POLITY & GOVERNANCE

Kerala Assembly passes resolution against Citizenship Amendment Act

- The Kerala passed a resolution demanding scrapping of the controversial Citizenship Amendment Act (CAA), becoming the first State in the country to do so.
- CPI(M)-ruled **Kerala was the first to take the legislature** route to register its opposition to the law.

Key Highlights

- The Kerala CM argued that the CAA was against the "secular" outlook and fabric of the country and would lead to religion-based discrimination in granting citizenship.
- The Chief Minister noted that the Act had triggered widespread protests among various strata of Society and dented India's image in the eyes of the international community. He also assured that there won't be any detention Centres in the state.
- Both the ruling CPI(M)-led LDF government and Congress-led UDF government jointly opposed the centre's CAA act and supported the anti-CAA resolution.
- The lone BJP member in the Assembly, O Rajagopal, objected to the resolution calling it "illegal and unconstitutional", as the CAA act was passed by both the Houses of the Parliament.

Background

- Kerala has already put on hold all the activities in connection with the National Population Register (NPR) considering the anxiety among people that it relates to the National Register of Citizens (NRC).
- The Parliament had passed the Citizenship (Amendment) Bill 2019. The act had triggered widespread protests across India and created fear of discrimination based on religion.
- The Union Home Ministry released a document with answers to some of the frequently asked questions on the CAA in an attempt to clear doubts regarding the law.
- The Ministry reiterated that the CAA will not impact any Indian citizen including Muslims. The clarification has failed to have any impact on the protests, with many States announcing that they will not implement the law.

What is the CAA?

According to the CAA, Hindu, Christian, Buddhist, Jain, Sikh and Parsi migrants who have entered India illegally-that is, without a visa-on or before December 31, 2014 from the Muslim-majority countries of Pakistan, Afghanistan and Bangladesh and have stayed in the Country for five years, are eligible to apply for Indian Citizenship.

Why is the provision extended only to people of six religions, and not Muslims, and why does it apply only to people coming from these three countries?

- The Union government claims that people of these six faiths have faced persecution in these three Islamic countries, Muslims haven't.
- It is, therefore, India's moral obligation to provide them shelter.

Swachh Survekshan League 2020

- It was launched by **Housing and Urban Affairs Minister**.
- **Indore (Madhya Pradesh) and Jamshedpur (Jharkhand)** have topped the cleanliness charts for two consecutive quarters among cities with over 10 lakh population and with 1 lakh to 10 lakh population respectively.
- **Kolkata** ranked at the bottom of the ranking of 49 major cities across both quarters as West Bengal did not participate in the nationwide exercise.
- Among cantonment boards, **Tamil Nadu's St.Thomas Mount Cantt** was ranked 1st in quarter 1 whereas Delhi Cantt ranked first in the 2nd quarter.
- **Secunderabad** Cantonment Board in Hyderabad is the worst performer among other cantonment Boards.
- It is the **5th edition of the annual urban cleanliness survey** conducted by the Ministry.

Aim

- The Swachh Survekshan League has been launched with the aim of sustaining the on-ground performance of cities along with continuous monitoring of service level performance in cleanliness.
- The SS League 2020 will be conducted in 3 quarters April- June, July – September and October- December 2019.
- It will have a weightage of 2000 marks for each quarter, which will be evaluated on the basis of monthly updation of SBM-U online MIS by Cities along with Citizen's validation on the 12 service level progress indicators through outbound calls. These two parameters will determine the quarterly ranking of Cities.
- The ranks will be assigned in two categories:
  - Cities with population of one lakh and above
  - Cities with population of less than 1 lakh
- The exercise will cover all ULBs that have come into existence on or before 31 December 2018.

Swachh Survekshan League 2020: Significance

The high performance of the Indian cities in Swachh Survekshan League 2020 will be crucial, as it will impact their ranking in Swachh Survekshan 2020, as 25 percent weightage of the quarterly assessment will be included in the annual survey in January 2020.

Swachh Survekshan Survey

Objectives of Swachh Survekshan

- The annual cleanliness survey aims to encourage large scale participation of citizens in cleanliness drives.
- It aims to ensure sustainability of initiatives taken towards garbage free and open defecation free cities.
- It aims to create awareness among all sections of the society regarding the importance of working together towards making towns and cities a better place to live in.
- The survey also aims to foster healthy competition among towns and cities to improve their service delivery to citizens, towards creating cleaner cities.

About Swachh Survekshan Survey

- The first edition of the annual cleanliness survey was conducted in January 2016. It involved the ranking of 73 cities.
- The 'Swachh Survekshan-2017' was conducted for 434 cities in January-February 2017.
- The third edition of the survey, which was held in 2018, was conducted across 4,203 cities in 66 days. It became the largest-ever pan-India sanitation survey in the world.
- The fourth edition of the cleanliness survey, Swachh Survekshan 2019 covered 4237 cities in a record time of 28 days. The survey was fully digitized and paperless.
- While Mysuru was judged as the cleanest City in India in the 2016 Swachh Survekshan, Indore was ranked as the cleanest city in India in the last three editions of the annual cleanliness survey.

A clean sweep

Urban Local Bodies (ULB) from Gujarat and M.P. dominated the top rankings of the Swachh Survekshan 2020 survey. The rankings were based on collection, transportation, processing and disposal of waste

Top five ULBs in the >10 lakh population category

← Quarter 1 →	← Quarter 2 →
ULB, *State*	**ULB,** *State*
Indore, *M.P.*	Indore, *M.P.*
Bhopal, *M.P.*	Rajkot, *Gujarat*
Surat, *Gujarat*	Navi Mumbai, *Maharashtra*
Nashik, *Maharashtra*	Vadodara, *Gujarat*
Rajkot, *Gujarat*	Bhopal, *M.P.*

Railways renames RPF as Indian Railway Protection Force Service

- The Railways has renamed its security force RPF (Railway Protection Force) as Indian Railway Protection Force Service.
- The ministry has accorded organised Group A status to RPF and renamed it

- Consequent upon grant of organized group A status (OGAS) to RPF in the light of Cabinet decision arising from honourable Court's Orders, it is hereby informed that RPF will be known as Indian Railway Protection Force Service," the Order stated.

About RPF

- The RPF was formed under the Railway Protection Force Act, 1957.
- Under the act, the RPF personnel have powers to search, arrest, investigate and prosecution
- However, the ultimate power lies in the hands of Government Railway Police. RPF works under the control of Ministry of Railways.

Government Railway Police (GRP)

- These Police forces are different from that of the RPF.
- The GRP was established under Railway's Act, 1989.
- The duties of GRP are same as that of District Police such as patrolling.
- But they hold their jurisdiction only on railway property.
- They observe law and order within the railway stations in the country.
- Also, the GRP examine empty train carriages, prevent overcrowding and control vehicle traffic inside the station premises.

PM-Kisan Samman Nidhi Yojana

- PM-Kisan Yojana is an initiative by the Government of India for the families of farmers across India.
- The purpose of the Scheme was to provide financial support to the small and marginal farmers.
- Third Installment of the PM-Kisan Samman Nidhi Yojana has been released by Prime Minister .
- The scheme was first introduced in Telangana as "Rythu Bandhu" scheme.

Why it is needed

- Declining prices of agricultural commodities in the international market and fall in food inflation in India since 2017-18, relative to non-food sector, therefore reduced the returns from farming.
- To increase the income of farmers as small and fragmented land holdings and their further divisions has contributed in declined income.
- To provide structured income support for procuring inputs such as seeds, fertilizers, equipment, labour and other needs.

Features of the programme

- Vulnerable landholding farmer families, having cultivable land upto 2 hectares, will be provided direct income support at the rate of Rs 6,000 per year.
- Income support will be transferred directly into the bank accounts of beneficiary farmers, in three equal installments of Rs 2,000 each.

- This programme will entail an annual expenditure of Rs 75,000 Crores and will be funded by Government of India. Around 12 Crore small and marginal farmer families are expected to benefit from this.

Political Parties Registration Tracking Management System (PPRTMS)

- The Election Commission of India has launched a "Political Parties Registration Tracking Management System (PPRTMS)".
- The salient feature in the PPRTMS is that the applicant, who is applying for a political party registration from 1st January, 2020 will be able to track the progress of his/her application and will get status updates through SMS and e-mail.
- Registration of political parties is governed by the provisions of Section 29A of the Representation of the People Act, 1951.
- An association seeking registration under the above mentioned Section has to submit an application to the Commission within a period of 30 days following the date of its formation.

Niti Aayog for PPP model to link private Medical Colleges with District Hospitals

- The Government Think Tank released its Draft "Model Concession Agreement for Setting Up Medical Colleges under Public Private Partnership" guideline document.
- The Think Tank has suggested Public Private Partnership (PPP) model to link private Medical Colleges and District Hospitals.
- The suggestion will address the issues of limited resources and finances in Medical Education. The model is already operative in the States of Gujarat and Karnataka.
- This will also help in increasing Medical seats. Also, this will help to bridge the gap of shortage of Doctors in the Country.

World Book Fair 2020 at New Delhi

- The New Delhi World Book Fair organized by the **National Book Trust** is being held for the last 42 years now.
- The Trust is an Apex body of Government of India functioning under **Ministry of Human Resource Development.**
- The World Book Fair is to be held between January 4-12.
- The fair is organized jointly by **National Book Trust** and **India Trade Promotion Organization.**
- More than 800 exhibitors and 40 foreign exhibitors are to participate in the fair.
- The fair also acts as a gateway to the intellectual world of South Asia.
- **Theme:** Gandhi, the Writers' Writer

Indian Railways launches integrated helpline number 139 for passengers

- The Indian Railways has integrated its helpline numbers into a single number -- **139** for quick grievance redressal and enquiries by passengers during their train journeys.

- The new helpline number 139 will take over all the existing helpline numbers.

- It will be easy for passengers to remember this number and connect with Railways for all their needs during train travel.

- The Helpline 139 will be available in **twelve languages**.

- It will be based on **Interactive Voice Response System**.

- A call can be made on this number from any mobile phone and not just smart phones, thus, providing easy access to all mobile users.

Maharashtra Government launches 'Cyber Safe Women' initiative

- Maharashtra Government has launched a **'Cyber Safe Women'** initiative under which awareness camps will be held across all the Districts of the State regarding Cyber safety.

- The initiative will help in educating women about how the Web is used by anti-social elements and child predators to commit various types of crimes.

- Rising instances of cyber-crime need to be curbed and the government is looking to take all measures to ensure that women and children do not fall prey to these criminal activities.

One Nation One Ration Card scheme

- One Nation One Ration Card scheme has been implemented in 12 states.

- The 12 states are Andhra Pradesh, Telangana, Gujarat, Maharashtra, Haryana, Rajasthan, Karnataka, Kerala, Goa, Madhya Pradesh, Tripura, and Jharkhand.

- Under this scheme, beneficiaries can buy subsidised food grains from ration shops in any of these 12 states.

About Scheme

- Launched by **Ministry of Consumer Affairs, Food and Public Distribution**.

- The main objective is to introduce nation-wide portability of ration card holders under **National Food Security Act, 2013 (NFSA)**

- It will allow portability of food security benefits to lift their entitlement food grains from any Fair Price Shop in the country

- This means poor migrant workers will be able to buy subsidised rice and wheat from any ration shop in the country, so long as their ration cards are linked to Aadhaar.

- It would integrate the existing PDS systems/portals of States/UTs with the Central systems/portals.

National pension scheme for traders and self-employed persons

- The National Pension Scheme for traders, Shopkeepers and Self-Employed persons, also called the **Pradhan Mantri Laghu Vyapari Maan-dhan Yojana** was lauched in July 2019.

- It is aimed at benefitting 3 Crore small traders and shopkeepers.
- The Government set a target of **50 lakh** enrolment by the end of **March 2020.** However, only 25,000 persons have applied so far.
- Among all States, **Uttar Pradesh** has highest registrations with 6,765 persons. No one has so far registered in the scheme in the States of Mizoram and Lakshadweep.

About the Scheme

- The scheme is being implemented by **Ministry of Labour and Employment**.
- In order to enrol in the scheme, **GSTIN** is required only for those whose turnover is above Rs **40 lakhs**.
- The participant of the scheme should not be an **income tax payer.**
- The subscribers will receive monthly pension of Rs 3000 after the age of 60.
- The persons in the age of 18-40 years are eligible to apply to the scheme.
- The beneficiaries of the scheme believe that the majority of the population start their pension plans between 40 and 55.
- The scheme excludes the age group between 40 and 55.
- Also, Rs 3000 being provided as pension after 30 years will hardly have value as money would have inflated by then.

India's UJALA Programme completes 5 successful years

Government of India's UJALA scheme and Street Lighting National Programme (SLNP) of the Central government has completed five successful years.

About UJALA:

- UJALA stands for **Unnat Jyoti by Affordable LEDs** for All. The scheme was launched in **2015.**
- It aims at promoting efficient usage of **energy consumption, energy savings and efficient lighting** for all.
- **Electricity Distribution Company and Energy Efficiency Services Limited (EESL)**, a Public sector body of Government of India is implementing the programme.
- As per the scheme, Electricity Distribution Company would distribute LED bulbs at subsidized rates to every grid-connected customer with a metered connection.
- Every domestic household having a metered connection from their respective Electricity Distribution Company is eligible to get the LED bulbs under the UJALA Scheme.

About Street Lighting National Programme(SLNP):

- Street Light National Programme(SLNP) was launched in 2015 to **replace conventional street and domestic lights** with energy efficient **LED lights.**
- It aims to replace **3.5 crore** conventional street lights with energy efficient LED lights.

- This replacement is expected to result in an annual energy saving of **900 Crore** Units and a financial saving of Rs **5,500 crore**.
- Implementation: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.

About EESL:

- Energy Efficiency Services Limited(EESL) is a joint venture of four National Public Sector Enterprises– NTPC Limited,Power Finance Corporation Ltd(PFC),REC and POWERGRID.It was set up under the Ministry of Power.
- It is a Super Energy Service Company(ESCO) and leads the market-related activities of the National Mission for Enhanced Energy Efficiency(NMEEE),one of the eight national missions under the Prime Minister's National Action Plan on Climate Change.

Pulses Conclave 2020

- India Pulses and Grains Association (IPGA), the nodal body for **India's pulses trade and industry** today announced that the **fifth edition** 'The Pulses Conclave', their biennial global pulses conference will be held at **Amby Valley City in Lonavala, Maharashtra**.
- IPGA expects close to 1500 trade stakeholders from India and key pulses exporting Countries like the USA, Australia, Canada, Myanmar, Ethiopia, Uganda, Tanzania, Mozambique, Malawi, etc. to participate in 'The Pulses Conclave 2020' (TPC 2020).
- India is the **largest producer** of pulses in the World. It accounts for around 25% of global production. Also, India is the **largest consumer** of pulses.

Over hundred global scientists converge in NIOT Chennai

- Over hundred global scientists in the field of ocean studies converged at the National Institute of Ocean Technology (NIOT) in Chennai to participate in the **Central Indian Ocean Leadership Workshop** with the support of the **United Nations.**
- The scientists represent fifteen **Indian Ocean Rim countries.**
- **Established in:** 1993.
- **Status:** An autonomous society under the **Ministry of Earth Sciences,** Government of India.
- **Administration:** NIOT is managed by a Governing Council and the Director is the head of the Institute.
- **Mandate:** To develop reliable indigenous technologies to solve the various engineering problems associated with harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ), which is about two-thirds of the land area of India.
- **Headquarters:** Chennai, Tamil Nadu.

Indian Army begins work on GOCO Model

- Indian Army has began its work on the GOCO (Government Owned Contractor Operated) Model.
- The GOCO model was one of the recommendations of the Lt. Gen. DB Shekatkar (Retd.) committee to enhance combat capability and re-balancing defence expenditure.
- In GOCO model, the assets owned by government will be operated by the private industries.
- The Private companies need not make investments on land, machinery and other support systems.
- The missions are set by government and the private sectors are given full independence in implementing the missions using their best practices.

Significance of the model:

- The main advantage of the model is that the targets are achieved in lesser time frame.
- It will also boost the competitiveness among the private entities.
- It also helps in reducing government expenditure on armed forces and increase combat capability of the army.

Purvodaya-Accelerated Development Of Eastern Region

- Ministry of Steel in partnership with CII and JPC is organizing the launch of **Purvodaya-Accelerated Development of Eastern Region** through an **Integrated Steel hub**, in line with government Vision for focused development of the Eastern States.
- The Eastern region of India, though extremely rich in resources like **bauxite, coking coal, and dolomite reserves** with locational advantage with the presence of major ports such as **Paradip, Haldia, Vizag, Kolkata** lags behind other States in terms of GSDP per capita and Human Development Index (HDI).

About Integrated steel hub

- The proposed Integrated Steel Hub, encompasses **Odisha, Jharkhand, Chhattisgarh, West Bengal,** and **Northern Andhra Pradesh.**

The Integrated Steel Hub would focus on 3 key elements:

- Capacity addition through easing the setup of **greenfield steel plants**.
- Development of steel clusters near integrated steel plants as well as demand centers.
- Transformation of logistics and utility infrastructure which would change the socio-economic landscape in the East

Benefits of Integrated Steel Hub

- **Development of eastern India**

- ➢ It will play a significant role in the overall socio-economic growth of Eastern India, thus reducing the disparity between the East and other regions of the country.
- ➢ It would enable the eastern belt to add more than **75**% of the country's incremental steel capacity envisioned by the **National Steel Policy.**
- ➢ This would also be accompanied by social infrastructure in the form of cities, schools, hospitals, skilling centers, etc

- **Steel sector**
  - ➢ It would enable swift capacity addition and improve the overall competitiveness of steel producers both in terms of cost and quality.
  - ➢ In addition to increased steel capacity, this hub would also help enhance best-in-class value addition capabilities.

- **The multiplier effect in the economy**
  - ➢ The creation of world-class logistics and utility infrastructure would also spur the development of other manufacturing industries across sectors.
  - ➢ It will complement 100 lakh Crore infrastructure investment announced by the Government in the next 5 years and will result in an additional boost to construction and infrastructure through various initiatives such as **Pradhan Mantri Awas Yojana, Jal Jeevan Mission, Sagarmala, Bharatmala,**
  - ➢ **Job Creation:** Growth of the Steel Industry through such a hub would lead to significant employment opportunities across the entire value chain, creating over 2.5 Million jobs in the region
  - ➢ In India's march towards a **$5 trillion** economy, the 5 Eastern states can play a major role where the Steel Sector can become the catalyst in the growth of the established steel Industry, thus improving the **HDI standards** and **GDP of Eastern India.**

All India Oriental Conference

The Vice President of India inaugurated the 50th session of All India Oriental Conference in **Nagpur.**

About:

- The All India Oriental Conference (AIOC) was founded in 1918 by the founders of the **Bhandarkar Oriental Research Institute (BORI**) with a pan Indian dialogue of **Indological Scholars** in view.
- The AIOC is a biennial Conference.
- The sessions have taken their occasions in all parts and in the cities most renowned as the centres for Sanskrit studies and Oriental Study in general, in India.

Bhandarkar Oriental Research Institute (BORI)

- The Bhandarkar Oriental Research Institute, Pune, was founded in 1917 in the honour of **Ramakrishna Gopal Bhandarakar**, the foremost pioneer of **Scientific Orientology** in India.

- The Institute is a public organization registered under **Societies Registration Act 1860** and **Bombay Public Trusts Act 1950.**

- Orientology is the study of the **indigenous lore** and **wisdom** of the **ancient East** or the **'Orient'.**

SC verdict on internet shutdown

- The Supreme Court declared that the **fundamental right to freedom of speech and expression** and the right to carry on trade or business using the Internet are constitutionally protected.

- This came in the backdrop of the **five-month-long Internet shutdown in Kashmir.**

Background:

- **The Information Technology Act, 2000,** the Section 144 of Criminal Procedure Code (CrPC), 1973 and the Telegraph Act, 1885 are the three laws that deal with suspension of Internet services.

- In 2017, the Central government notified **the Temporary Suspension of Telecom Services (Public Emergency or Public Service) Rules** under the **Telegraph Act** to govern suspension of Internet. These Rules derive their powers from Section 5(2) of the **Indian Telegraph Act.**

Recent verdict:

- While India's longest Internet suspension continues, the verdict has laid down a framework of how the Internet can be suspended, and what rights and legal recourses a citizen has when it is suspended.

- Although the Court stopped short of ruling that access to Internet is a fundamental right, it said that the Internet as a medium is used to exercise other fundamental rights.

- The Court recognised that the 2017 Rules are the only procedure to be followed to suspend Internet services on the occurrence of a "public emergency" or for it to be "in the interest of public safety".

- The verdict reiterated that the Competent Authority to issue an order under the Suspension Rules, in ordinary circumstances, would be the Secretary to the Ministry of Home Affairs.

- The Rules also say that in case the confirmation does not come from the Competent Authority, the Orders shall cease to exist within a period of 24 hours.

MoU between SCR of Indian Railways and SBI

A Memorandum of Understanding was signed between **South Central Zone of Indian Railways** and **State Bank of India** for Doorstep Banking for direct pickup of earnings covering all **585 Railway Stations** over South Central Railway (SCR) Zone.

Significance:

- The direct pick up of cash from all the railway stations on SCR as per the MoU dispenses with the tedious and complex activity of movement of cash earnings through "Cash Safes" by trains.

- This will enable **hassle-free collection** of traffic earnings by SBI and remittance into Government account avoiding delay in transmission of traffic cash earnings.

Major benefits from the MoU:

- All the Railway Stations will have a **uniform cash remittance** mechanism.
- **Real-time information** about the cash being deposited by different stations which will help in better supervision and accountability.
- Avoidance of **unwanted accumulation of cash** at Railway Stations.
- A smart way of **remittance** of station earnings.

Saksham

- Saksham (**Sa**nrakshan **Ksh**amta **M**ahotsav) is an annual flagship event of **Petroleum Conservation Research Association (PCRA)** under the aegis of **Ministry of Petroleum & Natural Gas, Government of India.**
- Saksham actively involves the **Oil & Gas** PSUs along with other stakeholders like State Governments,
- To create focused attention on fuel conservation through **people centric activities**.
- To sensitize the masses about the **conservation** and **efficient use of petroleum products** leading to better health and environment.

About PCRA (established in 1978)

- **Petroleum Conservation Research Association (PCRA)** is a registered society set up under the aegis of **Ministry of Petroleum & Natural Gas, Government of India.**
- As a non-profit Organization, PCRA is a **N**ational **G**overnment **A**gency engaged in promoting energy efficiency in various sectors of economy.
- PCRA aims at making oil **conservation a national movement**. As part of its mandate, PCRA is entrusted with the task of creating awareness amongst the masses about the importance, methods and benefits of conserving petroleum products & emission reduction.
- It **sponsors R&D activities** for the development of fuel-efficient equipment / devices and organizes multi-media campaigns for creating mass awareness for the conservation of petroleum products.
- To take the message to the people, PCRA uses all possible and effective media for mass communication.
- To give impetus to the oil conservation movement, PCRA utilizes various platforms like the World environment day, World energy day, various festivals etc.
- It functions as a **Think Tank to the Govt. of India** for proposing policies and strategies on petroleum conservation and environment protection aimed at reducing excessive dependence on oil.

- For the benefit of various target groups of petroleum products, PCRA has developed **literature containing simple ready to implement conservation** tips and techniques.

- Special low cost green leaflets have also been developed to educate the masses on the ill effects of pollution caused due to incomplete combustion and its impact on health.

Bru-Reang refugee agreement

- The Centre has signed a historic pact for permanent solution of Bru refugees issue.

- The agreement is between **Union Government, Governments** of **Tripura** and **Mizoram and Bru-Reang representatives** to end the 23-year old Bru-Reang refugee crisis.

Highlights of the agreement:

- Under the agreement , the Centre has announced a package of Rs. **600 crore**

- As per the agreement, the **Bru tribes** would be given land to reside in **Tripura.**

- A fixed deposit of **Rs. 4 lakh** will be given to each family as an amount of government aid. They will be able to withdraw this amount **after two years**.

- Each of the displaced families will be given **40×30 sq ft residential plots**.

- Apart from these, each family will be given **Rs. 5,000 cash** per month for **two years**.

- The agreement highlights that each displaced family will also be given free ration for two years and aid of **Rs. 1.5 lakh** to build their houses.

Significance of the Agreement:

- This agreement will bring a permanent solution for the **rehabilitation of thousands of Bru-Reang people** in **Tripura.**

- The government believes that this agreement will provide a bright future for them. Bru-Reang people will be able to enjoy the benefits of all social-welfare schemes of governments.

Background:

More than **30,000 Bru tribes** who fled Mizoram, are residing in Tripura's refugee camps.

Brus Tribes

- The Brus, also referred to as the **Reangs,** are spread across the **northeastern states** of **Tripura, Assam, Manipur,** and **Mizoram.**

- In **Tripura,** they are recognised as a **Particularly Vulnerable Tribal Group**. In Mizoram, they have been targeted by groups that do not consider them indigenous to the State.

What's the issue?

- A bout of ethnic violence forced thousands of people from the Bru tribe to leave their homes in Mizoram.

- The displaced Bru people from Mizoram have been living in various camps in Tripura since 1997.

- In 1997, the murder of a Mizo forest guard at the Dampa Tiger Reserve in Mizoram's Mamit District allegedly by Bru militants led to a violent backlash against the Community, forcing several thousand people to flee to neighbouring Tripura.
- The Bru militancy was a reactionary movement against Mizo Nationalist groups who had demanded in the mid-1990s that the Brus be left out of the State's electoral rolls, contending that the Tribe was not indigenous to Mizoram.

NITI Aayog, UT of Ladakh signed MoU for development of Infrastructure Projects

- **The National Institution for Transforming India(NITI)** Aayog has signed a Memorandum of Understanding (MoU) with newly developed **Union Territory(UT) of Ladakh** in order to promote the **development of infrastructures** in the recently developed UT.
- Under the MoU, NITI Aayog will provide support to ladakh through '**Development Support Services to States for Infrastructure Projects (D3S-i or DSSS for Infrastructure Projects)**'..

DSSS for infrastructure projects:

- NITI Aayog has implemented the DSSS projects to develop the infrastructure of the State of the art capacity. It involves providing support to the State/ UTs from the concept plan till financial closures.
  - ➢ The 1st phase of DSSS was completed in 2018 with a selection of 10 projects out of over 400 projects
  - ➢ And phase 2 was completed in 2018-19 with the selected 10 Projects progressing to the transaction stage.
- Under the DSSS, identification of high-impact priority projects, project implementation, addressing structural-level issues and creating models of development for Ladakh will be done.

Firsts of Census 2021: Cereals eaten, transgender run houses

- For the first time, **the Census will collect data of transgender headed houses**. Also, **the Census will enquire** about **"Main cereal"**, which is also included for the first time in the history of the census of India.
- The Census 2021 is to ask 31 questions to the citizens. For the first time of Indian history, the following are to be included:
  - ➢ The information about households **run by transgender** is to be collected.
  - ➢ Under the question of the sex of household head, male, female and transgender are to be collected.
  - ➢ The Census 2021 is to be conducted through a **mobile phone application**.
  - ➢ Inquiry about **main cereal consumed.**
  - ➢ Earlier it was announced that the census for the first time will collect data on OBC.

- However, this has not been included. Rather there is the provision of SC/ST in the Census.

- The questions to be asked are decided by the Ministry of Home Affairs.

- The Census is to begin by September 2020.

- **Note:** The 2011 Census clubbed the employment of transgender, their caste and literacy under "Males" category**.**
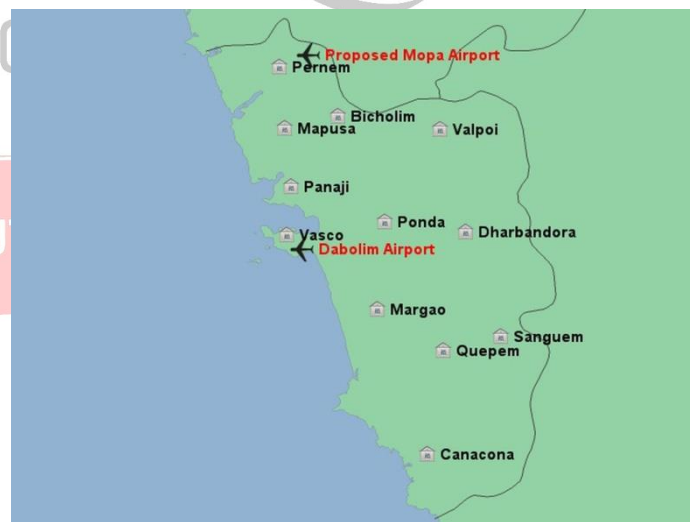
ELECRAMA 2020

- Union Minister of **Heavy Industries &Public Enterprises, Environment, Forest and Climate Change and Information & Broadcasting** inaugurated **ELECRAMA 2020.**

- ELECRAMA is the flagship showcase of the Indian electrical industry and a platform to connect the world with the Indian industry in respect of technology, new trends and innovation for the future energy transition.

- Featuring not just equipment & technology, ELECRAMA offers peerless thought leadership platforms for everything electric – from technical conclaves, seminars, conferences to industry summits.

- ELECRAMA over the years emerged as a platform for knowledge-sharing with a strong focus on electric vehicles, Internet of Things (IoT), storage solutions and renewable energy.

- ELECRAMA is supported by the Ministry of Power, Ministry of New and Renewable Energy and Ministry of Heavy Industries and Public Enterprises, Government of India.

- ELECRAMA 2020 will serve as a catalyst to boost the Indian growth story for the Indian industry, MSME and start-ups to understand and experience global trends and adopting new technologies.

Mopa Airport Project

The Supreme Court cleared the path for construction of an international airport at Mopa in Goa by lifting the suspension on Environmental Clearance (EC) granted to the project.

About:

- **Location:** Mopa Airport is an under-construction greenfield airport being built at Mopa in North Goa district, Goa.

- **Developer:** GMR Goa International Airport Limited (GGIAL), a special purpose vehicle (SPV), will develop the airport.

- **Timeline:** PM Modi laid the foundation stone of the project in 2016. In March 2019, the Supreme Court suspended the Environmental Clearance (EC) granted for the project.
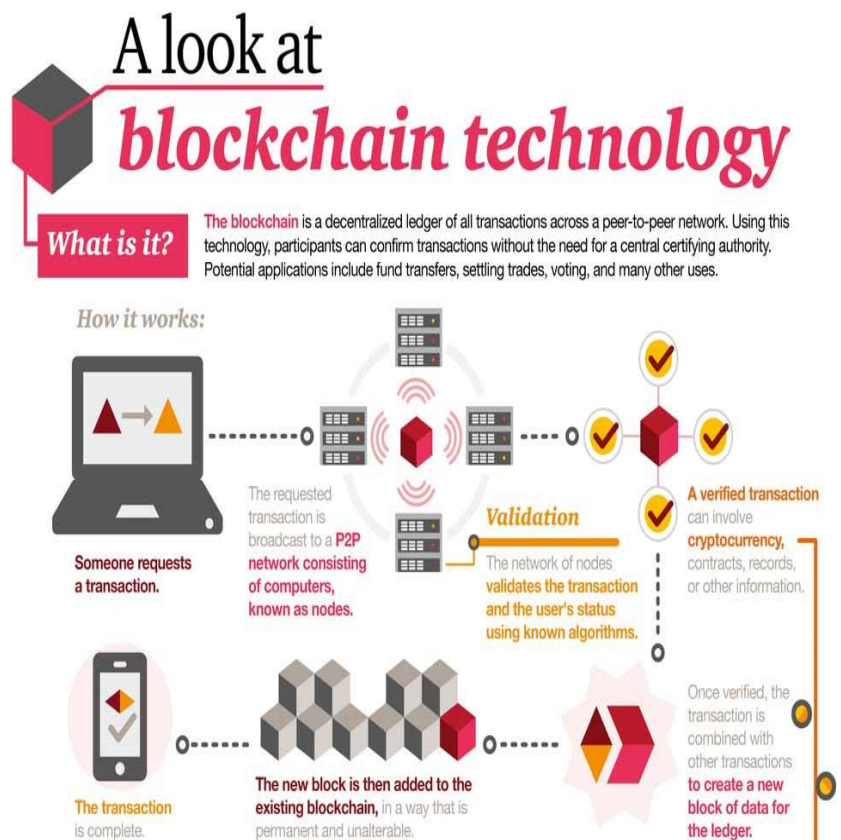
- **Need of project:** Goa's current airport at Dabolim is a civil enclave operated by the Airports Authority of India (AAI) at a military airfield owned by the Indian Navy. Civilian and military operations share a common runway and result in severe airside congestion.

