventions from the highest levels of government.

5.10 After Tamil, Delhi govt nod to set up Konkani language academy

Delhi Government approved the setting up of a Konkani language academy in the capital.

The academy will seek to facilitate the growth and promotion of the Konkani language and culture in the city.

Currently, there are eight functional language academies in Delhi covering Urdu, Sanskrit, Punjabi, Hindi, Maithili-Bhojpuri, Garhwali-Kumaoni-Jaunsari, Sindhi and Tamil. Tamil was notified recently.

Konkani Language and Culture

Konkani is the official language of India's western and coastal state, Goa. However, the language is spoken widely across four states- Maharashtra, Goa, Karnataka and Kerala, albeit in different dialects, its use is somewhat limited to coastal regions only. It is the only Indian language written in five different scripts – Devnagari, Roman, Kannada, Malayalam and Persian-Arabic.

Though Konkani was recognized as the official language of Goa on January 4, 1987, it was only after five more years, on August 20, 1992, it was given status of a national language in India, through the 71st Amendment to the Eighth Schedule of the Constitution of India. Konkani now features in the 15 languages in which the value is printed on Indian Rupee currency notes.

However, a lot of ambiguity, sometimes controversial, exists over the origin of Konkani. While Konkani stands classified as language of Indo-Aryan origin, doubts persist over these claims.

Generally, Konkani is called as a colloquial version of Marathi, the official language of Maharashtra state.

5.11 SC 'intends' to stay farm laws

The Supreme Court on Monday said it intended to *stay the implementation* of the controversial agricultural laws.

It also proposed to form an *independent committee chaired by a former Chief Justice of India* to "amicably resolve" the stand-off between the protesting farmers and the Union government.

A three-judge Bench led by CJI underlined its *"disappointment" at the Centre's handling of the farmers' protest*, including the string of failed talks, States "up in rebellion", suicides among protestors and the sight of aged farmers, women and children suffering.

FARMERS UPSET

Farmers, from Punjab and Haryana, are protesting heavily against the Farm Bills 2020.

The Farm Bill *allows farmers to directly sell to private companies without relying on the APMC Mondays*. Farmers fear this could lead to scrapping of MSP.

The government has removed most agricultural products from the Essential Commodities List. Farmers expect this to lead to price volatility and hoarding.

Effectively, *the bills permit private sector investment into farm infrastructure*. Farmers are skeptical   that   large   corporates   may   squeeze   out   the   traditional   farmer.
APMC

The APMC Act of the 1950s *freed the Indian farmer from the monopoly of the local trader,* undoubtedly with substantial benefits. Equally truly, what got created were oligopolies.

In practice, *each trader in the media has built relationships with a set of farmers:* The traders provide credit, the farmer then sells his produce only through that trader, to have the credit advance against such sales adjusted.

More often than not, the Mandi trader is also a conduit for the sale of foodgrain *at MSP* (direct sale by farmers to MSP centers is virtually impossible), reducing the net received by the farmer to below MSP.

The *symbiotic relationship between particular traders and farmers, which have been created within these oligopolies, is possibly less exploitative*.

OPPOSITION TO REFORMING OF APMC LAWS

The much-advocated reform of the APMC laws has not happened so far due to the opposition from Mandi traders, by now an influential lobby.

In Rajasthan, for example, in 2004, a similar Cabinet-approved amendment to the APMC Act had to be withdrawn because traders went on strike.

What changes have the three farm laws wrought? The Farmers Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 gives farmers the freedom to sell outside the mandi; and to the buyer to buy at farm gate, without the necessity of a mandi licence.

The farmer's choice to sell within the media, if she so wishes, is not taken away. Reportedly, *farmers believe that this reform is a precursor to the abolition of mandis and MSP*.

It is hard to imagine what might have made them jump to this conclusion: Any political party would have to have an extreme and unprecedented case of myopia to do away with either Mondays or MSP, as it would be politically suicidal.

Besides, it seems the government is prepared to give whatever assurance the farmers want on their continuation, and also to make changes in the law such as Mandi fee applying to private Mandi as well.

5.12 1,364 crores given to wrong beneficiaries of PMKisan

PM-KISAN payments worth ?1,364 crore have been wrongly made to more than 20 lakh ineligible beneficiaries and income tax payer farmers, according to information provided by the Agriculture Ministry in response to an RTI request from activist Venkatesh Nayak.

There are 11 crore beneficiaries registered under the scheme.

Punjab tops the list of States, accounting for 23% of those who *wrongly received the money*.

Maharashtra and Assam also saw large numbers of such payments.

A number of State Agriculture Departments have now been tasked with *recovering the money wrongly paid*.

PM-KISAN

PM-KISAN is the Centre's flagship scheme to *provide income support worth ?6000 a year* to farming families.

When it was launched just before the general election in 2019, *it was meant to cover only small and marginal farmers* who owned less than two hectares.

Later that year, *large farmers were included in the scheme* as the government removed land size criteria.

EXCLUSIONS UNDER THE SCHEME

If any member of a farming family *paid income tax, received a monthly pension above ?10,000,*

held a constitutional position, or was a serving or retired government employee, they were not eligible for the scheme.

Professionals and institutional landholders were also excluded.

Note:

Until July 2020, *20.5 lakh people who should have been excluded had wrongly received* PM-Kisan payouts.

According to the Agriculture Ministry data, *56% of these undeserving persons belonged to the "income tax payee" category*, while the remainder belongs to the "ineligible farmers" category.

However, 72% of the payout amount was paid to the income tax payees, indicating that this category continued to *receive money for multiple installments* before their ineligible status was discovered and they were weeded out of the scheme's beneficiary database.

Punjab (23%), Maharashtra (17%) and Assam (14%) account for more than half of the beneficiaries of wrong payments, followed by Gujarat and Uttar Pradesh with 8% each.

Almost all the wrong payments in Punjab and Assam went to those in the "ineligible farmers" category, *while Maharashtra had the highest number of payouts* to "income tax payee" farmers.

5.13 Manipur becomes the 4th State to complete urban local bodies reforms Additional borrowing permission of Rs.75 crore issued.

Manipur has **become the 4th State in the** country to successfully undertake "Urban Local Bodies (ULB)" reforms stipulated by the Department of **Expenditure,** Ministry of Finance, becoming eligible to mobilize additional financial resources of Rs 2,508 crore through open market borrowings.

The State has become eligible to mobilize additional financial resources of Rs.75 crore through **Open Market Borrowings.**

The reforms stipulated by the Department of Expenditure to achieve these objectives are:
(i)   The State will notify (a) floor rates of property tax in ULBs which are in consonance with the prevailing circle rates **(i.e. guideline rates for property transactions)** and (b) floor rates of user charges in respect of the provision of **water-supply, drainage and sewerage** which reflect current costs/ past inflation.
(ii)   The State will put in place a system of periodic increase in floor rates of property tax/ user charges in line with price increases**.**

The four citizen-centric areas identified for reforms:
(a) Implementation of One Nation One Ration Card System,
(b) Ease of doing business reform,
(c) Urban Local body/ utility reforms and
(d) Power Sector reforms.

Andhra Pradesh become the first state **completion of Urban Local Bodies reform,** followed by Madhya Pradesh, Manipur and Telangana.

Urban local bodies: The Constitution (74th Amendment) Act, 1992 is a landmark initiative of the Government of India to strengthen local self-**government in cities and towns**. The Act stipulates that if the state government dissolves a Municipality, election to the same must be **held within a period of six months.** Moreover, the conduct of municipal elections is entrusted to **statutory State Election Commission**, rather than being left to executive authorities. The mandate of the Municipalities is to undertake the tasks of planning for '**economic development and social justice'** and implement city/town development plans. The main features of the 74th Constitutional Amendment are as under

So far 10 States have implemented the One Nation One Ration Card System, 7 States have **done ease of doing** business reforms, and 4 States have done local body reforms.

Total additional **borrowing permission issued so far** to the States who have done the refoms stands at Rs.54,265 crore.

5.14 Govt panel sought waiver for IITs, panel writes to ministry

THE NATIONAL Commission for Backward Classes (NCBC) has sought an inquiry into a complaint against a government-appointed committee that recently recommended that IITs be exempt from reserving faculty positions.

The committee was setup by the Ministry of Education (MoE) in April 2020 to look into "effective implementation of reservation "in student admissions and faculty positions at IITs.

Instead of implementing quotas in faculty positions, the panel had suggested that the 23 IITs should be exempted from reservations altogether under the Central Educational Institutions (Reservation in Teachers' Cadre) Act 2019.

The 23IITs reserve posts while recruiting faculty at the entry level of Assistant Professor.

There is no SC/ST/OBC quota for recruiting at senior faculty posts such as Associate Professor and Professor.

Even at the entry-level, if the IITs cannot find suitable SC, ST and OBC candidates, they can de-reserve these posts after a year, as per guidelines notified by the government in 2008. However, in humanities and management courses at IITs, quotas are offered at all three levels.

According to the panel, rather than specific quotas, diversity issues should be addressed through outreach campaigns and targeted faculty recruitment.

IITs should be added to the list of "Institutions of Excellence" mentioned in the Schedule to the CEI Act. Section 4 of the Act exempts "institutions of excellence, research institutions, and institutions of national and strategic importance" mentioned in the Schedule and minority institutions from providing reservation.

On the other hand, panel justified that that faculty positions cannot be kept vacant for long (in case no suitable SC, ST and OBC candidates are available) if the IITs have to break into the top global ranking.

There are many IITs which were established more than 60-70 years ago but never obtained world ranknig even within top 200 despite being there more than 95% faculty of these institutions from unreserved categories.

This will impact the diversity issues in these instutions, which will be against the spirit of the Constitution of India.

5.15 Notice to Haryana govt. over Panchayati Raj Act

The Punjab and Haryana High Court issued a notice to the Haryana government over certain amendments on reservation system to the Haryana Panchayati Raj (Second Amendment) Act, 2020.

The petition was filed by two women member in Panchayati Raj institutions and they have challenged the recently passed Haryana Panchayati Raj (Second Amendment) Act, 2020, particularly relating to the scheme of reservation provided therein.

The Act has inter alia amended sections 9, 59 and 120 of the Haryana Panchayati Raj Act, 1994, that deals with the reservation of seats in Gram Panchayat, Panchayat Samiti and Zila Parishad.

As per the amended sub section (1) of sections 9, 59 and 120 of the Amendment Act, all wards are to be sequentially numbered viz. odd and even for the purposes of reservation of seats.

Also, as per amended sub sections (3) and (6) of Sections 9, 59 and 120, the posts of Sarpanch, Members and Chairman falling in even numbered wards have been reserved for women — falling in both categories viz. reserved and general.

In so far as the odd numbered wards are concerned, the Act provides that "persons other than women" can contest from such wards.

The term "persons other than woman" has not been defined under the amendment and would logically include males and transgenders and exclude women.

The amendment thus restricts women candidates from contesting from odd numbered wards which are otherwise open or general wards.

The amendment discriminates between eligible women and their male counterparts, which is in violation of Articles 14 and 15 of Constitution.

5.16 Lok Sabha, Rajya Sabha to have 5-hour sessions with Question Hour, Zero Hour: Speaker Budget session of Parliament is going to start on 29 January 2021, Lok Sabha Speaker said both Houses will have five-hour sessions each with Question Hour and Zero Hour.

On January 29, President will address a joint session of Parliament in the Central Hall, for which MPs will be seated also in the Lok Sabha and Rajya Sabha chambers.

Lok Sabha will sit 30 minutes after the presidential address for the tabling of the presidential address and Economic Survey. Rajya Sabha will sit later for the same.

The Union Budget will be presented on 1 February 2021 in Lok Sabha.

The budget session will break for a recess on February 15 to meet again on March 8. The budget session is scheduled to conclude on April 8.

During the monsoon session held during the COVID-19 pandemic, which was cut short, each house sat for four hours and had no question hour.

Private Members' business, which usually takes place on Friday afternoons, was not taken up during the monsoon session and has made a comeback in the budget session.

QUESTION HOUR

The first hour of every parliamentary sitting is slotted for the Question Hour.

In 2014, it was shifted in the Rajya Sabha from 11 am to 12 noon.

Members of Parliament (MPs) ask questions to ministers and hold them accountable for the functioning of their ministries. Questions can also be asked to the **private members.**

The **presiding officers of the both Houses** (Rajya Sabha and Lok Sabha) are the **final authority** with respect to the conduct of Question Hour.

It is regulated according to **parliamentary rules.**

ZERO HOUR

It is an **Indian parliamentary innovation.** It is not **mentioned in the parliamentary rules book.**

MPs can raise matters **without any prior notice.**

Starts immediately after the question hour and lasts until the agenda for the day

5.17 SC rules out review of Aadhaar order, with one dissent: on money Bill

The Supreme Court has dismissed petitions seeking a review of its 2018 judgment upholding the constitutional validity of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 (the Aadhaar Act).

The Aadhaar Bill had been certified by the Speaker of the House of People as a Money Bill under Article 110 (1), enabling it to get it cleared without getting the assent of a majority in the Rajya Sabha

Speaker's decision was not beyond judicial review though the scope was extremely restricted. The 2018 Aadhaar verdict had not answered conclusively the question as to what constitutes a money Bill under Article 110 (1) and had directed that it be referred to a larger Bench.

Larger Bench will decide what constitutes a money Bill and the extent of judicial review over a certification by the Speaker was yet to be constituted.

5.18 KIIFB borrowings bypass limits for State: CAG

The Comptroller and Auditor General (CAG) reported that the off-budget borrowings for critical infra projects by the Kerala Infrastructure Investment Fund Board (KIIFB) have bypassed the limits set on government borrowings under Article 293 of the Constitution as these borrowings did not have legislative approval.

Entry 37 of the List 1 of the Seventh schedule of the Constitution gives powers of raising foreign loans only to the Centre.

KIIFB borrowings are in violation of the Constitution and encroachment on the powers of the Centre.

KIIFB borrowings have not been disclosed in the Budget documents or in the accounts, which questions transparency, and of inter-generational equity of the borrowings.

It raised funds by issuance of bonds which were to be repaid from the petroleum cess and motor vehicle tax.

STAND OF STATE GOVERNMENT

State was not given any opportunity to offer its comments, observations or explanation before publishing of the report by the CAG.

Funds from KIIFB are being used to build public infrastructures and such a move by CAG could hurt the interests of the State.

KIIFB Bonds were raised with the approval of RBI then how such borrowings can be unconstitutional.

As KIIFB has no source of income, and state stood as a guarantor to the borrowings by the KIIFB, and this may ultimately turn out to be a **direct liability of the State government.**

State has to furnish to Centre all the financial statements showing the estimates of receipts and payments of all sources of borrowings, including Open Market borrowings.

If this mode was followed by other States, the **external liabilities of the country** would rise substantially without the Centre's knowledge of such liabilities.

For decentralisation of financial autonomy, it is necessary to provide a mechanism for regulation of state subnational debt.

Chapter II in Part XII of the Constitution of India deals with borrowing. Article 292 deals with borrowing by the Central Government, Article 293 (1) of the Constitution sets the limit on state government borrowings.

Off-budget borrowings: Government keeps its fiscal deficit in check by making quasi-government entities borrow on its behalf, to partly fund its expenditure plan for the year.

5.19 CBI books Cambridge Analytica, another firm in data theft case

The Central Bureau of Investigation has booked Cambridge Analytica (U.K.) Limited and Global Science Research Limited (U.K.) for alleged illegal harvesting of personal data of about 5.62 lakh Indian users on Facebook through an application, "this is your digital life".

As per Facebook's platform policy, the app was authorised to collect certain specific data of users for academic and research purposes. It, however, illegally collected unauthorised data of users as well as their friends' network on Facebook, as alleged in the FIR.

The data was collected without the knowledge and consent of users.

It stems from a preliminary enquiry launched by the agency in July 2018 on a complaint from the Ministry of Electronics and Information Technology (MeitY) following media reports alleging the illegal harvesting of personal data.

MeitY had earlier sought details from Facebook and Cambridge Analytica about the alleged violations, the extent of leak of personal data of Indian users and their possible misuse by Cambridge Analytica for profiling and influencing elections in India.

Facebook reported that the data of potentially 5.62 lakh Indian users might have been illegally harvested.

Cambridge Analytica replied that it had received data from GSRL pertaining to U.S. citizens only. It did not respond to MeitY's further correspondences. The Ministry then sought a legal opinion, based on which it referred the matter to the CBI.

5.20 Offensive posts against Bihar Ministers may land you in jail

Bihar is set use the cyber-crime law to deter individuals and organisations from making "offensive comments" against the government, its officials, Ministers, MPs and MLAs.

It has regularly been coming to light that certain persons and organisations have been making offensive comments through social media against the government, honourable Ministers, MPs, MLAs and government officials, which is against the prescribed law.

For this act, it seems appropriate to take action against such organisations and individuals.

5.21 India's Ultraviolet Imaging Telescope Spots Rare UV-bright Stars

Rare hot Ultra Violet (UV)-bright stars have been spotted by astronomers with the help of India's

first multi-wavelength space satellite AstroSat in the massive intriguing globular cluster in the Milky Way Galaxy called NGC 2808.

Scientists combined data of Ultraviolet Imaging Telescope (on board AstroSat) with observations made using other space missions like the Hubble Space Telescope and the Gaia telescope along with ground-based optical observations.

Hot UV-bright stars have been differentiated from the **relatively cooler red giant and main-sequence stars.**

One of the UV-bright stars was about **3000 times brighter** than the Sun with a surface temperature of about **1,00,000 K.**

Most of the stars were found to have evolved from a solar stage called the **horizontal branch stars** with hardly any outer envelope.

Thus, they were bound to skip the last major phase of life called the **asymptotic giant phase (it is one of the last major phases in the life of stars)** and directly become dead remnants or white dwarfs.

Significance

Help in determining properties of these stars such as their surface temperatures, luminosities and radii.

5.22 24th "Hunar Haat" at Avadh Shilpgram, Lucknow (UP) from 22nd January to 04th February, 2021 with the theme of "Vocal for Local"

Taking forward its spectacular journey to provide market and opportunities to indigenous products of artisans and craftsmen, the Ministry of Minority Affairs is organising the 24th "Hunar Haat" at Avadh Shilpgram, Lucknow (UP) from 22nd January to 04th February, 2021 with the theme of "Vocal for Local".

Artisans and craftsmen from 31 States and UTs are participating in the "Hunar Haat" at Lucknow.

About 500 artisans, craftsmen and culinary experts various states have come at "Hunar Haat" in Lucknow for display and sale of their exquisite handmade products.

Indigenous products like Ajrakh, Applique, Art Metal Ware, Bagh Print, Batik, Banarsi Saree, Bandhej, Bastar Art & Herbal products, Block Print, Brass Metal Bangles, Cane & Bamboo products, Sandalwood products etc are available at "Hunar Haat".

Besides, renowned artists of the country will perform cultural events on the theme of

"Aatmanirbhar Bharat" every day in the evening at "Hunar Haat".

"Hunar Haat" at Lucknow is also available at virtual and online platform. People of the country and abroad are able to buy "Hunar Haat" products digital and online also.

"Hunar Haat" has proved to be immensely beneficial and encouraging for artisans and craftsmen as lakhs of people visit the "Hunar Haat" and purchase indigenous handmade products of artisans on large scale.

More than 5 lakh artisans, craftsmen and people associated with them have been provided employment and employment opportunities in the last about 5 years through "Hunar Haat".

"Hunar Haat" will be organised at Mysore, Jaipur, Chandigarh, Indore, Mumbai, Hyderabad, New Delhi, Ranchi, Kota, Surat/Ahmedabad, Kochi, Puducherry and other places.

SCIENCE AND TECHNOLOGY

6.1 Lynx U2 Fire Control System

Recently, the Ministry of Defence has decided to develop **10 Lynx U2 Fire Control System**.

The government has signed a contract with **Bharat Electronics Limited (BEL)** for procurement of 10 Lynx U2 Fire Control systems for frontline warships of **Indian Navy**.

The Lynx system has been **designed and developed indigenously** that would further the 'Atmanirbhar Bharat' vision of Prime Minister.

The LYNX U2 GFCS is a **Naval Gun Fire Control System** designed to **acquire, track and engage targets amidst sea clutter**.

The Lynx system is **capable of accurately tracking air/surface targets**, generating required target data for predicting weapon aiming points and engaging target.

The system will be installed on the **Naval Offshore Patrol Vessel (NOPV), Talwar and Teg class of ships.**

The system including the **Tracking Radar, Servo and Weapon Control Modules** has been completely designed and developed by BEL.

Significance of Lynx U2 Fire Control System

The Gun Fire Control System has been **designed with an open and scalable architecture** permitting simple and flexible implementation in many different configurations.

The indigenous system will ensure **maximum up-time of the system** and guarantees excellent

Product support throughout its life time.

The system proposed in the contract is of the **fourth generation** and is a completely indigenized system, developed in the true spirit of 'Atmanirbhar Bharat'.

6.2 Laser Dazzlers

Recently, the **Bharat Electronics Limited (BEL)** has signed a contract with **Indian Navy** for initially supply 20 Light Amplification by Stimulated Emission of **Radiation Dazzlers (Laser Dazzlers)**.

It is used as a **non-lethal method for warning and stopping** suspicious vehicles/ boats/ aircrafts/ UAVs/ pirates etc. from approaching secured areas during both day and night.

It is capable of dazzle and thereby **suppresses the person's/optical sensor's action** with disability glares in case of non-compliance to orders.

It **disorients/ confuse/blind** a person temporarily.

It also **dazzles and distracts aircraft/UAVs.**

It is a p**ortable, shoulder operated and ruggedized for military use** in adverse environmental conditions.

The Laser dazzler technology was developed by **Defence Research and Development Organisation (DRDO).**

It is indigenously designed and developed for first time for the **Armed Forces.**

6.3 Impact of Lightning

Recently, the report prepared by Climate Resilient Observing Systems Promotion Council (CROPC) has highlighted that **lightning strikes** have **caused 1,771 deaths** between April 1, 2019 and March 31, 2020.

Uttar Pradesh with 293 deaths, Madhya Pradesh 248, Bihar 221, Odisha 200 and Jharkhand 172 deaths together accounted for **more than 60 per cent of the numbers.**

In 2018-19 period, there were **2,800 deaths and the drop has been attributed to the efforts** of various stakeholders, including CROPC.

The report suggests states **"aggressively participate in Lightning Resilient India Campaign and undertake lightning risk management more comprehensively"** in order to further reduce deaths.

According to report, the Government of India and most states have **not notified** lightning as a disaster.

The report mentions that the rapid degradation of environment like **global warming, deforestation, depletion of water bodies, concretizations, rising pollution and aerosol levels** have cumulatively pushed the environment to extremes.
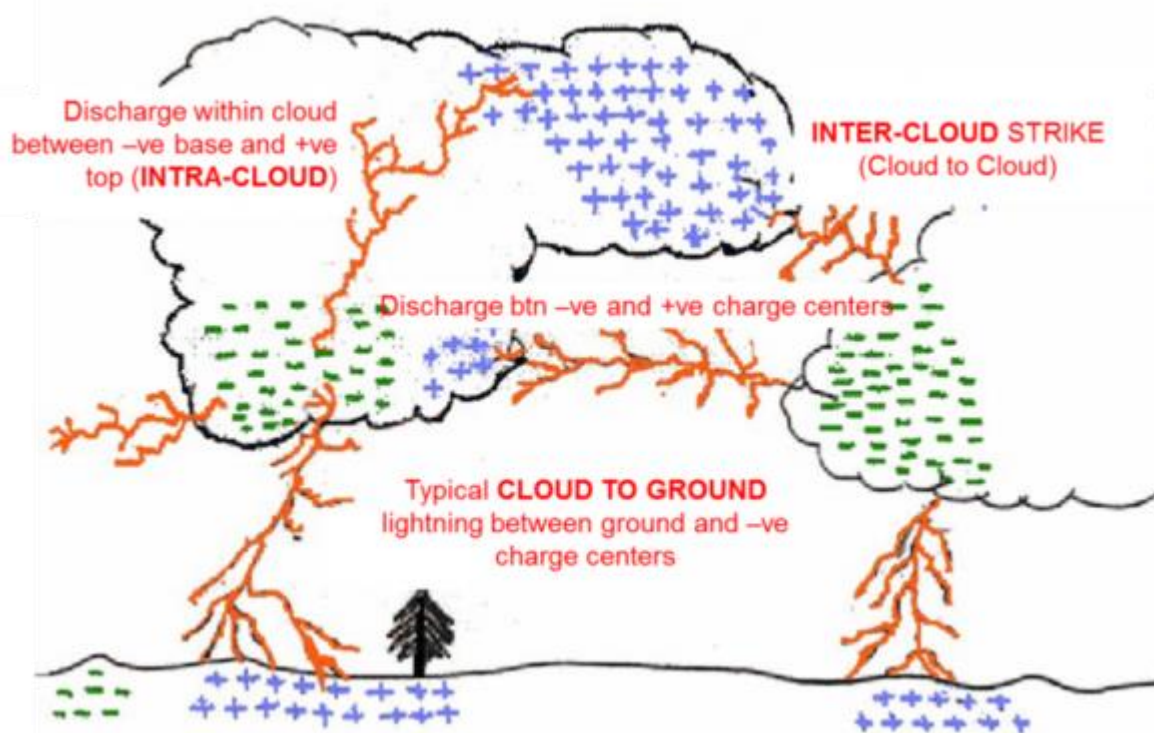
Occurring of Lightning

Lightning is the process of occurrence of a natural **'electrical discharge of very short duration and high voltage between a cloud and the ground or within a cloud'**.

Inter cloud or intra cloud (IC) lightning which are visible and are harmless.

It is **cloud to ground (CG) lightning**, which is **harmful** as the 'high electric voltage and electric current' leads to electrocution.

Forecast of Lightning

CROPC has a MOU with the India Met Department (IMD) to **disseminate early lightning forecasts** which uses satellite observations, inputs from **'network of Doppler and other radars'**, **'lightning detection Sensors'** among others.

It makes Lightning Forecast unique with best possible lead time of even a week taking into account the **devastations caused by the severe thunderstorms** during pre-monsoon.

Recommendations to tackle Lightning

The NDMA has issued **comprehensive guidelines for preparations of Lightning action plans** to states, but the large number of fatalities show the implementation also needs a more 'scientific and focused community centric approach'.

The **mapping of lightning** is a major breakthrough in identifying the precise risk in terms of lightning frequency, current intensity, energy content, high temperature and other adverse impacts.

The climatology of lightning would yield a **Lightning Risk Atlas map for India** which will form the basis for a lightning risk management programme.

6.4 Draft National Science Technology and Innovation Policy, 2020

Recently, the draft of the **5th National Science Technology and Innovation Policy (STIP)** has been uploaded by the **Department of Science and Technology (DST)** on its website.

This Policy will replace the **Science Technology and Innovation Policy of 2013**.

Aim:

To bring about **profound changes through short, medium and long-term mission mode projects** by building a nurtured**ecosystem that promotes research and innovation** on the part of both individuals and organizations.

To **identify and address strengths and weaknesses of the Indian Science Technology and Innovation (STI) ecosystem** to catalyse socio-economic development of the country and also make the Indian STI ecosystem globally competitive.

Important Provisions:

Related to Equity and Inclusion:

Gender Equality:

It proposes that at least **30% representation be ensured for women** in all decision-making bodies, as well as **"spousal benefits" be provided to partners of scientists belonging to the Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ+) community.**

The **LGBTQ+ community** should be **included in all conversations** related to **gender equity,** and provisions be made to **safeguard their rights** and promote their representation and retention in the science and technology sector.

Child and Elderly Care:

Child-care benefits are proposed to be made gender-neutral, and **flexible work timings and adequate parental leave** are to be offered to cater to maternity, childbirth and child care.

All publicly-funded research institutions and universities will be asked to provide **day-care centres for children of employees, and also have a provision for elderly care.**

For Disabled:

For the **benefit of people with disabilities**, the policy asks all publicly-funded scientific institutions to make**"structural and cultural changes" to support their inclusion.**

Other Related Provisions:

For age-related cut-offs in matters relating to selection, promotion, awards or grants, **the "academic age" and not the biological age would be considered.**

Removal of bars on married couples being employed in the same department or laboratory.

As of now, married couples are not posted in the same department, leading to cases of loss of employment or forced transfers when colleagues decide to get married.

Open Science Policy (One Nation, One Subscription): To make scientific knowledge and data available to all, the government has proposed:

To **buy bulk subscriptions of all important scientific journals across the world, and provide everyone in India free access to them.**

To set up a **Science, Technology and Innovation Observatory** that will serve as the central repository of all kinds of data generated from scientific research in the country.

Research and Education:

It proposes to establish **Education Research Centres (ERCs)** and **Collaborative Research Centres (CRCs)** to provide research inputs to policymakers and bring together stakeholders.

Research and Innovation Excellence Frameworks (RIEF) will be developed to enhance the quality of research along with the promotion of engagements with the relevant stakeholders.

A dedicated portal to provide access to the outputs of such publicly-funded research will be created through the **Indian Science and Technology Archive of Research (INDSTA).**

To set up Infrastructure to **boost local Research and Development capabilities** and **reduce large scale import** in selected sectors of domestic importance such as electronic hardware for home appliances, railways, intelligent transport, clean tech, defence, etc.

For Strengthening India's Strategic Position:

To achieve **technological self-reliance** and **position India among the top three scientific superpowers** in the decade to come.

To **double the number of Full-Time Equivalent (FTE) researchers, Gross Domestic Expenditure on R&D (GERD)** and private sector contribution to the GERD every 5 years.

Establishment of a **Strategic Technology Board** that will **bridge all strategic government departments,** and monitor and recommend technologies to be bought or indigenously made.

6.5 Reduction in Trans Fat level in Foods

POLYUNSATURATED FAT

An essential fat (we must get from food because our bodies cannot produce) & lowers LDL (bad cholesterol)

Found in: Most cooking oils, pumpkin seeds, pine nuts, sesame seeds, fatty fish

Also known as: Omega-3 and Omega-6 fatty acids

MONOUNSATURATED FAT

Considered a healthy fat: Lowers LDL (bad cholesterol) & maintains HDL (good cholesterol)

Found in: Olive oil, avocado & avocado oil, most nuts & nut butters

SATURATED FAT

Increases total cholesterol & LDL (bad cholesterol). Best to consume in moderation.

Found in: Red meat, whole milk, cheese, coconut, butter, processed meat, many baked goods, deep fried foods

TRANS FAT

A by-product of processing healthier fats to give them a longer shelf life. Raises your LDL (bad cholesterol) and lowers your HDL (good cholesterol). Try to limit.

Also known as: Partially hydrogenated oil

*Previously found in margarine & many processed foods, but has been banned by the FDA in the U.S. as of 2018

Recently, the Food Safety & Standards Authority of India (FSSAI) has made an amendment to the **Food Safety and Standards (Prohibition and Restriction on Sales) Regulations** citing **reduction in trans fatty acid levels.**

The FSSAI rule comes at the time of a pandemic where the **burden of non-communicable diseases** has risen.

It was in 2011 that India first passed a regulation that set a **TFA limit of 10% in oils and fats,**

which was further **reduced to 5% in 2015.**

Key Highlights

The FSSAI has capped the amount of **trans fatty acids (TFA)** in oils and fats to **3% for 2021** and **2% by 2022** from the current permissible limit of 5%.

The revised regulation applies to **edible refined oils, vanaspati (partially hydrogenated oils), margarine, bakery shortenings**, and other mediums of cooking such as vegetable fat spreads and mixed fat spreads.

What are Trans Fats?

Trans Fat is a **food toxin** which present in **partially hydrogenated vegetable oils, baked and fried foods**.

Trans Fat or trans-fatty acids are a form of **unsaturated fat** which come in both natural and artificial forms.

The Natural or ruminant Trans fats occur in the **meat and dairy from ruminant animals**, such as cattle, sheep, and goats and they form naturally when bacteria in these animals' stomachs digest grass.

Implications of Trans Fat

The people consuming Trans Fats instead of other fats or carbs experienced a **significant increase in LDL (bad) cholesterol** without a corresponding rise in HDL (good) cholesterol.

The replacement of other dietary fats with Trans Fats significantly **increases the ratio of total to HDL (good) cholesterol** and negatively affects lipoproteins, both of which are important risk factors for heart disease.

Trans Fats are believed to **damage the inner lining of person's blood vessel**s, known as the endothelium.

Trans Fats also **contribute to insulin resistance** and thus elevate the risk of developing type 2 diabetes.

Reasons for making India Trans Fat free

It is a major contributor to the **rise in non-communicable diseases** in India.

Trans Fat is a **modifiable risk factor for cardiovascular diseases**.

In 2018, the Food and Drug Administration (FDA) **banned the use of partially hydrogenated oil** in most processed foods.