Z Morh tunnel

A Concession Agreement for completing the **6.5-kilometre** long Z-Morh tunnel in **Jammu and Kashmir** was signed between **NHIDCL** and **APCO Amarnathji Tunnelway**.

About:

- Z-Morh Tunnel will provide **all-weather road connectivity** to **Sonmarg tourist spot** in **Jammu and Kashmir.** It mostly remains closed during the **winters** due to heavy snowfall in Gagenger area.

- Under the agreement, the two-lane bi-directional tunnel with parallel escape tunnel will be completed in 3.5 years at a cost of 2379 Crore rupees.

- The project includes **construction, operation and maintenance of the tunnel** with approaches on **NH-1** at Srinagar-Sonmarg-Gumri Road from 61 kilometres to 89.30 kilometres on Design, Build, Finance, Operate and Transfer Annuity basis.

National Information Centre sets up Centre of Block Chain Technology

- Union Government has launched the **Centre of Excellence (CoE)** in Blockchain Technology in **Bengaluru.**

- The CoE will provide world-class block chain services to the government by identifying and sharing suitable data for the use of government departments.

- **Centre of Excellence in Block chain Technology** has been set up by the **National Informatics Centre (NIC).**

    - Set up in 1976, **National Informatics Centre (NIC)** is a premier technology advisor and ICT solution provider to Government at all levels through its ICT Network, NICNET. It
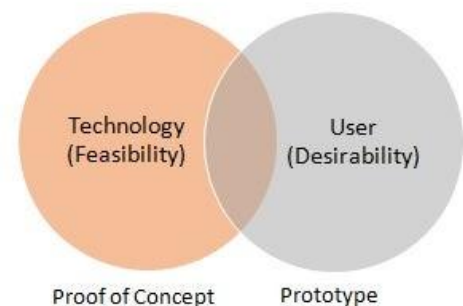
plays a crucial role in the development of critical e-Governance solutions and a host of other services required by the Government.

- **Objective:** To provide Blockchain as a Service (BaaS) for efficient hosting of Blockchain network and allowing all stakeholders to benefit from shared learning, experiences and resources.
  - ➢ Blockchain-as-a-Service (BaaS) is a third-party cloud-based infrastructure and management for companies building and operating blockchain apps.
- **Proof of Concepts:** The CoE will facilitate the Government Departments in building **proof of concepts** for use of Blockchain technology in different dimensions of governance.
- **Enhanced Transparency:** Applications of Blockchain in the Government are expected to enhance transparency, traceability and trust in e-governance systems.
- Centre of Excellence in Blockchain Technology is the third such centre, following the **Centre of Excellence for Data Analytics (CEDA), New Delhi** and **Centre of Excellence in Artificial Intelligence (CoE in AI).**

Proof of Concept

- **Proof of Concept (POC)** is an exercise **to test the design idea or assumption**. The main purpose of developing a POC is to demonstrate the functionality and to verify a certain concept or theory that can be achieved in development.
- **Prototyping** is a valuable exercise that allows the innovator to visualize how the product will function.
- While a POC shows that a product or feature can be developed, a prototype shows how it will be developed.
- **Blockchain technology** is upcoming & niche technology and adoption of the same in sectors such as health, finance, agriculture and various other sectors would aid the government in implementing various programmes.

Surya Prakash Committee

- The committee, constituted in November 2019, is headed by **Prasar Bharati Chairman Surya Prakash.**
- The merger of **Rajya Sabha Television (RSTV)** and **Lok Sabha Television (LSTV)** is in the final stages, with a six-member committee expected to submit a report by this month-end to Upper House Chairman and Lok Sabha Speaker. The final decision will be taken by them.
- Its mandate is "to work out the modalities and prepare the guidelines for pooling resources, manpower and technology for the merger of the two channels".

- Before the LSTV was launched in 2006, private television channels aired select Parliament proceedings. In 2011, RSTV was launched. Parliament is in session for close to 100 days in a year and thus for the remaining period there is really no need for two channels.

Gujarat ranked top for water efficiency, Delhi among worst performing States

- **Gujarat** has been ranked the best for parameters on efficiency targets in the review of State and **Central government water departments** by the **ministry of Jal Shakti.**

- **Rajasthan** is the third best and **Delhi** is among the worst performing States, according to the ranking for 2019 circulated to different state governments recently.

- Among the seven Central departments reviewed, the Survey of India has got the top billing followed by the **National Institute of Hydrology (NIH)** and **Central Water Commission.**

- The **Central Pollution Control Board,** the Country's pollution watchdog, has got the lowest rank, in the ranking for the year 2019.

Electoral Bonds

Chief Justice of India (CJI) orally made it clear that if the Supreme Court had found it unnecessary to stay the electoral bonds scheme earlier, it might not stay the scheme even now.

Arguments against the scheme:

- Both the Election Commission (EC) and the Reserve Bank of India (RBI) had strongly objected to the scheme and raised the red flag against it.

- According to critics, the scheme was being frequently opened to allow funds to fill the coffers of the ruling party. The government's scheme was meant for Lok Sabha elections, but the sale window had been opened before State Assembly elections repeatedly.

- Instead of opening the scheme exclusively for the Lok Sabha election, as envisaged, it had become a mechanism to funnel benami funds to fuel political parties.

- In April 2019, the Supreme Court passed an interim order directing political parties to provide complete information to the EC in sealed covers on every single donor and contribution received by them till date through electoral bonds. However, it did not stay the operation of the scheme.

Important Info :
Background: The Finance Bill, 2017 introduced "Electoral Bonds" scheme, which was notified on January 2, 2018.
What are they? Electoral bonds are interest-free bearer bonds that are used to donate money anonymously to political parties.
Buyers: The bonds are issued in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh and Rs 1 crore which can be bought by Indian citizens or companies incorporated or established in India.
Eligible Parties: Only political parties registered under Section 29A of the Representation of the Peoples Act, 1951 and has secured no less than one per cent votes in the last Lok Sabha elections are eligible to receive electoral bonds.
Issuer: The State Bank of India (SBI) is the only bank authorised to sell them.
Anonymity: Buyers of the bonds have to submit full KYC details at the time of buying. But the beneficiary political party is not required to reveal the identity of the entity that has given it the bond(s).
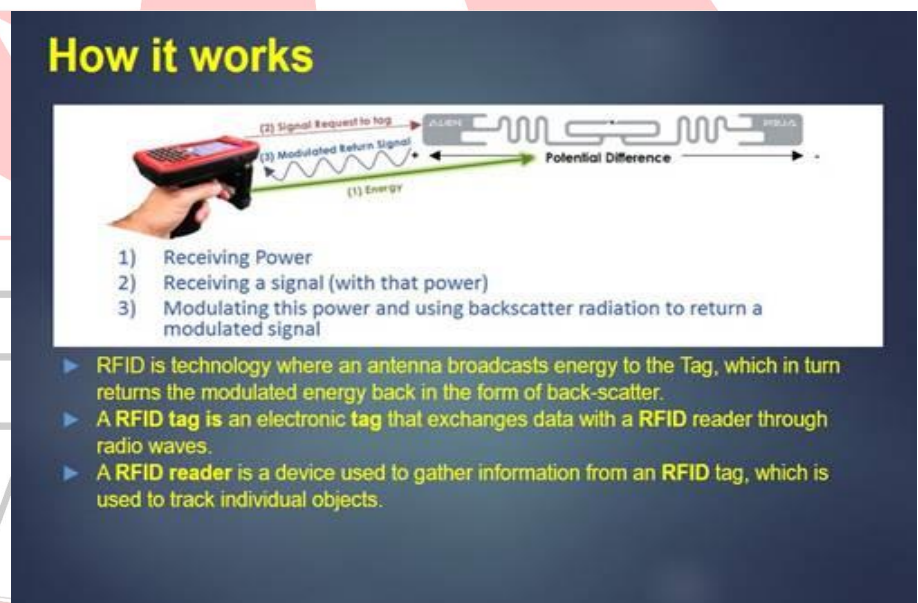

Merger Of Dadra and Nagar Haveli and Daman And Diu

- Union Cabinet has designated Daman as Headquarter of **Union Territory of Dadra and Nagar Haveli** and **Daman and Diu.**

- **Daman** will be the **Capital** of newly carved out Union Territory of Dadra and Nagar Haveli and Daman and Diu.

- Cabinet also approved amendments, extension, repeal in Acts dealing with Goods and Services Tax, Value Added Tax and Excise Duty in view of the merger.

- These amendments will lead to "Minimum Government, Maximum Governance" by way of having common taxation authorities, better delivery of services to the citizens by reducing duplication of work and improving administrative efficiency.

Indian Railways implementing Automatic Identification and Data Collection (AIDC) of Rolling Stock (RFID Project)

- The RFID project has been taken up which aims to automatically and accurately track and trace rolling stock as they move across the country with a special focus on improving their safety and reliability. Two works for RFID project have been sanctioned by Railway Board for a total of Rs. 112.96 Crores.

- For implementing this project over Indian Railways, the Centre for Railway Information Systems (CRIS, the IT arm of the Indian Railways), GS1 India and the Indian Industry have come together in alignment with the 'Make in India' initiative. Thereby creating a new segment in the AIDC (Automatic Identification and Data Collection) industry in India uniquely suited for the Indian Railways requirements.

- This project is being spearheaded by the Rolling Stock Department of the Indian Railways.

- The project enables real time visibility of railway wagons through the National Rail Network using cutting edge technologies like RFID with GS1 global standards for unique & universal identification, in line with global best practices. It enables enhanced operational efficiency of the Indian Railways.
- Indian Railways is amongst the largest Railway systems in the world, addressing a significant part of the country's transportation needs, both in the passenger and freight segment.
- It carries about 23 million passengers per day and over 3 million tons of freight every day over 65000 route kilometers.

Assam tops in budgetary practices, followed by Odisha, Andhra: Survey

- Assam has emerged as the top state in terms of best practices followed in budget formulation, followed by Odisha and Andhra Pradesh, says a survey by Transparency International.
- The survey was based on four parameters –
  - Public disclosure,
  - Budgetary process,
  - Post budget fiscal management and
  - Efforts to make budget more transparent and citizen friendly.
- The States which figured lower in the ranking were Goa, Maharashtra and Punjab.
- "It is ironical that being a 'Union of States', state budgets in India have never received such importance as claimed by Union Budget.

Transparency International (TI)

- Transparency International (TI) is an international non-governmental organization which is based in Berlin, Germany, and was founded in 1993.
- Its nonprofit purpose is to take action to combat global corruption with civil societal anti-corruption measures and to prevent criminal activities arising from corruption.

Telangana tops country in sustainable growth goals: UN Development Programme

- Telangana has emerged as the best performing State in promoting inclusive and sustainable economic growth and decent work for all on Sustainable Development Goals (SDG) India Index 2019, according to United Nations Development Programme (UNDP) India.
- The State has improved its performance over 2018 in eight out of 17 SDGs. In decent work and economic growth, India's youngest state moved to 82 percent from 75 percent in the previous year.
- In industry, innovation and infrastructure, it has jumped to 61 percent from just 16 percent in the previous year. In SDG of sustainable cities and communities, it improved from 44 percent to 62 percent.

- Telangana also made a huge jump in clean water and sanitation, moving up from 55 per cent to 84 per cent. In affordable and clean energy, it recorded 93 percent performance against 63 percent earlier.

- However, the State has also slumped in some key SDGs. For instance, in gender equality, its performance in 2019 was 26 percent against 43 a year ago. In zero hunger SDG too, it went down from 53 to 36 percent while in good health and well-being, it slumped to 66 percent from 73 in 2018.

- In reduced inequalities, Telangana stood at 94 percent, down from 100 per cent last year. In no poverty SDG, it performance remained unchanged at 52 percent.

Bodo Accord 2020

- The Central government signed a Peace Agreement on January 2, 2020, with the National Democratic Front of Bodoland (NDFB), one of the dangerous militant groups in Assam.

- The All Bodo Students Union (ABSU), agitating for a long time demanding Bodo State, also signed the deal.

- The agreement provides political and economic benefits to the tribal areas without seeking a separate Bodoland state or Union territory.

- The tripartite agreement has been signed by Assam Chief Minister Sarbananda Sonowal, the leadership of four factions of NDFB, Satyendra Garg, Joint Secretary of ABSU, Ministry of Home Affairs and Kumar Sanjay Krishna, Chief Secretary of Assam.

Key Highlights of Bodo Accord

- The Minister of Home Affairs said on this occasion that the Central Government, Assam Government and representatives of Bodo have signed this historic agreement.

- The agreement will ensure the bright future of the people of Assam as well as the Bodo tribe.

- Bodo tribes will get political and economic benefits after this agreement. The agreement will provide some political rights and some economic packages to the community.

History of Bodo Accord

- The government of India has been signed three agreements with Bodo tribes so far for 27 years. Several clashes between extremists groups of Assam and the government have claimed hundreds of lives.

- The All Bodo Students Union (ABSU) and the Government of India have signed the first accord in 1993. This agreement resulted to the creation of a Bodoland Autonomous Council with some political powers.

- The second Bodo accord was signed in 2003 between Government of India and extremist group Bodo Liberation Tigers (BLT).

- The second agreement resulted in the formation of Bodoland Territorial Council (BTC) with four districts – Udalguri, Chirang, Baska and Kokrajhar. These areas are commonly called Bodoland Territorial Area District (BTAD).

About Bodoland Territorial Council (BTC)

Bodoland Territorial Council (BTC) was constituted to look after issues of Bodo tribes like education, horticulture and forests. However, police, general administration and revenue are controlled by the Government of Assam. The BTC was established under the 6th Schedule of the Indian Constitution.

What is Bodoland Movement?

The Bodo people are the largest tribe of Assam settled in the northern part of the Brahmaputra river Valley. These tribes claimed themselves as natives of the Assam. According to an estimate, the Bodo tribe is about 28 percent of Assam's population. The Bodo tribe has been complaining that their land in Assam was occupied by other cultures and communities with different identities. In 1966 the Bodo tribals formed the Plains Tribal Council of Assam (PTCA) and demanded a separate union territory Udayachal.

The Bodo movement started witnessing violence post-1980s. Now, this movement divided into three streams. The first group NDFB is demanding for a separate state for itself. The second group Bodo Liberation Tiger (BLT) is demanding greater autonomy and targeted non-Bodo groups. The third group All Bodo Students Union (ABSU) is looking for more political powers and involvement in State administration.

A.P. Cabinet gives the nod to abolish Legislative Council

- The Andhra Pradesh (A.P.) Cabinet has cleared the decks for the abolition of the Legislative Council by passing a resolution to that effect in its meeting a short while ago.

- The Cabinet resolution will be sent to the Legislative Assembly where a discussion is scheduled later in the day on 'Consequences arising after Bills passed by the Legislative Assembly' under Rule 169.

Parliament to approve

It is meant for scrapping the Council and officially communicating it to the Central government as a step towards it's approval by both Houses of Parliament.
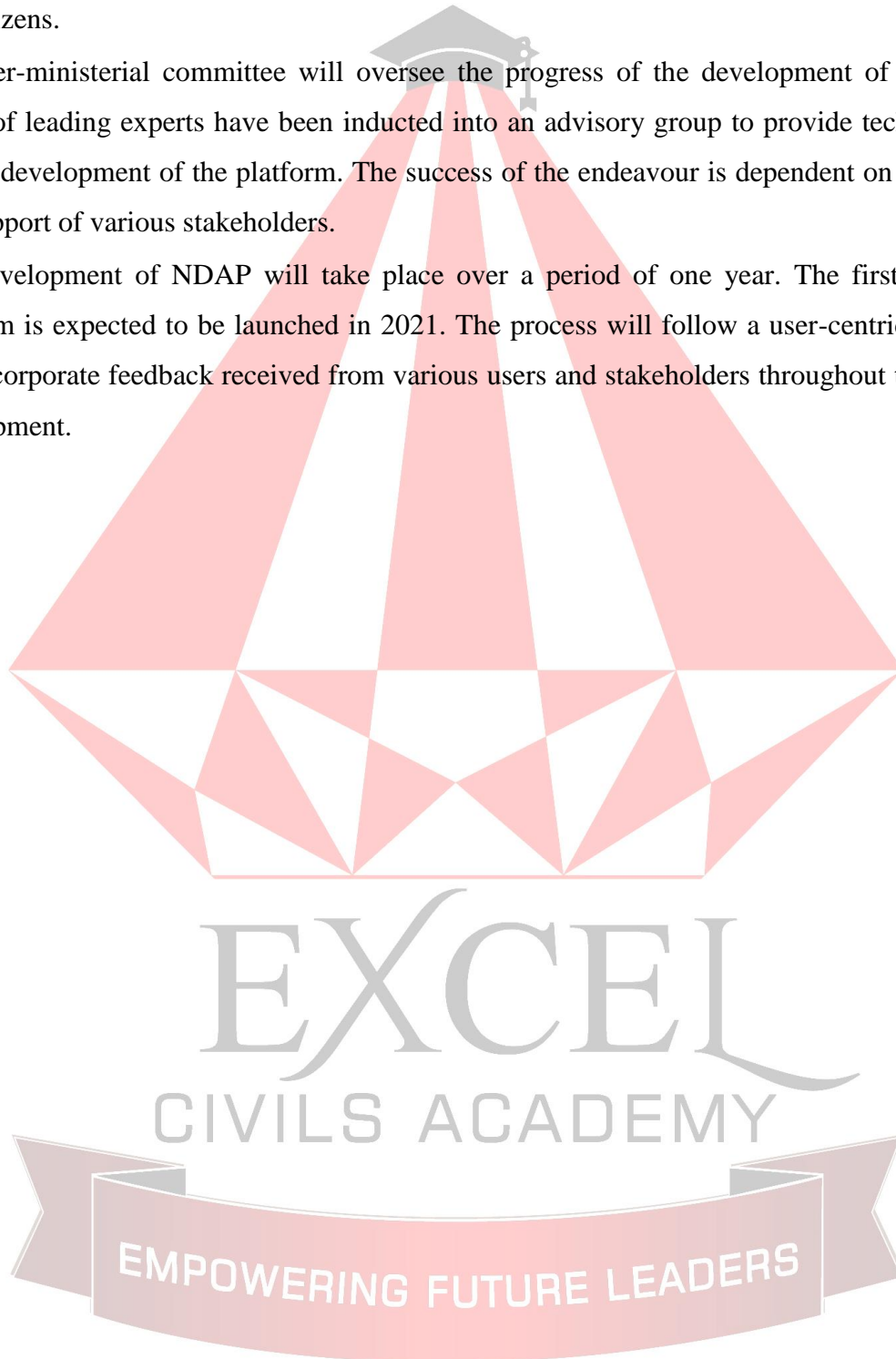
National Data and Analytics Platform released by NITI Aayog

NITI Aayog released its vision for the National Data and Analytics Platform (NDAP) on 23rd, January. The platform aims to democratize access to publicly available government data.

Importance:

- It will host the latest datasets from various government websites, present them coherently, and provide tools for analytics and visualization.

- NDAP will follow a user-centric approach and will enable data access in a simple and intuitive portal tailored to the needs of a variety of stakeholders.

- NDAP will spearhead the standardization of formats in which data is presented across sectors and will cater to a wide audience of policymakers, researchers, innovators, data scientists, journalists and citizens.

- An inter-ministerial committee will oversee the progress of the development of platform and a group of leading experts have been inducted into an advisory group to provide technical guidance for the development of the platform. The success of the endeavour is dependent on the cooperation and support of various stakeholders.

- The development of NDAP will take place over a period of one year. The first version of the platform is expected to be launched in 2021. The process will follow a user-centric approach, and will incorporate feedback received from various users and stakeholders throughout the course of its development.

ECONOMY

Bharat Bond Exchange Traded Fund

The government of India had launched Bharat Bond Exchange Traded Fund (ETF) to create an additional source of funding for Central Public Sector Undertakings (CPSUs) Central Public Sector Enterprises (CPSEs), Central Public Financial Institutions (CPFIs) and other Government organizations. Bharat Bond ETF would be the first corporate Bond ETF in the country.

Features of Bharat Bond ETF:

ETF will be a basket of bonds issued by CPSE/CPSU/CPFI/any other Government organization Bonds (Initially, all AAA rated bonds)

- Tradable on exchange
- Small unit size Rs 1,000
- Transparent NAV (Periodic live NAV during the day)
- Transparent Portfolio (Daily disclosure on website)
- Low cost (0.0005%)

Bharat Bond ETF Structure:

- Each ETF will have a fixed maturity date
- The ETF will track the underlying Index on risk replication basis, i.e. matching Credit Quality and Average Maturity of the Index
- Will invest in a portfolio of bonds of CPSE, CPSU, CPFI or any other Government organizations that matures on or before the maturity date of the ETF
- As of now, it will have 2 maturity series - 3 and 10 years. Each series will have a separate index of the same maturity series.

Index Methodology:

- Index will be constructed by an independent index provider – National Stock Exchange
- Different indices tracking specific maturity years - 3 and 10 years

Benefits of Bharat Bond ETF to investors:

- Bond ETF will provide safety (underlying bonds are issued by CPSEs and other Government owned entities), liquidity (tradability on exchange) and predictable tax efficient returns (target maturity structure).
- It will also provide access to retail investors to invest in bonds with smaller amount (as low as Rs. 1,000) thereby providing easy and low-cost access to bond markets.
- This will increase participation of retail investors who are currently not participating in bond markets due to liquidity and accessibility constraints.

- Tax efficiency compared to Bonds as coupons from the Bonds are taxed at marginal rates. Bond ETFs are taxed with the benefit of indexation which significantly reduces the tax on capital gains for investor.

Bharat Bond ETF Benefits for CPSEs:

- Bond ETF would offer CPSEs, CPSUs, CPFIs and other Government organizations an additional source of meeting their borrowing requirements apart from bank financing.

- It will expand their investor base through retail and HNI participation which can increase demand for their bonds. With increase in demand for their bonds, these issuers may be able to borrow at reduced cost thereby reducing their cost of borrowing over a period of time.

- Further, Bond ETF trading on the exchange will help in better price discovery of the underlying bonds.

- Since a broad debt calendar to assess the borrowing needs of the CPSEs would be prepared and approved each year, it would inculcate borrowing discipline in the CPSEs at least to the extent of this investment.

Developmental impact on Bond Markets:

- Target Maturity Bond ETF is expected to create a yield curve and a ladder of Bond ETFs with different maturities across calendar years.

- ETF is expected to create new eco-system - Market Makers, index providers and awareness amongst investors - for launching new Bond ETFs in India.

- This is expected to eventually increase the size of bond ETFs in India leading to achieving key objectives at a larger scale - deepening bond markets, enhancing retail participation and reducing borrowing costs.

Focus on fundamentals, inclusive growth and structural reforms

Why in news?

In an oblique advice to the government at a time when the economy is facing severe headwinds, RBI Governor has suggested to the government there is a need to focus on the fundamentals and create an ecosystem that facilitates inclusive growth with structural reforms as the underlying theme.

Highlights

- The importance of broad-based prosperity has been well recognized for a long time and there is a consensus on the need to ensure that the benefits of economic growth reach the populace at large.

- "While there is consensus on the need to achieve a more egalitarian social and economic order globally as well as within a country, it is equally important to focus on the fundamentals and create an ecosystem that facilitates greater inclusion. The underlying theme has to be structural reforms.

- GDP growth in the September 2019 quarter had plunged to a six-year low of 4.5 per cent, the lowest since the three months ended March 2013. On December 5, 2019, the Reserve Bank of India (RBI) slashed the real GDP growth for 2019-20 downwards from 6.1 per cent in the October policy to 5 per cent, saying that it can even go down to 4.9 per cent.

- The ongoing economic slowdown seems to have hit the corporate sector badly, with companies reporting a whopping 54.3 per cent fall in net profit for second quarter ended September 2019 as "demand conditions facing the manufacturing sector weakened, with contraction in nominal sales that became broad based across industries", according to data released by the RBI.

- The fall in profits was steep as these companies had posted a 41.7 per cent rise in profits in September 2018. As Mumbai is the commercial capital, the slowdown in the economy has affected corporates based in Maharashtra.

- According to RBI Governor, the mandate given to the RBI on maintaining price stability, financial stability and economic growth is not only important from macroeconomic perspective, but also for the objective of inclusive growth. "Persistently high inflation adversely impacts the economy's allocate efficiency and impedes growth.

- It also contributes to a worsening of income distribution by depreciating the real income of the poor."

- "Similarly, high growth with financial stability augurs well for inclusive growth. High growth can bring inclusiveness in the process of wealth creation and its spread effect.

- Higher growth also improves tax-GDP ratio which enhances the resource availability with the government to undertake social and infrastructure expenditure," the RBI Governor said.

- A sound financial system with healthy banks and NBFCs can play an important role in meeting the credit requirements of the bottom of the pyramid. "Therefore, we have been focusing on strengthening regulation and supervision to develop a robust framework of financial stability where banks and NBFCs are able to fulfill expectations of the society,".

- In the area of agricultural market reforms, there is consensus that improvement in the supply chain could become a major channel for promoting inclusive growth, as this can increase the share of farmers in retail prices paid by the consumers,.

- The average share of farmers in retail prices of major primary food items varies between 28-78 per cent. It is lower for perishables and higher for non-perishable items. "Higher share of retail prices going to farmers augurs well for the rural economy, which in turn, could help sustain domestic demand.

- Initiatives towards wider rural roads network, better communication facilities for faster exchange of information and easier access to micro credit will contribute to better price realization for the farmers.
- RBI Governor said that the National Strategy for Financial Inclusion (2019-24) prepared by the RBI has been approved by the Financial Stability and Development Council (FSDC).
- "It sets forth the vision and key objectives of financial inclusion policies in India and aims to provide access to formal and affordable financial services; broaden and deepen financial inclusion; and promote financial literacy and consumer protection,".

National Infrastructure Pipeline for 2019-2025

Background

To achieve the GDP of $5 Trillion by 2024-25, India needs to spend about $1.4 trillion (Rs. 100 lakh crore) over these years on infrastructure. In the past decade (FY 2008-17), India invested about $1.1 trillion on infrastructure. The challenge is to step-up annual infrastructure investment so that lack of infrastructure does not become a binding constraint on the growth of the Indian economy.

Hon'ble Prime Minister in his Independence Day-2019 speech highlighted that Rs.100 lakh crore would be invested on infrastructure over the next five years including social and economic infrastructure projects.

To achieve this objective, a Task Force was constituted to draw up **the National Infrastructure Pipeline (NIP)** for each of the years from FY 2019-20 to FY 2024-25 with the approval of the Finance Minister. The Task Force is chaired by Secretary, DEA with CEO (NITI Aayog), Secretary (Expenditure), Secretary of the Administrative Ministries, and Additional Secretary (Investments), DEA as members and Joint Secretary (IPF), DEA as Member Secretary.

The first meeting of the Task Force was held in September 2019. Subsequently, several meetings were held with various Departments/Ministries engaged in infrastructure development, Corporates engaged in infrastructure development & construction, Banks/Financial Institutions, Private Equity funds, and Industry Associations, including CII, FICCI & ASSOCHAM, to seek information as well as suggestions on reforms required in infrastructure sectors.

OBJECTIVE

NIP will enable a forward outlook on infrastructure projects which will create jobs, improve ease of living, and provide equitable access to infrastructure for all, thereby making growth more inclusive. NIP includes economic and social infrastructure projects.

Highlights of NIP

- Total project capital expenditure in infrastructure sectors in India during the fiscals 2020 to 2025 is projected at over Rs 102 lakh crore.

- During the fiscals 2020 to 2025, sectors such as Energy (24%), Roads (19%), Urban (16%), and Railways (13%) amount to around 70% of the projected capital expenditure in infrastructure in India. The detailed sector wise break of the pipeline is as follows:

- Out of the total expected capital expenditure of Rs. 102 lakh crore, projects worth Rs 42.7 lakh crore (42%) are under implementation, projects worth Rs 32.7 lakh crore (32%) are in conceptualization stage and rest are under development.

- It is expected that projects of certain states, whoare yet to communicate their pipelines, would be added to the pipeline in due course.
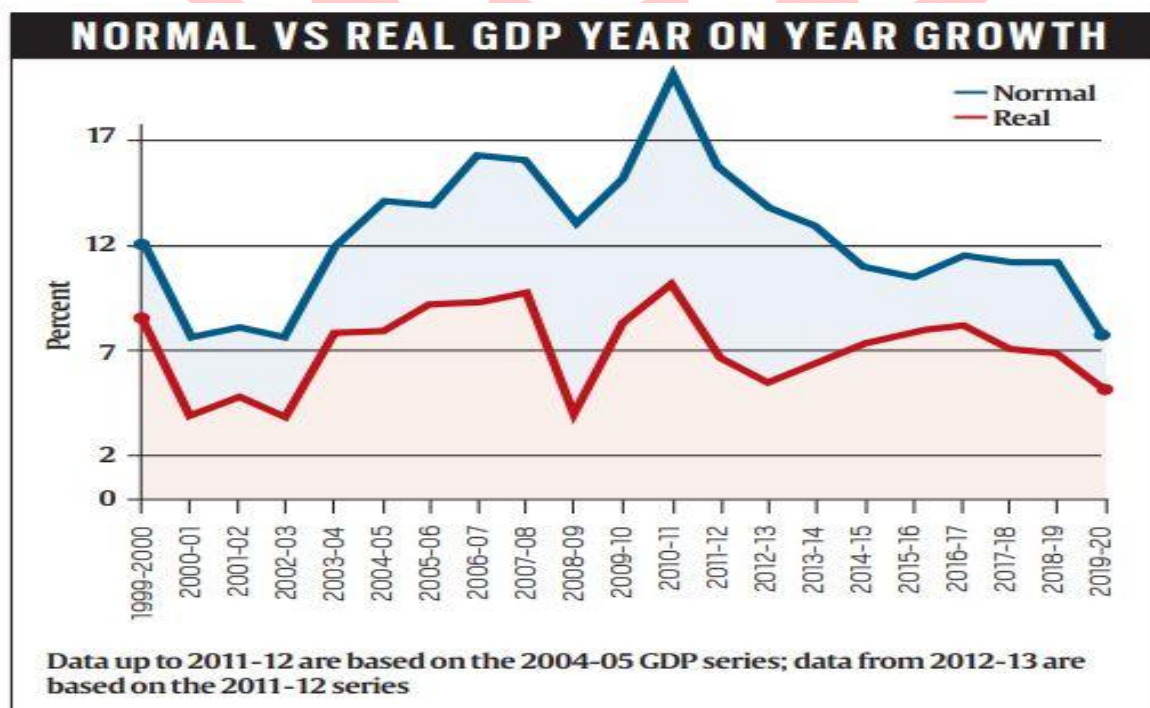
THE NOMINAL GDP WORRY

GDP is the total market value of all goods and services produced in the economy during a particular year, inclusive of all taxes and subsidies on products.

The estimated growth of 7.53% in 'nominal' terms is the lowest since 1975-76. Also, this is the first time since 2002-03 that nominal GDP growth is projected to be in single digits.

Why is this major concern?

Recently the National Statistical Office (NSO) released the first advance estimates of the national income that projected growth in India's GDP at market prices for 2019-20 at 4.98% in "real" terms, the lowest since the 3.89% in the global financial crisis year of 2008-09. But even more significant was the estimated growth of 7.53% in "nominal" terms, which is the lowest since the 7.35% for 1975-76. Also, this is the first time since 2002-03 that nominal GDP growth has been in single digits.

But why should nominal growth matter at all? When we talk about "growth", isn't it a reference to how much real production is increasing?