6.6 India becomes the first country to culture UK variant strain

New strains: What we know so far

There may be three widespread strains with the N501Y mutation

1 UK'S B.1.1.7 (or VOC202012/01)
- It has 17 changes, and new projection showed it could 56% more transmissible than existing strains
- It has become the dominant strain in several parts of UK, such as London and the south-east
- This variant is now believed to be in at least 7 countries

2 SOUTH AFRICA'S 501.V2
- This too has a large number of changes, including in the spike protein that could enhance its transmissibility
- Its lineage is distinct from the B.1.1.7 and does not include some of the same changes
- So far, the variant has only been seen in South Africa, according to genomic surveillance

3 WELSH 501Y VARIANT
- This virus too has the spike protein mutation
- Its lineage too is distinct from the B.1.1.7 and does not include some of the same changes
- This variant has been around in UK's Wales since autumn but has not spread rapidly

Recently, the Indian Council of Medical Research (ICMR) has said that India has **successfully cultured the new coronavirus strain**, which originated in the UK.

The ICMR has claimed that in order to culture the UK variant of the virus the IMCR-NIV scientists used Vero cell lines.

SARS-CoV-2 the virus causing COVID-19 was being tracked through countrywide network of ICMR-laboratories since the early days of the epidemic in India.

Viral culture is a laboratory technique in which **cells are grown under controlled conditions**, generally outside their natural environment.

UK Variant Strain of Coronavirus

The variant was identified in genomic surveillance by **COVID-19 Genomics UK (COG-UK).**

The variant is the result of **multiple mutations in the spike protein of the novel coronavirus SARS-CoV-2,** as well as mutations in other genomic regions of the RNA virus.

The COG-UK identified one of these mutations as "N501Y", in an area of the **spike protein** that

binds to a key protein in the human cell, the ACE2 receptor.

Transmissibility and severity of UK Virus Strain

The data from **whole-genome sequencing, epidemiology and modelling** suggests that the new variant "transmits more easily than other strains".

The Public Health England (PHE) emphasised that there is **"no evidence"** that the variant is more likely to cause severe disease or mortality.

The evidence shows that infection rates in geographical areas where this particular strain has been circulating have **increased faster than expected.**

6.7 Covishield and Covaxin

Recently, India has approved two vaccines i.e. **Covishield and Covaxin**, for emergency use to fight Covid-19 pandemic in the country.

Covishield

Covishield has been developed by the **Oxford University scientists** in collaboration with the pharmaceutical company **AstraZeneca.**

In India, its trial was undertaken by the **Serum Institute of India (SII)**, which is also manufacturing the Covishield vaccine for the mass vaccination drive.

Covishield vaccine has been developed by using the **virus 'adenovirus'** that causes common cold infections among chimpanzees.

Its genetic material is same as that of the **spike protein of SARS-CoV-2 coronavirus**.

Covishield vaccine has been developed by using a **weakened version of the adenovirus**.

The **two shots** of the Covishield vaccine need to be **spaced by six weeks.**

Covaxin

Covaxin has been developed by the **indigenous vaccine** developer **Bharat Biotech** in collaboration with the **Indian Council for Medical Research (ICMR).**

Covaxin vaccine has been developed using **dead coronavirus** called **"inactivated" vaccine** in medical language.

Under inactivated state, the **virus is not capable of infecting people or replicating on its own** inside the body of a person after being injected.

In the case of Covaxin, the **interval between the two shots has not been yet prescribed** by the Drug Controller General of India (DCGI) but the Bharat Biotech had earlier said the second shot would be

given after 14 days.

Approval of Vaccines in India

In India, **clinical trials and approval of new drugs** including vaccines are governed by the **New Drugs and Clinical Trial Rules**.

Under normal circumstances, the approval for a vaccine follows the following steps:

Identification and development of an appropriate vaccine strain that is potentially safe and immunogenic.

Full characterisation of the vaccine strain by in-vitro experiments.

Pre-clinical studies in small animals such as mice, rabbits, guinea pigs etc. to determine safety and dose regime.

Preclinical studies in large animals to determine safety, protective efficacy and potential dose and formulation.

Phase-I human clinical trials on less than 100 individuals to establish the safety of the vaccine.

Phase-II human clinical trials on usually less than 1,000 individuals to determine the immunogenicity or immune protection.

Phase-III human clinical trials to determine the efficacy. The numbers range in several thousands. After successful completion of phase III studies, regulatory approval is accorded.

Phase-IV human clinical trials refer to post marketing surveillance studies, whose data are analysed for long-term decision-making.

The key aspect of granting approval to a vaccine or a drug in India is the **requirement of clinical trials** conducted within the country i.e. from phase-I to phase-III.

Emergency Use Authorisation

The term Emergency Use Authorisation is **not used in the 2019** vaccine approval rules in India.

Indian rules have a window of **"accelerated approval"** in "special situations" such as COVID-19 pandemic.

The 2019 rules says that '**Accelerated approval** may also be granted to a new drug if it is **intended for the treatment of a serious, or life-threatening condition**, or disease of special relevance to the country, and addresses unmet medical needs'.

The 2019 rules states that if the **remarkable efficacy** is observed with a defined dose in the **phase-II clinical trials of the investigational new drug for the unmet medical needs** of serious and

life-threatening disease in the country, it may be considered for grant of marketing approval by the central licensing authority based on phase-II clinical trial data.

Granting Approval of Vaccines

The **ultimate authority** of granting approval for a vaccine or any other drug rests with the **Central Drugs Standard Control Organisation (CDSCO).**

It is headed by the **Drug Controller General of India (DCGI)**.

The CDSCO works under the **Union Ministry of Health & Family Welfare**.

6.8 Avian Influenza

Recently, nearly **25,000 birds have died** due to different **variants of bird flu** in states like Himachal Pradesh, Kerala, Rajasthan and Madhya Pradesh.

What is Avian Influenza?

It is a **highly contagious viral disease** caused by **Influenza Type A viruses** which generally affects **poultry birds** such as chickens and turkeys.

The **wild aquatic birds** such as ducks and geese are the **natural reservoir of Influenza A viruses** and the central players in the ecology of these viruses.

From water birds, many of whom migrate and travel long distances, the viruses are thus further **spread to poultry and terrestrial birds.**

As per WHO, the people coming in close contact with infected alive or dead birds have contracted the **H5N1 bird flu**, and it **does not** usually spread from person to person.

The flu viruses are more **prone to mutation** because they have a **segmented genome.**

Bird flu in India

In India, **no case of bird flu in humans has been detected** so far, according to the Union health ministry.

The department of animal husbandry has reported **25 episodes of H5N1 bird flu in poultry in 15 states from 2006** (when the first outbreak occurred in Maharashtra and Gujarat) till 2015.

It has also been **detected in crows.**

Symptoms and Treatment of Avian Influenza

Unlike in birds, where it generally infects the gut, the avian influenza **attacks the respiratory tract of humans** and may cause severe respiratory illnesses such as pneumonia or Acute Respiratory Distress Syndrome (ARDS).

Its early symptoms include **fever, cough, sore throat,** and sometimes **abdominal pain and**

diarrhoea.

Antiviral drugs, especially **oseltamivir**, improve the prospects of survival in humans.

The ministry advises people working with poultry to **use PPEs and follow hand hygiene.**

The WHO recommends **eradicating the highly pathogenic avian influenza (HPAI)** at its source to decrease the disease in avian species and further human infections.

6.9 Advanced Biodigester Mk-II Technology

Recently, the **Defence Research & Development Organisation (DRDO)** has signed a MoU with **MAHA-METRO** for implementation of **Advanced Biodigester Mk-II Technology** in Metro Rail Network.

Advanced Biodigester Mk-II Technology

The DRDO's biodigester is an **indigenous, green and cost-effective technology**, with a rare distinction of having one of the largest numbers of DRDO-licensees.

The customized version of this MK-II Biodigester, suitable for **treating human waste generated from houseboats in Dal Lake** was successfully demonstrated by the DRDO.

Lakes and Waterways Development Authority (LWDA) of the J&K Administration has initiated the process to procure **100 units of Mk-II Biodigesters for civil habitats**around the Dal Lake so as to minimize water pollution.

The Biodigester Mk-II Technology is **upgraded through improvements in the bio-degradation efficiency, design modification** and addition of secondary treatment module.

The new reactor is designed to provide **more path length with increased biological reaction time**, thereby enhancing the bio-degradation efficiency of the system.

The technology was **primarily developed for the armed forces** in high altitude Himalayan regions, including Leh-Ladakh and Siachen glacier.

6.10 ZyCoV-D Vaccine

Recently, the Drug firm **Zydus Cadila** has said that it has received **DCGI approval** to initiate Phase III clinical trials of its COVID-19 vaccine ZyCoV-D.

The Zydus vaccine was the **third candidate in India** to get the nod to conduct **Phase III clinical trials.**

The Zydus vaccine is very **stable at 2 to 8 degrees** and can be stored in a normal refrigeration temperature.

It makes the **plasmid DNA vaccine ideal for access in the remotest regions** of the country because it will be administered through the intradermal route.

Under intradermal route, the **dose is injected in the skin** and not the muscle, leading to lesser pain.

The **National Biopharma Mission**, **Biotechnology Industry Research Assistance Council**, **Department of Biotechnology**, **Indian Council of Medical Research**, and **National Institute of Virology** have supported the development of ZyCoV-D.

6.11 Draft Science, Technology and Innovation (STI) Policy

As India and the world reorient in the present context of the COVID-19 crisis, a **new Science, Technology, and Innovation Policy (STIP)** was initiated at this crucial juncture during mid-2020.

Government's Philosophy behind STI Policy

Unlike previous STI policies which were largely top-driven in formulation, the 5th national STI policy (STIP) **follows core principles of being decentralised, evidence-informed, bottom-up, experts-driven, and inclusive**.

It aims to be dynamic, with a **robust policy governance mechanism** that includes periodic review, evaluation, feedback, adaptation and a timely exit strategy for policy instruments.

The STIP will be guided by the vision of positioning India among the **top three scientific superpowers** in the decade to come:

to attract, nurture, strengthen, and retain **critical human capital** through a people-centric STI ecosystem;

to **double the number of full-time equivalent (FTE)** researchers, gross domestic expenditure on R&D (GERD) and private-sector contribution to GERD every five years; and

to **build individual and institutional excellence in STI** with the aim of reaching the highest levels of global recognition and awards in the coming decade.

The policy outlines strategies for **strengthening India's STI ecosystem** to achieve the larger goal of Atmanirbhar Bharat.

Purpose of Open Science Framework in STI Policy

The Open Science Framework fosters:

more equitable participation in science through increased access to research output;

greater transparency and accountability in research;

inclusiveness;

better resource utilisation through minimal restrictions on reuse of research output and infrastructure; and

ensuring a **constant exchange of knowledge** between the producers and users of knowledge.

It is important to **make publicly funded research output** and resources available to all to foster learning and innovation.

STIP provides a forward-looking, all-encompassing Open Science Framework to **provide access to scientific data, information, knowledge, and resources to everyone** in the country, and to all who are engaging with the Indian STI ecosystem on an equal partnership basis.

The framework will be largely **community-driven**, and supported with necessary institutional mechanisms and operational modalities.

The scheme of providing open access is **applicable to every Indian, private-sector researchers, students, and institutions** will also have the same accessibility.

6.12 Looking for lithium toehold, India finds a small deposit in Karnataka

Recently, the **Atomic Minerals Directorate for Exploration and Research** (AMD), an arm of the Department of Atomic Energy, has shown the **presence of 1,600 tonnes of lithium resources in the igneous rocks** of the Marlagalla-Allapatna region of **Karnataka's Mandya district**.

The find in Mandya is **extremely small in quantitative terms**, but it is an initial success in the attempt to **domestically mine the silver-white metal** by way of **hard-rock extraction of the ore**.

India has initiated a **concerted domestic exploration push** for the alkali metal, a vital ingredient of the lithium-ion rechargeable batteries that power electric vehicles (EVs), laptops and mobile phones.

AMD is carrying out **surface and sub-surface exploration for lithium** in potential geological domains of the country. **India currently imports all its lithium needs.**

The domestic exploration push, which also includes exploratory work to extract **lithium from the brine pools of Rajasthan and Gujarat and the mica belts of Odisha and Chhattisgarh**, comes at a time when India has stepped up its economic offensive against China, a major source of lithium-ion

energy storage products being imported into the country.

The Marlagalla-Allapatna area, along the **Nagamangala Schist Belt**, which exposes mineralized complex pegmatites (igneous rocks), is seen as among the most promising geological domains for potential exploration for lithium and other rare metals.

There are, however, two caveats. First, the new find is categorized as "**inferred**", one of the three categories into which mineral resources are subdivided, in order of increasing geological confidence.

The 'inferred' mineral resource is the part of a resource for which quantity, grade and mineral content are estimated only with a low level of confidence based on information gathered from locations such as outcrops, trenches, pits, workings, and drill holes that may be of limited or uncertain quality, and also of lower reliability.

Second, **the lithium find is comparatively small**, considering the size of the proven reserves in Bolivia (21 million tonnes), Argentina (17 million tonnes), Australia (6.3 million tonnes), and China (4.5 million tonnes).

LITHIUM IN INDIA

Lithium can be extracted in different ways, depending on the type of the deposit – it is **generally done either through solar evaporation of large brine pools or by hard-rock extraction of the ore**.

In India, alongside the rock mining at Mandya, there is some potential for recovering lithium from the brines of Sambhar and Pachpadra in Rajasthan, and Rann of Kachchh in Gujarat.

The major mica belts in Rajasthan, Bihar, and Andhra Pradesh, and the pegmatite belts in Odisha and Chhattisgarh apart from Karnataka, are the other potential geological domains.

INDIA-ARGENTINA INITIATIVE :

In the middle of 2020, India, through a newly-floated state-owned company, had signed an agreement with an Argentinian firm to jointly prospect lithium in the **South American country** that has the third largest reserves of the metal in the world.

The new company, **Khanij Bidesh India Ltd**, was incorporated in August 2019 by three state-owned companies, NALCO, Hindustan Copper, and Mineral Exploration Ltd, with the specific mandate to acquire strategic mineral assets such as lithium and cobalt abroad. The company is learnt to be also exploring options in Chile and Bolivia.

India is seen as a late mover in attempts to enter the lithium value chain, coming at a time when EVs are predicted to be a sector ripe for disruption.

2021 is likely to be an inflection point for battery technology – with several potential improvements to the li-ion technology, and alternatives to this tried-and-tested formulation in advanced stages of commercialisation.

Over 165 crore lithium batteries are estimated to have been imported into India between 2016-17 and 2019-20 (up to November 30, 2019), at an estimated import bill of upwards of $3.3 billion.

6.13 Arunachal harbours a vanadium source

Recently, Geological Survey of India (GSI) has carried out exploration in **palaeo-proterozoic carbonaceous phyllite rocks in the Depo and Tamang areas of Papum Pare district in Arunachal Pradesh** and placed this eastern Himalayan State on the vanadium map of the country. Now, this state likely to become India's **prime producer of vanadium**.

It is recovered as a by-product from the slag collected from the processing of vanadiferous magnetite ores (iron ore).

This was the first report of a primary deposit of vanadium in India, with an average grade of 0.76% V2O5 [vanadium pentoxide].

India is a significant consumer of vanadium but is not a primary producer of the strategic metal.

India consumed 4% of about 84,000 tonnes of vanadium produced across the globe in 2017.

The largest deposits of vanadium of the world are in **China, followed by Russia and South Africa**.

China, which produces 57% of the world's vanadium, consumed 44% of the metal in 2017.

Vanadium

Vanadium is a chemical element with the symbol V and **atomic number 23**. It is a **hard, silvery-grey, malleable transition metal**.

The elemental metal is **rarely found in nature**. It is recovered as a by-product from the slag collected from the processing of vanadiferous magnetite ores (iron ore).

Vanadium is a **high-value metal used in strengthening steel and titanium**.

6.14 Make-in-India mega deal: 83 Tejas fighters cleared for Air Force

The Cabinet Committee on Security (CCS) cleared a deal worth nearly Rs 48,000 crore for the

acquisition of 83 Tejas Light Combat Aircraft for the Indian Air Force

TEJAS Mk-1A

Designed by the Aeronautical Development Agency under the Department of Defence Research and Development

Manufactured by state-owned Hindustan Aeronautics Limited (HAL)

It will be an improvement over the Mk-1 version.

The indigenous content of the aircraft is 50 per cent and will be enhanced to 60 per cent.

Significance

It "will be a game changer for self-reliance in the Indian defence manufacturing".

It is the largest indigenous defence procurement as part of measures to strengthen the armed forces amid a standoff with China on the Line of Actual Control and tensions with Pakistan over its terror infrastructure.

LCA-Tejas is going to be the backbone of the IAF fighter fleet in years to come and it "incorporates a large number of new technologies, many of which were never attempted in India.

LCA-Tejas programme would act as a catalyst for transforming the Indian aerospace manufacturing ecosystem into a vibrant Atmanirbhar-self-sustaining ecosystem.

6.15 Lumpy skin disease

Lumpy skin disease (LSD) has prevailed over the village of Kammana in Kerala's Wayanad district since the beginning of the year.

A viral illness that causes prolonged morbidity in cattle and buffaloes. It appears as nodules of two to five centimetre diameter all over the body, particularly around the head, neck, limbs, udder and genitals.

The lumps gradually open up like large and deep wounds. In some cases — under 10 per cent according to the Food and Agriculture Organization (FAO) — the infected animal succumbs to the disease.

While the LSD virus easily spreads by blood-sucking insects like mosquitoes, flies and ticks and through saliva and contaminated water and food, no treatment is available for the disease, that is being **reported for the first time in India**.

WHAT YOU NEED TO KNOW

WHAT IS LSD?
➤ Lumpy skin disease affects cows and buffaloes. It is caused by Capripoxvirus

HOW DOES IT TRANSMIT?
➤ It is transmitted between animals by direct contact

DOES IT SPREAD TO HUMANS?
➤ No, the spread is limited to bovines

Treatment | Immunity boosters and treatment for secondary infections

Other Countries

Historically, LSD has remained confined to Africa, where it was first discovered in 1929, and parts of West Asia. But in recent years, the disease has spread to territories beyond the endemic areas. In 2015, it made an incursion into the European part of Turkey and Greece.

The next year, it created havoc in the Balkan and Caucasian countries and Russia. However, since its arrival in Bangladesh in July 2019, LSD is spreading across Asia in epidemic proportions.

According to a risk assessment report by FAO, the disease spread to seven countries till the end of 2020 — reaching China and India in August 2019, Nepal in June 2020, Taiwan in July 2020, Bhutan and Vietnam in October 2020 and Hong Kong in November 2020.

At least 23 countries in south Asia, east Asia and southeast Asia are now at risk of LSD, which is emerging as a trans-boundary animal disease, it says.

In India, which has the world's highest 303 million heads of cattle, the disease has spread to 15 states within just 16 months. In fact, in August 2019, when the first outbreak of LSD was reported from Odisha, five districts were grappling with the exotic cattle pox.

Unclear

Due to the infectious nature of LSD and its implications on the economy — decreased milk production, abortions and infertility and damaged hides due to cutaneous nodules and fibrous tissue growth cause significant economic losses to farmers — the World Organisation for Animal Health (OIE) declares it as a notifiable disease.

This means a country must inform OIE about any outbreak of the disease so that it can be contained.

Insects like ticks, biting flies, mosquitoes are anyway more prevalent in tropical climatic conditions of India. As unseasonal rains and floods become frequent, they will provide a conducive atmosphere for insect growth and multiplication and infectious disease vectors will no longer be restricted to a few months.

This will have a devastating impact on the country, where most dairy farmers are either landless or marginal landholders and milk is among the cheapest protein source.

6.16 Ultra-high mobility electron gas can increase information transfer speed &data storage density in quantum devices

Scientists at Institute of Nano Science and Technology (INST), Mohali, Punjab have produced two dimensional electron gas with ultra-high mobility at the interface of two insulating oxide layers.

It can speed up transfer of quantum information and signal from one part of a device to another and **increase data storage and memory**.

Due to the high mobility of the electron gas, electrons do not collide inside the medium for a long distance and hence do not lose the memory and information**.**

The need for attaining new functionalities in modern electronic devices has led to the **manipulation of property of an electron called spin degree of freedom** along with its charge. This has given rise to an altogether **new field of spin-electronics or 'spintronics'**.

It has been realized that a phenomenon called the **'Rashba effect'**, which consists of splitting of spin-bands in an electronic system, might play a key role in spintronic devices.

6.17 Department of Food & Public Distribution notified modified scheme to enhance ethanol distillation capacity

Department of Food & Public Distribution has notified the modified scheme for extending financial assistance to project proponents for enhancement of their ethanol distillation capacity or to set up distilleries for producing 1st Generation (1G) ethanol from feed stocks such as cereals (rice, wheat, barley, corn & sorghum), sugarcane, sugar beet etc. or converting molasses based distilleries to dual feedstock.

It aims to achieve 20% blending by 2025 as well as to meet out the requirement of ethanol production capacity in the country.

Under the scheme , Government would bear interest subvention for five years including one year

moratorium against the loan availed by project proponents from banks for setting up of new distilleries or expansion of existing distilleries or converting molasses based distilleries to dual feedstock.

Due to upcoming investment in capacity addition / new distilleries, various new employment opportunities will be created in rural areas.

For production of ethanol, there is sufficient availability of feed stocks; & Government has also fixed remunerative prices of ethanol derived from various feed stocks.

Impact

This scheme would not only facilitate diversion of excess sugar to ethanol but would also encourage farmers to diversify their crops to cultivate particularly maize/corn which needs lesser water compared to sugarcane and rice.

It would enhance production of ethanol from various feed stocks thereby, facilitate in achieving blending targets of ethanol with petrol and would reduce import dependency on crude oil , thereby, realizing the goal of Atmanirbhar Bharat.

It will also enhance income of farmers as setting up of new distilleries would not only increase demand of their crops but would assure farmers of getting better price for their crops.

Sugarcane and ethanol is produced mainly in three states viz Uttar Pradesh, Maharashtra and Karnataka. Transporting ethanol to far flung States from these three states involves huge transportation cost. By bringing new grain based distilleries in the entire country would result in distributed production of ethanol and would save a lot of transportation cost and thus prevent delays in meeting the blending target & would benefit the farmers across the country.

With the vision to boost agricultural economy, to reduce dependence on imported fossil fuel, to save foreign exchange on account of crude oil import bill & to reduce the air pollution, the Government has fixed target of 10% blending of fuel grade ethanol with petrol by 2022 & 20% blending by 2030.

6.18 5G Technology

The Department of Telecommunications (DoT) has sought inputs from telcos and other industry experts on the sale and use of radio frequency spectrum over the next 10 years, including the 5G bands.

5G or fifth generation is the latest upgrade in the long-term evolution (LTE) mobile broadband networks.

5G mainly works in 3 bands: (all of which have their own uses as well as limitations)

Low band spectrum has shown great promise in terms of coverage and speed of internet and data

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exchange, the maximum speed is limited to 100 Mbps (Megabits per second). This means that while telcos can use and install it for commercial cellphone users who may not have specific demands for very high speed internet, the low band spectrum may not be optimal for specialised needs of the industry.

The mid-band spectrum offers higher speeds compared to the low band, but has limitations in terms of coverage area and penetration of signals. Telcos and companies, which have taken the lead on 5G, have indicated that this band may be used by industries and specialised factory units for building captive networks that can be moulded into the needs of that particular industry.

The high-band spectrum offers the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength. Internet speeds in the high-band spectrum of 5G has been tested to be as high as 20 Gbps (giga bits per second), while, in most cases, the maximum internet data speed in 4G has been recorded at 1 Gbps.

INDIA IN THE 5G TECHNOLOGY RACE

India had, in 2018, planned to start 5G services as soon as possible, with an aim to capitalise on the better network speeds and strength that the technology promised.

All the three private telecom players, Reliance Jio Infocomm, Bharti Airtel and Vi, have been urging the DoT to lay out a clear road map of spectrum allocation and 5G frequency bands, so that they would be able to plan the roll out of their services accordingly.

One big hurdle, however, is the lack of flow of cash and adequate capital with at least two of the three players, namely Bharti Airtel and Vodafone Idea.

Reliance Jio plans to launch an indigenously built 5G network for the country as early as the second half of this year. The company is said to have a complete end-to-end 5G solution prepared by the company itself that is ready for deployment once the networks are in place. This solution can also be deployed by other telecom operators as a complete managed service.

Global progress

More than governments, global telecom companies have started building 5G networks and rolling it out to their customers on a trial basis. In countries like the US, companies such as AT&T, T-mobile, and Verizon have taken the lead when it comes to rolling out commercial 5G for their users.

While some such as AT&T had started testing and deploying the technology as early as 2018, other companies such as Verizon have followed suit, expanding their 5G ultra-wide broadband services to as many as 60 cities by the end of 2020. In other countries such as China, some of the telcos such as China

Unicom had started 5G trials as early as 2018, and have since rolled out the commercial services for users.

South Korean company Samsung, which had started researching on 5G technology way back in 2011, has, on the other hand, taken the lead when it comes to building the hardware for 5G networks for several companies.

6.19 Army inks $20 mn deal with ideaForge for UAV

The Indian Army has signed a $20-million contract with ideaForge, a player in unmanned aerial vehicle (UAV) technology, to procure undisclosed quantities of a high-altitude variant of SWITCH UAV, an indigenous system used in surveillance operations.

SWITCH UAV is an indigenous system built to cater to the most demanding surveillance operations of the Indian forces.

This fixed-wing vertical take-off and landing UAV can be deployed at high altitudes and under harsh environments for day and night surveillance.

UAV player ideaForge has been awarded this one-year contract after it qualified the operational requirements in an evaluation done in real-world conditions.

The contract marks a strategic shift in the Indian defence procurement process.

6.20 Successful Flight Test of Smart Anti Airfield Weapon

DRDO successfully conducted captive and release trial of indigenously developed Smart Anti-Airfield Weapon (SAAW) from Hawk-I of Hindustan Aeronautics Limited (HAL) off the Odisha coast.

The smart weapon was successfully test fired from Indian Hawk-Mk132 of HAL.

This was the 9th successful mission of SAAW conducted by DRDO till now.

It was a text book launch, which met all mission objectives.

SAAW is indigenously designed and developed by DRDO's Research Centre Imarat (RCI) Hyderabad.

This is 125 Kg class smart weapon, capable of engaging ground enemy airfield assets such as radars, bunkers, taxi tracks, and runways etc. up to a range of 100 kms.

The high precision guided bomb is light weight as compared to weapon system of the same class. The weapon was earlier successfully test fired from Jaguar aircraft.

6.21 Best from science journals

Nanofibers stronger than steel: Published in Nature Nanotechnology

Researchers at the Massachusetts Institute of Technology have constructed small molecules which when added with water form nanofibers.

These hard and rigid molecules become so tough that they it can hold about 200 times their own weight.

Sourdough's microbe influence: Published in eLIFE

Researchers have decoded the microbial diversity in sourdough (a type of bread) and studied how microbes influence the aroma and fluffiness of the bread.

By studying interactions between microbes in the sourdough microbiome that lead to cooperation and competition, one can better understand the interactions that occur between microbes more generally — and in more complex ecosystems.

Saturn's obliquity: Published in Nature Astronomy

The obliquity of a planet is referred to as the angle between its equatorial plane and the orbital plane, i.e the tilt of a planet. During Saturn's formation, its obliquity was 26.7°. But recent observations have shown that it has increased to 27°.

Scientists say this tilt may have been caused due to its satellites, which are moving away much faster than what researchers had estimated before. The scientists predict that in the next few billion years, the inclination of Saturn's axis could more than double.

SOCIAL ISSUES AND DEVELOPMENT

7.1 Mera Gaon, Mera Gaurav

Recently, the Ministry of Agro & Rural Industries has carried out the **cleanliness drive** in Ibrampur, Veling and Parra villages under the **Mera Gaon, Mera Gaurav Programme.**

Mera Gaon, Mera Gaurav

It is the **national innovative initiative of Indian Council of Agricultural Research (ICAR)** and operational in many villages.

It is a **farm-centric mission** translating knowledge at farmer's doorstep so as to **address his farm-oriented problems** in a holistic manner to accomplish livelihood security.

The objectives of this scheme are:

To provide farmers with **required information, knowledge and advisories** on regular basis by adopting villages.

To promote the **direct interface of scientists** with the farmers to hasten the lab to land process.

To ensure that **farmers benefit from best farm practices** by providing required information, knowledge and advisories on regular basis by adopting villages

To **create awareness among farmers** about the organisations and their programmes and schemes as well as government policies related to the farming sector.

It has **enriched the farmers with latest technology** and had made them to adopt latest improved technologies in form of interventions.

The ICAR Institutes and Universities have to **provide financial support for meeting the minimum requirements** like transportation etc. because it does not have separate budget.

Under this scheme, **scientists will select villages as per their convenience** and will remain in touch with the selected villages and provide information to the farmers on technical and other related aspects in a time frame.

The **groups of 4 scientists** at every Institute/University will adopt villages within a radius of 50-100 km from their place of working.

7.2 Global Housing Technology Challenge (GHTC)-India

Recently, the Prime Minister is going to lay the foundation stone of **Light House Projects (LHPs)** under **Global Housing Technology Challenge (GHTC)-India** at six sites across six States.

The Prime Minister will also announce winners under **Affordable Sustainable Housing Accelerators (ASHA) – India** and give out annual awards for excellence in implementation of **Pradhan Mantri Awas Yojana – Urban (PMAY-U) Mission.**

The Prime Minister will also release a certificate course on innovative construction technologies named **NAVARITIH (New, Affordable, Validated, Research Innovation Technologies for Indian Housing)**.

Global Housing Technology Challenge (GHTC)-India

It is conceptualized by the **Ministry of Housing & Urban Affairs**.

It aims to identify and mainstream a **basket of innovative technologies** from across the globe that is sustainable and disaster-resilient.

The GHTC-India platform aspires to provide an **eco-system for the adoption of innovative**

technologies in the housing construction sector in a holistic manner.

The GHTC-India leverages the scale and successes of the **Pradhan Mantri Awas Yojana (Urban)** and its Technology Sub-Mission.

Light House Projects (LHPs)

It showcases the best of **new-age alternate global technologies,** materials and processes in the construction sector for the first time in the country at such a large scale.

The light-houses are being constructed under GHTC-India, which envisages to provide an **ecosystem for adoption of innovative technologies in the housing construction sector** in a holistic manner.

The LHPs are being constructed at Indore in **Madhya Pradesh, Rajkot in Gujarat, Chennai in Tamil Nadu, Ranchi in Jharkhand, Agartala in Tripura and Lucknow in Uttar Pradesh.**

The projects will demonstrate and deliver **ready to live houses at an expedited pace** within twelve months, as compared to conventional brick and mortar construction.

The LHPs will serve as **live laboratories for facilitating transfer of technology** to the field and its further replication.

ASHA-India

It aims to **promote domestic research and entrepreneurship** by providing incubation and acceleration support to potential future technologies.

Under ASHA-India initiative, **five ASHA-India Centers have been set up** for providing incubation and acceleration support.

The technologies, processes and materials identified through this initiative will provide a **major fillip to young creative minds, start-ups, innovators and entrepreneurs.**

PMAY-U Mission

It has been designed to achieve the **vision of Housing For All by 2022.**

In order to **recognize the outstanding contribution** by States, UTs, Urban Local Bodies and beneficiaries, the Ministry of Housing and Urban Affairs has introduced annual awards for excellence in implementation of PMAY-Urban.

7.3 Sukanya Samriddhi Yojana

Recently, the Ministry of Communication & Information Technology has provided that a total of

one crore 83 lakh **Sukanya Samriddhi Accounts** have been opened across the country in the name of girl-child.

Sukanya Samriddhi Yojana

It is a **savings scheme** launched in 2015 as part of the Government initiative **Beti Bachao, Beti Padhao campaign.**

It enables guardians to **open a savings account for their girl child** with an authorised commercial bank or India Post branch.

The individuals can **open an account with as low as Rs. 250** and they also have to **invest a minimum of Rs. 250** to keep the account active.

The **maximum amount** that an individual can deposit per year in a Sukanya Samriddhi Yojana account is **Rs. 1.5 Lakh.**

The **maturity period** of an SSY account is **21 years**.

An account holder (the girl) will be able to **withdraw from her account** once she reaches **18 years of age.**

The account holder can **only withdraw 50% of the accumulated amount** once after she reaches this specified age only for the purpose of higher education.

Eligibility under Sukanya Samriddhi Yojana

The SSY account can be **opened by legal guardians of the girl child** provided the following conditions are met:

The girl must be an **Indian resident**

The girl shouldn't be more than **10 years of age**

Upto two accounts can be opened in a family with two girl children.

Importance of Sukanya Samriddhi Yojana

It is one of the most popular schemes owing to the **high-interest rate** as well as the **tax benefits it offers.**

Under Section 80 C of the Income Tax Act, 1961, individuals can claim **tax exemption up to Rs 1.5 Lakh** from the amount contributed to SSY account.

The **interest income generated** from investing is tax-exempt as well and tax benefits are extended to the maturity amount too.

7.4 Launch Pad Scheme

Recently, the Madhya Pradesh government has started the **'Launch Pad Scheme'**.