- In the normal course, real growth is what one would ordinarily look at. But the current fiscal year seems extraordinary because the gap between nominal and real GDP growth is just 2.6 percentage points. This is marginally higher than the difference of 2.5 percentage points in 2015-16. But in that year, real GDP growth was 8%, which translated into a nominal growth of 10.5%.

- In 2019-20, not only is real GDP growth expected to be the lowest in 11 years, but also the implied inflation (also called GDP deflator, or the increase in prices of all the goods and services produced in the economy) is just 2.6%. Simply put, producers have not gained from either higher output or higher prices.

- Households and firms generally look at the "topline" — how much their income has grown relative to the previous year. When that growth falls to single digits in a country like India, which has been used to a minimum 5-6% GDP increase year after year and an equal rate for inflation, it is unusual. Low nominal GDP growth is associated more with developed western economies.

Impact on corporates and the government:

- In the past, listed companies have seen their turnover double in five years or so, which comes with a nominal year-on-year growth of 14-15%.

- If the latter falls to 7-8%, the same doubling would take 9-10 years.

- This can have a psychological impact — although it could also be the case that the value of their inputs, including salaries paid to employees, would also be rising at a slower rate. Their net earnings or profits would not, therefore, be hurt to the same extent.

- The problem is more serious when it comes to the government. In the 2019-20 Budget, Finance Minister had assumed nominal GDP would grow by 12% to Rs 211.01 lakh crore.

- However, the NSO's latest projection of nominal GDP for 2019-20 is only Rs 204.42 lakh crore, which is Rs 6, 58,374crore below the Budget estimate.

- As a result, even if the Centre's fiscal deficit is contained at the budgeted Rs 7, 03,760crore in absolute terms; the latter would now work out to 3.44% of GDP, as against the originally targeted 3.3%.

- This is over and above the slippages in the absolute fiscal deficit itself due to the Centre's revenues from taxes and other receipts, including disinvestment, turning out to be lower than the Budget projections.

- High nominal GDP growth also makes the government's debt seem more manageable. The debt stock (numerator) can keep going up so long as it does not exceed the nominal increase in GDP (denominator). That equation changes in a low nominal GDP growth scenario. For state governments too, low nominal GDP growth is a matter of concern because their budgets normally assume double-digit increases in revenues.

- The Centre's compensation formula to states from the Goods and Services Tax also promised to meet any annual revenue shortfall below 14%. That again, did not ever factor in the possibility of GDP growth (real plus inflation) falling to 7.5% levels.

Fund crunch hits MGNREGA scheme

Why in news?

The Centre is on the verge of running out of funds for the crucial Mahatma Gandhi National

Rural Employment Guarantee Act (MGNREGA) scheme.

- 96% of annual allocation exhausted.

- More than 96% of the allocated money has already been spent or is needed to pay pending dues, with less than ₹2,500 crore left to sustain the scheme for the next two months.

- Fifteen States are already in the red. According to the scheme's financial statement as on January 26, Rajasthan has the highest negative net balance of ₹620 crore, followed by ₹323 crore in Uttar Pradesh.

- In fact, the situation on the ground may be worse as States do not always enter pending payments into the information system. "January, February and March are months with little agricultural activity, when rural workers desperately need employment.

- However, the scheme is running out of money, and will enter next year with pending liabilities," said Rakshita Swamy of the People's Action for Employment Guarantee movement.

- A number of economists have recommended that putting money into the hands of rural consumers via MGNREGA is key to kick starting the economy. However, this year's budget allocation was ₹60,000 crore, lower than the amount spent in the previous year.
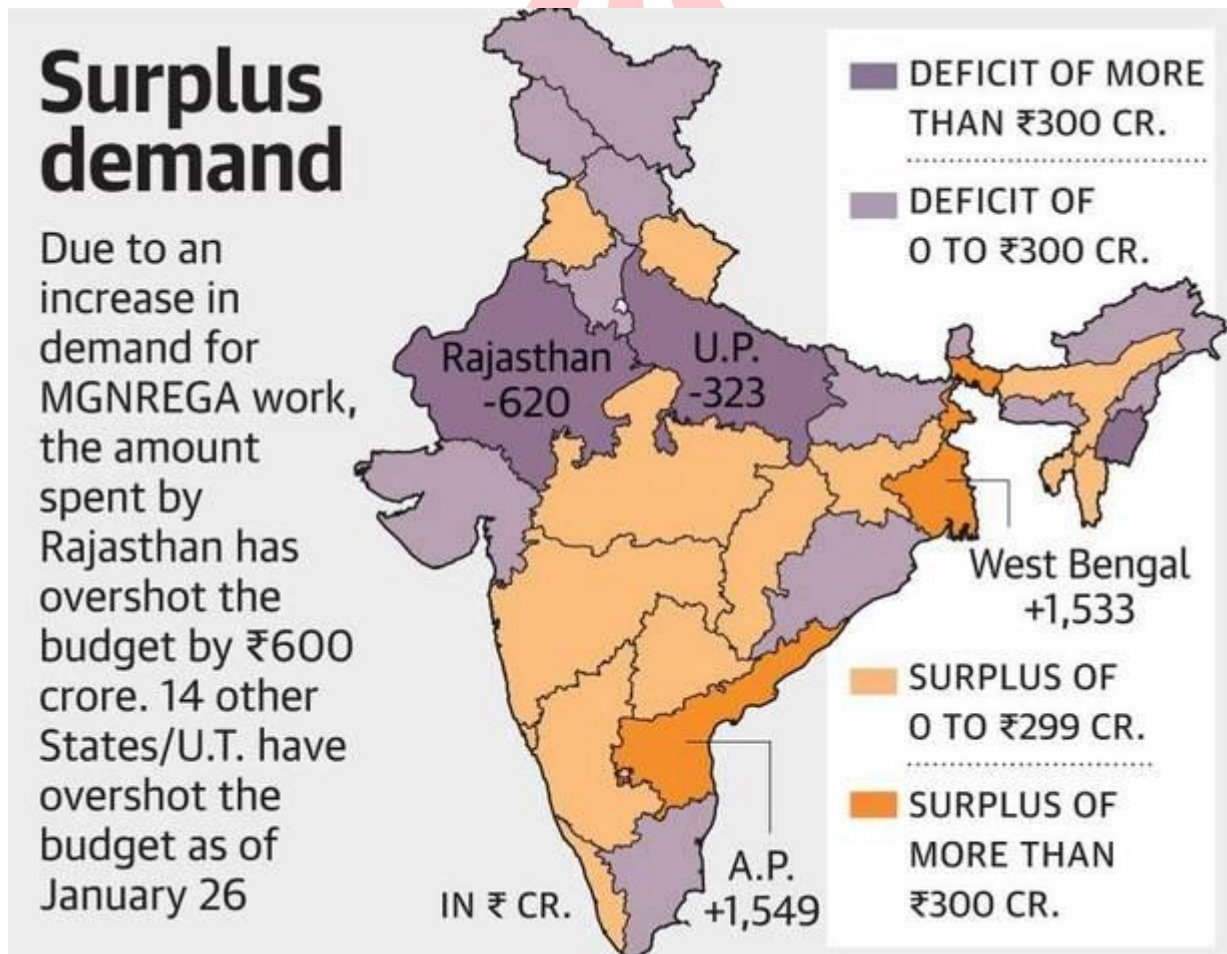
Mahatma Gandhi National Rural Employment Guarantee Act, 2005

- The Act aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage employment in a financial year to a rural household whose adult members (at least 18 years of age) volunteer to do unskilled work.

- The central government bears the full cost of unskilled labour, and 75% of the cost of material (the rest is borne by the states).

- It is a demand-driven, social security and labour law that aims to enforce the 'right to work'.

- Ministry of Rural Development (MRD), Government of India in association with state governments, monitors the implementation of the scheme.

Delay dues from the Central Government

- In Rajasthan, for example, workers' wages have not been paid since the end of the October. Last week, Chief Minister Ashok Gehlot wrote to Prime Minister NarendraModi, demanding that the Centre immediately release pending dues of ₹1,950 crore.

- "There is an outstanding liability of ₹848 crore for payment of wages and ₹1102 crore for materials," MrGehlot said in the letter.

- "Rajasthan has been able to generate Fund Transfer Orders for payment of wages within 15 days for 99.57% of workers and within 8 days for 90.31% of workers, which is an unprecedented achievement." But wages have not been paid to workers since October 11, 2019 as the Centre has not released funds. This is contrary to the spirit of the Act and violates the principle of rights-based implementation of the MGNREGA scheme."

Surplus demand

Due to an increase in demand for MGNREGA work, the amount spent by Rajasthan has overshot the budget by ₹600 crore. 14 other States/U.T. have overshot the budget as of January 26

IN ₹ CR.

Rajasthan -620
U.P. -323
West Bengal +1,533
A.P. +1,549

DEFICIT OF MORE THAN ₹300 CR.
DEFICIT OF 0 TO ₹300 CR.
SURPLUS OF 0 TO ₹299 CR.
SURPLUS OF MORE THAN ₹300 CR.

- After the letter was sent, the Centre released about ₹200 crore and cleared dues until the end of October, said a senior Rajasthan official who did not wish to be named.

- "There is a high demand for work this year as the rural economy is in distress and informal employment has also collapsed. Our original labour budget was for 23 crore person-days, but that was revised to 30 crore person days and we will definitely exceed that by the end of the year," said the official.

- "Apart from pending dues which the CM has mentioned, we will need another ₹600 to 700 crore," he added.

- Other States still have funds remaining, but activists say this is only because they are actively suppressing demand and turning workers away.

- In Karnataka, where many Districts have been declared drought-hit, people are eligible for 150 days of work. However, they are not even able to get work for 100 days, says Abhay Kumar, State coordinator of the Grameen Coolie KarmikaraSangathan (GCKS), a registered union for rural workers.

- "Wages have not been paid since October. When there are huge pending dues, the State government does not want to be liable to pay interest for delayed wages, so they suppress demand.

- Workers are being turned away from panchayat offices saying there is no available work, or they are being discouraged from demanding work by being told there will be a four month delay in wage payment.

- "January, February and March are months with little agricultural activity, when rural workers desperately need employment and MGNREGA sees huge demand.

- However, the scheme is already running out of money, and will enter next year with pending liabilities yet again," said RakshitaSwamy of the People's Action for Employment Guarantee movement, expressing the hope that Finance Minister NirmalaSitharaman will announce a more generous allocation for the scheme in the upcoming Budget.

- **MDR charges will not be applicable on transactions through RuPay, UPI platforms from 1st of January**

  ➢ No Merchant Discount Rate (MDR) will be applicable on transactions through homegrown RuPay and UPI platforms beginning 1st January, 2020.

  ➢ Ms. Nirmala Sitharaman announced this in New Delhi after meeting Chiefs of Public Sector Banks (PSBs), Chief executive of Indian Banks' Association and representatives of leading private sector banks to discuss banking issues.

  ➢ Department of Revenue (DoR) will soon notify RuPay and UPI as the prescribed mode of payment for digital transactions without any MDR.

- ➢ Now all companies with a turnover of Rs. 50 Crore or more will be mandated to provide the facility of payment through RuPay Debit card and UPI QR code to their customers.
- ➢ All banks will also start a campaign to populariseRuPay Debit card and UPI.
- ➢ MDR is the cost paid by a merchant to a bank for accepting payment from their customers via digital means. The merchant discount rate is expressed in percentage of the transaction amount.
- ➢ Besides, the Finance Minister also launched a common e-auction platform to sell attached assets of defaulters for improved realisation of value.
- ➢ The platform is equipped with property search features and navigational links to all PSB e-auction sites.
- ➢ It provides a single-window access to information on properties for e-auction as well as facility for comparison of similar properties and also contains photographs and videos of uploaded properties.
- ➢ A total of 35,000 properties have been uploaded on the platform by PSBs. The Public Sector Banks have attached assets worth over 2.3 lakh crore rupees over the last three financial years.
- ➢ To strengthen banks, in addition to the recent infusion of over 60 thousand crore rupees, additional infusion of 8,855 crore rupees has been approved and would be released shortly. Of the total amount, 4,360 crore rupees will be released to Indian Overseas Bank, 2,153 crore rupees to Allahabad Bank, 2,142 crore rupees to UCO Bank and 200 crore rupees to Andhra Bank.

- **China to issue revised local GDP figures under new mechanism from 2020**
  - ➢ China will revise its historical regional GDP data under a unified accounting mechanism from early next year.
  - ➢ The Chinese economy grew at an annual pace of 6.0 per cent in the July-September quarter, the slowest growth since 1992.
  - ➢ The National Bureau of Statistics new mechanism will unify the standards and procedures for calculating national and local GDP numbers which had been calculated under different accounting methods adopted by local and national statistics authorities since 1985.
  - ➢ The reform is expected to close the current discrepancy between national and regional figures, improving data quality while enhancing the credibility of the government statistics.

- **India likely to surpass Germany to become the fourth-largest economy in 2026: Report**
  - ➢ India will overtake Germany to become fourth-largest economy in the world by the year 2026. According to a report by the UK-based Centre for Economics and Business Research (CEBR), India is all set to overtake Japan to become the third-largest economy by 2034.

- The report titled 'World Economic League Table 2020' said that India is also set to become a 5 trillion dollar economy by 2026, 2 years later than the government's target of 2024.
- India has decisively overtaken both France and the UK to become the world's fifth-largest economy in 2019. The report said that Japan, Germany and India will battle for third position over the next 15 years.
- The World Economic League Table is an annual calculation by CEBR jointly published by CEBR and Global Construction Perspectives. The base data for 2019 is taken from the IMF World Economic Outlook.

- **SBI to deactivate magstripe debit cards**
  - SBI has announced that magstripe debit card will be deactivated by 31 December 2019. With effect from 1 January 2020, SBI customers will not be able to use their old magnetic stripe debit cards even if the validity of the card has not expired.
  - Chip-based cards, also called chip and PIN cards, use higher standards of data encryption and storage technology compared to magnetic stripe cards.

- **RBI buys Rs 10,000 crore worth long-term government securities in 2nd special OMO**
  - In the second special open market operation (OMO), the Reserve Bank of India on 30 December, 2019 day bought 10,000 crore rupees of long-term government securities and sold 8,501 crore rupees of three short-term bonds.
  - The RBI had announced to purchase and sell simultaneously government securities under Open Market Operations (OMO) for 10,000 crore rupees each, last week.
  - Though RBI offered to sell four securities in the auction, it accepted bids for three bids only.

- **Government unveils Rs. 102 lakh crore 5 year plan for mega infrastructure push**
  - Finance Minister NirmalaSitharaman has unveiled infrastructure projects worth 102 lakh crore rupees that will be implemented in the next five years as a part of the government's spending push to the infrastructure sector.
  - MsSitharaman said that in his Independence Day speech the Prime Minister spoke about investing 100 lakh crore rupees in infrastructure
  - Energy projects worth nearly 25 lakh crore rupees have been lined up and another 20 lakh crore rupees in road and about 14 lakh crore rupees in railway projects have also been lined up.

- **RBI launches mobile app for visually challenged to identify denomination of currency notes**
  - RBI has launched a mobile app, MANI, Mobile Aided Note Identifier, to help visually challenged people to identify denomination of currency notes.
  - The app, which is available both on Android and iOS operating systems, was launched by RBI Governor Shaktikanta Das in Mumbai.

- ➢ The visually challenged can identify the denomination of a note by using the application, which can also work offline once it is installed.
- ➢ Through the downloaded app, users can scan the notes using the camera.

- **Government of India signed MoU with Flipkart**
  - ➢ The Govt of India signed MoU with Flipkart for selling the products made by women self help group under DeendayalAntyodayaYojana-National Urban Livelihoods Mission (DAY-NULM).
  - ➢ DAY-NULM consists of 44 lakh women across the country which aims to make women financially independent.
  - ➢ Government is likely to sign MoU with Amazon on January 7, 2020, for the same purpose.

- **India's Forex reserves touch all time high of 457.468 billion**
  - ➢ India's foreign exchange reserves swelled by 2.520 billion USD to touch a record high of 457.468 billion USD in the week that ended on 27th December 2019.
  - ➢ An RBI has informed that foreign currency assets, a major part of the overall reserves rose by 2.203 billion USD to 424.936 billion USD.
  - ➢ In the previous week, the reserves had surged by 456 million USD to end at 454.948 billion USD. Gold reserves increased by 260 million USD to end at 27.392 billion USD.
  - ➢ India's special drawing rights with the International Monetary Fund, however dipped by 2 million USD to 1.441 billion USD, while the country's reserve position increased by 58 million USD to 3.7 billion USD.

INTERNATIONAL RELATIONS

India to invite Imran Khan for Shanghai Council meet

About SCO

The Shanghai Cooperation Organization (SCO), or Shanghai Pact is a Eurasian political, economic, and security alliance, the creation of which was announced on 15 June 2001 in Shanghai, China by the leaders of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan; the Shanghai Cooperation Organization Charter, formally establishing the organization, was signed in June 2002 and entered into force on 19 September 2003.

Since then, the organization has expanded its membership to eight countries

when India and Pakistan joined SCO as full members on 9 June 2017 at a summit in Astana, Kazakhstan.

Why in news?

Pakistani Prime Minister Imran Khan will be invited to participate in the Heads of Government Council meeting of the Shanghai Cooperation Organization (SCO) which will be hosted in India this year 2020.

As per the established practice and procedure within SCO, all eight members of the SCO, four observer states, and other international dialogue partners will be invited to attend the meeting.

Since becoming full-time member of the SCO in 2017, both India and Pakistan have participated in multiple meetings of SCO and the Regional Anti-Terrorist Structure (RATS) despite hostilities and tension in Kashmir. The Heads of Government Council meeting is attended by the Prime Minister-level leaders of the member states that deliberate on the regional body's economic and other pressing issues. The meeting also firms up SCO's annual budget.

The former prime minister of Pakistan Nawaz Sharif had visited India in May 2014 for the "mini-SAARC summit", Mr. Khan has not been invited to India till now. Recently the Pakistani leader welcomed the discussion on Kashmir held at the UN Security Council in New York, saying that the meeting "reflects recognition of the seriousness of the prevailing situation (in Kashmir)."

So the meeting on Kashmir was the second such China-backed meeting on "The India-Pakistan Question" at the UNSC since India ended the special status of the erstwhile state of Jammu and Kashmir on August 5, 2019.

 India is pointing that the issue of Kashmir is a "bilateral matter" and Pakistan "through a member of the UNSC" is misusing the high table of UN-level diplomacy. India argued that there is an international consensus favoring India's position on Kashmir.

Iran says it may pull out of nuclear treaty over Europe dispute

What is NTP?

The Treaty on the Non-Proliferation of Nuclear Weapons, commonly known as the Non-Proliferation Treaty or NPT, is an international treaty whose objective is to prevent the spread of nuclear weapons and

weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmament and general and complete disarmament. Between 1965 and 1968, the treaty was negotiated by the Eighteen Nation Committee on Disarmament, a United Nations-sponsored organization based in Geneva, Switzerland.

WHY IN NEWS?

Iran said that it will consider withdrawing from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) if a dispute over its atomic programme goes before the UN Security Council.

- The landmark 2015 deal reached with Britain, China, France, Germany, Russia and the U.S. gave Iran relief from sanctions in return for curbs on its nuclear programme

- Britain, France and Germany launched a process last week charging Iran with failing to observe the terms of the 2015 nuclear deal, a move that could eventually see the Security Council reimpose international sanctions on the country.

- Iran has accused the three EU member states of inaction over sanctions the United States reimposed on it after unilaterally withdrawing from the landmark accord in 2018.

- The European move "has no legal basis" and if they take further measures "Iran's withdrawal from the NPT will be considered.

- Since the U.S. pullout, Iran has progressively rolled back its commitments to the accord in retaliation.

- It has hit out at the three European nations that remain party to the tattered deal for failing to live up to their promises to ease the impact of U.S. sanctions on its oil-based economy.

- "If the Europeans return to the commitments, Iran will also stop reducing its commitments, but if the Europeans continue as they have been the Iran has multiple options as it said.

Iraqi PM calls for end to US Embassy siege after strikes on Shiite militia

- Iraqi Prime Minister Adil Abdul Mahdi urged protesters to end the violent siege of the American embassy in Baghdad which was triggered by a deadly US strike on a Shiite militia.

- Dozens of protesters broke into the US Embassy compound in Baghdad, smashing the main door and setting fire to a reception area, prompting tear gas and sounds of gunfire.

- The US Ambassador to Iraq and other staff were evacuated from the Embassy.

- United States President Donald Trump has warned Iran of significant retaliation if Americans are killed or its facilities damaged in attacks by the Islamic Republic.

- That they will pay a very big price.

- After pro-Iranian protesters stormed the US Embassy in Baghdad.

- Mr. Trump thanked Iraqi Prime Minister Adil Abdul Mahdi and President Barham Saleh for their rapid response upon request to the embassy attack, said the White House.

North Korea threatens to resume nuclear and ICBM testing

North Korean leader Kim Jong-un has said he is ending the suspension of nuclear and long-range missile tests put in place during talks with the US.

- Mr Kim also said his country would soon introduce "a new strategic weapon".

- But he left a door open for dialogue, and said the scope of any testing would depend on the US's "attitude".

- The momentum of the past few years has stalled, as Washington refuses to lift sanctions until Pyongyang fully abandons its nuclear programme.

- The North conducted several smaller weapons tests late in 2019, in what was seen as an attempt to pressure the US into making concessions.

- But the self-declared moratorium on nuclear tests and tests of intercontinental ballistic missiles (ICBMs) that could reach the US mainland had been one of the foundations of the negotiations with Washington.

- Pyongyang has not carried out such tests since 2017.

- On 1 January, state media reported him as saying North Korea was no longer bound by the self-declared moratorium, as the US continued joint military drills with South Korea and had stepped up their sanctions.

- "Under such condition, there is no ground for us to get unilaterally bound to the commitment any longer, the commitment to which there is no opposite party, and this is chilling our efforts for worldwide nuclear disarmament and non-proliferation," news agency KCNA quoted him as saying.

- He threatened that "the world will witness a new strategic weapon" from the North "in the near future", while giving no further details.

- Mr Kim's comments to the party meeting also admitted that sanctions have hit the economy and were unlikely to be lifted soon, warning that North Koreans will have to "tighten our belts".

The 'Phase One' agreement between US and China

- On 15th Jan, 2020 the United States and China announced a "Phase One" agreement under which the US will reduce some tariffs in exchange for increased Chinese purchases of American farm and energy goods.

- Reaching the agreement will serve the fundamental interests of the people of the two countries and the world, and is expected to bring positive influences on areas including economy, trade, investment and the financial market..

What is the "Phase One" agreement between the two countries?

- A statement issued by the office of the United States Trade Representative (USTR) said that the US will be maintaining 25 per cent tariffs on approximately $250 billion of Chinese imports, along with 7.5 per cent tariffs on approximately $120 billion of Chinese imports.

- "The United States and China have reached an historic and enforceable agreement on a Phase One trade deal that requires structural reforms and other changes to China's economic and trade regime in the areas of intellectual property, technology transfer, agriculture, financial services, and currency and foreign exchange," the statement said.

- Under the agreement China has committed to import various US goods and services over the next two years, the total amount for which will exceed China's annual levels of imports for those goods and services in 2017 by not less than $200 billion.

- The agreement addresses unfair currency practices by committing to refrain from competitive devaluations and exchange rate targeting.

- This approach will help reinforce macroeconomic and exchange rate stability and help ensure that China cannot use currency practices to unfairly compete against U.S. exporters.

- If the agreement is signed, for the first time in any trade agreement, China would have agreed not to pressure foreign companies to transfer their technology to Chinese companies.

- According to the USTR fact sheet, the chapter on agriculture addresses "structural barriers" to trade and supports a "dramatic" expansion of US food, agriculture and seafood product exports, which is expected to increase American farm and fishery incomes and promote job growth.

Taiwan president Tsai Ing-wen defends anti-infiltration law aimed at China

Taiwan's Tsai Defends Anti-Infiltration Law Aimed at China

Taiwan's president says in her New Year's address that China has tried relentlessly to infiltrate Taiwan's politics but the island's new ban on political interference should have no effect on normal exchanges between them.

- The Anti-Subversion Law that obtained a third and final approval in Taiwan's legislature Wednesday aims to prevent illegal campaign contributions, staging of political events, the spread of misinformation and other acts by foreigners that could affect Taiwan's elections or the work of government.

- It was denounced by the opposition and by China's Cabinet as overly broad and an attack of exchanges between the sides, but President Tsai Ing-wen defended it as having no effect on normal interactions.

- The law's passage "won't have any effect on freedom or violate human rights and won't influence normal commercial exchanges.

- It will simply provide greater guarantees from Taiwan's freedom and democracy," Tsai said.
- Given China's similar actions in other countries, Taiwan's failure to prevent interference could give the impression it is untroubled by Beijing's actions, Tsai said.
- "Under Chinese pressure and with the constant Chinese infiltration and interference, we really needed this law to make Taiwan a safer place and to prevent social divisions arising from infiltration and interference," she said.
- Tsai cited the continuing protests in Hong Kong as proof its governing framework, which Beijing proposes for Taiwan, is untenable.
- "China's goal is very clear and that is to compel Taiwan to make concessions on the question of sovereignty under duress," Tsai said.
- "Yet in Hong Kong, where 'one country, two systems' is in effect, the situation has just gotten worse and worse. Democracy and authoritarianism ... cannot co-exist in the same country."
- Tsai said Taiwan would emphasize in the coming year that China's policies cause instability in the Taiwan Strait, and that Taiwan would not exchange sovereignty for short-term economic gains. China has repeatedly offered benefits to Taiwanese who choose to work and study on the mainland and hundreds of thousands are believed to have taken advantage of the lower costs and greater opportunities in the Chinese market.
- That poses the prospect of a "brain drain" of talented Taiwanese to the advantage of China's economy while furthering Beijing's goal of breaking down resistance to the possibility of future political unification between the sides.
- Recent surveys show around 80 percent of Taiwanese reject the idea of political union with China, with most backing the island's current status of de facto independence.
- China cut contacts with Tsai's government shortly after her 2016 election and her potential reelection raises the possibility Beijing will intensify its campaign of economic, military and diplomatic pressure over her refusal to agree to Beijing's claim that Taiwan is a piece of Chinese territory that must be reclaimed. China threatens to use force to annex the island if peaceful means fail.

Pacific Island nation Palau bans 'reef-toxic' sunscreen

- Palau's pioneering ban on "reef-toxic" sunscreens takes effect.
- The tiny Pacific island nation introduced strict environmental measures.
- Palau is renowned for its marine life and is regarded as one of the world's best diving destinations.
- But, the government is concerned this poses an environmental cost.
- There was scientific evidence that chemicals found in most sunscreens were toxic to corals.

- From New Year's day, any reef-toxic sunscreen imported or sold in Palau will be confiscated and the owner will be fined. Along with the ban, Palau's much-touted marine sanctuary came into effect on January 1.

- This closes 80 per cent of its exclusive economic zone to fishing and other marine activities including mining and shark finning.

- It follows Palau's establishment of the world's first shark sanctuary in 2009.

Australian navy begins evacuation in fire-ravaged town of Mallacoota

- The Australian navy has begun evacuating hundreds of people trapped in the fire-ravaged town of Mallacoota on the Victoria coast.

- Terming it an unprecedented mass relocation, MP Darren Chester said, two ships, will pick up about 1,000 people.

- Thousands of people are also fleeing neighbouring city of New South Wales where a state of emergency is in force. Since September fires have killed 19 people in the two states.

- Meanwhile, Prime Minister Scott Morrison has come under attack for his response to the fires.

- He was heckled by angry locals in Cobargo, New South Wales, and had to cut short his visit to the fire-hit town.

24 people killed in an attack on Sudan camp for internally displaced people

- In Sudan, 24 people were killed after a camp for internally displaced people was attacked in West Darfur state.

- Krinding Camp, east of the state capital el-Geneina, was raided over Sunday and Monday following a dispute between Arab and African ethnic groups.

- The Arab tribesmen came to the IDP camp and started shooting and killing and burning.

- Brokering lasting peace in Darfur and other parts of Sudan is one of the main challenges facing military and civilian authorities.

- Rebel groups from Darfur have now suspended their peace talks with the government in response to the latest tribal clashes and called for an investigation.

Nepal's President launches 'Visit Nepal Year 2020' campaign to promote tourism

- President of Nepal Bidya Devi Bhandari launched much-awaited Visit Nepal Year 2020 campaign amidst a spectacular ceremony held at historic Dasaratha Rangashala in Kathmandu on 01 January, 2020 evening.

- Chief Justice, National Assembly Chairman, former Prime Ministers and political party leaders from Nepal and dignitaries from various countries including India's Minister of State (Independent Charge) for Tourism and Culture, Prahlad Singh Patel also graced the occasion.

- The ambitious campaign is aimed to promote tourism in Nepal and attract 2 million tourists during the year 2020.

- The government has a goal of making tourism one of the key pillars of Nepali economy. He said Visit Nepal Year 2020 will create a new image of Nepal in the hearts and minds of the world community.

- On this occasion India's Minister of State (Independent Charge) for Tourism and Culture, Prahlad said India and Nepal have age old cultural and social ties.

- Participation and enthusiasm among youths will make the campaign successful. Visit Nepal 2020 campaign was also launched in all the seven provinces of Nepal from 01 January, 2020.

- During the campaign a large number of programmes will be organized in various parts of Nepal throughout the year.

World Braille Day being celebrated today (4 Janaury)

- The world Braille Day is being celebrated on 4 January every year.

- The day is marked remembering the birth anniversary of Louis Braille, the inventor of Braille - for people with visual disabilities. Louis Braille was born on 4th January 1809 in the town of Coupvray in northern France.

- At the age of just 3, he lost both his eyes in an accident.

- This resulted in the invention of the language of 6 dots- which is popularly known as braille.

Israel holds emergency security talks

- Israel held emergency security talks on 3 January, 2020 and Prime Minister Benjamin Netanyahu cut short a foreign visit as the Jewish state braced itself for fallout from the assassination of a top Iranian military commander in a US air strike.

- Defence Minister Naftali Bennett chaired a meeting of security chiefs, including the heads of the army, the National Security Council and the Mossad intelligence agency, his office said.

- Netanyahu broke off an official visit to Greece and flew home, expressing support for the overnight US strike that killed General Qasem Soleimani in Baghdad.

- On the ground, the Israeli army closed Mount Hermon ski resort on the annexed Golan Heights, a disputed territory which borders Syria and Lebanon.

US sends 3,000 more Army troops to Middle East

- The United States is sending 3,000 more army troops to the Middle East as reinforcements after the killing of Iranian Commander Qasem Soleimani in a strike ordered by President Donald Trump.
- They are in addition to about 700 soldiers who were deployed in Kuwait earlier this week after the storming of the United States Embassy compound in Baghdad by Iran-backed militiamen and their supporters.
- Prior to this week's deployments, Trump administration had sent 14,000 additional troops to the Mideast since May, when it first publicly claimed Iran is planning attacks on US interests.
- The strike marked a major escalation in the conflict between Washington and Iran, as Iran vowed harsh retaliation for the killing of the senior military leader.
- The execution of Iranian Commander Qasem Soleimani by US military was aimed to stop a war and not to start a war.
- Qassem was plotting attacks on US diplomats and military personnel before he was killed.
- The United States Secretary of State Mike Pompeo defended the strike as wholly lawful, saying that Soleimani posed an imminent threat against the United States and its interests in the region.
- The United States and Iran have faced repeated crises since Trump withdrew from the 2015 nuclear deal and imposed crippling sanctions.
- The United States urged its citizens to leave Iraq immediately as fears mounted that the strike and any retaliation by Iran could ignite a conflict that engulfs the region.

Iran names Esmail Qaani as new Commander

- Iran's supreme leader Ayatollah Ali Khamenei named the Deputy Head of the Revolutionary Guards' foreign operations arm Esmail Qaani to replace Qasem Soleimani as its commander.
- Soleimani was killed in a pre-dawn US strike in Baghdad.
- Qaani was one of the most decorated commanders of the Guards during the 1980-88 Iran-Iraq war.
- The orders for the force remain exactly as they were during the leadership of Soleimani. He called on the members of the force to cooperate with General Qaani.

Arab League Chief concerned over developments in Iraq; calls for calm

- Arab League Secretary General Ahmed Aboul Gheit on 5th January, 2020 expressed his concern over developments in Iraq and Arab region and called for calm.
- The region is currently in a dire need of calm, not escalation and extinguishing conflicts, not igniting and perpetuating them.
- The Arab League is a union of Arab-speaking African and Asian countries. It has 22 members and four observer States.

Iran decides not to abide by any of restrictions imposed by 2015 nuclear deal

- Iran has declared that it will no longer abide by any of the restrictions imposed by the 2015 nuclear deal.
- It will no longer observe limitations on its capacity for enrichment, the level of enrichment, the stock of enriched material, or research and development.
- Under the 2015 accord, Iran agreed to limit its sensitive nuclear activities and allow in international inspectors in return for the lifting of crippling economic sanctions.
- The announcement followed a meeting of the Iranian cabinet in Tehran. Tensions have been high over the killing of Iranian General Qasem Soleimani by the US in Baghdad.
- EU foreign policy chief Josep Borrell has invited Iran's Foreign Minister, Mohammad Javad Zarif, to visit Brussels to discuss both the nuclear deal and how to defuse the crisis over the Soleimani assassination.
- Earlier, Iraqi Parliament passed a non-binding resolution calling for foreign troops to leave the country after the general's killing in a drone strike at Baghdad airport on Friday.

Dhaka Court issues arrest warrant against former Chief Justice S.K.Sinha

- A Dhaka court issued an arrest warrant against the former Chief Justice of Bangladesh S.K.Sinha and ten others in a case of graft and money laundering.
- The Senior Special Judges' Court of Dhaka directed the police on 05th January, 2020 to submit the report on the execution of the warrants by January 22.
- All the accused in the case including former Chief Justice S.K. Sinha have been shown as fugitives in the charge sheet filed by the police.
- The Anti-Corruption Commission (ACC) of Bangladesh had pressed the charges in December, 2019 against 11 persons.
- They are accused of taking a loan of Tk 4 crore from a bank based on forged papers and depositing money in the account of Justice S.K. Sinha.

Regime air strikes kill 9 civilians in Syria

- In Syria, regime air strikes killed nine civilians in the embattled opposition stronghold of Idlib on 5th January, 2020. Britain-based Syrian Observatory for Human Rights said that 19 people were also injured in air raids in the town of Ariha.

- The Damascus government has repeatedly vowed to retake Idlib, which is run by Hayat Tahrir al-Sham, a group dominated by Syria's former Al-Qaeda affiliate.

- In total 11,215 people were reported killed last year.

- Syria's war has killed more than 380,000 people including over 115,000 civilians since it started in 2011.

EU invites Iranian Foreign Minister to Brussels for de-escalation of tensions

- The European Union has invited Iran's Foreign Minister to Brussels, urging for de-escalation of tensions in the Gulf after US airstrikes that killed a top Iranian general in Baghdad.

- The EU's Foreign Policy Chief Josep Borrell made the offer to Iran's foreign minister Mohammad Javad Zarif during a telephone call this weekend.

- A regional political solution was the only way forward while stressing the importance of preserving the 2015 Iran nuclear deal. He confirmed his resolve to continue to fully play his role as coordinator and keep the unity of the remaining participants in support of the agreement and its full implementation by all parties.

- There has been an increase in tensions between the US and Iran since 2018 when President Donald Trump unilaterally withdrew from the landmark accord that gave Tehran relief from sanctions in return for curbs on its nuclear programme.

Iranian President Hassan Rouhani warns not to threaten Iranian nation

- Amid escalating tension between Iran and US, Iranian President Hassan Rouhani on 6 January, 2020 warned not to threaten the Iranian nation.

- President Rouhani by number 290 was referring to Iran Air flight 655, flight of an Iranian airliner that was shot down by the missile cruiser USS Vincennes on July 3, 1988, over the Strait of Hormuz, killing all 290 people on board. The passenger plane was in Iranian airspace.

- After the assassination of Lieutenant General Qasem Soleimani, Mr Trump wrote in a series of tweets that if Iran makes a move to avenge the assassination of Soleimani, the United States will target 52 Iranian sites.

NATO tells Iran to avoid further violence & provocations as tension mounts in West Asia

- North Atlantic Treaty Organization, NATO, has called for restraint and de-escalation in the West Asian region, as tensions soar following the killing of a top Iranian general.

- NATO chief Jens Stoltenberg has warned that Tehran should avoid further violence and provocations, saying that a new conflict would be in no one's interest.

- At an emergency session of NATO's ruling council, US officials provided the rationale behind the action against Iranian General Qasem Soleimani at Baghdad airport. Soleimani was head of Tehran's West Asia operations as commander of the Revolutionary Guards' Quds Force.

- All NATO members not only supported the United States' move to kill Soleimani but also condemned Iran for allegedly supporting different terrorist groups.

- NATO maintains a 500-strong mission in Iraq, preparing local forces to take on Islamic State group extremists.

- However, its core training activities have now been suspended amid worsening security situations.

- Tehran has vowed to avenge Soleimani's killing while US President Donald Trump has threatened major retaliation if any American targets are hit.

UAE Cabinet approves issuance of 5-Year multi-entry tourist visa

- The UAE Cabinet has approved the issuance of a five-year multi-entry tourist visa for all nationalities visiting the country.

- The decision was made during the Cabinet's first meeting of 2020.

- The move comes in a bid to support the UAE's tourism economy, and affirm the country's position as a global tourist destination.

- The country receives 21 million tourists annually and their aim is to establish the country as a major global tourist destination.

- The decision is also likely to benefit the near and dear ones of the lakhs of expat population staying in UAE.

SOCIAL ISSUES

UNICEF Report

- The United Nations Children's Emergency Fund (UNICEF) released its year-end report.

- The agency termed the past decade as a '**Deadly Decade'** for children in conflict with more than 1,70,000 grave violations against children since 2010.

- The report revealed the number of grave violations against children increased almost three-fold since the beginning of the decade, amounting to almost 45 violations every single day.

- The report stated that since 1989, the number of countries experiencing conflicts increased and as a result the violations against children also increased.

- The UNICEF report highlighted how **killing, maiming, sexual violence, abduction** and **recruitment** into **armed groups** cost millions of children their childhoods, dreams and even their lives in the past decade.

- Further, the UNICEF report stated that around 24,000 grave violations against children were recorded in 2018. In 2019, there were more than 10,000 violations in the first half itself.

- The violations were more prevalent in countries experiencing heavy-armed conflicts including northern Syria, Yemen, Ukraine and the Democratic Republic of Congo.

Convention on the Rights of the Child

- It is a treaty adopted by the **United Nations General Assembly** in 1989.

- It recognises a child as every human being under 18 years old.

- It sets out the civil, political, economic, social and cultural rights of every child, regardless of their race, religion or abilities.

- It includes rights such as Right to Education, Right to Rest and Leisure, Right to Protection from Mental or Physical Abuse including Rape and Sexual Exploitation.

- It is the world's most widely ratified human rights treaty.

Sukanya

- Kolkata Police started the third edition of its 'Sukanya' project at **100 city-based schools** and **colleges** situated in **Kolkata Police jurisdiction.**

- Sukanya is an initiative of the **Kolkata Police's Community Policing Wing** to provide self-defence training to girl students of city-based schools, colleges and universities.

- Girl students of **VIII, IX, XI** and girls studying in the first year at educational institutions in this area will be part of it.

- The initiative is funded by **Women and Child Development and Social Welfare Department** of the state government.

NetSCoFAN (Network for Scientific Co-operation for Food Safety and Applied Nutrition)

Ministry of Health and Family Welfare has launched **NetSCoFAN** (Network for Scientific Co-operation for Food Safety and Applied Nutrition)

About NetSCoFAN

- It is a network of research & academic institutions working in the area of food & nutrition
- It would comprise of eight groups of institutions working in different areas. These areas are:
  - ➢ Biological
  - ➢ Chemical
  - ➢ Nutrition & labelling
  - ➢ Food of animal origin
  - ➢ Food of plant origin
  - ➢ Water & beverages
  - ➢ Food testing
  - ➢ Safer & sustainable packaging.
- **Function:** To identify research gaps in respective areas and collect, collate and develop database on food safety issues for risk assessment activities.

Fast Track Special Courts

- Over 1000 Fast Track Special Courts will be set up across the country for speedy disposal of cases relating to rape and **Protection of Children from Sexual Offences (POCSO) Act**.
- Out of these, 389 courts have been proposed to be set up exclusively for POCSO Act related cases in districts where the pendency of such cases is more than 100.
- The **Law Ministry** has said, these courts will be set-up as a part of the **National Mission for Safety of Women.**
- The scheme was circulated to the concerned **State Governments and Union Territory Administrations** in September, 2019.
- The Ministry said, **24 States and Union Territories** have joined this scheme for setting up 792 Fast Track Special Courts.
- These include 354 exclusive courts for trial of POCSO offences.
- 216 POCSO courts are already functional in 12 States.
- Incidents of rape and gang rape of minor girls below twelve years and similar heinous crimes against women have shaken the country.
- These offences require effective deterrence through time- bound trial. For this purpose, the Centre has enacted the **Criminal Law (Amendment) Act, 2018.**

Levels and trends in child mortality

The 'Levels and Trends in Child Mortality' report was released by the **United Nations (UN) inter-agency group** for **child mortality.**

Global scenario:

- A child or a young adolescent died every five seconds in **2018.**
- The major causes of **neonatal mortality** are:
  - ➢ **Pre-term birth**
  - ➢ **Intrapartum related events**
  - ➢ **Neonatal infection**.
- Half of all under-5 deaths in **2018** occurred in five countries:
  - ➢ **India**
  - ➢ **Nigeria**
  - ➢ **Pakistan**
  - ➢ **The Democratic Republic of the Congo**
  - ➢ **Ethiopia**.
- **India** and **Nigeria** alone account for about a **third.**
- Current trends predict that close to **10 million 5- to 14-year-olds**, and **52 million children under 5 years of age**, will die between **2019** and **2030.**
- In 2018, fewer countries showed gender disparities in child mortality, and across the world, boys are expected to have a higher probability of dying before reaching age 5 than girls. But this trend was not reflected in India.

Indian scenario:

- India's under-5 girls face high mortality.
- India is among the few countries in the world where, in 2018, the mortality for girls under 5 years of age exceeded that of boys.
- According to India's 2017 Sample Registration System, the States with the highest burden of neonatal mortality are **Madhya Pradesh, Odisha** and **Uttar Pradesh**, with **32, 33** and **30 neonatal deaths** per **1,000 live births**, respectively.
- **India's neonatal mortality rate is 23**.
- **Jharkhand, Bihar** and **Uttarakhand** showed the **largest gender gaps** in **under-5 mortality.**

Wide gap Among bigger States in India, the gender gap in the under-five mortality rate was most pronounced in Jharkhand (girls: 38 and boys: 30). Madhya Pradesh had the highest overall under-five mortality (55) while Kerala had the least (12)

State	Under-five mortality rate (girls)	Under-five mortality rate (boys)	Gap	Under-five mortality rate
Jharkhand	38	30	8	34
Assam	51	45	6	48
Haryana	38	32	6	35
Uttar Pradesh	48	43	5	46
Rajasthan	45	41	4	43
Bihar	43	39	4	41

■ Among the **5.3 million** under-five deaths in 2018, **2,9 million** were of boys and **2,4 million** of girls

■ On average, **15,000** children died before age **5** every day in 2018 compared to **34,000** in 1990 and **27,000** in 2000

Under-five mortality of girls in Kerala was 11

Annual Status of Education Report (Rural) 2019

- The Non-governmental organization (NGO) **Pratham's Annual Status of Education Report 2019** has flagged poor learning outcomes in schools.

- ASER 2019 reported on the **pre-schooling or schooling status** of children in the age group **4 to 8 years in** 26 **rural districts** (districts with rural population >70%) across 24 States.

- The report focuses on the "early years" and lays emphasis on "developing problem-solving faculties and building memory of children, and not content knowledge".

Early years

- It is defined globally as **age 0-8,** is known to be the most important stage of cognitive, motor, social and emotional development in the human life cycle.

- It explores children's performance on 4 competencies that are identified as important predictors of future success, viz.

  - ➤ **Cognitive Development**
  - ➤ **Early Language**
  - ➤ **Early Numeracy**
  - ➤ **Social and Emotional Development.**

Key Findings

- ASER Report 2019 argues that a focus on **cognitive skills rather than subject learning** in the early years can make a big difference to basic literacy and numeracy abilities.

- It tested cognitive skills of children.

- Tests included sorting images by **colour and size, recognising patterns, fitting together a four-piece animal puzzle** — as well as simple literacy and numeracy tests.

Learning levels

Five-year-old children in private schools fared better in learning tasks than those in govt. schools and anganwadis

% of students who completed the tasks	Govt. pre-school	Private kinder-garten
COGNITIVE TASKS		
Sorting	77.5	87.2
Pattern recognition	43.4	49.9
BASIC LANGUAGE		
Picture description	63.7	76.6
Listening comprehension	23.5	40.4
BASIC MATHS		
Counting objects	36.8	57.6

- However, of those children who could correctly do all three cognitive tasks, **52% could read words,** and **63% could solve the addition problem.**

- ASER data shows that children's performance on tasks requiring cognitive skills is strongly related to their ability to do early language and numeracy tasks.

- This suggests that focussing on play-based activities that **build memory, reasoning and problem-solving abilities** is more productive than an early focus on content knowledge.

Reading and early childhood education

- Only **16%** of children in **Class 1** can read the text at the **prescribed level**, while almost **40% cannot even recognise letters.**

- Early childhood education has the potential to be the "**greatest and most powerful equaliser**".

- Global research shows that **90% of brain growth occurs by age 5**, meaning that the quality of early childhood education has a crucial impact on the development and long-term schooling of a child.

Private schools ahead

- Of **6 year olds** in **Class 1**, nearly **42%** of those in **private Schools** could read words in comparison to only **19%** from **government schools**.
- This gap is further exacerbated by a gender divide.
- More than a quarter of **Class 1** students in government schools are only **4 or 5 years old**, younger than the recommended age. These younger children struggle more than others in all skills.
- At the same time, **36%** in **Class 1** are older than the **Right To Education (RTE) Act (2009)** - mandated age of 6.
- It can be noted that the draft **New Education Policy (NEP), 2019** also links the **"severe learning crisis"** to what goes on with young children in India.

Draft New Education Policy (NEP), 2019

Draft NEP points out that close to 5 crore children currently in elementary schools do not have foundational literacy and numeracy skills.

Several possible reasons for this:

- Many children enter school **before age 6**. This is partly due to the lack of affordable and accessible options for pre-schooling. Therefore, too many children go to Std I with limited exposure to early childhood education.
- Children from poor families have a double disadvantage - **lack of healthcare and nutrition** on one side and the absence of a **supportive learning environment** on the other.
- School readiness or early childhood development and education activities have not had a high priority in the **Integrated Child Development Scheme (ICDS)** system

Annual Status of Education Report (ASER)

- ASER surveys use **Census 2011** as the **sampling frame**.
- ASER continues to be an important national source of information about children's foundational skills across the country.
- In 2016, ASER switched to an alternate-year cycle where this **'basic'** ASER is conducted every other year (2016, 2018, and next in 2020); and in alternate years ASER focuses on a different aspect of **children's schooling and learning**.
- In 2017, ASER **'Beyond Basics'** focused on the **abilities, experiences, and aspirations of youth in the 14-18 age group.**
- In 2018 ASER had data on enrollment patterns in age group 4 to 8.

Way Forward

- There is considerable scope for expanding **Anganwadi** outreach for 3 and 4 year-old children. Strengthen the early childhood components in the **Integrated Child Development Scheme (ICDS) system** for raising school readiness among young children.

- A reworking of curriculum and activities is urgently needed for the entire age band from 4 to 8, cutting across all types of preschools and early grades regardless of whether the provision is by government institutions or by private agencies.

- The year **2020** marks the **10th anniversary** of the **RTE Act**. This is the best moment to focus on the youngest cohorts before and during their entry to formal schooling and ensure that 10 years later they complete secondary school as well-equipped and well-rounded citizens of India.

National Draft Policy on Rare Diseases

- The **Union Ministry of Health and Family Welfare** has published a national policy for the treatment of **450 'rare diseases'.**

- The Centre first prepared such a policy in **2017** and appointed a committee in **2018** to review it.

Overview of the policy:

- Among other measures, the policy intends to kick start a **registry of rare diseases**, which will be maintained by the **Indian Council of Medical Research (ICMR).**

- According to the policy, rare diseases include **genetic diseases, rare cancers, infectious tropical diseases,** and **degenerative diseases.**

- Under the policy, there are three categories of rare diseases — r**equiring one-time curative treatment,** diseases that **require long-term treatment** but where the cost is low, and those needing **long-term treatments** with **high cost.** Some of the diseases in the first category include **osteopetrosis** and **immune deficiency disorders**, among others.

- As per the policy, the assistance of Rs **15 lakh** will be provided to patients suffering from rare diseases that require a one-time curative treatment under the **Rashtriya Arogya Nidhi scheme.** The treatment will be limited to the beneficiaries of **Pradhan Mantri Jan Arogya Yojana.**

Background:

- The policy was created on the direction of the **Delhi High Court** to the **Ministry of Health and Family Welfare.**

- This was in response to **writ petitions** for free treatment of such diseases, due to their "prohibitively" high cost of treatment.

- Hence, a policy was deemed necessary to devise a "multipronged" and "multisectoral" approach to build India's capacity for tackling such ailments, including by gathering epidemiological data, arriving at a definition and estimating the cost of such diseases.

What is a rare disease?

- A rare disease, also referred to as an **orphan disease**, is any disease that affects a **small percentage** of the **population**.

- Most rare diseases are **genetic**, and are present throughout a person's entire life, even if symptoms do not immediately appear.

Characteristics:

- Rare diseases are characterised by a wide diversity of symptoms and signs that vary not only from disease to disease but also from patient to patient suffering from the same disease. Relatively common symptoms can hide underlying rare diseases, leading to misdiagnosis.

- The most common rare diseases recorded in India are **Haemophilia, Thalassemia, sickle-cell anaemia** and **primary immuno deficiency** in children, **auto-immune diseases**, **Lysosomal storage disorders** such as **Pompe disease, Hirschsprung disease, Gaucher's disease, Cystic Fibrosis, Hemangiomas** and certain forms of **muscular dystrophies.**

Definition:

- While there is no universally accepted definition of rare diseases, countries typically arrive at their own descriptions, taking into consideration disease prevalence, its severity and the existence of alternative therapeutic options.

- In the **US**, for instance, a **rare disease** is defined as a condition that affects fewer than **200,000 people**.

- The same definition is used by the **National Organisation for Rare Disorders (NORD).**

Concerns and challenges:

- Rare diseases pose a significant challenge to health care systems because of the difficulty in collecting epidemiological data, which in turn impedes the process of arriving at a disease burden, calculating cost estimations and making correct and timely diagnoses, among other problems.

- Many cases of rare diseases may be serious, chronic and life-threatening. In some cases, the affected individuals, mostly children, may also suffer from some form of a handicap.

- As per the 2017 report, over 50 per cent of new cases are reported in children and these diseases are responsible for 35 per cent of deaths in those below the age of one, 10 per cent of deaths between the ages of one and five, and 12 per cent between five and 15.

Need of nationwide policy:

- **State has responsibility for providing affordable, accessible and reliable health-care services** to every citizen. In fact constitution also mentions importance of health-care services under articles like 21, 38 and 47 and thus state cannot evade this responsibility under the pretext of non-justifiability of articles.

- Given the low volumes at which the drugs needed to treat such diseases would be consumed, pharmaceutical companies have little commercial incentive to produce them. Thus, a **nationwide policy on orphan drugs could incentivize these players**.

- Even if pharmaceutical companies are incentivized to develop drugs to treat rare diseases, pharmaceutical companies remain beholden to the laws of economics and, given the low demand for orphan drugs, price these drugs as high as they choose to. Hence there has to be regulation of the **government in restricting the exorbitant prices of the drugs.**

- Although proportion of rare diseases is much less than the other diseases, it does not reduce the importance of the life of person affected by rare diseases. Thus **national policy would remove this adverse distinction** and would make government committed equally to all people.
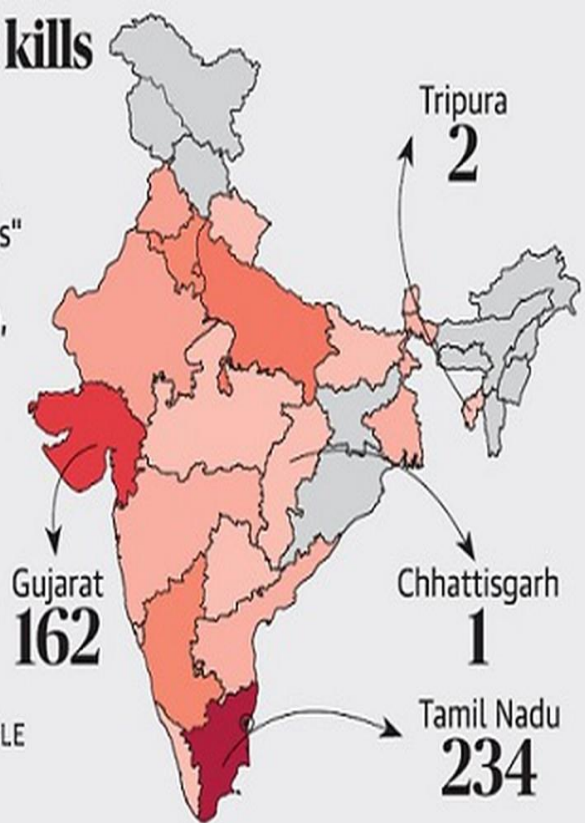
Manual Scavenging

The **National Commission for Safai Karamcharis (NCSK)** reviewed the implementation of Prohibition of Employment as **Manual Scavengers and their Rehabilitation Act, 2013.**

About:

- Of the **926 deaths** inside sewers in the country, from 1993 till December 31, 2019, families of **172 victims** were yet to receive compensation. **Gujarat** had the highest number of cases where the amount was not paid or the payment was unconfirmed (48), while **Maharashtra** was yet to pay or confirm payment of compensation in any of its 32 cases.

A job that kills

Tamil Nadu recorded the highest number of "sewer deaths" (234), followed by Gujarat (162), between 1993 and 2019. Map shows such deaths in the period. Darker the colour, more the deaths

Tripura 2

Gujarat 162

Chhattisgarh 1

Tamil Nadu 234

DATA NOT AVAILABLE FOR STATES COLOURED GREY

- A total of **53,598 people**, of which **29,923** were in **Uttar Pradesh** alone, had been identified as engaged in manual scavenging after surveys in **2013** and **2018**. One-time cash assistance had been disbursed in **35,397 cases**, with **Uttar Pradesh** accounting for **19,385** such people.

- **Capital subsidy** and **skill development training** had been provided to **1,007** and **7,383** of the identified **manual scavengers,** respectively, the data showed.

- **District Vigilance Committees** had been constituted in **21 States/Union Territories,** State Monitoring Committees in 26, and State Commissions for Safai Karamcharis in eight.

National Commission for Safai Karamcharis (NCSK)

- The NCSK was established in **1994** to deal with the **grievances of persons engaged in manual scavenging.**

- It has a sanctioned strength of **four members** and **a chairperson.**

- It is statutory body established under **National Commission for Safai Karamcharis Act, 1993.**

- It aims to promote and safeguard the **interests and rights of Safai Karamcharis.**

- Its mandate is to **study, evaluate and monitor the implementation** of various schemes for **Safai Karamcharis** as an autonomous organisation.

Government Intervention

- In 1993, the Government of India enacted the Employment of **Manual Scavengers and Construction of Dry Latrines (Prohibition) Act.**
  - ➢ The act prohibited the employment of manual scavengers for manually cleaning dry latrines and also the construction of dry toilets (that do not operate with a flush).
  - ➢ It provided for imprisonment of up to a year and a fine.

- In 2013, this was followed by the **Prohibition of Employment as Manual Scavengers** and their **Rehabilitation Act, 2013**, which is wider in scope and importance, acknowledging the urgency of rehabilitating manual scavengers.
  - ➢ The act seeks to reinforce this ban by prohibiting manual scavenging in all forms and ensures the rehabilitation of manual scavengers to be identified through a mandatory survey.
  - ➢ **Key features of the Act :**
    - Prohibits the construction or maintenance of insanitary toilets.
    - Prohibits the engagement or employment of anyone as a manual scavenger violations could result in a years' imprisonment or a fine of INR 50,000 or both.
    - Prohibits a person from being engaged or employed for hazardous cleaning of a sewer or a septic tank.
    - Offences under the Act are cognizable and non-bailable.
    - Calls for a survey of manual scavengers in urban and rural areas within a time-bound framework.

- A **Supreme Court** order in March, 2014, makes it mandatory for the government to identify all those who died in sewerage work since 1993 and provide Rs.**10 lakh** each as compensation to their families.

- The Government of India has adopted a two-pronged strategy of eliminating insanitary latrines through **demolition and conversion into sanitary latrines** and developing a comprehensive rehabilitation package for manual scavengers through a survey
  - ➢ A comprehensive rehabilitation package has recently been put together that includes livelihoods and skill development, access to education for children of former manual scavengers and alternate livelihoods.

Classical language status to Marathi

At the recently concluded **93rd edition** of the Akhil Bharatiya Marathi Sahitya Sammelan, a resolution was passed demanding the declaration of **Marathi as a 'Classical' language.**

What are 'Classical' languages in India?

Currently, **six languages enjoy the 'Classical' status**: Tamil (declared in 2004), Sanskrit (2005), Kannada (2008), Telugu (2008), Malayalam (2013), and Odia (2014).

How are they classified?

- Guidelines for declaring a language as **'Classical'** are:
  - ➢ High antiquity of its early texts/recorded history over a period of 1500-2000 years.
  - ➢ A body of ancient literature/texts, which is considered a valuable heritage by generations of speakers.
  - ➢ The literary tradition be original and not borrowed from another speech community.
  - ➢ The classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots.

How are the Classical languages promoted? Various benefits:

- Two major annual international awards for scholars of eminence in classical Indian languages.
- A Centre of Excellence for studies in Classical Languages is set up.
- The University Grants Commission is requested to create, to start with at least in the Central Universities, a certain number of Professional Chairs for the Classical Languages so declared.

WHO releases Global Health Challenges for 2020

The World Health Organization(WHO) has released a list of **13 urgent global health challenges** for 2020.

About the 13 challenges:

- Climate Crisis
- Delivering Health in Conflict and Crisis
- Healthcare Equality
- Expanding Access to Medicines
- Infectious Diseases
- Preparing for Epidemics

- Dangerous Products like unsafe food, and unhealthy diets

- Investing in People Who Defend Our Health

- Keeping Teens Safe as more than one million adolescents aged 10 to 19 years die every year

- Earning Public Trust

- Harnessing New Technologies such as genome editing and artificial intelligence.

- Rise of Antimicrobial Resistance

- Clean Water, Sanitation, Hygiene as about one in four health facilities globally lack basic water, sanitation, and hygiene(WASH) services.
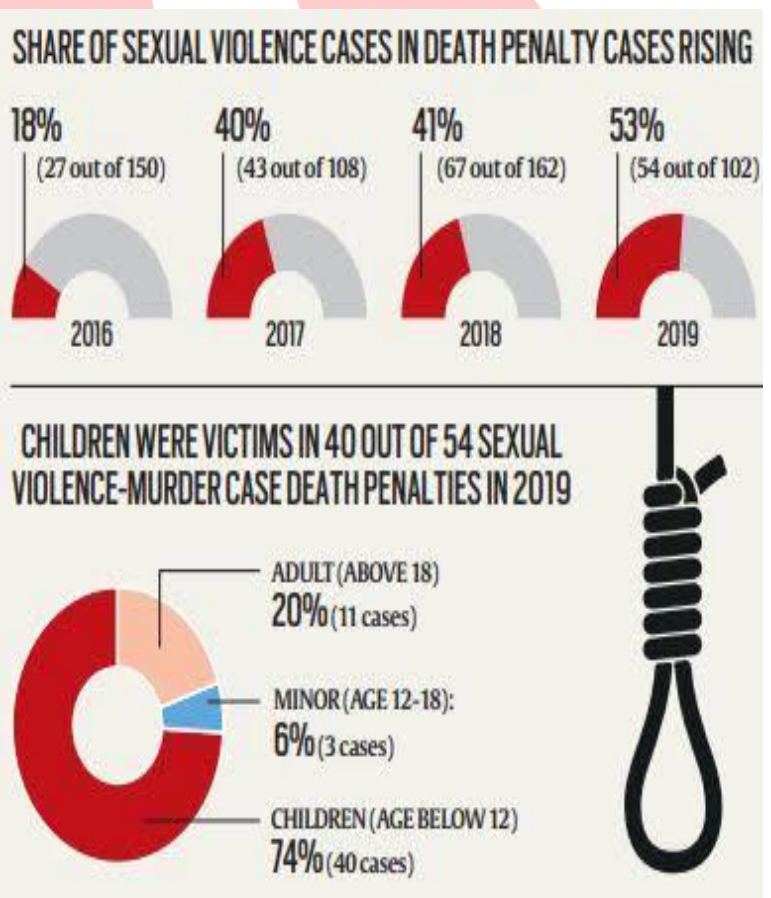
World Health Organization (WHO)

- The **World Health Organization** is a specialized agency of the **United Nations** that is concerned with **international public health.**

- It was established on **7th April 1948**, and headquartered in **Geneva, Switzerland**. Every year,**7th April** is celebrated as the **World Health Day.**

- The WHO is a member of the **United Nations Development Group**. It has 194 member states.

Death Penalty in India (Annual Statistics Report 2019)

Trial courts in India delivered **102** death sentences in **2019**, over **60%** fewer than the **162** death sentences passed in **2018**.

Highlights of the Report

- In 2019, fewer death sentences overall were delivered.

- **1 out of 2** sentences for **sexual violence-murder**; in **3 out of 4 sexual violence-murder death sentences, children** were the **killer's victims**.

- The courts were, however, especially unforgiving of murders that involved sexual violence — the proportion of death sentences imposed for murders involving sexual offences was at a four-year high in 2019 at 52.94%.

- 2019 also saw the highest number of confirmations by High Courts in four years; 17 out of the 26 confirmations (65.38%) were in offences of murder involving sexual violence.

SHARE OF SEXUAL VIOLENCE CASES IN DEATH PENALTY CASES RISING

18% (27 out of 150) 2016 — 40% (43 out of 108) 2017 — 41% (67 out of 162) 2018 — 53% (54 out of 102) 2019

CHILDREN WERE VICTIMS IN 40 OUT OF 54 SEXUAL VIOLENCE-MURDER CASE DEATH PENALTIES IN 2019

ADULT (ABOVE 18) 20% (11 cases)
MINOR (AGE 12-18): 6% (3 cases)
CHILDREN (AGE BELOW 12) 74% (40 cases)

- The Supreme Court, primarily during the tenure of the previous Chief Justice India Gogoi, listed and heard 27 capital cases, the most in a year since 2001.

Project 39A

- These are the headline findings in the fourth edition of The Death Penalty in India: Annual Statistics, published by Project 39A at the National Law University (NLU), Delhi.
- Project 39A is a research and litigation initiative focussed on the criminal justice system, and especially issues of legal aid, torture, death penalty, and mental health in prisons.
- The report tracked news of death sentences awarded by trial courts published online by news organisations in English and Hindi.
- It checked these numbers against judgments uploaded to websites of High Court and district courts.

Global Social Mobility Index: WEF

- The **World Economic Forum (WEF)** has come out with its first-ever **Global Social Mobility Report.**
  - ➤ The Social Mobility Report showed that across the Global Social Mobility Index, only a handful of nations have put in place the right conditions to promote social mobility.