It is being started for **boys and girls coming out of child care institutions** and having **completed 18 years of age.**

The objective of the scheme is to provide such a platform to these youth, through which they will be able to **become self-reliant by continuing their education and training.**

Under the launch pad scheme, **52 districts** of the state have been divided into **5 clusters.**

The five divisional headquarters are being started in **Indore, Sagar, Gwalior, Jabalpur** and **Bhopal.**

Under this scheme, the District Administration will provide space to these youths for **opening of coffee shops, stationery, photocopying, computer typing and DTP work**.

An amount of Rs 6 lakh will be provided by the Women and Child Development Department for the **installation of each launch pad.**

The launch pads will be operated through **non-governmental organizations**.

7.5 Toycathon-2021

Recently, the Ministry of Women & Child Development and Ministry of Education have jointly launched the **Toycathon-2021**.

Need for Toycathon

India imports 80 per cent of toys and the government is working towards **promoting the indigenous toy industry** for making the country self-reliant in this sector.

The collaboration with Ministry of Education paves the way for the **participation of students, faculties from all schools, colleges and universities** of the country with regards to needs of the MSME industry.

Toycathon is being organized to **develop India as the global Toy manufacturing hub.**

The launch of Toycathon is an endeavor by the government to **create an ecosystem for the domestic Toy industry** and the local manufacturers, tapping the untapped resources and utilizing their potential.

Toycathon-2021

Toycathon 2021 is an **inter-ministerial initiative** organized by **Ministry of Education's**

Innovation Cell with support from **All India Council for Technical Education.**

The other ministries involved are **Ministry of Women and Child Development, Ministry of Commerce and Industry, Ministry of MSME, Ministry of Textiles** and **Ministry of Information and Broadcasting.**

The Toycathon is based on **nine themes**:

Indian Culture, History, Knowledge of India and Ethos;

Learning, Education and Schooling;

Social and human values;

Occupations & specific fields;

Environment;

Divyang;

Fitness and sport;

Out of the box, creative and logical thinking and

Rediscovering/redesigning traditional Indian toys

The Toycathon will have 3 variants of tracks of **Junior Level, Senior Level and Startup Level** and will allow **participation of students and teachers from schools, colleges and universities** apart from startups and toy experts.

7.6 Vertical and Horizontal Reservations

Recently, Supreme Court last month clarified the position of law on the interplay of **vertical and horizontal reservations**.

Vertical and Horizontal Reservations

The reservation for **Scheduled Castes, Scheduled Tribes, and Other Backward Classes** is referred to as **vertical reservation.**

It **applies separately for each of the groups** specified under the law.

The **horizontal reservation** refers to the **equal opportunity provided to other categories of beneficiaries** such as women, veterans, the transgender community, and individuals with disabilities, cutting through the vertical categories.

Application of two categories of quota

The horizontal quota is **applied separately to each vertical category**, and not across the board.

It implies that if women have **50% horizontal quota**, then half of the selected candidates will have to necessarily be women in each vertical quota category i.e.**half of all selected SC candidates will have to be women**, half of the unreserved or general category will have to be women, and so on.

The **interlocking of the two types of reservation** throws up a host of questions on how certain groups are to be identified.

Judicial viewpoint on Vertical and Horizontal Reservations

The court states that if a **person belonging to an intersection of vertical-horizontal reserved category** had secured scores high enough to qualify without the vertical reservation, the person would be counted as qualifying without the vertical reservation.

The person **cannot be excluded from the horizontal quota** in the general category.

The judiciary has also quoted that if a person in the **SC category secures a higher score than the cut-off for the general category**, the person would be counted as having qualified under the general category instead of the SC quota.

7.7 Longitudinal Ageing Study of India (LASI)

Recently, the Union Ministry of Health & Family Welfare has released **INDIA REPORT** on **Longitudinal Ageing Study of India (LASI).**

Highlights

It covered a baseline sample of **72,250 individuals aged 45 and above** and their spouses including **31,464 elderly persons aged 60 and above** and **6,749 oldest-old persons aged 75 and above.**

The baseline samples were covered from **all States and Union Territories (UTs)** of India **(excluding Sikkim)**.

The evidence from LASI will be used to further strengthen and broaden the scope of **National Programme for Health Care of the Elderly**.

The LASI has embraced **state-of-the-art large-scale survey protocols** and field implementation strategies including representative sample of India and its States.

The report stated that **75% of the elderly in India suffer** from one or the other **chronic disease**, **40% have a disability** and **20%** go through issues related to **mental health.**

In India, the self-reported prevalence of diagnosed **cardiovascular diseases (CVDs) is 28%** among older adults age 45 and above.

The prevalence of **CVDs increases with age** from 22% among those in age 45-59 to 34% among those in age 60-74, and further to 37% among those age 75 and above.

It found that more than a half of elderly age 60 and above in the states/UTs of **Goa (60%), Kerala (57%), Chandigarh (55%), Andaman & Nicobar (51%), and Jammu & Kashmir (51%)** reported that they have been diagnosed with CVDs.

It highlighted that around a third (32%) of elderly age 60 and above have been diagnosed with **hypertension**, 5.2% were diagnosed with **chronic heart disease** and 2.7% **with stroke**.

The **self-reported prevalence of diabetes mellitus** among older adults age 45-59 is 9% and among the elderly age 60 and above is 14%.

It highlighted that in India, **26% of older adults age 45 and above** reported that they have been diagnosed with **single morbidity** and **18%** have been diagnosed with **multi-morbidities.**

Longitudinal Ageing Study of India (LASI)

It is a **full–scale national survey** of scientific investigation of the health, economic, and social determinants and consequences of population ageing in India.

The **National Programme for Health Care of Elderly, Ministry of Health & Family Welfare** has undertaken the Longitudinal Ageing Study of India.

The other partners were **International Institute for Population Sciences, (IIPS), Harvard School of Public Health, University of Southern California, United Nations Population Fund (UNFPA)** and **National Institute on Ageing.**

It is **India's first and the world's largest ever survey** that provides a longitudinal database for designing policies and programmes for the older population.

The unique feature of LASI is the **coverage of comprehensive biomarkers.**

7.8 Panel to study NFHS-5 findings

The Health and Family Welfare Ministry has set up a technical expert group chaired by Joint Secretary Preeti Pant and includes experts from medicine and nutrition to examine the adverse findings from the National Family Health Survey (NHFS)-5.

Panel aims to recommend programmatic and policy interventions to improve" indicators pertaining to malnutrition, stunting, anaemia, and C-section.

The survey gives data of States and UTs on over 130 parameters. On various parameters, major number of states has worsened over the last round of survey (NFHS 4 – 2015-16).

Increase in rising levels of anaemia and child malnutrition in women and pregnant women show that the children born during 2015-2019 might be suffering from deficiencies.

Child Wasting

It reflects acute undernutrition and refers to children having low weight for their height.

India has always had a high level of child wasting.

Telangana, Kerala, Bihar, Assam and Jammu-Kashmir witnessed an increase and Maharashtra and West Bengal have been stagnant.

Child Stunting

It reflects chronic undernutrition, and refers to the percentage of children who have low height for their age. It is likely to have long-lasting adverse effects on the cognitive and physical development of a child.

Telangana, Gujarat, Kerala, Maharashtra, and West Bengal saw increased levels.

The reversals in child stunting are "hugely troubling" as normally, stunting levels do not increase because all the things that affect child growth tend to improve as stable democracies and economies move ahead.

Share of Children Underweight:

Gujarat, Maharashtra, West Bengal, Telangana, Assam and Kerala have seen an increase.

Child Mortality Rate:

Infant Mortality Rate (the number of deaths per 1000 live births for children under the age of 1) and Under 5 Mortality Rate data is mostly stagnant.

Between NFHS-3 (2005-05) and NFHS-4, there was progress on mortality reduction but NFHS-5 and NFHS-4 are about five years apart still there is very little progress in many states.

In Maharashtra, the under-5 mortality rate is basically the same in NFHS-4 and in Bihar, it reduced by just 3% over five years.

Over 60% of child mortality is explained by child malnutrition, which is the central problem and needs to be addressed.

7.9 Relax detention norms to prevent drop-outs, says govt

According to an Education Ministry, schools must relax detention norms in order to prevent drop-outs in a year when COVID-19 has disrupted the teaching and learning process.

Guidelines have been prepared **"in order to ensure that school-going children have access to education with quality and equity and to minimize the impact of the pandemic on school education across the country"**.

he Ministry directed the States to conduct comprehensive door-to-door surveys to identify children out of school and migrant students and prepare an action plan to prevent increased drop-outs, lower enrolments, loss of learning and deterioration in the gains made in providing universal access, quality and equity in recent years.

Schools shut down in mid-March 2020, just before the COVID-19 lockdown. Some States have started reopening physical classes for high school students over the last two months, but most of India's 25 crore students have spent the last 10 months at home.

While some have access to online classes, the majority are learning from televised classes, WhatsApp teaching, and learning on their own.

Globally, the United Nations had estimated that almost **24 million school-age children are at risk of dropping out from the educational system due to COVID-19** this year.

7.10 "Period Room" set up for women at a public toilet in Maharashtra

In a bid to help the women, residing in congested slums, during their menstruation days, a **'period room' has been set up at a public toilet by the Thane Municipal Corporation in collaboration with an NGO Muse Foundation, at a slum in Shanti Nagar locality of Wagle Estate area in Thane**.

The period room is equipped with several basic facilities, and it aims to **facilitate menstrual hygiene among women dwelling in slums**.

Claimed to be the **first-of-its-kind initiative**, the 'period room' set up at a public toilet in a slum in Thane, was opened recently for women.

The facility is set up keeping in mind the women living in small houses, who do not have a separate bathing section.

Many times they find it difficult to change during periods. This facility will be a **boon for such women and go a long way in promoting good hygiene**.

The NGO would be taking up the task of informing the women of the slum about the existence of such a room when they hold one of their regular sessions on menstrual hygiene.

7.11 'Education reforms have impacted learning outcomes'

The seven-day Delhi Education Conference began on Monday with an independent report on the Delhi government's education reforms since 2015 being released by the Boston Consulting Group.

Over the week, the conference will see 22 education experts from India and seven other countries, who will discuss the public education systems around the world.

These include experts from India, the U.S., Finland, England, Germany, Singapore, Netherlands and Canada.

In its report, the American management consulting committee said that the education reforms have definitely had an impact on learning outcomes.

CBSE Board results have shown a steady increase and that there is improvement in Foundational Literacy and Numeracy (FLN) outcomes in Classes 6 to 8 as well, although much remains to be done.

Outcome

"New curricular elements such as Happiness Curriculum (HC) and Entrepreneurship Mindset Curriculum (EMC) have been received positively.

Student attendance is improving and students also attested to increased teacher attendance and engagement during focus group discussions (FGDs)," the report said.

It pointed out that the true impact of Delhi's reforms has been vitalizing the entire system and infusing a sense of renewed aspiration, belief, and deep motivation into every stakeholder.

Transforming Society

Deputy Chief Minister and Education Minister Manish Sisodia said that although a lot has been done to strengthen the infrastructure of schools in Delhi and improve quality of education via teacher training and better school management, the real result still remains to be achieved.

The real success will be when every child leaves the school with a passion to do something for their country and commit to driving a change. They should be conscientious human beings entering the workforce.

The ultimate goal, he added was to to transform the society and have citizens who're true committed patriots with an entrepreneurial mindset and will contribute to the country.

The panel discussion was followed by a keynote lecture by educationist and author Lucy Crehan who said that no education system becomes top-performing, let alone equitable, by focusing on educating just a minority of students to high levels.

7.12 Govt. defends rules for animal seizure

The Central government on Monday *defended law to deprive owners possession of their animals*, including cattle, on the suspicion that they are being subject to cruelty or illegally transported for slaughter.

The Centre dismissed the argument that taking the animals from their owners *divested them of their livelihood* even before they were found guilty of cruelty by a court of law.

Depriving Livelihood

The argument that owners are deprived of their right to livelihood is not sustainable. They have *no right to do their business illegally*.

They have to transport the animals as per the *requirements of the Transport of Animals Rules of 1978*.

A Bench led by Chief Justice of India S.A. Bobde was hearing a petition filed by the Buffalo Traders Welfare Association *challenging the validity of the Prevention of Cruelty to Animals* (Care and maintenance of case property animals) Rules 2017.

Court's Earlier Directive

In the previous hearing, the court had asked the government to *delete the Rules, saying the law stripped people of their means to live*.

But the government said the Rules were in *consonance with the Prevention of Cruelty to Animals Act of 1960*.

Prevention of cruelty to Animals 1960

"The Rules prevent owners and transporters from causing animals unnecessary pain and suffering… Animals are sentient beings.

They are capable of experiencing pain, sorrow, suffering and discomfort.

Article 51A (g) of the Constitution enjoins upon every citizen to have *compassion for living animals*.

7.13 School attendance low after reopening: 3 states to House panel

Recently, a meeting was called to discuss "plans for bridging the learning gap caused due to school lockdown as well as review of online and offline instructions, examinations and plans for reopening schools".

Findings

1. During this meeting, it was reported by **Assam, UP and J&K** representatives to the **Parliamentary Standing Committee on education** headed by **Vinay Sahasrabuddhe** that **schools continue to report low attendance after reopening**.
a. Assam: Schools recorded around 50% attendance

b. Uttar Pradesh: 40%

c. Jammu and Kashmir too reported low attendance during the interaction. It leads to learning loss that may have taken place due to the long absence of students from classrooms.

2. Pupils missing out on almost half the year of schooling last year and then a patchwork of inequalities of missed schooling this term will **impact on children's education**.
a. There'll be a **widening of existing inequalities** – particularly as it's tended to be quite disadvantaged council areas where pupils have missed out on most schooling.
b. Though most absence during the term was due to disruption as a result of positive Covid cases, some families have been **anxious about children going to school**. **Digital initiatives** taken to continue learning during classroom lockdown and innovative measures adopted by different states to help students who lack access to online classes.

7.14 30-day notice period not mandatory under Special Marriage Act: Allahabad High Court

Recently, the Allahabad High Court (HC) has ruled that couples seeking to solemnise their marriage under the Special Marriage Act, 1954 can choose not to publish the mandatory 30-day notice of their intention to marry. Before that, in a judgment, the HC also removed hindrances to inter-faith marriages.

Section 5 of the Special Marriage Act: The legislation that allows solemnisation of marriages irrespective of the religion of the couple, requires parties to give a 30-day public notice of their intention to marry. The public notice is displayed at the office of the marriage officer, inviting potential objections to the marriage.

Uttar Pradesh Prohibition of Unlawful Conversion of Religion Ordinance, 2020, which declares conversion of religion by marriage to be unlawful, mandates a 60-day notice to the District Magistrate and also requires the Magistrate to conduct a police inquiry to ascertain the real intention

behind the conversion.

Judgement

By interpreting Sections 6 and 7 read with Section 46 which contains the procedure of publication of notice and inviting objections to the intended marriage in Act of 1954, it has to be such that would **uphold the fundamental rights of liberty and privacy**, including within its sphere freedom to choose for marriage without interference from state and non-state actors, of the persons concerned **and not violate the same.**

In case such individuals applying to solemnize their marriage under the Act of 1954 themselves by their free choice desire that they would like to have more information about their counterparts, they can definitely opt for publication of notice under Section 6 and further procedure with regard to objections to be followed.

Such publication of notice and further procedure would not be violative of their fundamental rights as they adopt the same of their free will.

As the Special Marriage Act is a central legislation, couples across the country seeking to marry under the law would benefit from the liberal reading of the provisions by the Allahabad High Court ruling.

The Special Marriage Act to provide a framework for inter-caste and inter-religious marriages was originally enacted in 1872. Despite changes and versions, the 1954 law retained the Victorian-era protectionist provisions.

Why?

Changing social circumstances and progress in laws and proposed by the Law Commission

it would be cruel and unethical to force the present generation living with its current needs and expectations to follow the customs and traditions adopted by a generation living nearly 150 years back for its social needs and circumstances, which violates fundamental rights recognized by the courts of the day.

It is the duty of court to revisit the interpretation of the procedure under challenge as provided in the Act of 1954.

The ruling comes as a relief to inter-faith couples who are being increasingly targeted by vigilante groups. The court noted the impact that similar provisions in anti-conversion laws could have.

Right to Privacy

2017 Aadhaar case which recognised the right to privacy as a fundamental right

2018 ruling which held that the right to choose a partner is a fundamental right in the case

involving Hadiya, a medical student who converted to Islam to marry a Muslim, and the 2018 ruling in which the court decriminalised homosexuality.

7.15 MoD wants exemption on SC order decriminalising adultery

The Centre has sought a clarification from the Supreme Court to the effect that the 2018 order decriminalising adultery would apply only to civilians and not defence personnel because not prosecuting soldiers for adultery could cause "instability" in the armed forces.

Maintaining that "honour is the sine quo non of the services," and adultery must remain a valid ground to prosecute defence personnel under army laws.