Social Mobility

- Absolute social mobility is the ability of a child to experience a better life than their parents.
- While, **relative social mobility** is an assessment of the impact of socio-economic background on an individual's outcomes in life.
- It needs to be noted that the **concept of social mobility is much broader than just looking at income inequality**. E.g.
  - ➤ In economies such as China and India, economic growth can lift entire populations upward in terms of absolute income, but an individual's status in society relative to others remains the same.

Global Social Mobility Index

- The WEF's Global Social Mobility Index assesses the 82 economies on **"10 pillars"** spread across the following **five key dimensions** of social mobility:
  - ➤ Health
  - ➤ Education (access, quality and equity, lifelong learning)
  - ➤ Technology
  - ➤ Work (opportunities, wages, conditions)
  - ➤ Protection and Institutions (social protection and inclusive institutions)
- **Top Performers**: The Nordic nations hold the top five spots, led by Denmark in the first place (scoring 85 points), followed by Norway, Finland and Sweden (83 points) and Iceland (82 points).

- **Among the G7 economies,** Germany is the most socially mobile - ranking 11th, followed by France in 12th position.
- **Among BRICS grouping**, the Russian Federation is the most socially mobile (39th), followed by China (45th), Brazil (60th), India (76th) and South Africa (77th).

India's Performance

Parameter	Rank (out of 82 countries)
Health	73
Access to Education	66
Quality and Equity in Education	77
Lifelong learning	41
Access to Technology	73
Work Opportunities	75
Fair Wage Distribution	79
Working Conditions	53
Social Protection	76
Inclusive Institutions	67

- India's overall ranking is a poor - **76 out of the 82 countries** considered.
- However, India is among the five countries that stand to gain the most from a better social mobility score.

Findings from the Report

- Economies that would gain the most from increases in social mobility: China followed by US, India, Japan, Germany and Russia.
- Increasing social mobility by 10% would benefit social cohesion and boost the world's economies by nearly 5% by 2030.
- The report also makes a powerful case for stakeholder capitalism. By comparison, economies that are organized more on "shareholder value maximization", or "state capitalism", tend to perform less well.

Note

- Stakeholder capitalism is a system in which corporations are oriented to serve the interests of all their stakeholders. Under this system, a company's purpose is to create long-term value and not to maximize profits and enhance shareholder value at the cost of other stakeholder groups.
- State Capitalism is an economic system in which private capitalism is modified by a varying degree of government ownership and control.

- ➢ Improving tax progressivity on personal income, policies that address wealth concentration and broadly rebalancing the sources of taxation can support the social mobility agenda.
- ➢ Most importantly, the mix of public spending and policy incentives must change to put greater emphasis on the factors of social spending.

World Economic Forum

- The World Economic Forum is the **International Organization for Public-Private Cooperation.**
- It was established in **1971** as a **not-for-profit foundation** and is **headquartered in Geneva, Switzerland.** It is independent, impartial and not tied to any special interests.
- The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance.
- Other Important Reports of WEF:
  - **The Global Risks Report**
  - **The Global Gender Gap Report**
  - **The Global Competitiveness Report**
  - **The Travel & Tourism Competitiveness Report**

National Tribal Youth Exchange Programme

- The 12th National Tribal Youth Exchange Programme was inaugurated in **Puducherry** under which tribal youths will be visiting many places to know about the language, customs, culture, arts, dressing patterns, food pattern and other aspects of Puducherry.

- **Nehru Yuva Kendra Sangathan (NYKS)** organizes Tribal Youth Exchange Programme with the support of Ministry of Home Affairs, Govt. of India.

- To provide an opportunity to the tribal youth to understand the cultural ethos, language, lifestyles of the people depicting Socio-economic & Cultural Development & Development process unity in diversity aspect of our national life.

- The first programme was held in **2006.**

US: 25,000 Child Porn Cases In 5 Months In India; Rajya Sabha Panel Report On Child Porn

A non-profit organization in the US called the National Centre for Missing and Exploited Children (NCMEC) said that over 25,000 cases of child pornography have been uploaded in 5 months in India. The data has been shared by the organization with the National Crime Records Bureau.

Highlights

- The Home Ministry has signed an agreement with the NCMEC in 2019 to obtain data on Child pornography being uploaded in India.

- According to Ministry of Home Affairs, Delhi tops the list when it comes to Child sexual Abuse material followed by Maharashtra, Gujarat, Uttar Pradesh and West Bengal.

POCSO Act

- In June 2019, the Indian Government widened the definition of Child pornography under POCSO (Prevention of Children from Sexual Offences) act.

- It now covers visual depiction, video, photograph, digital or computer-generated image that appears to depict a child.

Rajya Sabha Panel

- An Ad-hoc committee was constituted by the Chairman of Rajya Sabha. The committee has made 40 recommendations to prevent sexual abuse of children.
- The report calls to remove such content also enable parents for early detection of access to such content by children.
- The committee has also recommended to amend POCSO act and IT act, 2000.

ENVIRONMENT

Asiatic Lion Census in Gujarat 2020

- Around 8,000-10,000 cameras will be used to carry out the 2020 lion census in Gujarat, the last abode of the Asiatic lion.

- As against 15,000 sqkm area surveyed in the last census, lions will be counted across 25,000 sqkm area spanning seven districts.

- For the first time, the expertise of **Wildlife Institute of India (WII**) will be perused in the census, scheduled to take place in May 2020.

- The WII has sent a proposal to the Gujarat government and two rounds of meetings have been held for finalizing the modalities of the census.

About Asiatic Lion

- It is listed as '**Endangered**' under the IUCN Red List.

- It is listed in Schedule-I of the **Wildlife (Protection) Act, 1972.**

- The only surviving free-ranging population of the Asiatic lion exists in the **Gir forest, Gujarat.**

- According to the 2015 Lion Census, there are **523 Asiatic Lions.**

- **Note:** The African Lion is listed as Vulnerable under the IUCN Red List.

Gir National Park and Wildlife Sanctuary:

- It is situated in the **Saurashtra region** of Gujarat. The Gir National park was established in 1965.

- It is part of **the Kathiawar-Gir dry deciduous forests Ecoregion.**

- The major perennial rivers of the Gir region are Hiran, Shetrunji, Datardi, Shingoda, Machhundri, Godavari and Raval.

International Union for Conservation of Nature

- (IUCN) is an international organization (NGO) working in the field of nature conservation and sustainable use of natural resources.

- It is involved in data gathering and analysis, research, field projects, advocacy, lobbying and education.

- The organization is best known for compiling and publishing the **IUCN Red List**, which assesses the conservation status of species worldwide.

- Its headquarters are in Gland, Switzerland.

Wildlife Protection Act 1972

- The Wildlife Protection Act, 1972 is an Act of the Parliament of India enacted for protection of plants and animal species. Before 1972, India only had five designated national parks.

- The Act established schedules of protected plant and animal species. It has six schedules which give varying degrees of protection:

- **Schedule I and part II of Schedule II:** They provide absolute protection i.e. offences under these are prescribed the highest penalties.

- **Schedule III and Schedule IV:** Species listed in them are also protected, but the penalties are much lower.

- **Schedule V:** It includes the animals which may be hunted.

- **Schedule VI:** The specified endemic plants in this schedule are prohibited from cultivation and planting.
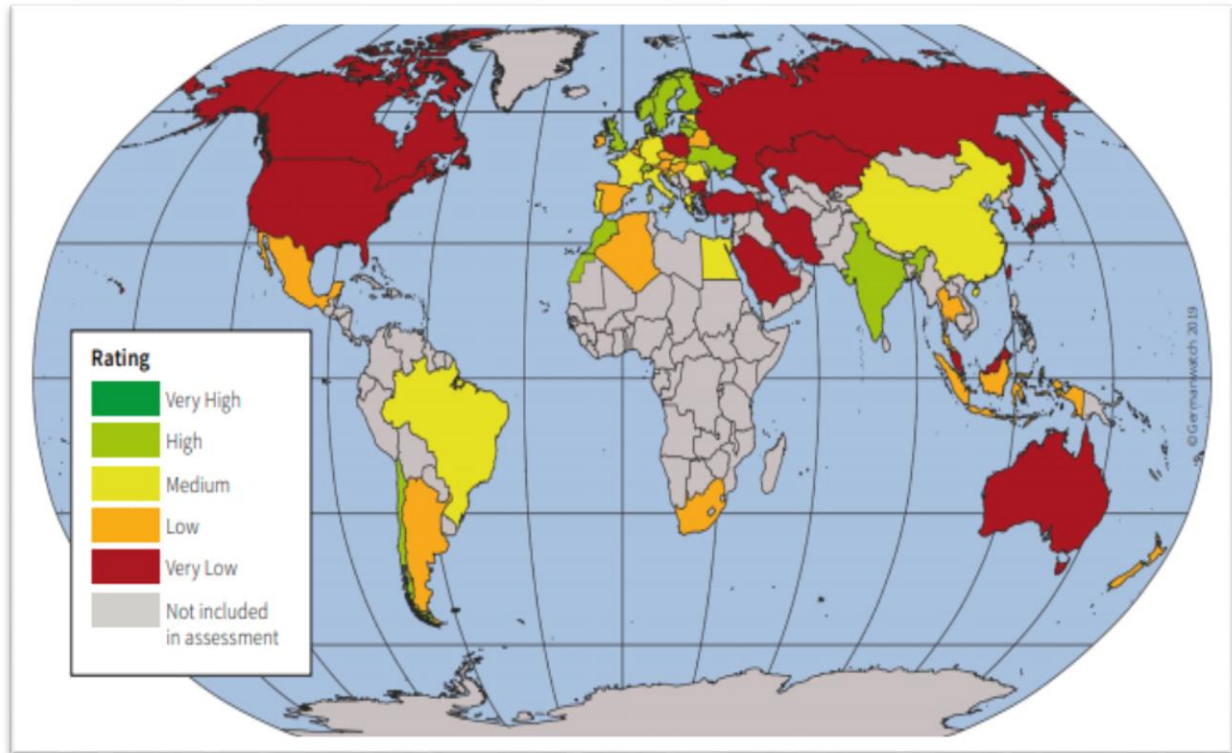
India first time ranks among top ten in Climate Change Performance Index

- India for the first time ranks among the top **ten** in this year's CCPI. The current levels of per capita emissions and energy use are still comparatively low and, along with ambitious 2030 targets, result in high ratings for the GHG Emissions and Energy Use categories.

- While the country receives an overall **medium** rating in the **Renewable Energy category**, India's 2030 renewable energy target is rated very high for its well-below 2°C compatibility.

- Government aims to increase the share of non-fossil fuels to **175 GigaWatt by 2022** and further take it to **450 GW**.

- Air pollution is one of the biggest global environmental challenges of today. A time bound national level strategy for pan India implementation to tackle the increasing air pollution problem in a comprehensive manner in the form of **National Clean Air Programme** was launched last year.

- The total forest and tree cover rises to over **24 percent** of the total geographical area of the country.

- In a major boost towards promoting afforestation and achieving green objectives of the country, government handed over 47 thousand crore rupees of **Compensatory Afforestation Fund Management and Planning Authority, CAMPA** funds to various states in August 2019.

About CCPI

- The Climate Change Performance Index (CCPI) is an annual publication by Germanwatch, NewClimate Institute and Climate Action Network Europe.

- Its aim is to put political and social pressure on those countries that have, until now, failed to take ambitious action on climate protection, and to highlight those countries with best practice climate policies.

- It evaluates the climate protection performance of 60 countries, responsible for over 90% of global energy-related CO2 emissions.

National Clean Air Programme

- It is taken to create strategies for reduction in air pollution levels at both regional and urban scale.
- The Goal of NACP is to meet the prescribed annual average ambient air quality standards at all locations in the country in a stipulated timeframe.

Objective of NACP

- To augment the capacity of air quality monitoring network across the country to provide reliable data on the state of air pollution.
- To solicit public participation in planning and mitigation of air quality issues through public outreach, transparency by disseminating data in public domain.
- To have realistic and measurable goals for prevention, mitigation and abetment of air pollution in a time-bound manner.

Palau becomes first country to ban sunscreen to save coral reefs

- Palau, the western Pacific Ocean country, has become the first country in the world to ban various types of sunscreen to protect coral reefs.
- The country has announced this step as strict environmental measures. This ban has been imposed on **'reef toxic'** or **coral toxic sunscreens.**
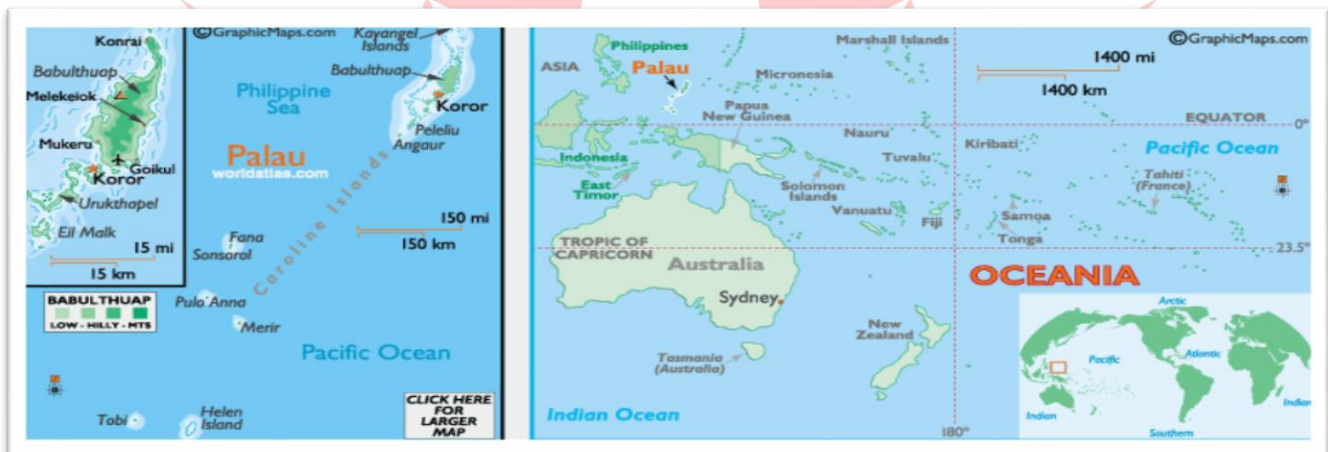- Palau is famous for its **marine life** and renowned for its best diving destinations.

- As per the government orders, any reef-toxic sold or imported in Palau will be confiscated and fines will be imposed on the owner.

Sunscreen and Coral Reefs

- As per the report published by **The Ocean Foundation**, about 14,000 tons of sunscreen is absorbed into the oceans every year.

- According to researchers at the University of Queensland in Australia, low concentrations of sunscreen in water can also reduce the growth of young coral.

- Various studies have shown that chemicals in sunscreen can harm coral reefs and also inhibit fish reproduction by interfering with their hormonal system.

- A study found that the oxybenzone present in sunscreen inhibits coral growth. It was also found toxic to algae living within the coral reefs.

About Palau

- Palau is a part of the **Micronesia region** with over 500 islands. It is located in the western Pacific Ocean region.

- Its capital is – **Babeldaob** however, **Koros** is the former capital of Palau which is also the commercial center of the country.

- It is known for its coral reefs, marine life and clean beaches with diving destinations.

Forest Fires

- The **Forest Survey of India (FSI)** released the 2019 report on Forest Fires.

- It is based on a study carried out by the FSI along forest fire points identified across the country from 2004 to 2017.

Key Findings:

- About **21.4% of forest cover** in India is prone to fires, with forests in the **north-eastern region** and **central India** being the most vulnerable.

- Extremely fire prone areas account for 3.89% of total forest cover, very highly fire prone areas account for 6.01% and highly fire prone areas for 11.50%. Together, the three categories come to 21.40 % of forest cover.

- Central Indian States also recorded a high number of forest fire alerts, with **Madhya Pradesh** accounting for **2,723** alerts; **Maharashtra 2,516**; **Odisha 2,213 and Chattisgarh 1,008** alerts between November 2018 to June 2019.
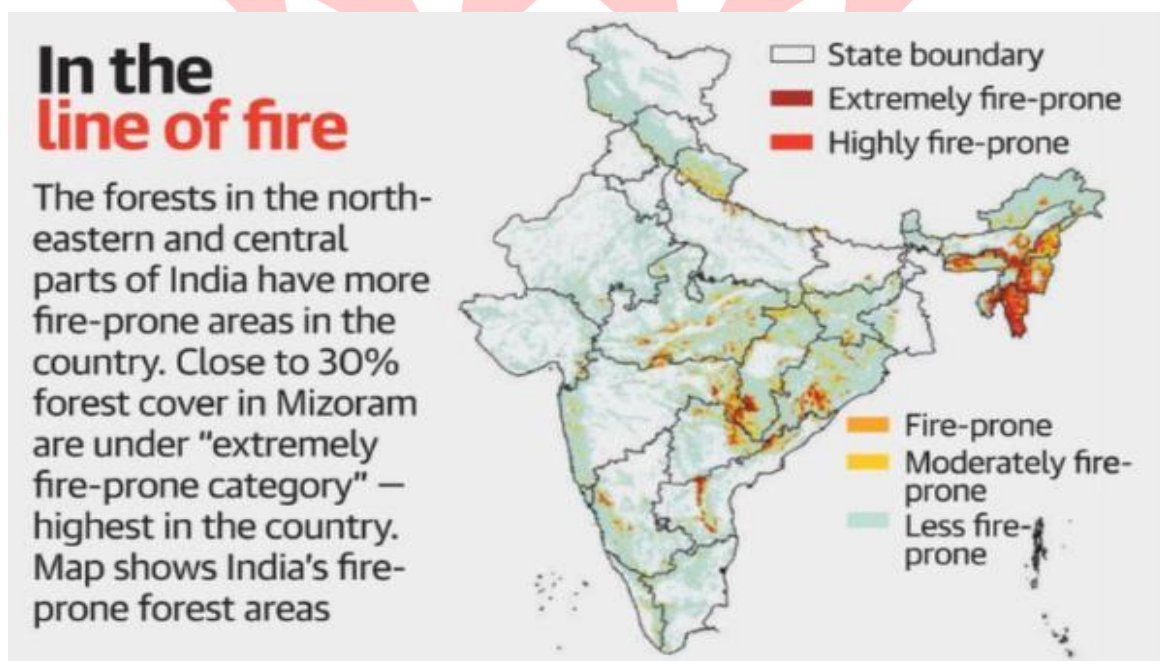
Reasons:

- The reasons for fires here are manmade, particularly in cases where people visit forests and leave burning bidis, cigarette stubs or other inflammable materials.

- In cases of natural reasons, the scientist pointed to thunderstorms as the most likely cause.

- One of the major reasons for forest fires in the north-east is slash-and-burn cultivation, commonly called **jhoom or jhum cultivation**. The fires happen between the months of January and March.

Forest Survey of India

- It is a premier national organization under **the Union Ministry of Environment and Forests** responsible for assessment and monitoring of the forest resources of the country regularly.

Jhum Cultivation

- Jhum cultivation is also called **shifting cultivation**, and it was practiced on small patches of land, mostly in forests.

- The tribal cultivators cut the treetops to allow sunlight onto the ground and burnt the vegetation on the land to clear it for cultivation.

In the line of fire

The forests in the north-eastern and central parts of India have more fire-prone areas in the country. Close to 30% forest cover in Mizoram are under "extremely fire-prone category" — highest in the country. Map shows India's fire-prone forest areas

- State boundary
- Extremely fire-prone
- Highly fire-prone
- Fire-prone
- Moderately fire-prone
- Less fire-prone

Vertical farming

Vertical Farming is emerging as a **silent revolution in agricultural production sector**.

About Vertical Farming:

- Vertical Farming is the process of growing agricultural crops in **vertical stacks**, mostly in a controlled environment.

- Under Vertical Farming the plants are grown indoors with or without soil. This protects the crops from incessant rains, unruly winds and dry climate.

- The crop yield in vertical farming is also more than traditional farming as it adopts two major farming techniques namely hydroponics and aeroponics.

- Some common choices of structures to house vertical farming systems include buildings, shipping containers, underground tunnels and abandoned mine shafts.

Need of Vertical Farming:

- According to the United Nations, the **global population** is to reach **10 billion by 2050** and therefore food production should increase by **70%.**

- Hence,there is a need for technological innovation in the farming process and Vertical farming is one among those innovations.

Advantages of Vertical Farming:

- It offers a plan to handle future food demands

- It allows crops to grow year-round

- It uses significantly less water

- Weather doesn't affect the crops

- More organic crops can be grown

- There is less exposure to chemicals and disease

Disadvantages of Vertical Farming:

- It could be very costly to build and economic feasibility studies haven't yet been completed

- Pollination would be very difficult and costly

- It would involve higher labor costs.

- It relies too much on technology and one day of power loss would be devastating.

Status of Vertical Farming in India:

- In India Vertical Farming has been introduced in the year 2019.

- Indian Institute of Agriculture Research(ICAR) is working on techniques and adaptations to introduce in the market.However,it has still not found its application at a wider level.

About Hydroponics and Aeroponics:

- Hydroponics is the technique of growing plants without soil by using water solvent which consists of mineral nutrients.

- On the other hand,Aeroponics is a farming method where plants are grown in closed or semi-closed environment with nutrients sprayed in the air.

Increase In Salt water Crocodile Population

- In 1975, the **Union Ministry of Forest, Environment and Climate Change,** in collaboration with **the United Nations Development Programme** (UNDP), had started a crocodile breeding and rearing project in **Dangamala** within the **Bhitarkanika Park**, **Orissa.**
- The population of the saltwater or estuarine crocodile (Crocodylus porosus) has increased in the water bodies of Odisha's Bhitarkanika National Park from 1,742 crocodiles to 1757.

About Saltwater or Estuarine Crocodile

- Out of the 3 crocodile species found in India, the saltwater crocodile is the largest of all.
- The other being the Gharial and Mugger crocodile.

Distribution:

- Mostly present in the Eastern coast of India.
- A large population is present within the Bhitarkanika Wildlife Sanctuary of Odisha while smaller populations occur throughout the Sundarbans.
- The saltwater crocodile is present within the mangrove forests and other coastal areas of the Andaman and Nicobar Islands in India.

Major Threats to salt water

- Illegal hunting for its meat and eggs, as well as for its commercially valuable skin.
- Habitat loss and habitat alterations.
- Negative attitude towards the species makes conservation measures difficult to implement.

Conservation status

- **IUCN Red List**: Least Threatened.
- **Wildlife Protection Act (WPA), 1972**: Included in Schedule 1, according highest protection. Crocodile Conservation initiatives in India
- Project Crocodile was started in 1975 with the aid of the United Nations Development Programme.
- Sixteen crocodile rehabilitation centres and five crocodile sanctuaries - National Chambal Sanctuary, Katerniaghat Wildlife Sanctuary, Satkosia Gorge Wildlife Sanctuary, Son Gharial Sanctuary and Ken Gharial Sanctuary were established between 1975 and 1982.
- A Crocodile Breeding and Management Training Institute was set up in Madras in 1980 to train managers of crocodile stations.

MECOS-3, 2020: Global Marine Ecosystem Meet in Kochi

- The year 2020 is the time for the **3rd International Symposium on Marine Ecosystems** Challenges and Opportunities (MECOS3) organized by the Marine Biological Association of India (MBAI).

- Eminent marine scientists, oceanographers, fisheries researchers and marine biotechnologists from across the globe are participated in the third international symposium on marine ecosystems

About MECOS-3

- MECOS-3 will serve as a platform for discussions on a range of topics, including the impact of the climate crisis on **marine ecosystems** and an unusual **warming of the Arabian Sea**.

- The four-day meet, which was held at the **Central Marine Fisheries Research Institute**, assumes significance in the backdrop of the recent spate of cyclonic storms and other climatic phenomena in the Arabian Sea.

- The meet focused on the **UN's sustainable development goal-14** (life under water), development of small-scale fisheries, recent developments in aquaculture, eco-labelling and green fishing technologies.

- The symposium is aimed at reviewing the concerns involved in marine ecosystem and formulating strategies for the better and sustainable utilisation of marine wealth by enhancing livelihood options

Need to Conserve the Maine Ecosystem

- Healthy Oceans, Coasts and related ecosystems are crucial for economic growth and food production.

- Billions of people worldwide, especially the world's poorest, rely on healthy oceans to provide jobs and food, underscoring the urgent need to sustainably use and protect this natural resource, he said.

- However, numerous issues such as depletion of resources, marine pollution, extreme weather conditions and rising sea surface temperature, among others, pose a threat to the sustainable utilisation of marine resources

- The symposium would come up with a roadmap to deal with these issues.

About Marine Biological Association of India

- The Marine Biological Association of India was established in the year **1958.**

- It serves the cause of promotion of research on marine sciences in the **Asia-Pacific region**.

- It also aims to create an active interest among its members in the field of marine biology and allied marine sciences.

BEE sets new standards for ACs: Default temperature set to 24 Degree Celsius

- The Central Government in consultation with the **Bureau of Energy Efficiency (BEE)** has notified new energy performance standards for Room Air Conditioner (RACs) on October 2019.

- The **24°C** default setting has been made mandatory from Jan 1, 2020 for all room air conditioners covered under the ambit of BEE star-labelling program.

- Additionally, the **Indian Seasonal Energy Efficiency Ratio (ISEER)** as per the new standards will range from (3.30 - 5.00) for split and (2.70 - 3.50) for window air conditioners, which will be applicable from 1st January 2021 onwards.

- All brands and types of star labelled room air conditioners, which are rated from one star to five star, based on their relative energy efficiencies and manufactured, commercially purchased or sold in India, shall ensure default setting of temperature in the room air conditioners at 24° Celsius with effect from the 1st January 2020."

- ISEER (Indian Seasonal Energy efficiency ratio) is the energy performance index used for Room Air Conditioners (RACs) and its assessment is based on the bin hours defined in ISO 16358.

About BEE

- BEE is a statutory body under the Ministry of Power, Government of India.

- It is assisted in developing policies and strategies with the primary objective of reducing the energy intensity of the Indian economy.

- BEE coordinates with designated consumers, designated agencies, and other organization to identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the energy conservation act.

Global Drosophila conference

- The fifth edition of the Asia Pacific Drosophila Research Conference (APDRC5) is being held at **Pune, Maharashtra.**

- The **Asia Pacific Drosophila Research Conference** is a biennial conference.

- It is being organised in India for the first time by the **Indian Institute of Science Education and Research(IISER).**

- The conference aims to promote the interaction of Drosophila researchers in the Asia-Pacific region with their peers in the rest of the world.

- It brings together scientists from all over the world who use the fruit fly, Drosophila, as a model organism to address basic and applied questions.

About Drosophila:

- Drosophila are commonly known as **fruit flies.**

- It is derived from the Greek word **drósos** which means **dew loving**.

- They belong to the **Droso–philidae** family.

- The main distinguishing character of Drosophila is that they **stay on fruits which are rotten**.

- Drosophila is also one of the most widely-used and preferred model organisms in biological research across the world for the last 100 years.

About IISER:

- **Indian Institutes of Science Education and Research (IISERs)** are a group of premier public research institutions in India.
- They were established on the recommendation of the **Scientific Advisory Council** to the Prime Minister who recommended the creation of new institutions devoted to science research and education.
- Six such Institutes have been established in **Bhopal, Kolkata, Mohali, Pune, Thiruvananthapuram** and **Tirupati.**

Smog Tower

- Gautam Gambhir, former cricketer and MP from East Delhi, inaugurated the first smog tower in Delhi, a prototype air purifier at in **Delhi.**
- Smog towers are structures designed to work as **large-scale air purifiers**. They are usually fitted with **multiple layers** of air filters, which clean the air of pollutants as it passes through them.
- The filters installed in the tower will use **carbon nanofibres** as a major component and will be fitted along its peripheries. The tower will focus on reducing particulate matter load.
- The smog tower installed at Lajpat Nagar is capable of treating 6,00,000 cubic metres of air per day and can collect more than 75 per cent of particulate matters (PM) 2.5 and 10. After the cleaning, the tower releases clean air.
- In November, the Supreme Court had directed the Centre and the Delhi government to prepare a plan to install 'smog towers' across the capital to deal with air pollution.
- **China,** which has been battling air pollution for years, has two smog towers — in its capital Beijing and in the northern city of Xi'an.

Snow and Avalanche Study Establishment (SASE)

SASE which is a laboratory of the **Defence Research and Development Organization (DRDO)** has issued an Avalanche warning to **Leh** in **Ladakh region.**

Objectives:

- To be a centre of excellence in **'Cryospheric Science and Technology'** to facilitate high operational mobility for troops in snow bound regions of Indian Himalayas.
- HQ of SASE is located near **Manali, Himachal Pradesh.**
- The **cryosphere is** the frozen water part of the Earth system. Thus it includes those portions of Earth's surface where water is in solid form, including sea ice, lake ice, river ice, snow cover, glaciers, ice caps, ice sheets, and frozen ground.

IMD's State of Climate Report: 2019 the seventh warmest year since 19

India Meteorological Department (IMD) released State of the Climate Report-2019

Key points from State of the Climate Report-2019

- The past decade was the **hottest** on record for India.
- 2019 was the seventh warmest year since 1901.
- The annual rainfall in 2019 was **109%** of the long period average for 1961–2010
- Five cyclones were recorded from the **Arabian Sea**- the highest number of Arabian Sea cyclones since 1902. The normal number is one per year.
- Extreme weather events killed about 1,630 persons in 2019.

Great Indian Bustard

- Conservation efforts are having a **positive impact** on **Great Indian Bustard population in India.**

Conservation Efforts in India

Bustard Recovery Programme:

- Initiated by the **Ministry of Environment, Forest and Climate Change** in 2015, it is a programme for **Great Indian Bustard, Lesser Florican** and **Bengal Florican.** It recommends:
  - ➤ Linking local livelihoods with bustard conservation.
  - ➤ State governments to identify the core breeding areas for bustards and keep them inviolate from human disturbances.
  - ➤ Restriction on infrastructure development and land use diversion for roads, high tension electric poles, intensive agriculture, wind power generators and construction.