"Adultery can be defined as an 'unbecoming act' or punishable under "good order and discipline" rule under the army act. Such officers can be court martialed and cashiered.

The armed forces required a completely different standard of discipline and that, therefore, the army act and other pertinent laws must be treated as outside the scope of the 2018 judgment.

Personnel of the Army, Navy and the Air Force were a "distinct class". They were governed by special legislation, the Army Act, the Navy Act and the Air Force Act.

The special laws imposed restrictions on the fundamental rights of the personnel, who function in peculiar situation requiring utmost discipline.

The three laws were protected by Article 33 of the Constitution, which allowed the government to modify the fundamental rights of the armed forces personnel. The judgment of 2018 created 'instability'.

It allowed a personnel charged with carrying on an adulterous or illicit relationship to take cover under the judgment.

Previous Judgement

In September 2018, a five-judge constitution bench struck down Section 497 of the Indian Penal Code, declaring it to be unconstitutional and violative of right to equality of women in treating them as "chattel" (an item of property) and inferior to their husbands.

Section 497 made adultery an offence only with respect to a man, who has a relationship with wife of someone else.

The wife was considered neither adulterous nor an abettor in law, while the man could be jailed for up to five years. In that case, the Centre defended the law, saying it protected sanctity of marriages.

7.16 3rd phase of Pradhan Mantri Kaushal Vikas Yojana to be launched

The Third Phase of Pradhan Mantri Kaushal Vikas Yojana (PMKVY 3.0) will be launched in 600 districts across the country.

Spearheaded by the Ministry of Skill Development and Entrepreneurship, this phase will focus on new-age and COVID-related skills.

Skill India Mission-PMKVY 3.0 envisages training of eight lakh candidates over a scheme period of 2020-2021 with an outlay of 948.90 crore rupees.

The 729 Pradhan Mantri Kaushal Kendras, empaneled non-PMKK training centres and more than 200 ITIs under Skill India will be rolling out PMKVY 3.0 training to build a robust pool of skilled professionals.

On the basis of the learning gained from PMKVY 1.0 and PMKVY 2.0, the Ministry has improved the newer version of the scheme to match the current policy doctrine and energize the skilling ecosystem affected due to the COVID-19 pandemic.

The Skill India Mission launched by Prime Minister on 15 July 2015 has gained tremendous momentum through launch of its flagship scheme PMKVY to unlock the vision of making India the Skill Capital of the world.

7.17 First-ever National Road Safety

The first-ever National Road Safety Month was inaugurated. The campaign for the same will continue till February 17.

To build awareness about road safety

To reduce road accidents in India

During the last few years, a road safety week was being organised, but considering the importance of the issue, a month-long programme has been made this year.

The inaugural function was launched by Union Minister for Defence and Union Minister for Road Transport and Highways.

In India, a total of 1.5 lakh people died, while more than 4.5 lakh people got injured in road accidents every year, resulting in social-economic losses from accident deaths equivalent to a shocking 3.14% of GDP every year.

70% deaths are in the age group of 18 to 45-year-old people, which is nearly 415 people dying per day in India.

Government can succeed only when Road Safety would become a grass-routed mass movement

only and only through 'Jan-bhaagidari' and 'Jan-sahbhaag'. Governments at all levels, union, state and municipal authorities must play as facilitators to make this Jan-Sahbhaag successful.

Several measures are being taken to reduce road accidents by Restructuring and Strengthening 4E's of Road safety i.e. (1) Engineering, (2) Education, (3) Enforcement and (4) Emergency care Services.

7.18 The missing manual scavengers of India

The survey of manual scavengers in 2018 was conducted by the National Safai Karamcharis Finance and Development Corporation (NSKFDC) at the behest of the Ministry of Social Justice and Empowerment.

The number of manual scavengers dropped to 42,303 in 2018 from 770,338 in 2008, which shows gross underassessment rather than being reflective of their actual numbers in India.

While the Indian government attributes this drop to the strict enforcement of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 and the impact of the Swachh Bharat Abhiyan.

There are many shortcomings in the implementation of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, Swachh Bharat Abhiyan as well as procedures adopted to arrive at the official figure of manual scavengers.

The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 aims to eliminate insanitary latrines (those not connected to pits/septic tanks/sewage lines) alongside tracking the rehabilitation of manual scavengers in other occupations and conducting periodic surveys.

To eliminate this practice, the act has provisions for stringent penalties, for direct or indirect employment of any person in hazardous cleaning of sewers or septic tanks by any person, local authority or agency.

On the other hand, Swachh Bharat Abhiyan has made unprecedented and positive behavioural and infrastructural changes with regard to the usage of toilets, we need more effort and time to substantially reduce manual scavenging. Perhaps, at a policy level, the Swachh Bharat Abhiyan has addressed the issue of access to toilets, ignoring those cleaning them.

The efforts to abolish manual scavenging have garnered momentum within the state machinery, advocacy groups and academia the last three decades, particularly since the constitution of the Safai

Karamchari Andolan (SKA) in 1994.

Safaimitra Suraksha Challenge, launched last year, aims to completely mechanise all septic and sewage tank cleaning operations in 243 cities across India, by April 30, 2021.

The state and society needs to take active interest in the issue and look into all possible options to accurately assess and subsequently eradicate this practice.

It also warrants an engagement of all stakeholders for the proper introduction of mechanisation and ensuring that it is made available to all those who are forced to engage in this undignified practice.

7.19 Covid deepened inequalities: wealth, education, gender

A new report titled 'The Inequality Virus', by Oxfam has found that the Covid pandemic deeply increased existing inequalities in India and around the world.

Oxfam India's findings are part of the Oxfam International report released on the opening day of the World Economic Forum's "Davos Dialogues".

Wealth Inequality

The report has found that as the pandemic stalled the economy, forcing millions of poor Indians out of jobs, the richest billionaires in India increased their wealth by 35 per cent.

The wealth of Indian billionaires increased by 35 per cent during the lockdown and by 90 per cent since 2009 to $422.9 billion ranking India sixth in the world after US, China, Germany, Russia and France.

In fact, the increase in wealth of the top 11 billionaires of India during the pandemic could sustain the NREGS scheme for 10 years or the health ministry for 10 years.

The report states that Covid has the potential to increase economic inequality in almost every country at once — the first time this has happened since records began over a century ago.

Sectorally, India's large informal workforce was the worst hit as it made up 75 per cent of the 122 million jobs lost.

Informal workers had relatively fewer opportunities to work from home and suffered more job loss compared to the formal sector.

The 40-50 million seasonal migrant workers, typically engaged working in construction sites, factories etc. were particularly distressed.

EDUCATION AND HEALTH INEQUALITIES

Over the past year as education shifted online, India saw the digital divide worsening inequalities.

On the one hand, private providers experienced exponential growth yet, on the other, just 3 per cent of the poorest 20 per cent of Indian households had access to a computer and just 9 per cent had access to the internet.

In terms of healthcare, Oxfam found that since India does not report case data desegregated by socio-economic or social categories, it is difficult to gauge the distribution of the disease amongst various communities.

But India currently has the world's second-largest cumulative number of COVID-19 positive cases and globally, the poor, marginalised and vulnerable communities have higher rates of COVID-19 prevalence.

SANITATION FACILITIES:

The spread of disease was swift among poor communities, often living in crammed areas with poor sanitation and using shared common facilities such as toilets and water points.

In this regard, only 6 per cent of the poorest 20 per cent households had access to non-shared sources of improved sanitation, compared to 93 per cent of the top 20 per cent households in India.

In terms of caste, just 37.2 per cent of SC households and 25.9 per cent of ST households had access to non-shared sanitation facilities, compared to 65.7 per cent for the general population.

GENDER DISPARITIES:

The unemployment rate among women rose from already high 15 per cent before Covid to 18 per cent.

This increase in unemployment of women can result in a loss to India's GDP of about 8 per cent or $218 billion. Of the women who retained their jobs, as many 83% were subjected to a cut in income.

Beyond income and job losses, poorer women also suffered healthwise because of the disruption in regular health services and Anganwadi centres.

The pandemic also fueled domestic violence against women. As of November 30, 2020, cases of domestic violence rose by almost 60% over the past 12 months.

While the Coronavirus was being touted as a great equaliser in the beginning, it laid bare the stark inequalities inherent in the society soon after the lockdown was imposed.

The deep divide between the rich and poor is proving as deadly as the virus.

There is an urgent need for policymakers to tax the wealthy individuals and rich corporates and

use that money to "invest in free quality public services and social protection to support everyone, from cradle to grave".

Reducing inequalities is very important but it should be a medium-term target. Between growth and distribution, one must get the sequencing right. There is a need to grow first before distribution. Otherwise, India will get stuck in a low-income equilibrium.

7.20 Sexual assault under POCSO needs skin to skin contact: Bombay HC

The Nagpur bench of Bombay High Court acquitted a man of sexual assault on the grounds that pressing the breasts of a child over her clothes without direct "skin to skin" physical contact does not constitute "sexual assault" under the Protection of Children from Sexual Offences (POCSO) Act.

It could have implications on a range of cases. It set aside the ruling of a lower court under Section 8 of POCSO applicable to "sexual assault" on children, against convict.

Section 8 of POCSO provides for stringent punishment of five years' of rigorous imprisonment (RI), the High Court observed that "stricter proof and serious allegations are required".

As such there is no direct physical contact i.e. skin to skin with sexual intent without penetration".

The bench observed that "the act of pressing breast can be a criminal force to a woman/girl with the intention to outrage her modesty."

This Court holds that the appellant is acquitted under Section 8 of the POCSO Act and convicted under minor offence u/s 354 of IPC and sentenced him to undergo RI. The maximum sentence is five years and the minimum one year for an offence under this section.

POCSO's definition of sexual assault: As per the definition, the offence involves following necessary ingredients — act must have been committed with sexual intent, act must involve touching the vagina, penis, anus or breast of the child or making the child touch the vagina, penis, anus or breast of such person or any other person or doing any other act with sexual intent which involve contact without penetration."

As per the definition of 'sexual assault', a 'physical contact with sexual intent without penetration' is an essential ingredient of the offence.

The words 'any other act' encompasses within itself the nature of the acts which are similar to the acts which have been specifically mentioned in the definition on the premise of the principle of ejusdem generis (of the same kind). The act should be of the same nature or close to that."

7.21 2 in 5 adults have 3 or more risk factors for NCD: Government survey

According to the National Non-communicable Disease Monitoring Survey (NNMS), while two in five adults have three or more risk factors for non-communicable diseases (NCD) in India, the status of health system in responding to the disease burden is also underscored.

NNMS, the **largest comprehensive national Survey on risk factors and health systems preparedness of NCDs** along with the framework on use of telemedicine for cancer, diabetes, heart diseases and stroke warned a ticking bomb to go off situation.

The purpose of the survey was to **collect reliable baseline data on key indicators (risk factors, select NCDs and health systems response) related to the National NCD monitoring framework and NCD Action Plan**.

This is the **first of its kind of a comprehensive survey on NCDs** using standardised tools and methods, covering the age groups of 15-69 years, males and females residing in urban and rural areas of the country.

Findings

More than one in every four adults and 6.2% adolescents were overweight or obese; almost three out of ten adults had raised blood pressure and 9.3% had raised blood glucose.

More than two in five adults and one in four adolescents were doing insufficient physical activity and their average daily intake of salt was 8 gms.

One in every three adults and more than one-fourth proportion of men used any form of tobacco and consumed alcohol in past 12 months respectively.

Telemedicine can bridge and link all these aspects. It can be adapted and used by medical practitioners from primary to tertiary health care level in India, through the national **teleconsultation network and other similar platforms**.

ENVIRONMENT

8.1 Umed Paoni Karhandla Wildlife Sanctuary

A **tigress** and her two cubs were found dead in the **Umed Paoni Karhandla Wildlife Sanctuary, Nagpur, Maharashtra.**

Umed Paoni Karhandla Wildlife Sanctuary has a connection with **Tadoba Andhari Tiger**

Reserve through forest along **Wainganga river (a tributary of Godavari).**

The sanctuary is home to resident breeding **tigers**, herds of **Gaur**, wild **dogs** and also **rare animals like flying squirrels, pangolins** and **honey badgers.**

8.2 Arctic: Concerns & Opportunities
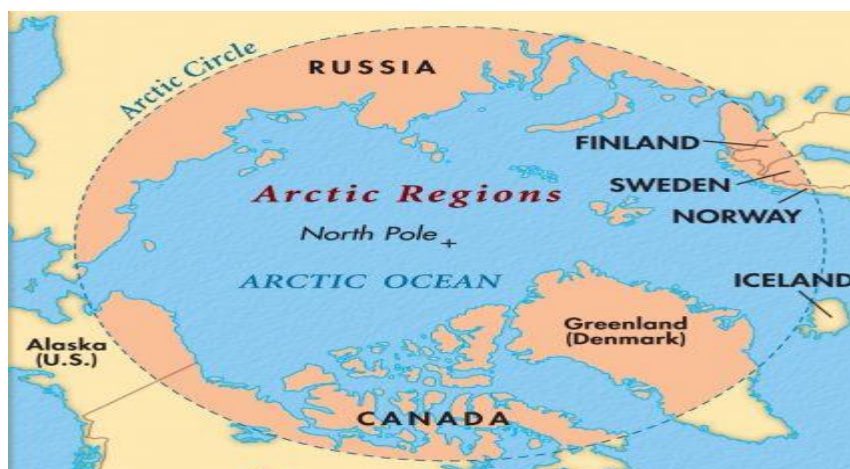
As per the **WWF–Arctic Programme,** the Arctic region is **warming up twice as fast as the global average.** The ice cap has been shrinking fast since 1980 and the **volume of Arctic sea ice has declined by as much as 75%.**

Since 1992, WWF's **(World Wide Fund for Nature) Arctic Programme** has been working with **its partners across the Arctic** to combat threats to the Arctic and to preserve **its rich biodiversity in a sustainable way.**

The Arctic is a **polar region** located at the northernmost part of Earth.

The Arctic consists of the **Arctic Ocean, adjacent seas, and parts of Alaska** (United States), **Canada, Finland, Greenland** (Denmark), **Iceland, Norway, Russia, and Sweden.**

Land within the Arctic region has seasonally **varying snow and ice cover.**

Ecological Impact of Warming on Arctic:

The loss of ice and the warming waters will affect **sea levels, salinity levels,** and **current** and **precipitation patterns.**

The **Tundra** is returning to **swamp,** the **permafrost is thawing, sudden storms are ravaging coastlines** and **wildfires** are devastating interior Canada and Russia.

Tundra: Found in regions **north of the Arctic Circle and south of the Antarctic Circle.** These

are **treeless regions.**

The phenomenally **rich biodiversity of the Arctic region is under serious threat.**

The absence of year-long ice and higher temperatures are making the survival of Arctic marine life, plants and birds difficult while encouraging species from lower latitudes to move north.

The Arctic is also home to about **40 different indigenous groups, whose culture, economy and way of life is in danger** of being swept away.

Increasing human encroachment with its attendant stresses will only aggravate this impact and upset a fragile balance.

Commercial Importance of Arctic:

The opening of the Arctic presents huge commercial and economic opportunities, particularly in **shipping, energy, fisheries and mineral resources.**

Commercial navigation:

The **Northern Sea Route (NSR)** which would connect the North Atlantic to the North Pacific through a short polar arc is the most tempting.

Oil and natural gas deposits:

Estimated to be 22% of the world's unexplored resources, mostly in the Arctic ocean, will be open to access along with mineral deposits including 25% of the global reserves of rare earths, buried in Greenland.

Issues Involved:

Navigation conditions are dangerous and restricted to the summer.

Lack of deep-water ports, a need for ice-breakers, shortage of workers trained for polar conditions, and high insurance costs add to the difficulties.

Mining and deep-sea drilling carry **massive costs** and **environmental risks.**

Unlike **Antarctica**, the Arctic is **not a global common** and there is no overarching treaty that governs it.

Conflict over Arctic:

Russia, Canada, Norway and Denmark have put in **overlapping claims for extended continental shelves,** and the **right to sea-bed resources.**

Russia is the dominant power, with the **longest Arctic coastline,** half the Arctic population, and a full-fledged strategic policy.

Claiming that the NSR falls within its territorial waters, Russia anticipates **huge dividends from commercial traffic including through the use of its ports, pilots and ice-breakers.**

Russia has also activated its northern military bases, refurbished its **nuclear armed submarine fleet and demonstrated its capabilities,** including through **an exercise with China** in the eastern Arctic.

China, playing for economic advantage, has moved in fast, projecting the **Polar Silk Road as an extension of the Belt and Road Initiatives**, and has invested heavily in ports, energy, undersea infrastructure and mining projects.