Project Great Indian Bustard: It is a **Rajasthan government project** launched in 2018. It envisages constituting enclosures and securing inviolate areas to ensure **successful breeding of birds in the Desert National Park.**

Types of Bustards Found in India

Name	Characteristics	Geographical Extent	IUCN Status
Great Indian Bustard (State Bird of Rajasthan)	• Can be distinguished by its black crown on the forehead contrasting with the pale neck and head • One of the heaviest flying birds (weighing up to 15kgs) • Endemic to Indian subcontinent	• Rajasthan(Desert National park) • Gujarat • Maharashtra • Madhya Pradesh • Karnataka • Andhra Pradesh • Parts of Pakistan	Critically Endangered
Lesser Florican	• Smallest in the bustard family • Endemic to Indian subcontinent	• Rajasthan • Gujarat • Madhya Pradesh • Maharashtra	Endangered
Bengal Florican	• Mostly black in colour with largely white wings • Endemic to Indian subcontinent	• Terai • Brahmaputra valley (Uttar Pradesh, Assam and Arunachal Pradesh.) Considered to be extinct in Bangladesh	Critically Endangered
MacQueen's Bustard	Pale sandy in colour	Found in desert and steppe regions of Asia Winter migrant to the desert regions of Rajasthan and Gujarat	Vulnerable

Centre notifies new Wetland Conservation Rules

Ministry of Environment, Forest and Climate Change (MoEFCC) has put forward Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017

Wetlands (Conservation and Management) Rules, 2017

Key Features:

- Prohibits conversion for non-wetland uses, setting up or expansion of industries in wetland areas.
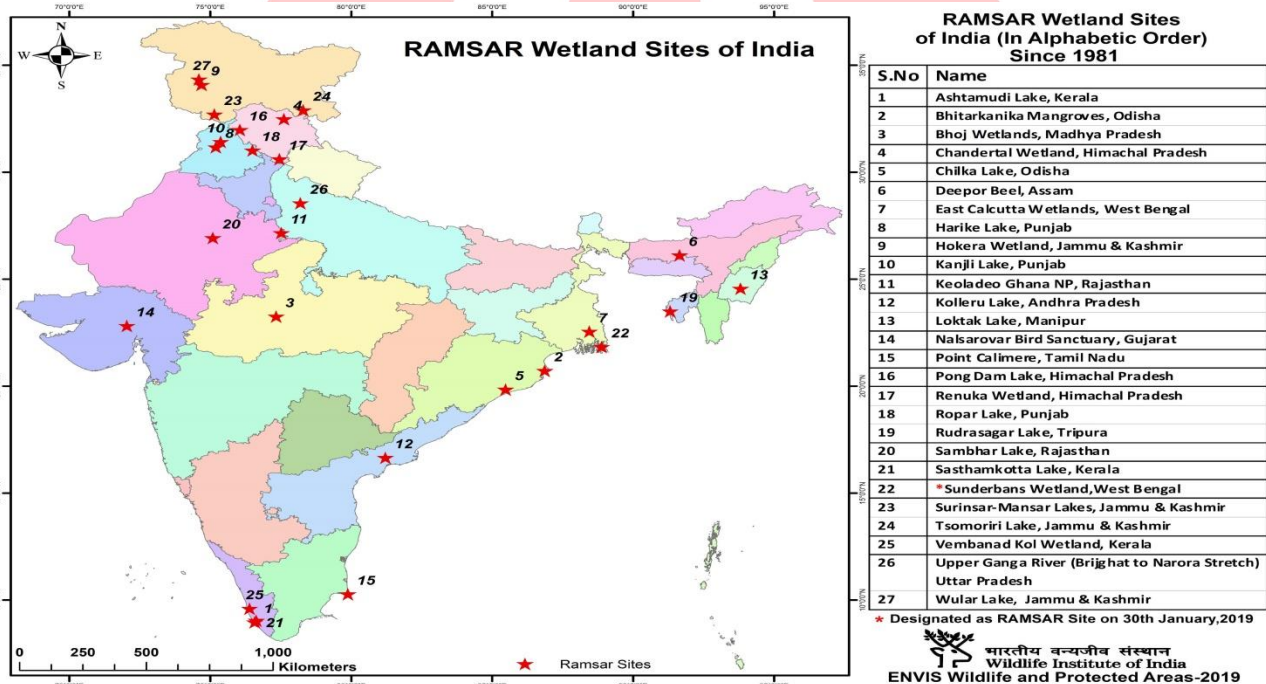- Prohibits disposal of construction and demolition waste within the wetlands.

- Each state and Union Territory will have to set up wetland authority that will define strategies for wetlands conservation.
- The authority should also enhance awareness among stakeholders and local communities.

Wetland: It is a land area that is saturated with water, either permanently or seasonally, and it takes on the characteristics of a distinct ecosystem.

Ramsar Sites: It is a wetland site designated to be of international importance under the Ramsar Convention. There are 27 Ramsar Wetland Sites in India

Ramsar Convention on Wetland (1971): It is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

Montreux Record: It is a register of wetland sites on the List of Ramsar wetlands of international importance. It shows such sites where there has been or likely to be adverse ecological changes due to anthropogenic activities. Indian sites in the Montreux Record are Keoladeo National Park (Rajasthan), Loktak Lake (Manipur).

RAMSAR Wetland Sites of India

RAMSAR Wetland Sites of India (In Alphabetic Order) Since 1981

S.No	Name
1	Ashtamudi Lake, Kerala
2	Bhitarkanika Mangroves, Odisha
3	Bhoj Wetlands, Madhya Pradesh
4	Chandertal Wetland, Himachal Pradesh
5	Chilka Lake, Odisha
6	Deepor Beel, Assam
7	East Calcutta Wetlands, West Bengal
8	Harike Lake, Punjab
9	Hokera Wetland, Jammu & Kashmir
10	Kanjli Lake, Punjab
11	Keoladeo Ghana NP, Rajasthan
12	Kolleru Lake, Andhra Pradesh
13	Loktak Lake, Manipur
14	Nalsarovar Bird Sanctuary, Gujarat
15	Point Calimere, Tamil Nadu
16	Pong Dam Lake, Himachal Pradesh
17	Renuka Wetland, Himachal Pradesh
18	Ropar Lake, Punjab
19	Rudrasagar Lake, Tripura
20	Sambhar Lake, Rajasthan
21	Sasthamkotta Lake, Kerala
22	*Sunderbans Wetland,West Bengal
23	Surinsar-Mansar Lakes, Jammu & Kashmir
24	Tsomoriri Lake, Jammu & Kashmir
25	Vembanad Kol Wetland, Kerala
26	Upper Ganga River (Brijghat to Narora Stretch) Uttar Pradesh
27	Wular Lake, Jammu & Kashmir

★ Designated as RAMSAR Site on 30th January,2019

भारतीय वन्यजीव संस्थान
Wildlife Institute of India
ENVIS Wildlife and Protected Areas-2019

Australian bushfire

A series of bushfires/ wildfires, are burning across Australia, predominantly in the **south-east.**

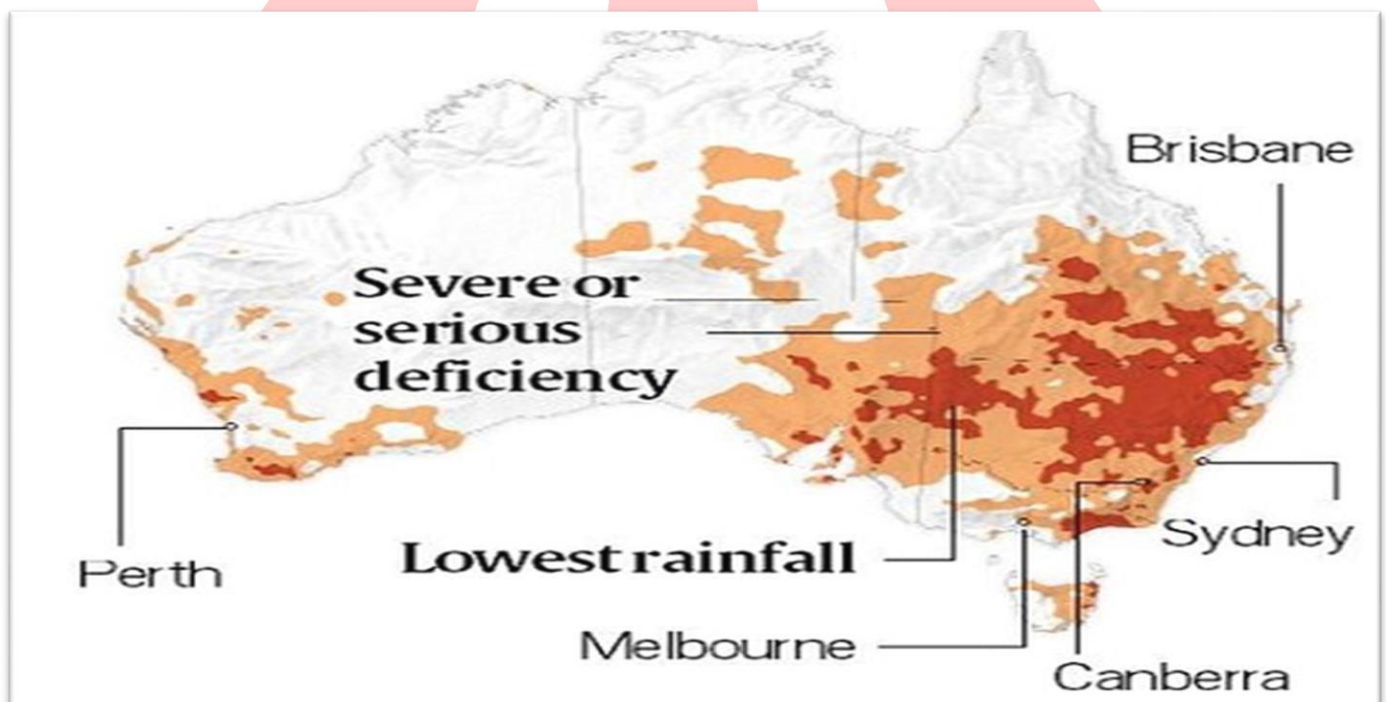**How common are forest fires in Australia?**

- Australia, where the summer starts around October, is known to be the most fire-prone of all continents. This is mainly because Australia is also the **driest inhabited continent**.
- Almost **70 %** of its area comprises **arid or semi-arid land**, with average annual rainfall less than **350 mm,** according to the Australian government's Department of Environment and Energy.

How are the ongoing fires different?

- This Australian summer, the spread and intensity of forest fires are something never seen before. The fire has impacted more than **10.3** million hectares of forest land so far, an area the size of South Korea.
- Twenty-seven people have so far died, while reports suggest millions of wild animals might have been killed.

Causes

- Several record-breaking weather conditions are believed to have contributed to this unprecedented wave of forest fires. **Heat and dryness** are the key preconditions for the ignition and spread of forest fires.
- 2019 happened to be the **warmest and driest year for the country since 1900**. Daytime temperatures were, on an average, 2°C higher than normal, while average rainfall for the country was 40% below normal.
- Australia is in the midst of a **prolonged drought**, now spreading to three consecutive years.
- Nearly all the drivers of the extraordinary heat and dryness in Australia, which has led to these unprecedented forest fires, could directly be linked to climate change.

Coastal Regulation Zone (CRZ) Rules

- The four illegal apartment complexes in Maradu, Kerala, was razed by controlled implosion on the orders of the Supreme Court for breaching Coastal Regulation Zone (CRZ) norms.
- The court had called the illegal constructions a "**colossal loss**" to the environment.

About:

- In India, the Coastal Regulation Zone (CRZ) Rules govern human and industrial activity close to the coastline, in order to protect the fragile ecosystems near the sea.

- They restrict certain kinds of activities — like large constructions, setting up of new industries — within a certain distance from the coastline.

- Under the rules, the regulation zone has been defined as the area up to 500 m from the high-tide line. The restrictions depend on criteria such as the population of the area, the ecological sensitivity, the distance from the shore, and whether the area had been designated as a natural park or wildlife zone.

- The Rules have a no-development zone of 20 m for all islands close to the mainland coast, and for all backwater islands in the mainland.

- For the so-called CRZ-III (Rural) areas, two separate categories have been stipulated.

- In the densely populated rural areas (CRZ-IIIA) with a population density of 2,161 per sq km as per the 2011 Census, the no-development zone is 50 m from the high-tide level, as against the 200 m stipulated earlier.

- CRZ-IIIB category (rural areas with population density below 2,161 per sq km) areas continue to have a no-development zone extending up to 200 m from the high-tide line.

- While the CRZ Rules are made by the Union environment ministry, implementation is to be ensured by state governments through their Coastal Zone Management Authorities. In the current case, the Kerala Coastal Zone Management Authority (KCZMA) identified the CRZ violations.

Wetland Bird Census at Kaziranga National Park

- The **second wetland bird count** was conducted in the Kaziranga National Park from **9th- 10th January 2020.**

- The first wetland bird survey was conducted in **2018.**

Number of Birds

- A total of **19,225 birds** belonging to **96 species** under **80 families** was reported which is significantly higher than that of **2018.**

- Having **96 species** of wetland birds is one of the highest for wildlife reserves in India.

Range wise Distribution

- The survey covered **four ranges of the park** — **Agoratoli, Bagori, Kohora and Burapahar**.

- More than half the birds (9,924) and 85 of the 96 species were recorded in Agoratoli Range. This was because Sohola, the largest of Kaziranga's 92 perennial wetlands, is in this range.
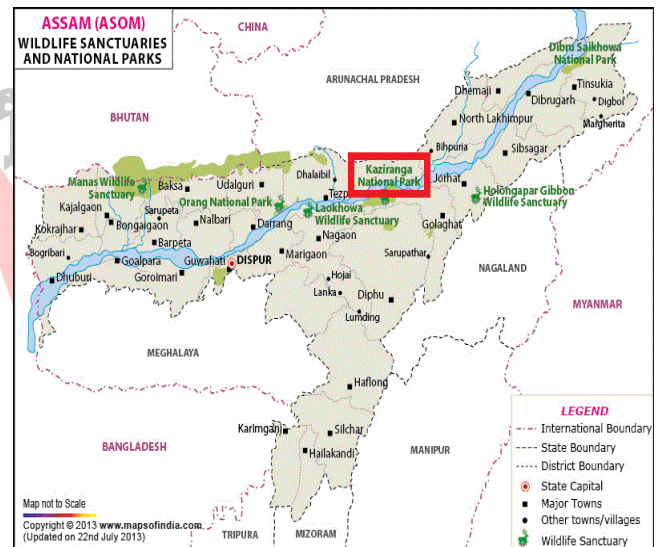
Kaziranga National Park

- **Location**: It is located in the State of **Assam** and covers **42,996 ha**. It is the single largest undisturbed and representative area in the **Brahmaputra Valley floodplain**.

Legal Status

- It was declared as a National Park in **1974.**

- It has been declared a tiger reserve since **2007**. It has a total tiger reserve area of **1,030 sq km** with a core area of **430 sq. km.**

International Status

- It was declared a **UNESCO World Heritage Site in 1985.**

- It is recognized as an **Important Bird Area** by **Bird Life International**.

Important Species Found

- It is the home of the world's most **one-horned rhinos.**

- Much of the focus of conservation efforts in Kaziranga are focused on the 'big four' species—**Rhino, Elephant, Royal Bengal tiger** and **Asiatic water buffalo.**

- The 2018 census had yielded 2,413 rhinos and approximately 1,100 elephants.

- As per the figures of tiger census conducted in 2014, Kaziranga had an estimated **103 tigers,** the third highest population in India after **Jim Corbett National Park (215)** in **Uttarakhand** and **Bandipur National Park (120)** in **Karnataka.**

- Kaziranga is also home to 9 of the 14 species of primates found in the Indian subcontinent.

Rivers and Highways

- The **National Highway 37** passes through the park area.

- The park also has more than **250 seasonal water bodies**, besides the **Diphlu River** running through it.

Global Risks Report

The Global Risks Report 2019 has been released by the **World Economic Forum (WEF).**

Significance:

- Based on the work of the Global Risk Network, the report describes changes occurring in the global risks landscape from year to year and identifies global catastrophic risks.

- The report explores the interconnectedness of risks, and is intended to raise awareness about the need for a multi-stakeholder approach to the mitigation of global risk.

- Top 10 risks by likelihood as per the latest report:

- ➢ Extreme weather events.
- ➢ Failure of climate change mitigation and adaption.
- ➢ Major natural disasters.
- ➢ Massive incident of data fraud/theft.
- ➢ Large scale cyberattacks.
- ➢ Man-made environmental damage and disasters.
- ➢ Large-scale involuntary migration.
- ➢ Major biodiversity loss and ecosystem collapse.
- ➢ Water crises.
- ➢ Asset bubbles in a major economy.

Analysis of the report and key take aways:

- Environmental risks dominate the global risks landscape in terms of impact and likelihood for the third year in a row. This includes extreme weather events and failure of climate mitigation and adaptation. Only 12 years left to stay beneath 1.5C.

- However, there is a lack of political will to set more stretching targets to cut emissions. The report finds that business leaders are more concerned about climate in the long term. This disconnect will need to be tackled.

- Global risks are intensifying, but our capacity to respond to them is declining. Power is moving towards more nationalist, authoritarian states and they are becoming more inwards-looking. With greater geopolitical friction, our ability to cooperate to solve challenges such as cyber risks and climate change has become more challenging.

- Geopolitics and geo-economic factors, such as uncertainty and nationalism are fuelling risks. Innovation is also outpacing our ability to manage it and there are growing concerns around technology misuse.

- Shorter-term fears are around geopolitical and cyber threats. For top business leaders, cyber risk concern is rising globally and is the highest ranked threat. Other concerns also exist including fiscal crises, unemployment, energy price shocks, national governance failure, interstate conflict and natural disasters.

- There is a significant financing gap (US$18 trillion) in infrastructure capital – with only US$79 trillion currently planned between now and 2040. This means 20% more financing is needed than we are putting in today. Furthermore, infrastructure needs to be resilient to extreme weather events. Business, with its reliance on public sector infrastructure, will be impacted and need to work with government on solutions.

Green Credit Scheme

- Forest Committee approves scheme to **'trade'** in forests.

- The Forest Advisory Committee, an apex body tasked with adjudicating requests by the industry to raze forest land for commercial ends, has approved a scheme that could allow "forests" to be traded as a commodity.
- If implemented, it allows the Forest Department to outsource one of its responsibilities of reforesting to non-government agencies.

Need of the scheme:

- In the current system, industry needs to make good the loss of forest by finding appropriate non-forest land equal to that which would be razed.
- It also must pay the State Forest Department the current economic equivalent called **Net Present Value (NPV)** of the forest land.
- NPV is actually a one-time payment that a user has to make for diverting forestland for non-forest use.
- It's then the Forest Department's responsibility to grow appropriate vegetation that, over time, would grow into forests.
- Industries have often complained that they find it hard to acquire appropriate non-forest land, which has to be contiguous to existing forest.
- Nearly ₹50,000 crore had been collected by the Centre over decades, but the funds were lying unspent because States were not spending the money on re-growing forests.

Green Credit Scheme:

- It allows agencies such as private companies, village forest communities to identify land and begin growing plantations.
- After three years, they would be eligible to be considered as compensatory forest land if they met the Forest Department's criteria.
- An industry needing forest land could then approach the agency and pay it for parcels of such forested land, and this would then be transferred to the Forest Department and be recorded as forest land.
- The participating agency will be free to trade its asset that is plantation, in parcels with project proponents who need forest land.

Projected benefits of the scheme:

- It will encourage plantation by individuals outside the traditional forest area and will help in meeting international commitments such as sustainable development goals and nationally determined contributions.

Blue Flag' Certification

The Centre issued an Extraordinary Gazette Notification declaring a list of activities and facilities that would be permissible in the **Coastal Regulation Zone (CRZ)** areas of certain beaches, which have been identified for obtaining the **'Blue Flag'** certification.

Background:

- The **Ministry of Environment** had identified **13 beaches** across the country for the Blue Flag certification.

- According to the latest notification, the following activities and facilities would be permitted in the CRZ of these beaches, including Islands, subject to maintaining a minimum distance of 10 meters from the **High Tide Line (HTL):**

    - **Grey water treatment plant**
    - **Solar power plant**
    - **Landscaping lighting**
    - **CCTV surveillance**
    - **First aid station**
    - **Parking facilities etc.**

- These activities and facilities would be exempt from prior clearance under the provisions of CRZ Notification, Island Protection Zone Notification and Island Coastal Regulation Zone Notifications respectively.

What is 'Blue Flag' certification?

- The 'Blue Flag' is a certification that can be obtained by a beach, marina, or sustainable boating tourism operator, and serves as an eco-label. The certification is known as an indication of high environmental and quality standards.

- The certification is awarded by the Denmark-based non-profit **Foundation for Environmental Education (FEE)** with 33 stringent criteria under four major heads for the beaches:

    - Environmental Education and Information
    - Bathing Water Quality
    - Environment Management and Conservation
    - Safety and Services.

- The Blue Flag Programme started in **France** in **1985** and in areas outside **Europe** since **2001**.

- 47 countries currently participate in the program, and 4,573 beaches, marinas, and boats have this certification.

Climate Change

According to **World Meteorological Organization (WMO),** The past decade (2010-2019) was the **hottest on record and 2019** was **the second warmest year ever, just shy of 2016**, since records began.

About:

- The data from the Geneva-based WMO crunches several datasets including from **NASA** and the **UK** Met Office. It showed that the average global temperature in 2019 was **1.1 degree Celsius (34°F)** above pre-industrial levels.
- **Australia** had its hottest, driest year on record in 2019, setting the scene for the massive bushfires.
- The hottest year on record was in **2016** due to the warming impact of a strong **El Nino** event.
- Since the 1960s, each decade has been warmer than the previous one, by significant amounts. While the 2010s continued this trend, the second half of the decade was especially warm — the five hottest years ever have occurred during that span.

New Monsoon dates

The India Meteorological Department (IMD) has revised the **normal onset** and **withdrawal dates** for the monsoon in some parts of the country from this year.

About:

- **Present scenario:** The four-month southwest monsoon season, which brings as much as **70 % of the country's annual rainfall**, officially begins on **June 1**, with the onset over Kerala, and ends on **September 30.**
- **Recent decision:** Although the June 1 date for the onset of the monsoon on the Kerala coast is unlikely to be changed, the dates for onset in many other parts of the country are expected to be revised. Effectively, the monsoon is now expected to have later arrival and withdrawal dates in most parts of the country.
- **Reason:** The main reason for the revision in the normal dates is the changes in precipitation patterns that have been taking place over the last many years. In the last 13 years, for example, only once has the onset over the Kerala coast happened on June 1.
- **Impact:** The revisions will help the IMD track the monsoon better, and improve its "impact-based" forecasts. New dates will likely nudge farmers in some parts of the country to make slight adjustments in the time of sowing their crops.

Exploratory drilling exempt from environmental clearance

- The Environment Ministry has exempted **oil and gas firms,** looking to conduct exploratory drilling, from seeking environmental clearance.

- The clearance is for both **on-shore** and **offshore drilling explorations.**

- Until today, exploratory surveys have merited the highest level of environmental scrutiny — called **category 'A'.** This requires project proponents to prepare an **environment impact assessment (EIA)** plan, have it scrutinised by a Centrally constituted committee of experts and subject the proposal to a public hearing involving the locals of the proposed project site.

- The new amendments demote exploratory projects to the **category of 'B2'.** This means it will be conducted by the **States concerned** and will not require an EIA.

- Developing an offshore or onshore drilling site as a hydrocarbon block will, however, continue to merit a "category A" treatment.

India ranks 5th in Carbon disclosure project 2019

- According to the **"Climate and business partnership of the future**: **CDP India Annual Report 2019"** released by **CDP (Carbon Disclosure Project),** a not-for-profit charity running the global disclosure system for investors, companies to manage their environmental impacts.

- India has ranked **5th** among the countries surveyed for corporate commitments to **science-based targets (SBT).**

- As per the report, **58 Indian companies** shared details about the environment-related activities undertaken by them in 2019.Top 5 countries with SBT companies:

Rank	Country	SBT Companies
1	United States Of America(USA)	135
2	Japan	83
3	United Kingdom(UK)	78
4	France	51
5	India	58

Key Points:

- The report surveyed a total of 6900 companies across the globe to compile their annual report for 2019. These firms contribute to 55% of world capitalization.

- The report notified that more than 98 % of leading Indian companies have formed some committee / group within its organization to meet & address climate-related issues.

- The report also found that investors responded to companies in a good manner who have disclosed their climate risk. The report also claimed that investors also took into account the environmental activity from Indian companies before investing in an organization.

- India secured 5th spot ahead of Germany (30 companies) and Sweden (27 companies) & becomes the 1st developing nation with maximum number of companies committing to the SBTs.

Northern white Rhinos

- Researchers have created another embryo — the third — of the nearly **extinct northern white Rhino**, a remarkable success in an on-going global mission to keep the species from going extinct.

- The death of Sudan in 2018, who was earlier at the **Dvur Králové Zoo** in the **Czech Republic,** left the world with only two northern white rhinos, Najin, 30, and Fatu, 19 — both female.

- The northern white is one of the two subspecies of the white (or square-lipped) rhinocerous, which once roamed several African countries south of the Sahara.

- According to IUCN, the subspecies is considered **Critically Endangered** (Possibly Extinct in the Wild).

- The other subspecies, the southern white is, by contrast, the most numerous subspecies of rhino, and is found primarily in South Africa. There is also the black (or hook-lipped) rhinocerous in Africa, which too, is fighting for survival, and at least three of whose subspecies are already extinct.

Important Info :

- The Indian Rhinocerous is different from its African cousins, most prominently in that it has only one horn.
- There is also a Javan rhino, which too, has one horn, and a Sumatran rhino which, like the African rhinos, has two horns.

Irrawaddy Dolphins

Odisha Forest Department officials sighted **146 endangered Irrawaddy dolphins** in **Chilika Lake**, which boasts of the highest single lagoon population of the aquatic mammal in the world.

About:

- **Scientific name:** Orcaella Brevirostris.

- These dolphins have a bulging forehead, **short beak**, and 12-19 teeth on each side of both jaws. They pop out their head out of the water to breathe, followed by its back; the tail is rarely seen.

- **Habitats:** Lakes, Rivers, Estuaries, and Coasts.

- **Regions where they are found:** Coastal areas in South and Southeast Asia, and in three river namely The Irrawaddy (Myanmar), the Mahakam (Indonesian Borneo) and the Mekong.

- **Population:** The total population of these animals in the world is estimated to be less than 7,500. Of these, the highest — 6,400 — was reported from Bangladesh. The population in Chilika is considered to be the highest single lagoonal population.

- **Threat:** Dolphins had been under stress in Chilika due to unregulated boating by tourists as well as illegal prawn enclosures.

- **IUCN Status:** Endangered.

Prehistoric Wollemi Pine trees saved from bushfires

The prehistoric Wollemi Pine grove, which exists in a secret location within the Wollemi National Park northwest of Sydney, has been saved from Australian bushfires in a covert firefighting mission.

About:

Family: Wollemia is a genus of coniferous tree in the family Araucariaceae.

Distribution: Wollemi National Park in New South Wales is the only place in the world where these trees are found in the wild. The genus is named after the National Park.

Australia's Wollemi Pines

Once thought extinct in the wild, now 200 growing in protection

Common name: The tree has been almost universally referred to as the Wollemi pine, although it is not a true pine (genus Pinus) nor a member of the pine family (Pinaceae)

Timeline: The Wollemi Pine is one of the world's oldest and rarest plants dating back to the time of the Dinosaurs. The oldest fossil of the Wollemi tree has been dated to 90-200 million years ago.

Conservation Status: With less than 200 left, the Wollemi pine is classified as critically endangered (CR) on the IUCN's Red List. prior to 1994 it was thought to be extinct.

10 more Wet lands declared Ramsar Sites: Maharashtra gets its first Ramsar site

Ramsar has declared 10 more wetland sites from India as sites of international importance.

Ramsar Wetlands

- With this, the numbers of Ramsar sites in India are now 37 and the surface area covered by these sites is now 1,067,939 hectares.
    - Maharashtra gets its first Ramsar site (Nandur Madhameshwar) ,
    - Punjab which already had 3 Ramsar sites adds 3 more (Keshopur-Miani, Beas Conservation Reserve, Nangal) and
    - UP with 1 Ramsar site has added 6 more (Nawabganj, Parvati Agra, Saman, Samaspur, Sandi and Sarsai Nawar).

Why conserve wetlands?

- Wetlands provide a wide range of important resources and ecosystem services such as food, water, fibre, groundwater recharge, water purification, flood moderation, erosion control and climate regulation.

- They are, in fact, are a major source of water and our main supply of freshwater comes from an array of wetlands which help soak rainfall and recharge groundwater.

Ramsar Convention

- The Convention on Wetlands of International Importance (better known as the Ramsar Convention) is an international agreement promoting the conservation and wise use of wetlands.

- It is the only global treaty to focus on a single ecosystem.

- The convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.

- Traditionally viewed as a wasteland or breeding ground of disease, wetlands actually provide freshwater and food, and serve as nature's shock absorber.

- Wetlands, critical for biodiversity, are disappearing rapidly, with recent estimates showing that 64% or more of the world's wetlands have vanished since 1900.

- Major changes in land use for agriculture and grazing, water diversion for dams and canals and infrastructure development are considered to be some of the main causes of loss and degradation of wetlands.

Supreme Court: African Cheetah permitted to be introduced in India

- The Supreme Court allowed the Centre to introduce the African cheetah to a suitable habitat in India.

- Stating that the rare Indian cheetah is almost extinct in the country, the National Tiger Conservation Authority (NTCA) had filed an application seeking permission for the introduction of the African cheetah from Namibia.

- The apex court set up a three-member committee, comprising former director Wildlife of India Ranjit Singh, DG of Wildlife of India Dhananjay Mohan, and DIG, Wildlife, Ministry of Environment and Forests to guide the NTCA in taking a decision on the issue.

- A Bench comprising Chief Justice SA Bobde and Justices BR Gavai and Surya Kant said that the apex court will monitor the project and the committee will submit its report every four months.

- The top court also said the decision for relocation of the African cheetah will be taken after a proper survey and the action of introduction of the animal will be left to the NTCA's discretion.

- It said the NCTA will be guided by the committee of experts who will carry out a survey for the best location.

- It was submitted before the Apex Court that the African cheetah will be introduced on an experimental basis in the best suitable habitat to see whether it can adapt to Indian conditions.

SCIENCE & TECHNOLOGY

Indian Science Congress

- The 107th Indian Science Congress (ISC) was inaugurated by Prime Minister Narendra Modi on January 3-7 at the University of Agricultural Sciences in Bengaluru.
- The theme of the congress for 2020 is **"Science & Technology: Rural Development".**
- Indian Science Congress is a major focal point for scientists, researchers and academicians interested in various aspects of scientific discoveries and technologies.
- The previous (2019) session 106th edition was held at Lovely Professional University (LPU) in Jalandhar, Punjab.

Highlights

- PM Modi gave the motto of **"Innovate, Patent, Produce and Prosper"** to the young scientists in the country, saying that these four steps will lead India towards faster development.
- The five-day summit is expected to witness participation from several policymakers, scientists, academians, inventors and politicians from across the world.
- Two Nobel Prize winners, Stefan Hell and Ada Yonath are also expected to attend the congress and conduct lectures.

Government to give 5G Spectrum for trails to all Telecom players- Ravi Shankar Prasad

- The Indian government decided to allocate spectrum to all telecom operators and equipment makers for the upcoming 5G trials in the country.
- The announcement made by India's federal technology and communications minister, Ravi Shankar Prasad. The government decided to give 5G Spectrum for a trial to all operators in the country.
- The **Chinese telecom equipment maker Huawei** to conduct super-fast speed 5G network trials in India.
- 5G is the fifth-generation wireless technology for digital cellular networks wide deployment in 2019.
- The frequency spectrum of 5G is divided into millimeter waves, mid-band, and low-band.

Young Scientist Laboratories

- Prime Minister has launched **5 Young Scientists Laboratories** of **Defence Research and Development Organisation (DRDO).**
- DRDO **Young Scientist Laboratories (DYSLs)** are located in **five** cities viz, Bengaluru, Mumbai, Chennai, Kolkata and Hyderabad.
  - DRDO already has 52 labs.

- Each lab will work on key advanced technology of importance to the development of futuristic defence systems viz, Artificial intelligence, Quantum technologies, Cognitive technologies, Asymmetric technologies and Smart materials.
  - ➢ It can be noted that **N Chandrasekaran Committee** was constituted by the Ministry of Defence in 2018 to study the **use and application of artificial intelligence (AI) in the military.**
- It aims to empower the youth by giving them decision making powers and challenging research opportunities.
- Each lab will work on key advanced technologies of importance to the development of futuristic defence systems, which are artificial intelligence, quantum technologies, cognitive technologies, asymmetric technologies and smart materials.
  - ➢ Research in the area of rapidly evolving **Artificial Intelligence** will be carried out at **Bengaluru**.
  - ➢ The all-important area of **Quantum Technology** will be based out of **IIT Mumbai.**
  - ➢ The future is dependent on **Cognitive Technologies** and **IIT Chennai** will house the lab embarking in this area of research.
  - ➢ New and futuristic area of **Asymmetric Technologies**, which will change the way wars are fought, will be based out of the campus of **Jadavpur University, Kolkata.**
  - ➢ The research in the hot and critical area of **Smart Materials** and their applications will be based out of **Hyderabad**.

MANI App by RBI

- RBI launched a mobile application **MANI (Mobile Aided Note Identifier)** to aid visually impaired persons in identifying new currency notes launched after demonetisation (2016).
- The app can be freely downloaded from **Android** Play Store and **iOS** App Store and works offline once installed.
- The application can scan the currency notes using the camera of the mobile phone. However, the app does not authenticate a note as either genuine or counterfeit.
- It also gives audio output in **Hindi** and **English**.

ISRO to set up second launch port

- Indian Space Research Organisation will establish a second launch port in **Thoothukodi district in Tamil Nadu** exclusively to launch small satellite launch vehicles.
- A second Vehicle Assembly Building in SDSC **SHAR Sriharikota** was dedicated to the nation during the year for increasing the launch frequency. As part of the enhanced outreach activity, a

launch **viewing gallery** was operationalised in Sriharikota to facilitate viewing of launches live by the public.

- In an effort towards horizontal expansion of ISRO, Space Technology Cells, Space Technology Incubation Centres and Regional Academic Centres for Space were established during the year and many more such centres are planned in the future.

- To carry forward the industry production of space systems, ISRO incorporated **New Space India Limited (NSIL),** under the **Department of Space** and efforts in realising PSLVs from industry initiated.

- Other projects during the year include SSLV, GSLV with 4m ogive payload fairing, GSAT-20 satellite, NavIC with indigenous atomic clocks, Indian Data Relay Satellite System, Aditya-L1 and XPOSAT.

I-Stem portal

- PM Modi inaugurated the 107th Indian Science Congress in Bengaluru. He launched the I-Stem portal at the inaugural function.

- I-STEM is Indian Science, Technology Engineering Facilities Map. The portal will act as a gateway for the researchers and users to locate facilities that are required for their research and development work.

- Also, after locating the facility, the researcher can make an online reservation in order to use the facility. With this, the start-ups can leverage public and private investments and come up with successful services and products.

- Initially, similar facility was operating at IISc Bengaluru and IIT Bombay. The I-STEM portal is a replica of these facilities. The facility at IISc Bengaluru was called the Centre for Nano Science and Engineering (CeNSE).

National Stock Exchange (NSE) Knowledge Hub

- The government inaugurated the National Stock Exchange (NSE) Knowledge Hub in New Delhi.

- The 'NSE Knowledge Hub' is an **Artificial Intelligence(AI)** powered learning ecosystem.

- The platform has been developed by **NSE Academy**, a **wholly-owned subsidiary** of the National Stock Exchange(NSE).

- This platform seeks to assist the **banking, financial, securities and insurance (BFSI) sector** in enhancing skills for their employees.

- It also aims to help the academic institutions in preparing future-ready talent skilled for the financial services industry.

- The platform will also be available on mobile and will attempt to bring together world-class content and learners through this state- of-the-art and future-ready platform.

Artificial Intelligence in India

- AI refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making.
- Initially conceived as a technology that could mimic human intelligence, AI has evolved in ways that far exceed its original conception.
- With incredible advances made in data collection, processing and computation power, intelligent systems can now be deployed to take over a variety of tasks, enable connectivity and enhance productivity.

According to the NITI Aayog's report "National Strategy for Artificial Intelligence" focuses on 5 Sectors.

- **Healthcare:** increased access and affordability of quality healthcare
- **Agriculture:** enhanced farmers' income, increased farm productivity and reduction of wastage,
- **Education**: improved access and quality of education,
- **Smart Cities and Infrastructure:** efficient and connectivity for the burgeoning urban population
- **Smart Mobility and Transportation:** smarter and safer modes of transportation and better traffic and congestion problems.

About NSE:

- The National Stock Exchange of India Limited (NSE) is the leading stock exchange of India located in **Mumbai.**
- The NSE was established in **1992** as the first demutualized electronic exchange in the country.

SARAS Mk 2

- **National Aerospace Laboratory (NAL)** told the **Parliamentary Standing Committee** on Science and Technology that the government needs to be the "launch customer" to make Saras Mk2 commercially viable.
- The aircraft has been in the making for long. The first prototype flew in 2004.
- But without the initial push from the government, the manufacturing capacity required for commercial production could not be set up.
- Presently, the NAL has only one order from the Indian Air Force for 15 aircraft.
- The NAL has been pitching Saras Mk-2 for the government's **UDAN (Ude Desh Ka Aam Nagrik),** since it has the capacity to operate in "ill-equipped", "semi-prepared" and "unpaved airstrips". The scheme, launched in October 2016, is aimed at linking areas that have no air connectivity.

About Saras Mk2:

- Saras Mk2 is the first **indigenous light transport aircraft** of India.

- It has been developed by the National Aerospace Laboratory (NAL).
- The 19-seater aircraft, developed with a target cost of ₹50 crore, is at least 20-25% lower in cost than other aircraft in the similar category.

'Naseem-Al-Bahr' (or sea breeze) Naval exercise

- Two ships of the **Royal Navy of Oman (RNO)** arrived in Goa to participate in the 12th edition of the Indo-Oman bilateral naval exercise 'Naseem-Al-Bahr'.
- **RNOV Al Rasikh** and **RNOV Khassab** arrived at Mormugao Port.
- 'Naseem-Al-Bahr' (or sea breeze) is a naval exercise between the Indian Navy and the Royal Navy of Oman, being conducted since 1993.
- **Indian Navy ships Beas** and **Subhadra** are participating in it, with harbour phase in Goa followed by sea phase off the Goa coast.
- The harbour phase includes sports activities between the Indian Navy and the RNO personnel, reciprocal receptions and planning conferences for the sea phase of the exercise.

IDRSS: ISRO new satellite to help Gaganyaan Crew

- ISRO is planning to launch Indian Data Relay Satellite System
- About Indian Data Relay Satellite System
- It is a set of satellites that will track, send and receive information from other Indian satellites

Significance:

- Track and be constantly in touch with Indian satellites, particularly those in low-earth orbits
- Useful in monitoring launches
- Help crew of Gaganyaan to maintain contact with mission control throughout

Other such satellite systems

- TDRS (Tracking & Data Relay Satellites): USA
- Satellite Data Relay Network: Russia
- European Data Relay System: Europe
- Tianlian II series: ChinaGaganyaan Mission: It is India's first Human Space Flight Programme to be launched by Indian Space Research Organisation (ISRO) by 2022.

ISRO's astronaut training hub in karnataka

- The Indian Space Research Organisation (ISRO) has proposed **Human Space Flight Centre** (HSFC) at Challakere in Chitradurga district of Karnataka.
- The facility is expected to become operational in 3 years.
- ISRO aims to establish a self-contained training facility.
- At present, astronauts part of **Gaganyaan** Mission, the Human Spaceflight Programme of ISRO are trained in Russia.

Neon, the world's first 'Artificial Human'

- Samsung-backed Star Labs has unveiled Neon, the world's first **"artificial humans".**
- Neon is a **humanoid AI chatbot**
- It aims to deliver a personalised experience with an AI. It has the ability to show emotions and intelligence.
- **Artificial Intelligence:** It refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem-solving and decision making. (NITI Aayog)
- **Kamakoti Committee:** Ministry of Commerce and Industry, in 2017, set up AI Task Force to explore possibilities to leverage AI for development across various fields.
- **National strategy on Artificial Intelligence:** Released by NITI Aayog in 2018, it identifies 5 cores areas for application of artificial intelligence: Healthcare, Agriculture, Education, Smart Cities and Infrastructure and Smart Mobility and Transportation.

Milan naval exercise 2020

- MILAN 2020 scheduled to be conducted at Visakhapatnam in Mar 2020.
- 41 nations from South Asia, Southeast Asia, Africa and Europe that share defence cooperation with India have been invited for the drill.

About the Exercise

- MILAN series of biennial a **multilateral Naval exercise** which commenced in 1995, was conducted at **Andaman and Nicobar Command (ANC)** until last year, is being conducted for the first time on the mainland at ENC with increased scope and complexity of the Exercise.
- MILAN 2020 is aimed to enhance **professional interaction** between friendly foreign navies and learn from each other's strengths and best practices in the maritime domain.
- The event would also provide an excellent opportunity for Operational Commanders of friendly foreign navies to interact with each other in areas of mutual interest.

TOI 700d

- NASA reported the discovery of an Earth-size planet, named TOI 700 d, orbiting its star in the "habitable zone"
- The National Aeronautics and Space Administration (NASA) has reported the discovery of an Earth-size planet, named TOI 700 d.
- The planet was found by NASA's Transiting Exoplanet Survey Satellite (TESS) mission, which was launched in 2018. With TOI 700 d, TESS has discovered its first Earth-size planet in its star's habitable zone.
- In comparison to the Earth: TOI 700 d measures 20% larger than Earth. It orbits its star, TOI 700, once every 37 days.

- The star, TOI 700, is an "M dwarf" located just over 100 light-years away in the southern constellation Dorado. It is roughly 40% of the Sun's mass and size and has about half its surface temperature.

- Two other planets orbit the star: TOI 700 b, which is almost exactly Earth-size, probably rocky, and which completes an orbit every 10 days.

M-dwarf Star

- M dwarf or M-type star, also called Red Dwarf Star are the most numerous type of Star in the Universe and the smallest type of hydrogen-burning Star.

- These have masses from about 0.08 to 0.6 times that of the Sun.

- In the Milky Way Galaxy, about three-fourths of the Stars are red dwarfs.

India deploys INS Vikramaditya amidst Sea Guardians

- India has deployed its aircraft carrier **INS Vikramaditya in the Arabian Sea** at a time **China** and **Pakistan** are holding a **nine-day mega naval exercise** in the region, a move seen as New Delhi sending a signal to its two neighbours.

- Pakistan and China launched a major drill in the **North Arabian Sea** with an aim **to increase inter-operability and strategic cooperation between their two navies.**

- The exercise **'Sea Guardians'** is taking place in the midst of heightened tension between India and Pakistan over the Kashmir issue.

- Key platforms of both China and Pakistan, including submarines, destroyers and frigates are part of the exercise.

- Aircraft carrier **INS Vikramaditya**, with **MiG29K fighters** on board, has been sent with a strategic objective.

- China is developing Pakistan's deep water **Gwadar port** in **North Arabian Sea** and has ramped up its military presence in the region, triggering concerns in India.

- Gwadar is being connected through the over USD 60 billion **China Pakistan Economic Corridor (CPEC)** to China's Xinjiang province, providing a key **land route to China to access the warm waters of Arabian Sea.**

- The Arabian Sea provides entry to the Indian Ocean where China has built a logistics base at **Djibouti** in the Horn of Africa.

Indian Cyber Crime Coordination Centre (I4C)

- Union **Minister for Home Affairs** has inaugurated **the Indian Cyber Crime Coordination Centre (I4C)** and also dedicated **National Cyber Crime Reporting Portal** to the Nation.

I4C

- The scheme to setup I4C was approved in October 2018 to deal with all types of Cybercrimes in a comprehensive and coordinated manner.
- At the initiative of Union Ministry for Home Affairs (MHA), 15 States and UTs have given their consent to set up Regional Cyber Crime Coordination Centres at respective States/UTs.

It has seven components:

- National Cyber Crime Threat Analytics Unit
- National Cyber Crime Reporting Portal
- National Cyber Crime Training Centre
- National Cyber Crime Research and Innovation Centre
- National Cyber Crime Forensic Laboratory Ecosystem
- Platform for Joint Cyber Crime Investigation Team
- Cyber Crime Ecosystem Management Unit

About National Cyber Crime Reporting Portal

- National Cyber Crime Reporting Portal is a **citizen-centric initiative** that will enable citizens to **report Cyber crimes** online through the portal.
- All the Cyber crime related complaints will be accessed by the concerned law enforcement agencies in the States and Union Territories for taking action as per law.
- This portal was launched on pilot basis on 30th August, 2019 and it enables filing of all cyber crimes with specific focus on crimes against women, children, particularly child pornography, child sex abuse material, online content pertaining to rapes/gang rapes, etc.
- This Portal also focuses on specific crimes like financial crime and social media related crimes like stalking, cyber bullying, etc.
- This Portal will improve coordination amongst the law enforcement agencies of different States, districts and police stations for dealing with cyber crimes in a coordinated and effective manner.

Chinese paddlefish

- The Chinese paddlefish (Psephurus gladius) has been declared extinct by Chinese scientists.
- It was last spotted in 2003.

Key Points

- It was one of the **largest freshwater fishes**.
- **Habitats:** Freshwater and estuaries.
- **IUCN status:** Critically Endangered (Although declared extinct by Chinese scientists but its IUCN status is Critically Endangered, which was last assessed in 2009).

- It was **endemic** to the **Yangtze River** (including brackish water of the mouth) in China. It was **found in China only.**

  - ➤ **Yangtze River** has seen half of the unique species to its waters go extinct.
  - ➤ It is the **longest river in Asia**, the third-longest river in the world and the longest river to flow entirely in one country.
  - ➤ It rises in the **northern part** of the **Tibetan Plateau** and flows in a generally easterly direction to the East China Sea.

- **Overfishing** and **habitat fragmentation** and **dam-building** caused its population to dwindle from the 1970s onwards. The researchers estimate that it became functionally extinct by 1993.

- It is one of only **two Paddlefish species** in existence.

- Second is the **American Paddlefish (IUCN Status: Vulnerable)** species found in the **Mississippi River Basin** in the **United States.**

Criteria for Extinction

- The Red List criteria of the IUCN has several categories for extinction

- **Critically Endangered:** species faces a high probability of extinction.

- **Extinct in the wild:** means a species survives only in a captive environment.

- **Locally extinct:** ceased to exist in a particular area but may exist in other areas.

- **Functionally extinct:** continues to exist but it has too few members to reproduce meaningfully enough to ensure survival.

- **Globally extinct:** no surviving member anywhere. When there is no reasonable doubt left that its last member has died.

- Once declared extinct, a species is **not eligible for protective measures and conservation funding.**

Naval version of Tejas lands successfully on aircraft carrier INS Vikramaditya

In a major milestone, the naval version of indigenously built **Tejas** aircraft made its first landing on the deck of the aircraft carrier **INS Vikramaditya.**

Major milestone

- The successful test has put India among a select group of nations having the capability to design a jet that can land on an aircraft carrier.

- The **Defence Research and Development Organisation (DRDO)** is involved in the development of the naval variant of **Tejas** along with **Aeronautical Development Agency (ADA), Aircraft Research and Design Centre** of **Hindustan Aeronautics Ltd** and **CSIR** among others.

- The successful **"arrested landing"** of the prototype of the naval version of Tejas on the deck of **INS Vikramaditya** is expected to speed up development of the jet for the Indian Navy.

- A similar test was carried out at a shore-based test facility in Goa in September last year.
- The IAF has already inducted a batch of Tejas aircraft. Initially, the IAF had placed an order with the **Hindustan Aeronautics Limited (HAL)** for 40 Tejas aircraft.
- Last year, the IAF issued the request for proposal (RFP) to HAL for the procurement of another batch of 83 Tejas at a cost of over Rs 50,000 crore.

INS Vikramaditya

- INS Vikramaditya is the Country's most powerful Aircraft Carrier.
- It was built in **1987** and had served the **Soviet navy (named as Baku).** It was later renamed **Admiral Gorshkov** under the **Russian Navy.**
- The Indian Navy purchased the vessel in **2004** and commissioned it in **November 2013** at **Severodvinsk** in **Russia.**
- It can carry over 30 Aircrafts comprising MiG-29Ks, Kamov-28s, Kamov-31s, ALH-Dhruv and Chetak helicopters.
- It was retrofitted with a **Barak missile system** under joint development with **Israel**.
- It is based at its home port at **Karwar** in **Karnataka**.

Tejas – Light Combat Aircraft

- Made in India
- Single-seat
- Single-jet engine,
- Multi-role light fighter
- It has been pegged as world's smallest and lightest supersonic fighter
- LCA Tejas is not the first indigenous fighter to be inducted into the IAF. In April 1967, IAF had formed the first operational squadron with the indigenous HF-24 Marut fighter
- Designed by the Aeronautical Development Agency (ADA) and Hindustan Aeronautics Limited (HAL).
- Made under Light Combat Aircraft (LCA) programme, which began in the 1980s to replace India's ageing MiG-21 fighters.
- It is equipped with satellite-aided Inertial Navigation System.
- It has digital computer-based attack system and autopilot mode.
- It has limited reach of a little over 400-km.
- It will be mainly used for close air-to-ground operations.

Wings India 2020

- Asia's **largest Civil Aviation platform**- 'Wings India 2020' will be held at **Hyderabad** in March 2020.

- Wings India 2020 is a flagship event of **Indian Civil Aviation Industry.**

- It is also Asia's largest and most popular gathering in the industry. Organized by **Ministry of Civil Aviation, Govt. of India, Airports Authority of India (AAI)** and **Federation of Indian Chambers of Commerce & Industry (FICCI).**

- It is a four-day event themed: **"Flying for All''.**

- The international platform focuses on new business acquisition, investments, policy formation and regional connectivity in civil aviation industry.

- India, is the **third largest domestic Civil Aviation market** in the world.

Australian bushfires puts Koalas in endangered list

- The Australian Koalas population suffered an extraordinary hit in the bush fires of Australia. It took 3 months for the firemen to control the fires.

- Australia recorded **2019** as its **hottest year on record**. Around **1.25 billion animals** are believed to be dead in bush fires. It has also destroyed more than **10 million hectares of land.**

- The **Australian Koalas** are to be put under **"endangered" from "vulnerable"** as **30%** of their habitat were destroyed by the fires.The Australian Government has announced 50 million Australian Dollars emergency fund to save the wildlife affected due to the fires.

- The Australian Koalas is **herbivorous animals** that are native to Australia. They are found in coastal areas of **New South Wales, Queensland, Victoria and South Australia.**

- The **Indian Ocean Dipole** was in its positive phase in 2019. This means, the eastern Indian Ocean (lying in the north west of Australia) was cooler than the western Indian.

- This drew away the moisture from Australia raising temperatures in Australia. The **westerlies** blowing hot air into the Continent increased the fires further fanning them.
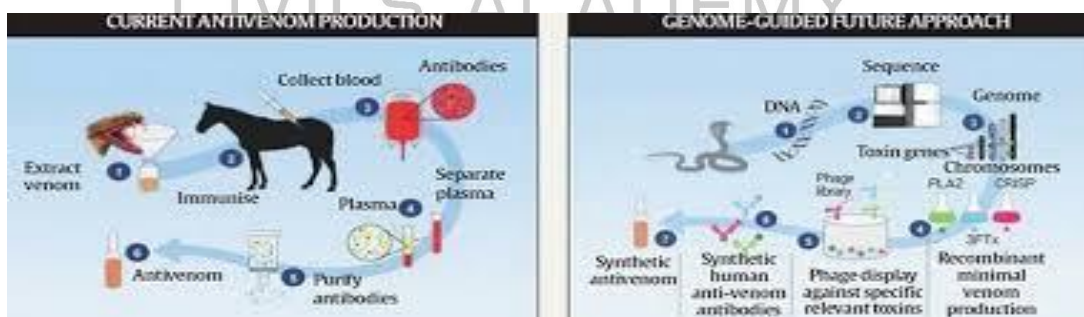
Genome Sequencing of Cobra

- An international team of researchers reported that they have sequenced the genome of the Indian Cobra, in the process identifying the genes that define its venom.

- This has provided a blueprint for developing more effective antivenom.

Big four in Snake bites

- India alone accounts for about **50,000 deaths** annually, and these are primarily attributed to the "big four".

- The challenge has been producing antivenom for the species known collectively as the **"big four":**
  - ➢ Indian Cobra (Naja naja)
  - ➢ Common krait (Bungarus caeruleus)
  - ➢ Russell's viper (Daboia russelii)
  - ➢ Saw-scaled viper (Echis carinatus).

- In India, common antivenom is marketed for the treatment of bites from the "big four", but its effectiveness is questionable.

- While the common antivenom worked as marketed against the saw-scaled Viper and the common Cobra, it fell short against some neglected species and also against one of the "big four" — the common Krait.

- Accidental contact with snakes leads to over 100,000 deaths across the world every year.

What is antivenom?

- Antivenom is currently produced by a century-old process — a small amount of venom is injected into a horse (or a sheep), which produces antibodies that are then collected and developed into antivenom.

- This is expensive, cumbersome and comes with complications. Some of the antibodies raised from the horse may be completely irrelevant.

Why has production of effective antivenom been challenging?

- Venom is a complex mixture of an estimated 140-odd Protein or Peptides.

- Only some of these constituents are toxins that cause the physiological symptoms seen after snakebite.

- But antivenom available today does not target these toxins specifically.

Issues with present antivenom

- The horse also has a lot of antibodies floating in its blood that have nothing to do with the venom toxins.

- One more problem with horse antibodies — our immune system recognises it as foreign and when antivenom is given our body mounts an antibody response. This leads to what is called **serum sickness.**

- Also, next time if one is unlucky and has a snakebite incident (even if it is a different snake) and they are given a horse-derived antivenom, the body is going to have a severe allergic reaction.

How does decoding the genome help?

- In the Indian Cobra genome, the authors identified 19 key toxin genes, the only ones that should matter in snakebite treatment.

- They stress the need to leverage this knowledge for creation of antivenom using synthetic human antibodies.

- Targeting these 19 specific toxins using synthetic human antibodies should lead to a safe and effective antivenom for treating Indian cobra bites.

Genome Sequencing

- Genome is an organism's complete set of DNA, including all of its genes.

- Each genome contains all of the information needed to build and maintain that organism. In humans, a copy of the entire genome—more than 3 billion DNA base pairs—is contained in all cells that have a nucleus.

- Genome sequencing is figuring out the order of DNA nucleotides, or bases, in a genome—the order of As, Cs, Gs, and Ts that make up an organism's DNA.

H9N2 Virus

- Avian Influenza A(H9N2) Virus infection has been reported in a 17-month-old boy in Maharashtra.

- This is the Country's first human case of infection with H9N2 Virus.

- H9N2 Viruses have been observed in Poultry in India several times.

About H9N2 Virus

- H9N2 is a subtype of influenza A virus, which causes human Influenza as well as bird flu.

- The H9N2 subtype was isolated for the first time in Wisconsin, US in 1966 from turkey flocks.

- H9N2 viruses are found worldwide in wild birds and are endemic in Poultry in many areas.

Cases of Human Infection

- H9N2 virus infections in humans are rare, but likely under-reported due to typically mild symptoms of the infections.

- Cases of human infection have been observed in Hong Kong, China, Bangladesh, Pakistan, and Egypt. The first case globally was reported from Hong Kong in 1998.

- **Emerging Threat**

- H9N2 Viruses could potentially play a major role in the emergence of the next influenza pandemic.

- According to the World Health Organization (WHO), with avian Influenza Viruses circulating in Poultry, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected poultry or contaminated environments.

Neon- Artificial Intelligence

- **Samsung's Star Labs** has officially unveiled Neon as its latest **artificial intelligence (AI)** powered project.

- Neons are Artificial Intelligence virtual beings capable of showing human-like emotions and intelligence.

- Neons look and behave like a **real human**, with the ability to show **emotions and intelligence**. Neons can learn new skills and form memories from experiences.

- Neons are capable of human-like interactions and have the ability to communicate with human affect, learn from experiences and even form new memories. They can serve as an individualised teacher, a personal financial advisor, a healthcare provider, or a Concierge.

- Neons are digitally composed next-generation artificial intelligent entities created **Star Labs' CORE R3** and **SPECTRA** engines**.**

- The CORE R3 engine has been revealed to bring life like **reality** and **realtime responsiveness** to Neons.

- The SPECTRA engine is responsible for providing the Neons with **intelligence, learning, emotions and memory.**

Artemis Program

- **Indian American Raja Chari** is among 11 new astronauts who joined **NASA**'s ranks. The new graduates are the first to graduates since NASA announced its Artemis programme.

- NASA wants to send the first woman and the next man to the Moon by the year 2024, which it plans on doing through the **Artemis lunar exploration program.**

- With the Artemis program, NASA wishes to demonstrate new technologies, capabilities and business approaches that will ultimately be needed for the future exploration of Mars.

- For the Artemis program, NASA's new rocket called the **Space Launch System (SLS)** will send astronauts aboard the **Orion Spacecraft** a quarter of a million miles away from Earth to the lunar orbit.

- Once astronauts dock Orion at the Gateway — which is a small Spaceship in Orbit around the Moon - the Astronauts will be able to live and work around the Moon, and from the Spaceship, Astronauts will take expeditions to the surface of the Moon.

- The Astronauts going for the Artemis program will wear newly designed spacesuits, called **Exploration Extravehicular Mobility Unit,** or **xEMU.**

Register all drones by January 31 or face action: Civil Aviation Ministry

- Government has announced a scheme for voluntary registration of all Drones and their operators. The registration can be done by the **31st January, 2020**.

- **Civil Aviation Ministry** said in a notice that those who fail to register will face action.

- A **Federation of Indian Chambers of Commerce and Industry (FICCI)** Co-Chair Committee on Drones last year had estimated that the number of illegal drones in India are likely to be between fifty to sixty thousand.

Indian Coast Guard Ships (ICGS) — Annie Besant and Amrit Kaur

- Two **Indian Coast Guard Ships (ICGS)** — Annie Besant and Amrit Kaur — were **commissioned by Defence Secretary**.

- Indian Coast Guard Ship Annie Besant and Amrit Kaur are second and third in the series of **five Fast Patrol Vessels**.

- While **Annie Besant** will be based at **Chennai**, **Amrit Kaur** will be based at **Haldia**.

- The ships are fitted with state-of-the-art technology, and navigation equipment, along with Bofors 40/60 guns and 12.7 mm Stabilised Remote Controlled Guns for enhanced fighting efficiency.

- The ships are built indigenously by the **Garden Reach Shipbuilders & Engineers (GRSE) Ltd**, **Kolkata.**

Important Info :

Annie Besant:

- ICGS Annie Besant has been named in honour of **Ms Annie Besant**

- She was a **theosophist, women's rights activist** and **supporter of Indian freedom**.

- She contributed in foundation of **Banaras Hindu University (BHU).**

- In 1916 she established the **Indian Home Rule League**, of which she became President.

Amrit Kaur:

- ICGS Amrit Kaur derives her name from **Ms Raj Kumari Amrit Kaur** who took an active part in **Salt Satyagraha** and **Quit India Movement.**

- She served the **Independent India** as its **first Health Minister.**
- She was the founder member of **All India Womens' Conference** and founder **President of Indian Council for Child Welfare.**

Indian Army conducts biggest airborne exercise "Winged Raider"

The Indian Army has conducted its biggest airborne exercise called the '**Winged Raider'** comprising of more than **500 Special Forces** troops in the **North-Eastern theatre.**

About exercise:

- The exercise aims to demonstrate the operational preparedness of the Paratroopers and air warriors to undertake **airborne missions**.
- It involved a large number of the **Special Forces troops** and all kind of air transport platforms of the **Air Force.**
- The newly inducted aerial platforms and equipment were also validated during the exercise with clockwise precision and seamless integration between the Army and the Air Force.

Significance of the exercise:

- The exercise indicated the shift in the Army's focus towards the frontier with China.
- In October 2019,the Indian army had also carried out Exercise **'Him Vijay'** in Arunachal Pradesh to test its mobility, communication and coordination of such a huge body of fast-moving troops in difficult terrain.
- The integrated battle groups(IBGs) had participated for the first time in an exercise.

Exercise Him Vijay

- 'Him Vijay' is a **first ever mountain combat exercise** conducted by Indian Army in Arunachal Pradesh.
- The exercise is to test the **mobility, coordination and communication** of the troops in difficult terrain. The exercise is to be conducted in two phases.
- The exercise will include three battle groups, each comprising of 4,000 soldiers. This is the **largest military exercise** in the history of Indian defense. The exercise includes **mountain assault** and **air assault** as well.
- The exercise is done more than **100 km** in the Indian Territory from the **Line of Actual Control**
- The Army Helicopters and Air Force are to transfer the troops and equipment at the terrain up to 15,000 feet.
- The exercise is important for the validation of the **Integrated Battle Group (IBG)** that was newly raised with new operational concepts.

- The Combat arms of the IBG namely **Armoured, Infantry, Artillery and Mechanized infantry** will be trained together at one place. Based on the terrain desert, mountain or plains the intelligence team of engineers, signal support, communication support, supply will be integrated.

K9 VAJRA-T Gun

The defence minister flagged off 51st **K9 VAJRA-T** Gun from **Larsen & Toubro (L&T) Armoured System Complex** at **Hazira** in **Gujarat.**

Key Points

- The K9 VAJRA-T 155mm/ 52 is a **tracked self-propelled howitzer** (a short gun for firing shells on high trajectories at low velocities), which has its roots in the K9 Thunder, the mainstay of the South Korean Army.
- It offers a high rate of fire at long-range and is compatible with Indian and standard **North Atlantic Treaty Organisation (NATO)** ammunition.
- The K9 Thunder platform is made of all-welded steel armour protection material.
- The K9 gun has been developed under the **'Buy Global'** programme of the **Defence Procurement Procedure (DPP)** where foreign companies are allowed to participate.
- In this case, Hanwha Techwin of South Korea is the technology partner of L&T.
- The first 10 K9 Vajra guns have been imported from South Korea and assembled by L&T in India. The balance 90 guns will be largely manufactured in the country.
- L&T Defence is currently executing the **'K9 VAJRA-T' Tracked, Self-Propelled Howitzer Guns** program - the contract awarded to the company by the Ministry of Defence through global competitive bidding.

GSAT-30

- The Indian Space Research Organisation (ISRO) has launched telecommunication satellite GSAT-30 into a Geosynchronous Transfer Orbit (GTO) from Kourou launch base, **French Guiana** by **European Ariane-5 VA-251.**
- **GSAT-30** satellite will replace **INSAT-4A** which was launched in **2005**.
- A European communication satellite named EUTELSAT KONNECT was also launched with GSAT-30.
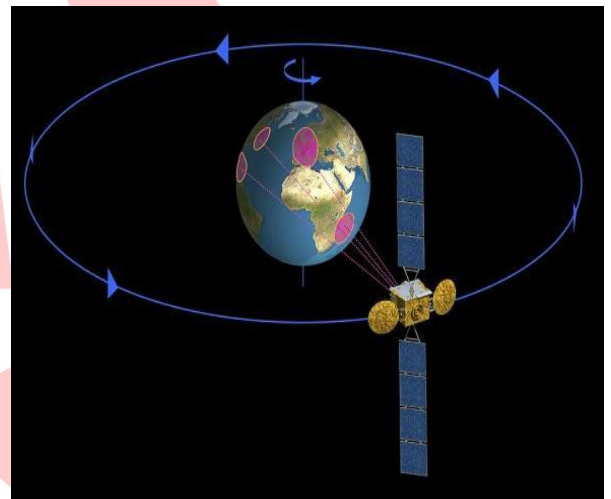
Key Points

- **Weight:** GSAT-30 weighs 3,357-kg and will be gradually adjusted into an orbit 36,000 km from the earth.
- **Launched from:** It was launched from the foreign launcher because it is much heavier than the lifting capacity of its geostationary launch vehicle GSLV-MkII (It has the capacity to lift 2500kg).