India's interests in Arctic:

Environmental Interest:

India's extensive coastline makes it vulnerable to the impact of Arctic warming on **ocean currents, weather patterns, fisheries and most importantly, the monsoon.**

Scientific Interest:

Scientific research in Arctic developments, in which India has a good record, will contribute to its **understanding of climatic changes in the Third Pole, the Himalayas.**

Strategic Interest:

The strategic implications of an **active China in the Arctic** and its growing economic and strategic relationship with Russia are self-evident and **need close monitoring.**

Since 2013, India has had **observer status** in the **Arctic Council**, which is the predominant inter-governmental forum for cooperation on the environmental and development aspects of the Arctic.

It is high time that its presence on the Arctic Council was underpinned by a strategic policy that encompassed **economic, environmental, scientific and political aspects.**

8.3 2020 was eighth hottest year since 1901

Recently, the **India Meteorological Department (IMD)** has said in its **State of the Climate Report** that the 2020 was **eighth hottest year** since 1901.

Annual Mean Temperature

The **annual mean land surface air temperature** averaged over India during 2020 was nearly **0.3 degree Celsius above normal** but was substantially lower than the highest warming observed over India during 2016.

The **monsoon and post-monsoon seasons** contributed to most of the temperature rise in 2020

with mean temperature in winter also above normal.

The pre-monsoon season temperature was **below normal (-0.030C).**

India's 0.3 degree rise was less than the **average global temperature rise of 1.2 degree.**

Annual Rainfall

The 2020's monsoon rainfall was **9% above its seasonal normal.**

The 2020 annual rainfall over the country as a whole was **109 per cent of its Long Period Average (LPA)** based on the data of 1961-2010.

The **2020 Northeast monsoon season** (October-December) rainfall over the country as a whole was normal (101 per cent of LPA).

Cyclonic Event

The five cyclones formed over the North Indian Ocean in 2020 including the super cyclonic Storm **AMPHAN**, Very Severe Cyclonic Storms **NIVAR & GATI**, Severe Cyclonic Storm **NISARGA**, and Cyclonic Storm **'BUREVI'.**

Natural Disasters

Bihar and Uttar Pradesh were the most **adversely affected States by natural disasters** during the year which claimed more than 350 deaths from each State mainly due to**thunderstorm, lightning and cold waves.**

Heavy rainfall and flood related incidents reportedly claimed over 600 lives from different parts of the country during pre-monsoon, monsoon and the post-monsoon seasons.

Of these, 129 deaths were in Assam, 72 from Kerala , 61 from Telangana, 54 lives from Bihar, 50 from Maharashtra, 48 Uttar Pradesh, & 38 from Himachal Pradesh.

Thunderstorms and lightning reportedly claimed 815 lives from different parts of the country.

8.4 Track Social Media to check Pangolin Poaching

Recently, the Odisha Forest department has stressed the need for stricter **monitoring of social media platforms to check pangolin poaching and trading.**

The Athagarh Forest Division in Odisha's Cuttack district had tasted success in **pinning down the active gang of pangolin smugglers** during November 2019.

The investigations revealed that the accused were **trading pangolin and scales online by forming WhatsApp groups** in which videos and photos were shared with potential customers.

The trafficking of live pangolin and its **scales is a highly lucrative business for organised mafia**, who exploit poor and vulnerable forest dwelling communities for their criminal interests.

Pangolins

Pangolins are **solitary, primarily nocturnal animals** and are easily recognized by their full armor of scales.

Pangolins are the **only mammals wholly-covered in scales** and they use those scales to protect themselves from predators in the wild.

There are **eight species of pangolins** which are found on two continents:

The four species live in **Africa**: **Black-bellied pangolin** (Phataginus tetradactyla), **White-bellied pangolin** (Phataginus tricuspis), **Giant Ground pangolin** (Smutsia gigantea) and **Temminck's Ground pangolin** (Smutsia temminckii).

The four species found in **Asia**: **Indian pangolin** (Manis crassicaudata), **Philippine pangolin** (Manis culionensis), **Sunda pangolin** (Manis javanica) and the **Chinese pangolin** (Manis pentadactyla).

The Indian Pangolin is listed as **Endangered** in the IUCN Red List of Threatened Species and protected under **Schedule I** of the Wildlife Protection Act, 1972.

Endangered pangolins
CITES* to ban all trade in the world's most heavily trafficked mammal

No reliable global population estimates but drastic local declines documented

- Increasing **demand for their meat and body parts** is fuelling illegal hunting
- More than **1 million pangolins** believed to have been **poached** from the wild in the past decade

Ban covers all 8 species of pangolin:
4 in Asia, 4 in Africa
CITES: Convention on International Trade in Endangered Species

Diet: ants, termites
Behaviour:
Solitary, nocturnal
Digs long burrows to hunt termites and for shelter
Can climb trees
Good swimmer

Defence
Rolls into a ball
Easy to catch for illegal meat and medicine market

Scales
Made from keratin, the substance that also forms human hair and nails
Sought on the black market for supposed medicinal benefits

Young travel on mother's tail

8.5 J&K: Heavy snowfall declared state-specific natural calamity

To expedite disbursement of relief and ex-gratia for damage caused by snowfall, Jammu and Kashmir's Lieutenant Governor declared '**Heavy Snowfall' as a state-specific natural calamity under the State Disaster Response Force (SDRF) norms**.

Earlier, **'Heavy Snowfall' did not figure in the list of Natural Calamities under SDRF norms**, due to which disbursement of relief and ex-gratia for damage due to heavy snowfall was not possible for the districts' disaster management authorities.

Now, processing of ex-gratia relief under SDRF will become faster, thereby giving huge relief to the affected people living in snowbound areas.

STATE DISASTER RESPONSE FUND (SDRF):

It has been constituted by each state under the provisions of the Disaster Management act 2005.

It was constituted based on the recommendations of the 13th Finance Commission.

Heads: The state executive committee headed by the Chief Secretary is authorized to decide on all matters relating to the financing of the relief expenditure from the SDRF.

Funding: The government of India contributes 75% and 90% of the total yearly allocation of SDRF to general states and special category states respectively.

Disaster (s) covered under SDRF: Cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, frost and cold waves.

8.6 More wildlife in Aravallis at Faridabad, Gurgaon than at Asola, need better protection: Study

According to a recent study, the wildlife corridor of the **Aravallis in Gurgaon and Faridabad harbours a richer "variety of mammals"** than the **Asola Wildlife Sanctuary**.

The study — a **"systematic assessment"** of mammals in the wildlife corridor formed by the Aravalli hills in Gurgaon and Faridabad with the Asola Wildlife Sanctuary (WLS) in Delhi — has been carried out. **It is conducted over two seasons in 2019, the study is "supported" by WWF-India Small Grants Programme and CEDAR**.

Findings

1. In comparison to Asola WLS, both **Gurgaon and Faridabad Aravallis were found to harbour extremely rich variety of mammals** — despite the fact that Asola is a wildlife sanctuary and has more legal protection.

2. This can be attributed to **"the attitude of tolerance to wildlife"** amongst the local population, **"general low density of people", and "subsistence agricultural practices"** prevalent in the two districts.

3. The study indicated that the hotspot of wildlife in this corridor is actually between **Damdama and Mangar Bani**, and **wildlife moves from there to Asola through the Aravalli in Faridabad**.

4. This indicates that **Asola will survive as long as the Aravalli region of Gurgaon and Faridabad survives**. If this finishes, Asola will automatically finish as well. It is, hence, critical to protect this region.

5. The **density of leopards and other endangered species, including striped hyena**, is approximately double in Gurgaon Aravallis of what it is in Faridabad and Asola.

Threats

1. Highways, especially the Gurgaon-Faridabad Expressway, and increasing construction are a "major threat" to the wildlife corridor. This expressway poses a major barrier to movement of wildlife between the Aravallis of Delhi and Haryana.

2. Land use change and protect the wildlife corridor and **habitat from further fragmentation, construction and deforestation** are other threats.

What needs to be done

1. Construction of expressways and highways, and planning, also needs to take into account wildlife in the city, such as by **constructing underpasses or flyovers** that allow at least a portion of the wildlife to cross from one part to the other and prevent complete fragmentation of wildlife populations between Aravallis of Delhi and Haryana.

2. Community-based conservation must be looked at — it is the low carbon lifestyle of the local people that is helping to conserve the area.

3. The **government** needs to understand that even if protecting this section of the Aravalli, most species will be able to regenerate.

8.7 Polar Vortex Threatens To Send US, Europe Into Deep Freeze

Polar vortex is splitting into two and swirling southward and this will lead to a chilling deep freeze in the US and European countries. Earlier, such vortex developed in 2014.

The polar vortex is a large area of low pressure and cold air surrounding both of the Earth's poles. It ALWAYS exists near the poles, but weakens in summer and strengthens in winter.

The term "vortex" refers to the counter-clockwise flow of air that helps keep the colder air near the Poles.

Many times during winter in the northern hemisphere, the polar vortex will expand, sending cold air southward with the jet stream.

This is not confined to the United States. Portions of Europe and Asia also experience cold surges connected to the polar vortex.

By itself, the only danger to humans is the magnitude of how cold temperatures will get when the polar vortex expands, sending Arctic air southward into areas that are not typically that cold.

Polar vortex is losing stability and its splitting causes dramatic, extreme weather implications across the western nations like the US and Europe.

With a 'disrupted' polar vortex in 2021, the colder air is expected to spill out of the Arctic and result in the onset of extremely harsh winters.

The polar vortex explained

A shift in the jet stream has brought the polar vortex — a mass of cold, low-pressure air — farther south than usual, causing temperatures in Chicago and much of the rest of the country to plummet.

WHERE THE POLAR VORTEX IS USUALLY LOCATED

1 The polar vortex is an area of low-pressure Arctic air normally centered around the North Pole.

2 It is usually held in place by the jet stream, a river of wind 25,000 to 35,000 feet above the ground that divides cold air from warm air, bending around high- and low-pressure weather systems.

HOW THE POLAR VORTEX MOVED SOUTH

3 A high-pressure system from the west pushed the jet stream, and a portion of the polar vortex, much farther south than normal.

4 That brought a portion of the vortex well into North America and caused temperatures in the Midwest and eastern United States to dive below zero.
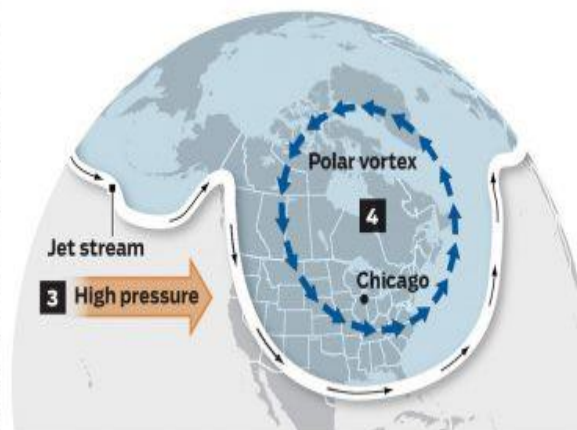
8.8 Indian star tortoises were smuggled

Indian star tortoises were seized while being smuggled from Andhra Pradesh to Odisha.

Found across the **Indian sub-continent,** more specifically, in the **Central and Southern parts of India,** in **West Pakistan** and in **Sri Lanka.**

Threats: loss of habitat to agriculture and illegal harvesting for the **pet trade**

Convention on International Trade in Species (CITES): Appendix I

IUCN Status: Vulnerable

Wild Life Protection Act 1972: Schedule IV (**species that are not endangered**)

8.9 2020 among the three warmest years: WMO

According to the World Meteorological Organisation (WMO), the year 2020 was among the three warmest years on record.

In 2019, the average global temperature recorded was 14.9 degrees Celsius, which was 1.2 degrees

above pre-industrial levels (1850 – 1900).

The warmest ever years recorded are 2016, 2019 and 2020.

In India, 2020 was the eighth warmest recorded since 1901, when the India Meteorological Department started maintaining temperature records.

The exceptional heat of 2020 is despite a La Nina event, which is a temporary cooling effect.

La Nina is an oceanic phenomenon when cooler than normal sea surface temperatures are recorded along the central and equatorial Pacific Ocean. It affects the global average temperatures. The current cycle of La Nina is expected to continue till the middle of 2021.

Under the Paris Climate Agreement, it was agreed to try to keep warming well below 2 degrees above pre-industrial levels in order to avoid the most extreme effects of climate change. But according to the WMO's Global Annual to Decadal Climate Update, there is a one-in-five chance that by 2024, warming would have already exceeded 1.5 degrees.

8.10 New monsoon forecast models on the anvil

The India Meteorological Department (IMD) may introduce new monsoon models this year to better forecast changes in rainfall.

Three different models that could be tested this year. Two of them were dynamical models and one a statistical model.

The monsoon that concluded in 2020 was unique, in that with monsoon 2019, it was only the third time in a century that India saw back-to-back years of above normal rainfall.

In both years — and monsoon 2019 was a 25-year high — the IMD failed to forecast the magnitude of the excess and only indicated that the monsoon would be "above normal".

Computer Simulation

In the former, the climate on any particular day is simulated on supercomputers and meteorologists observe the changing daily output.

The other is the traditional statistical model that equates relationships of physical parameters, such as for instance sea surface temperatures, snowfall, the temperature of landmass etc, with the actual observed rainfall in the past.

The three models under consideration are: **12 global circulation models** (dynamical) whose outputs would be combined into a single one; a model that gauges rainfall based on the sea surface

temperature in the tropics and the **statistical model** based on climate variables observed during the pre-monsoon.

All of them are 'ensembles' meaning smaller models are combined to arrive at an average value.

8.11 Gujarat rivers remain highly polluted despite norms

Pollution has been increased in the Sabarmati, Mahisagar, Narmada, Vishwamitri and Bhadar due to unchecked flow of untreated industrial effluent into rivers in Gujarat.

Gujarat ranks fourth among the top five States with highly polluted rivers, with as many as 20 rivers in the critically polluted category.

According to the Ministry of Environment and Forest (MoEF) data, the Sabarmati is among the most polluted rivers in the country.

As per the official parameters, if the chemical oxygen demand (COD), which indicates organic pollutant load, is higher than 250 mg per litre, then it should not be released into the rivers.

Most of the Gujarat rivers where the effluents are dumped into, the COD level is in the range of 700 to 1000 mg per litre.

While Dissolved Oxygen (DO) level [indicating the health of a river] in perennial rivers like Mahisgar should be in the range of 6 to 8 mg per litre, it is actually below 2.9 mg per litre.

8.12 Rare earth metals are used extensively in clean energy technologies

A survey done by United Nations University (UNU) and the World Health Organisation (WHO) on the impact e-waste has on child health, raised concerns around chemical burns, cancer and stunted growth.

Eradicating these substances from discarded products is difficult and costly, which is why much of the e-waste exported to the developing world under the pretence of being reused or refurbished ends up being dumped.

Naturally abundant wind, geothermal, solar, tidal and electric energy are being hastened as the future of the planet's energy needs. And rare earth elements are used in a bevy of technolgies to generate this cleaner, renewable energy like wind turbine magnets, solar cells, smartphone components, cells used in electric vehicles, among others.

Rare earth metals, they comprise seventeen chemical elements — 15 lanthanides (anthanum,

cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium), scandium and yttrium.

Despite the name, rare earth elements are found abundantly in the Earth's crust. They are widely dispersed and found in low concentrations that are not economically exploitable.

Extraction and mining of rare earth metals involves similar land-use exploitation, environmental damage and ecological burden as any other mining operation. They are mined using extremely energy-intensive processes, spewing carbon emissions into the atmosphere and toxins into the ground.

Many of these metals, which include mercury, barium, lead, chromium and cadmium, are extremely damaging to the health of several ecosystems, including humans.

Global Scenario

Until 1948, India and Brazil were the world's primary producers of rare earth metals.

The countries with the most rare earth metals currently are China (the largest reserves in the world), the United States, Brazil, India, Vietnam, Australia, Russia, Myanmar, and Indonesia.

Due to ambitious renewable energy initiatives resulting from many nations pursuing renewable technologies, there is a need for caution.

Especially when the largest reserves in the world, the largest users and the country which is involved in a majority of the supply chains is China.

Road Ahead

Recycling of these rare earth metals for continous usage for various technologies is a good option that can be considered.

It is a lengthy process which involves demagnetisation (by heating), crushing and roasting, followed by a leaching process and a separation method before a final roasting to produce a mixed rare earth oxide.

The usage of these metals in our most advanced technologies and which form a critical part of the renewable energy revolution should be handled with careful, sincere and cleaner measures if the way forward has to be greener and environment-friendly.

8.13 Wild elephant caught in fishing nets rescued

A stranded wild elephant was rescued in Nugu reservoir, close to Bandipur Tiger Reserve in Karnataka.

According to the Tiger census 2018, Karnataka has the second highest number of tigers in the country after Madhya Pradesh.

Bandipur Tiger Reserve is situated in two contiguous districts , Mysore and Chamarajanagar, of Karnataka

Located at the tri-junction area of the States Karnataka, Tamil Nadu and Kerala. It forms a part of Nilgiri Biosphere Reserve.

Established in 1973 under Project Tiger.

In 1985, by including adjacent areas from Venugopala Wildlife Park, it was enlarged and named as Bandipur National Park.

It is surrounded by: Mudumalai Tiger Reserve (Tamil Nadu) in the South, Wayanad Wildlife Sanctuary (Kerala) in the South-west & The Kabini Reservoir.

Home to the **single largest Asian Elephant population** in the world and is part of the **Mysore Elephant Reserve (MER).**

Located between the **Kabini river** in the north and the **Moyar river** in the south.

The **Nugu river** runs through the park.

Highest point in the park is on a hill called **Himavad Gopalaswamy Betta.**

8.14 DRDO inks framework MoU with MoRTH for Geo-hazard Management

Defence Research and Development Organisation (DRDO) has entered into a framework memorandum of understanding (MoU) with the Ministry of Road Transport & Highways (MoRTH) to strengthen collaboration in the field of technical exchange and co-operation on sustainable geohazard management.

As per the agreement, DRDO and MoRTH will co-operate in various mutually beneficial areas related to geohazard management.

The initiative will ensure safety against the adverse effects of landslides and other natural calamities on national highways in the country.

MoRTH is responsible for development & maintenance of National Highways across the country.

Expertise of DRDO will be utilized in providing sustainable mitigation measures to damages caused by landslides, avalanche and other natural factors on various National Highways in the Country.

Some of the areas identified for collaboration include detailed investigation of the critical avalanches/geo hazards, planning, designing and formulation of sustainable mitigation measures for geo-hazards on national highways including tunnels, monitoring and supervision of mitigation measures etc.

DGRE

DRDO's Defence Geo-Informatics Research Establishment (DGRE) is working for the development of critical technologies for enhancing combat effectiveness in various kinds of terrains and avalanches.

The expertise of DGRE in mapping, forecasting, control and mitigation of landslides and avalanches in Himalayan terrain will be utilized for designing national highways including tunnels.

Terrain and modelling simulation is an important asset with DGRE, which will play an important role in planning and building robust road infrastructure in difficult terrains.

Some banks, due to their size, cross-jurisdictional activities, complexity, lack of substitutability and interconnectedness, become Systemically Important Banks, which are perceived as 'Too Big To Fail (TBTF)'.

D-SIB framework is based on the assessment conducted by the national authorities, who are best placed to evaluate the impact of failure on the local financial system and the local economy.

In case a foreign bank having branch presence in India is a Global Systemically Important Bank (G-SIB).

The RBI had issued the framework for dealing with D-SIB in 2014.

The D-SIB framework requires the Reserve Bank to disclose the names of banks designated as D-SIBs starting from 2015 and place these banks in appropriate buckets depending upon their Systemic Importance Scores (SISs).

8.15 Ensure scientific management of e-waste, environmental crimes as serious as assault: NGT to CPCB & Biomedical waste sites must get authorisation: NGT

National Green Tribunal (NGT) has recently ordered central and all state pollution control boards that scientific disposal of e-waste should be ensured as per rules citing huge gaps in compliance of electronic waste-management rules.

NGT has directed biomedical waste management facilities in the country to obtain authorisation from State pollution control boards to ensure compliance from the biomedical waste management

facilities due to regular fines being imposed on various healthcare facilities and biomedical waste treatment facilities.

ORDER RELATED TO E-WASTE MANAGEMENT

To reduce damage to the public health, environment and meaningful enforcement of rule of law, all the state pollution control boards need to identify the hotspots by constant vigil and to coordinate with the District Administration at local levels.

Large number of accidents takes place in residential areas due to unscientific handling of e-waste, which needs special attention for constant vigilance in such hotspots.

Further steps should be taken for scientific enforcement of E-Waste Management Rules, 2016 (EWMR) in the light of the reports of the CPCB.

E-WASTE (Electronic-Waste)

Old, end-of-life or discarded electronic appliances. It includes their components, consumables, parts and spares.

Central Pollution Control Board (CPCB) noted that India generated more than 10 lakh tonnes of e-waste in 2019-20, an increase from 7 lakh tonnes in 2017-18.

E-waste dismantling capacity has not been increased from 7.82 lakh tonnes since 2017-18.

In 2018, the Ministry of Environment held that 95% of e-waste in India is recycled by the informal sector and scrap dealers unscientifically dispose of it by burning or dissolving it in acids.

The Ministry of Environment, Forest and Climate Change notified the E-Waste Management Rules, 2016 in supersession of the E-waste (Management & Handling) Rules, 2011.

BIO-MEDICAL WASTE GUIDELINES

CPCB: Ensure strict compliance of biomedical waste management rules and scientific disposal of the waste.

The Chief Secretaries of all the States/UTs to oversee compliance and ensure that authorisation is secured by every health care facility in their respective jurisdiction and there is adherence to the norms.

Groundwater contamination does not take place while permitting deep burials.

Hazardous bio-medical waste is not mixed with the general waste.

Frequent Violation of Rules: The direction came as a result of

Differentiation of COVID-19 biomedical waste from general garbage is a must to avoid further contamination adversely affecting public health.

8.16 India proposes to expand research, tourism in the Arctic

India has unveiled a new draft 'Arctic' policy that, commits to expanding scientific research, "sustainable tourism" and mineral oil and gas exploration in the Arctic region.

The draft policy is open to public comments until 26 January 2021 and has been prepared after deliberations among several Ministries.

India expects the **Goa-based National Centre for Polar and Ocean Research** to lead scientific research and act as a nodal body to coordinate among various scientific bodies to promote domestic scientific research capacities by expanding "earth sciences, biological sciences, geosciences, climate change and space related programmes, dove-tailed with Arctic imperatives in Indian universities."

Other objectives of the policy include "putting in place Arctic related programmes for mineral/oil and gas exploration in petroleum research institutes and encouraging tourism and hospitality sectors in building specialised capacities and awareness to engage with Arctic enterprises".

Significance

India launched its first scientific expedition to the Arctic in 2007.

Arctic research will help India's scientific community to study melting rates of the third pole — the Himalayan glaciers, which are endowed with the largest freshwater reserves in the world outside the geographic poles.

8.17 Sunderbans is home to 428 species of birds, says ZSI

According to a recent publication (Birds of the Sundarban Biosphere Reserve) of the Zoological Survey of India (ZSI), the Indian Sunderbans, which is part of the largest mangrove forest in the world, is home to 428 species of birds.

The Indian Sunderbans, which covers 4,200 sq. km, also includes the Sunderban Tiger Reserve of 2,585 sq. km — home to about 96 royal Bengal tigers (as per the last census in 2020). It is a world heritage site and a Ramsar site (a wetland site designated to be of international importance).

428 birds listed, some, like the masked finfoot and the Buffy fish owl, are recorded only from the Sunderbans.

The area is home to nine out of 12 species of kingfishers found in the country as well rare species such as the Goliath heron and the spoon-billed sandpiper.

India has over 1,300 species of birds and if 428 species of birds are from the Sunderbans, it means that one in every three birds in the country is found in the unique ecosystem.

Sunderbans are the most diverse of natural landscapes and accounts for 60% of all mangrove forests in the country.

The mudflats exposed in the low tides, rich in microorganism deposited during tidal activity, are ideal feeding for migratory birds.

The mudflats and wetlands of the Sunderbans act as a stopover site for migratory flight south [southwards] and back.

PUBLICATION:

The publication not only documents the avifauna of the Sunderbans, but also serves as a comprehensive photographic field guide, with detailed distribution and locality data for all the species from the region.

The book, with photographs of the males and females of various species, is aimed to kindle interest and spread knowledge about birds among people from all walks of life — from forest staff to tourists to amateur birdwatchers.

8.18 New ant species discovered from Kerala named after JNCASR researcher, evolutionary biologist Prof. Amitabh Joshi

Two new species of a rare ant genus have been discovered in India. The species of the ant genus *Ooceraea* found in Kerala, and Tamil Nadu add to the diversity of this rare genus. They differ from others of the same genus on the basis of the number of antennal segments.

One of them found in the Periyar Tiger Reserve of Kerala, has been named *Ooceraea joshii*, in honour of Prof. Amitabh Joshi, a distinguished evolutionary biologist from **Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR)** an autonomous institute of the Department of Science & Technology (DST), Government of India.

New species are typically named after some distinguishing attribute or location but are often named after scientists as a means of honouring their research contributions to biology, especially in the fields of evolutionary and organismal biology, ecology or systematics.

The two new species, the first ones spotted with ten-segmented antennae among this rare genus, were discovered.

The genus is currently represented by 14 species of which eight possess nine-segmented antennae, while five possess eleven- segmented antennae and one species has recently been reported with eight-segmented antennae.

In India, the genus was so far represented by two species with nine- and eleven-segmented antennae respectively.

The newly discovered ant species with ten segmented antennae discovered, establish an old world lineage that contains a species emerging as the only model organism among the ant subfamily.

8.19 Madhya Pradesh: Tigress dies after getting trapped in snare

In the buffer zone of Kanha tiger reserve in Madhya Pradesh, a tigress was found dead.

Kanha National Park

Kanha National Park is nestled in the Maikal range of Satpuras in Madhya Pradesh, the heart of India that forms the central Indian highlands.

Kanha National Park was declared a reserve forest in 1879 and revalued as a wildlife sanctuary in 1933. Its position was further upgraded to a national park in 1955.

The Kanha National Park is spread across the area of 940 sq km in the Maikal chain of hills. By bringing up the buffer and core zone all together, the Kanha Tiger Reserve has the total area of 1945 sq km.

This vivacious land has been the source of inspiration for Rudyard Kipling, a famous writer for his outstanding creation- "The Jungle Book".

WILDLIFE: A location which is filled with large varieties of fauna out of which the jungle is best known for Barasingha, the swamp deer and is famously called 'the jewel of Kanha'. The tiger tour is perfectly a great option for the nature lovers in Kanha.

TRIBES: The **Kanha National Park** was originally a part of the Gondwanas or the "land of the Gonds". The forest of the Kanha Tiger Reserve was inhibited by two indigenous tribes of Central India, the Gonds and the Baigas. The vicinity of the reserve is still occupied with the villagers of these tribes.

BARASINGHA- THE JEWEL OF KANHA

Traditionally known as Dolhorina which is similar to the English name (Swamp Deer), Barasingha is the most abundant species found in Kanha Reserve.

This species is being recognized as the sub- Himalayan terai of North India, the hard ground

Barasingha is an exclusive graminivorous deer species that totally depends on grasses and grasslands and shows a preference for aquatic plants. It is the most peaceful species in Kanha that easily interacts with Chital.

They are often found to wade into water, frequently dipping its stifle to feed on water plants.

THREATS: Hunting, poaching and diversion of the long grassland to agriculture in Central India has been the main causes of their depletion in counts and thus the reserve officials have taken some necessary steps so as to conserve their population.

8.20 Conservationist joins panel on elephant corridor case

The Supreme Court appointed conservationist Nandita Hazarika as Member of a Technical Committee constituted by it on October 14, 2020 to hear complaints by land owners against the action taken by the Nilgris Collector, which included sealing of their buildings and allegations about the "arbitrary variance in acreage of the elephant corridor."

In 2011, the Madras HC upheld the validity of the Tamil Nadu government's notification (of 2010) declaring an 'Elephant Corridor' in the Sigur Plateau of Nilgiris District.

Government is fully empowered under the 'Project Elephant' of the Union government as well as Article 51 A(g) of the Constitution to notify the elephant corridor in the state's Nilgiris district.

The corridor is situated in the ecologically fragile Sigur plateau, which connects the Western and the Eastern Ghats and sustains elephant populations and their genetic diversity.

It is situated near the Mudumalai National Park in the Nilgiris district.

It has the Nilgiri Hills on its southwestern side and the Moyar River Valley on its north-eastern side. The elephants cross the plateau in search of food and water.

There are about **100 elephant corridors** in India of which almost 70% are used regularly.

8.21 Plastic burning main reason behind visibility reduction over Delhi: IIT Madras study

According to an international study led by researchers from the Indian Institute of Technology (IIT) Madras, **Chloride-rich particles resulting from plastic burning** may be primarily responsible for **haze and fog formation in Northern India**, including Delhi, during the winter months.

The study, published in the journal Nature Geoscience, may help develop better policies to improve the air quality and visibility in North India.

Many studies in the past have identified particulate matter or aerosol particles with diameter less than 2.5 micrometres (PM2.5) as a major pollutant, responsible for haze and fog formation over Indo-Gangetic plain, including Delhi.

The new study found that chloride-rich particles were the highest inorganic fraction in particulate matter, primarily responsible for haze and fog formation in the region.

Plastic-contained waste burning can emit highly toxic chemicals called 'dioxins', which can accumulate in food chain causing severe problems with reproduction and immune system.

8.22 Exposure to PM 2.5 raises anaemia risk in kids under 5: IIT-Delhi study

A study, titled 'The Association Between Ambient PM 2.5 Exposure and Anaemia Outcomes Among Children Under Five Years of Age in India', published in the journal Environmental Epidemiology, conducted by IIT-Delhi has found that extended periods of exposure to PM 2.5 can lead to anaemia among children under the age of 5 years.

The study has found that for every 10 micrograms per meter cube increase in PM2.5 levels exposure, there is a decrease of 0.07 grams per dL in average haemoglobin levels.

This is the first study to have been carried out in India, where an association between exposure to PM 2.5 and anaemia in children under the age of 5 years in India has been examined and established, even as numerous other studies have looked at other detrimental health impacts of particulate matter.

The study is important because so far anaemia has been looked at through the prism of nutrition deficiency, specifically that of iron.

But even if government programmes like Poshan Abhiyan were strengthened, till air pollution is curtailed or exposure of children to PM 2.5 is brought down, anaemia is likely to continue to persist.

Children with anaemia were on average slightly younger compared with children without anaemia, tended to be from lower wealth index levels, and had higher percentages of maternal anaemia.

Studies linking anaemia to PM2.5 have been few and those that have been carried out have been mostly in the US, Europe and China.

NFHS FINDINGS:

According to the India National Family and Health Survey 2015–2016 (NFHS-4), 53.1 percent of women in India with 15–49 years of age and 58.5 per cent of children under five were anaemic.

The introduction of the **National Iron Plus Initiative in 2011** sought to expand the **beneficiaries**

of the **National Nutritional Anaemia Prophylaxis Program** to children with 6–59 months of age and although anaemia decreased by about 11 per cent between 2006 and 2016, it remains a major issue.

Full results of the NFHS 5 are yet to be released and that will be interesting to look at to see if there is a correlation between a decrease in pollution and anaemia as well and what effects national nutrition programmes and the National Clean Air programme has had on anaemia and the health of children.

8.23 Centre plans 'green tax' for older vehicles

The Centre plans to notify a system of imposing "green tax" on older vehicles in a move to disincentivise the use of polluting vehicles, and to curb pollution in the country.

Union Road Transport and Highways Ministry has approved the proposal and the centre has sent it to the states for consultation after which it will be notified.

Vehicles like strong hybrids, electric vehicles and those running on alternate fuels like CNG, ethanol and LPG will be exempted while the revenue collected through the green tax will be utilised for tackling pollution.

Transport vehicles older than eight years could be charged green tax at the time of renewal of fitness certificate at the rate of 10 to 25 percent of road tax.

Personal vehicles are proposed to be charged green tax at the time of renewal of registration certification after 15 years; public transport vehicles, such as city buses, will be charged lower green tax; higher green tax (50 percent of road tax) will be levied on vehicles being registered in highly polluted cities, the government statement said.

Differential tax will also be charged depending on fuel (petrol/ diesel) and the type of vehicle.

Apart from strong hybrids, electric vehicles and alternate fuels like CNG, ethanol, LPG etc, vehicles used in farming, such as tractor, harvesters and tillers will be exempted from the tax, the statement said.

According to the ministry, the revenue collected from the green tax will be kept in a separate account and will be used for tackling pollution.

Benefits of the green tax: It will dissuade people from using vehicles which damage the environment and motivate them to switch to newer, less polluting vehicles. Green tax will reduce the pollution level, and make the polluter pay for pollution.

No-Benefits: Imposing additional tax on Public transport such as buses will transfer the burden on the public which is already suffering income losses post pandemic crisis. Green tax will contribute in increasing the overall transportation cost which could surge the overall inflation.