- The GSLV-MkIII can lift up to 4,000 kg, but ISRO plans to use the upcoming MkIIIs mainly for its first human space flight **Gaganyaan** of **2022**.
- **Use:**
  - It will provide **DTH** (direct to home) **television services**, connectivity to **VSATs** (that support working of banks') **ATMs, stock exchange, television uplinking** and **teleport services, digital satellite news gathering** and **e-governance applications.**
  - The satellite will also be used for bulk data transfer for a host of emerging telecommunication applications.
- **Coverage:** The satellite provides **Indian mainland** and **islands coverage in Ku-band** and **extended coverage in C-band** covering **Gulf countries, a large number of Asian countries and Australia.**

Geosynchronous Orbit

- Geosynchronous Satellites are launched into Orbit in the same direction the Earth is spinning and can have any inclination. While geostationary orbit lie on the same plane as the **Equator**.
- In the case of geostationary satellites, the Earth's force of gravity is exactly enough to provide acceleration required for circular motion.
- **Geosynchronous Transfer Orbit(GTO):** To attain geostationary or geosynchronous earth orbits, a spacecraft is first launched into a Geosynchronous Transfer Orbit.
- From the GTO the Spacecraft uses its engines to shift to geostationary or geosynchronous orbit.
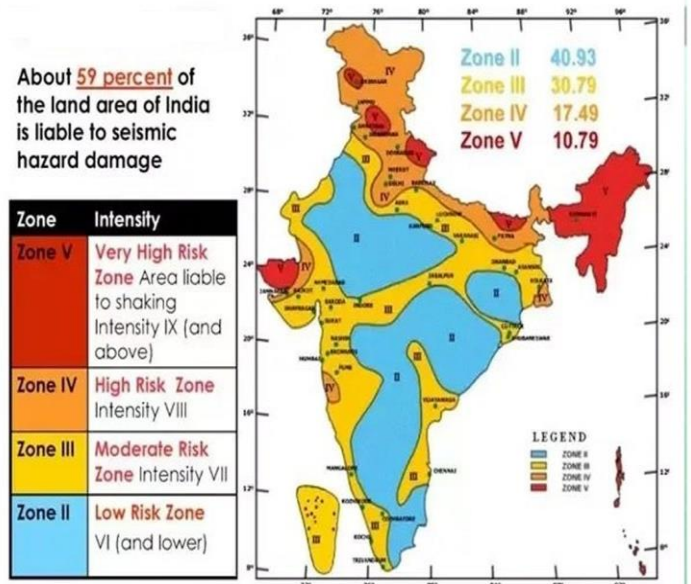
Seismic Hazard Microzonation

- The **Ministry of Earth Science** has launched Seismic Hazard Microzonation project in major Cities of India.
- The Project aimed at **seismic hazard microzonation** of major Indian cities and areas falling under **high-seismic Zones IV and V.**

Seismic Zones in India:

- Seismic zones in Indian Subcontinent is divided into four seismic zones (II, III, IV,

and V) based on scientific inputs relating to seismicity, earthquakes occurred in the past and tectonic setup of the region.

- Previously, earthquake prime zones divided into five zones with respect to the severity of the earthquakes, but Bureau of Indian Standards [IS 1893 (Part I):2002], has grouped the Country into four seismic zones; the first and second seismic zones were unified.

- The Bureau of Indian standards is the Official Agency for publishing the seismic hazard maps and codes. It has brought out versions of seismic zoning map: a six zone map in 1962, a seven zone map in 1966, and a five zone map 1970/1984.

Seismic Hazard Microzonation:

- It is the process of dividing earth quake prone areas based on certain factors.
- The factors include geological and geophysical characteristics of sites.
- They are;
    - ➢ Ground Shaking
    - ➢ Landslide
    - ➢ Liquefaction Susceptibility
    - ➢ Rock Fall Hazard
    - ➢ Flooding Caused Due To Earth Quakes.
- Based on the division, mitigation measures are prepared.
- Hence, it is a preventive method to minimise the losses.
- The factors in the microzonation method are estimated based on response from soil layers.

Submarine-launched Ballistic Missile: K-4

- Recently, India successfully test-fired the **3,500-km range submarine-launched Ballistic Missile, K-4.**
- The test was carried out by the **Defence Research and Development Organisation (DRDO)** from a submerged pontoon (a flattish boat that relies on floats to remain buoyant) off the **Visakhapatnam Coast (Andhra Pradesh).**
    - ➢ A pontoon simulates the situation of a launch from a submarine.
- The **Circular Error Probability (CEP)** of the missile is much more sophisticated than Chinese missiles.
    - ➢ The CEP determines the **accuracy of a missile.** The lower the CEP, the more accurate the missile is.
- After induction, these will be the chief support of the **Arihant class of indigenous Ballistic Missile Nuclear Submarines (SSBN).** It will give India the standoff capability to launch nuclear weapons submerged in Indian waters.

➢ INS Arihant, the **first and only operational SSBN**, is armed with **K-15 Sagarika missiles** with a range of 750 km.

➢ It means that the submarine has to move closer to the adversary's coast to launch the missile but the K-4 will be able to overcome that because of its range coverage.

Tiger Sharks : India is Stationing Sukhoi Jets in South India

- Air force commissioned the 222 squadron, also known as 'Tigersharks', for their Thanjavur base Tamil Nadu

- It will play a key role in keeping China's growing clout in the Indian Ocean region

- The Squadron has **Sukhoi-30** carrying the **BrahMos** cruise missile.

Sukhoi Su-30MKI

- A twinjet multirole air superiority fighter developed by Russia

- Integrates Indian systems and Avionics as well as French and Israeli sub-systems.

BRAHMOS

- **Joint venture** between **India & Russia.**

- Brahmos is named on the **Rivers Brahmaputra** and **Moskva.**

- **Air to Surface Missile** with a flight range of around 300 km.

India's entry into the Missile Technology Control Regime (MTCR) has extended the range of the BRAHMOS missile to reach 450 km-600km, a shade above its current MTCR capped range of 300 km.

- Brahmos is the **heaviest weapon** to be deployed on Su-30 MKI fighter aircraft, with a weight of 2.5 tonnes.

- Brahmos is a multi platform i.e it can be launched from land, air, and sea.

- It operates on the **"Fire and Forgets"** principle i.e. it does not require further guidance after launch.

Indian Navy Launches 'Operation Vanilla' to Provide Humanitarian Assistance and Disaster Relief at Madagascar

- Indian Navy Ship Airavat, whilst mission deployed in the Southern Indian Ocean has been diverted to Antsiranana based on request recieved from Madagascar.

- The Ship will undertake Humanitarian Assistance and Disaster Relief mission as part of **'Operation Vanilla'** which has been launched to provide assistance to the affected population of Madagascar post devastation caused by Cyclone Diane.

- During the Port call, the Ship, in coordination with Embassy of India and Government of Madagascar is planned to undertake relief operations to provide succour to the flood affected populace.

- The Indian Navy Ship is geared to set up Medical Camp and provide food, water and other necessary relief material.

Bhuvan Panchayat 3.0 launched by ISRO

Bhuvan Panchayat is part of ISRO's Space-based Information Support for Decentralised Planning Update project.

Services:

This version of the Portal will provide database visualisation and services for the benefit of panchayat members, among others.

The targeted audiences for this portal are Public, PRIs and different stakeholders belonging to the gram panchayats.

Features:

Using Bhuvan satellite imagery, hi-resolution database at 1:10,000 scale is applied to identify land use land cover, settlements, road and rail network etc.

The portal offers database visualization, data analytics, generation of automatic reports, model-based products and services for Gram Panchayat members and other stake-holders.

Implementation:

In the Project that will last for at least two years, ISRO will collaborate with the gram panchayat members and stakeholders to understand their data requirements.

Significance:

The Project is meant to provide geo-spatial services to aid gram panchayat development planning process of the Ministry of Panchayati Raj.

Kerala CM inaugurates India's 1st Super Fab Lab

- Chief Minister of Kerala Pinarayi Vijayan inaugurates India's 1st Super Fab Lab in Kochi, Kerala. The Super Fab Lab is being installed in collaboration with KSUM (Kerala Startup Mission).
- The laboratory will break down barriers between the physical world and the digital world.
- A Fab Lab is a laboratory that offers digital fabrication. It is colloquially defined as, "How to make almost anything". It is an array of computers that covers almost all materials.
- It is used in businesses to develop prototypes and also in education. It includes CNC cutting, plasma metal cutting, laser cutting, electronics and microprocessors and 3D printing and scanning.

"Vyom Mitra"-ISRO's Half Humanoid-An Experimental Mission Of Gaganyaan

ISRO (Indian Space Research Organization) is to send a half-humanoid robot called the "Vyom Mitra" as an experimental mission to Gaganyaan. Vyom Mitra means a friend in Sky.

Highlights

ISRO introduced Vyom Mitra at the "Human Space Flight and Exploration-Present Challenges and Future Trends" seminar that was held in Bengaluru. The Robot is to fly in two unmanned mission that are planned in December 2020 and in June 2021.
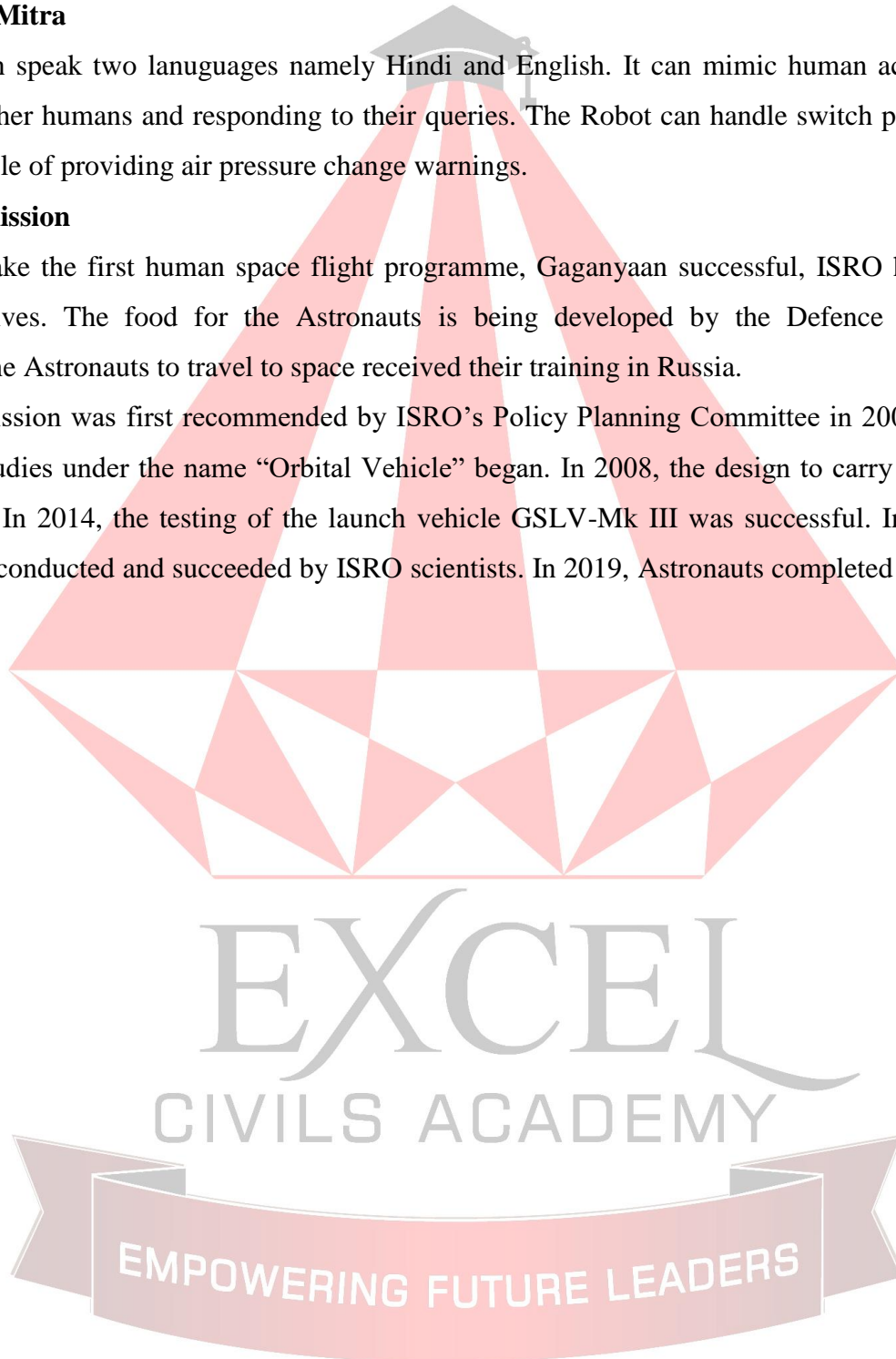
About Vyom Mitra

The Robot can speak two lanuguages namely Hindi and English. It can mimic human activities such as recognizing other humans and responding to their queries. The Robot can handle switch panel operations. It is also capable of providing air pressure change warnings.

Gaganyaan mission

In order to make the first human space flight programme, Gaganyaan successful, ISRO has been taking several initiatives. The food for the Astronauts is being developed by the Defence Food Research Laboratory. The Astronauts to travel to space received their training in Russia.

Gaganyaan Mission was first recommended by ISRO's Policy Planning Committee in 2004. In 2006, the preliminary studies under the name "Orbital Vehicle" began. In 2008, the design to carry two Astronauts was finalized. In 2014, the testing of the launch vehicle GSLV-Mk III was successful. In 2018, the Pad abort test was conducted and succeeded by ISRO scientists. In 2019, Astronauts completed their training in Russia.

MISCELLANEOUS

World Braille Day

- **January 4th** is celebrated as World Braille Day in order to mark the birth anniversary of Louis Braille. The declaration to celebrate the day was given by the UN in 2018.

- Louis Braille is credited with inventing the Braille language. Braille is a tactile writing system used by people who are visually impaired.

- The World Braille Day spreads awareness about **Braille script and other accessible forms of communication,** as most of the public places such as hospitals fail to provide their material in Braille.

- Despite **2.2 billion people** with visual impairment in the world, most of the schools do not offer classes in Braille and a lot of countries do not even recognize this as a part of their educational curriculum.

Global Initiatives:

- The **2006 Convention on the Rights of Persons with Disabilities** considers Braille essential for education.

- Also, the **2030 Sustainable Development Goals** that were adopted in 2015 pledges that no one will be left behind.

- Hence, the celebration of the World Braille Day is intended to spread awareness amongst people regarding the necessity and importance of including the language at a more global level.

'Lai Haraoba' begins in Tripura

- In Tripura, Lai Haraoba, a ritualistic festival observed by Manipuri M**eitei Communities** since ancient times, began in **Agartala**.

- The community is spread across Assam, Tripura, Manipur, Meghalaya, Myanmar and Bangladesh. However, the festival is widely celebrated in the state of Manipur.

- The five day long festival is jointly organised by **Department of Information and Cultural Affairs, Government of Tripura, Puthiba Lai Haraoba Committee and Puthiba Welfare & Cultural Society, Agartala.**

- The festival aims to uphold tradition and cultural values of Meitei Community.

- Lai Haraoba is celebrated through oral literature, music, dance and rituals. A cultural troupe from Manipur has also come to take part in festival.

- They will be performing various cultural and traditional musical skits including Manipuri martial arts, folk music and folk dances during the festival.

Patola Sarees:

- **Khadi and Village Industries Commission (KVIC)** has inaugurated a first Silk Processing Plant at Surendranagar in Gujarat.
- The Plant would help to reduce the cost of production of silk yarn and increase the sale and availability of raw material for Gujarati Patola Sarees locally.

Key facts:

- Patola, the trademark saree of Gujarat, is considered to be very costly and worn only by Royals or Aristocrats.
- It is a double ikat woven sari, usually made from silk, made in Patan, Gujarat, India.
- The reason for high cost of Patola sarees is that the silk yarn used to make them is purchased from Karnataka or West Bengal, where Silk processing units are situated. This increases the cost of the fabric by manifolds.
- It has received a **Geographical Indication (GI) tag** in 2013.

Antarashtriya Yoga Diwas Media Samman (AYDMS)

- The Ministry of **Information and Broadcasting** will confer "Antarrashtriya Yoga Diwas Media Samman" to 30 Media Houses. The award is being presented for the first time.
- The aim of the award is to **acknowledge positive role of media in disseminating outreach** of Yoga.
- 30 Sammans under 3 categories will be conferred.
    - ➢ Eleven Sammans to be conferred under the category "Best Media Coverage of Yoga in Newspapers.
    - ➢ Eight Sammans to be conferred under the category "Best Media Coverage of Yoga in Television.
    - ➢ Eleven Sammans to be conferred under the category "Best Media Coverage of Yoga in Radio.
- The Samman will comprise of a special medal/plaque/trophy and a citation.

Yoga Day

- The International Day of Yoga is being celebrated annually on 21 of June every year, since 2015.
- The idea of International Day of Yoga was first proposed by the Prime Minister Narendra Modi, during his address at the United Nations General Assembly on 27 September 2014.

Zo Kutpui organized in Mizoram

- The Mizoram government is organising Zo Kutpui (festival) in at least 10 States across India and Countries such as US, Myanmar and Bangladesh.

Zo Kutpui Festival:

- The Zo Kutpui festival aims to **unify and strengthen the brotherhood** among various **Mizo tribes** living in different parts of the world.

- The first edition of the festival will start in Tripura and then move to other states which have significant Mizo population.

- The festival will witness various cultural programmes by different Mizo tribes.

About Mizo Tribe:

- The Mizos are tribal people that are spread between **Myanmar in the east** to **Bangladesh in the West.** In India,the Mizo population is mainly found in **Manipur,Tripura and Mizoram**.

- There are 12 major Mizo clans identified.It includes Lusei people, Lushai hills people, Chin people, Pawi-Lusei, Tlau, Khiangte, Hualngo among others.

2020 observed as Year of Mobility by CISF

- The CISF has decided to observe 2020 as the **"Year of Mobility"** for the welfare of the troops.

- It will focus on the construction of residential units and the implementation of welfare measures for the troops.

- In the year 2020, the Central Industrial Security Force (CISF) will aim at creating the infrastructure for their families.

- It will also aim at focusing on sports and physical fitness leveraging modern gadgetry.

- The CISF guards Civil Airports, Nuclear Power Stations, Mines, Thermal Power Stations in the public and private domain as well.

A case for including Tulu in the Eighth Schedule

Recently, activists have demanded to include Tulu in the Eighth Schedule of the Constitution.

About Tulu Language:

- Tulu is a **Dravidian language** whose speakers are concentrated in **two coastal districts** of **Karnataka** and **Kasaragod District of Kerala.**

- Kasaragod District is called as the '**Sapta bhasha Samgama Bhumi** (the confluence of seven languages)' and Tulu is one among the seven.

Why Should Tulu be included in Eight Schedule?

- According to 2011 Census,there are around 18 lakh native speakers of Tulu in India.This is more in number than speakers of Manipuri and Sanskrit which have the Eighth Schedule status.

- Article 29 of the Constitution provides that a section of citizens having a distinct language, script or culture have the right to conserve the same

- Robert Caldwell (1814-1891), in his book, A Comparative Grammar of the Dravidian or South-Indian Family of Languages has called Tulu as one of the most highly developed languages of the Dravidian family.
- **Yuelu Proclamation** which was adopted by **UNESCO at Changsha**,The People's Republic of China in 2018 provides for the **protection and promotion of linguistic diversity**.

Advantages of including Tulu in the Eighth Schedule:

- If included in the Eighth Schedule, Tulu would get recognition from the **Sahitya Akademi.**
- Tulu books would be translated into other recognised Indian languages.
- Members of Parliament and MLAs could speak Tulu in Parliament and State Assemblies, respectively.
- Candidates could write all-India competitive examinations like the Civil Services exam in Tulu.

About Eighth Schedule:

- The Eighth Schedule to the Constitution of India lists the **Official Languages** of the **Republic of India.**
- It consists of the following **22 languages**:-(1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.

Institutions at Gujarat Ayurved University to get status of Institution of National Importance

- The Cabinet approved conferring the status of **Institution of National Importance** to a cluster of Ayurvedic institutions at **Gujarat Ayurved University** campus in Jamnagar.
- The elevation of the status of institution will provide it with the autonomy to upgrade the standard of Ayurveda education, frame various courses in Ayurveda as per national and international demand.
- It will help the institute to develop tertiary care in Ayurveda and to secure inter-disciplinary collaborations to give a contemporary thrust to Ayurveda.
- Considering the rapidly growing role of **AYUSH** Systems in addressing the Public Health challenges of India, conferring the status of National Importance will boost the role and importance of Ayurveda in Public Health.
- The strengthening of Ayurveda will reduce government expenditure on health as Ayurveda is cost-effective because of its preventive and curative approaches.

Pravasi Bharatiya Divas

- Pravasi Bharatiya Divas being celebrated on 9th January every year to mark the contribution of overseas Indian community in the development of India. It also commemorates the return of Mahatma Gandhi from South Africa to India on 9 January 1915.
- Established in 2003 the celebratory event is organised by the **Ministry of External Affairs** every year on this day.

Epiphany Festival

- The Epiphany festival was celebrated in parts of India, such as **Goa** and **Kerala**.
- In Goa, the celebration is known by its Portuguese name **'Festa dos Reis'**, and in parts of Kerala by its Syriac name **'Denha'.**

About:

- Epiphany is among the three oldest and major festival days in Christianity, the two others being **Christmas** and **Easter**.
- It is celebrated on January 6 by a number of Christian sects, including Roman Catholics, and on January 19 by some Eastern Orthodox churches.
- In the West, the duration between December 25 and January 6 is known as the Twelve Days of Christmas.
- **Epiphany** is a feast day, or a day of commemoration, which in Christianity marks the visit of the Magi (meaning the Three Wise Men or Three Kings) to the Infant Jesus (Christ from his nativity until age 12).
- According to Christian belief, the Magi — Balthasar, Melchior, and Gaspar (or Casper), the kings of Arabia, Persia, and India, respectively — followed a miraculous guiding star to Bethlehem, where they paid homage to the Infant Jesus.
- The day also commemorates the baptism of Jesus in the **Jordan River.**

Ashfaqullah Khan

The **Uttar Pradesh government** has recently announced it will build a **121-acre Zoo** named after Ashfaqullah Khan.

About:

- Ashfaqulla Khan (1900 – 1927) was a freedom fighter in the Indian independence movement. He was born in Shahjahanpur, Uttar Pradesh.
- In the mid-1920s, Ashfaqulla Khan and Ram Prasad Bismil went on to found the Hindustan Socialist Republican Association (HSRA), with the aim of winning freedom for the country through an armed revolution. HSRA published its manifesto titled "The Revolutionary" in 1925.

- He along with Ram Prasad Bismil, was sentenced to death for the Kakori train robbery, commonly referred to as the Kakori conspiracy of 1925.

Madhavpur Mela

The eight States of the Northern Eastern Region will participate in a big way during the Madhavpur Mela of Gujarat due to be held in the first week of April this year.

About:

- The annual fair is held at Madhavpur Ghed in Porbandar district and the Mela this year will commence on 2nd April, a day after the Ram Navami festival.
- Madhavpur Ghed, a small but culturally significant village, is the place where, according to folklore, Lord Krishna married Rukmini, the daughter of King Bhishmaka. Madhavpur lies on the seashore, close to Porbandar. A 15th century Madhavrai temple marks the site.
- This event is commemorated by a cultural fair held every year, commencing on Ram Navami.
- A colourful chariot carrying the idol of Lord Krishna circumnavigates the village and the festivities usually continue for five days.

North east connection:

- The Madhavpur Mela of Gujarat shares its connect to the Mishmi Tribe of Arunachal Pradesh.
- The Mishmi Tribe traces its ancestry to the legendary King Bhishmak and through him to his daughter Rukmini and Lord Krishna.
- The festival celebrates the immortal journey which Rukmini undertook from Arunachal Pradesh to Gujarat with Lord Krishna.

Costa Children's book award

- India-born author **Jasbinder Bilan** has won the Costa Children's Book Award, a coveted UK children's book award for her debut novel **'Asha and the Spirit Bird.'**
- Bilan will receive 5,000 pounds as the winner of the award.

About:

- The Costa Book Awards are a set of **annual literary awards** recognising **English-language** books by writers based in Britain and Ireland.
- The awards are given both for high literary merit but also for works that are enjoyable reading and whose aim is to convey the **enjoyment of reading** to the widest possible audience.
- Authors need not be British or Irish but they must have been resident in the UK or Ireland for at least six months in each of the previous three years.
- There are five book award categories: **(1) Novel, (2) First novel, (3) Children's book, (4) Poetry and (5) Biography.**
- Each of the five winning writers receives £5,000

World Hindi Day

- World Hindi Day is celebrated every year on **January 10** to promote the **Hindi language all around the world.**

- It was first celebrated in **2006** to commemorate **the anniversary of the first World Hindi Conference** which was held in Nagpur on January 10, 1975.

- World Hindi Day is also celebrated by Indian embassies located in various parts of the world.

- World Hindi Day is different from Hindi Divas which is celebrated on September 14 every year.

Hindi

- Hindi got its name from the **Persian word Hind**, meaning **'land of the Indus River'**. **Turk** invaders in the early 11th century named the language of the region Hindi, 'language of the land of the Indus River'.

- It is the official language of India, **English** being the other **official language.**

- Hindi is also spoken in some Countries outside India, such as in Mauritius, Fiji, Suriname, Guyana, Trinidad & Tobago and Nepal.

- Hindi in its present form emerged through different stages, during which it was known by other names. The earliest form of old Hindi was Apabhramsa. In 400 AD Kalidas wrote a romantic play in Apabhramsa called **Vikramorvashiyam.**

- The modern Devanagari script came into existence in the **11th century.**

National Youth Festival(NYF)

Ministry of Youth Affairs and Sports and **State Government of Uttar Pradesh** are jointly organizing 23rd National Youth Festival (NYF) 2020 at Lucknow from 12th to 16th January, 2020.

About

- The Government has been organizing National Youth Festival (NYF) since 1995.

- The objective of NYF is to provide a platform to **bring the youth of the country together** in an attempt to provide them opportunity to showcase their **talents in various activities**.

- The theme of the 23rd National Youth Festival 2020 is **'FIT YOUTH FIT INDIA'**

- NYF 2020 would have around 6000 participants (volunteers from NYKS, NSS and local youth) from each State of the country.

- The NYF 2020 will be inaugurated on 12th January on the occasion of **birth anniversary of Swami Vivekananda, the great Youth icon.**

Armed Forces Veteran Day

The Armed Forces are celebrating the Veterans Day on **14 Jan** to honour **the veterans the Army, Navy and Air Force.**

Background:

- This special day started as a day to reflect upon the heroism of those who died in our country's service and was originally called **Armistice Day.**

- It fell on Nov. 11 because that is the anniversary of the signing of the Armistice that ended World War I.

- However, in 1954, the holiday was changed to 'Veterans Day' in order to account for all veterans in all Wars.

- For the first time the **Indian Armed Forces celebrated** the **Veteran's Day** on **14th January 2015,** the day on which the first Field Marshall General KM Cariappa retired from service.

Endangered Languages

A press release issued by the UN in December 2019 quoted President of **the UN General Assembly** as saying that despite efforts throughout the year, **one indigenous language disappears every fortnight.**

UNESCO has six degrees of endangerment for languages. These are:

- **Safe,** which are the languages spoken by all generations and their intergenerational transmission is uninterrupted;

- **Vulnerable languages,** which are spoken by most children but may be restricted to certain domains.

- **Definitely endangered languages,** which are no longer being learnt by children as their mother tongue.

- **Severely endangered** are languages spoken by grandparents and older generations, and while the parent generation may understand it, they may not speak it with the children or among themselves.

- **Critically endangered languages** are those of which the youngest speakers are the grandparents or older family members who may speak the language partially or infrequently

- **Extinct languages,** of which no speakers are left.

Important Info :

- As per **UNESCO,** roughly **57 %** of the world's estimated **6,000 languages are safe**, about **10 % are vulnerable**, **10.7 % are definitely endangered**, about **9 % are severely endangered, 9.6 % are critically endangered** and about **3.8 % of all languages are extinc**t since 1950.

- As per the **Endangered Languages Project (ELP),** there are roughly **201 endangered languages in India.**

- The last year, 2019, was the **International Year of Indigenous Languages**, mandated by the United Nations (UN).

Statue Of Unity -8th Wonder Of SCO

- The **182-meter tall Statue** of Unity in **Gujarat** has been included in the **Shanghai Cooperation Organisation's '8 Wonders** of **SCO' list.**

- The inclusion of Statue of Unity in 8 Wonders of SCO means that the organization will now promote the tallest statue among member countries.

- The **Sardar Sarovar Narmada Nigam Ltd** on December 5, 2019 informed that the tourist inflow at the **World`s tallest statue on Narmada river** – Statue of Unity outpaced that at the **Statue of Liberty** in the **US**.

- The daily average tourist footfall at **Statue of Unity** during November 2019 reached **15,036,** whereas **Statue of Liberty** attracts around **10,000** daily visitors on an average.

- It is noteworthy that the Statue of Liberty in the US is a 133-year old world-famous monument, whereas the Statue of Unity is just 13 months old.

The Statue of Unity:

- The 'Statue of Unity', the world's tallest statue, is a monumental tribute to **Sardar Vallabhbhai Patel**, independent **India's first Home Minister** as well as **Deputy Prime Minister.**

- The statue was inaugurated In **October 2018** by Prime Minister on the occasion of Patel's 143th birthday.

- It is the world`s tallest statue with a height of (597 ft) **182 metres** located on a river-facing the **Sardar Sarovar Dam** on **river Narmada in Kevadiya colony**.

- It was designed by Indian sculptor **Ram V. Sutar.**

- The Statue of Unity is also visible from space.

Shanghai Cooperation Organization:

- The Shanghai Cooperation Organization (SCO) is an international organization comprising of **eight member countries** from **eurasia.**

- The eight member states of the SCO are
    - **India**
    - **Pakistan**
    - **China**
    - **Kazakhstan**
    - **Kyrgyzsthan**
    - **Russia**
    - **Tajikistan**
    - **Uzbekistan**.

- Its main goal is to strengthen **mutual trust** and **relations** in the region and promote **peace, security,** and **stability.**

Eight Wonders:

- The Wonders of SCO include archaeological and historical monuments of SCO. It includes
    - **Statue of Unity** in India
    - **Daming Palace** in China
    - **Navruz Palace** in Tajikistan
    - **Mughals Heritage** in Pakistan
    - **Tamgaly Gorge** in Kazakhstan
    - **Po-i-Kalan Complex** in Uzbekistan
    - **The Golden Ring** of Russia
    - **Lake Issyk-Kul** of Kyrgyzstan

IMD celebrate 145th Foundation Day

- The India Meteorological Department is celebtrated its **145th Foundation Day.**

- It was established in **1875.**

- IMD is an agency of the **Ministry of Earth Sciences** of the Government of India.

- It is the principal agency responsible for **meteorological observations, weather forecasting** and **seismology.**

- It is also 1 of the 6 Regional Specialised Meteorologica Centres of the **World Meteorological Organization.**

Special exhibition on 'Indian Heritage in Digital Space'

- The Union Minister of **State for Culture and Tourism** launched a month-long special exhibition titled **Indian Heritage in Digital Space**.

- This special exhibition showcase adaptation and infusion of technologies being developed under the **Indian Digital Heritage (IDH)** initiative of **the Department of Science and Technology (DST),** Government of India in the cultural heritage domain of the Country.

- The exhibition demonstrates the outcome of **two flagship projects** viz.
    - A digital mini-spectacle to showcase the **glory of Hampi** and
    - **Augmented Reality**-based interactions with **physical models of monuments**.

- The goals of these projects are to create digital installations using **3D laser scan data, AR, holographic projections** and **3D fabrication** to provide interactive and immersive experiences showcasing the glory of five Indian monuments namely
    - **Kashi Vishwanath Temple, Varanasi**
    - **Taj Mahal, Agra**
    - **Sun Temple, Konark**
    - **Ramachandra Temple, Hampi**

➢ **Rani Ki Vav, Patan**

- **ViRaasat** - A special installation named 'ViRaasat', consisting of a scaled-down 3D printed replica shall provide a mixed reality experience to visitors for selected monuments, using laser-scanning, 3D modelling and rendering, 3D printing, computer vision and spatial AR.

Indian Army Day

- Army Day is celebrated every year on **15th January in India** to commemorate the jawans and the Indian Army.
- The Army Day celebrations, which began in **1949**, will be observed for the 72nd time in 2020.
- Army Day is celebrated to mark **Lt Gen K M Carriappa** taking over as Commander-in-Chief of the Indian Army in 1949 from **General Francis Butcher**, the last **British Commander-in-Chief of India.**
- The Indian Army was established on **April 1, 1895.**
- It's motto is **"Service before self."**
- Difference in 2020
    ➢ The Army Day parade in New Delhi will see for the **first time a woman, Captain Tania Shergill,** leading an all-men Contingent.
    ➢ Apart from the three service chiefs, **India's first chief of defence staff General Bipin Rawat** will also attend the Parade.

Henley Passport Index 2020

- The Indian passport is closer to the bottom, ranked **84th** in the world, according to the 2020 edition of the Henley Passport Index.
- According to **Henley & Partners** publishes the ranking and the Index of the world's passports **"according to the number of destinations their holders can access without a prior visa".**
- The ranking is based on data from the **International Air Transport Association (IATA),** a trade association of some **290 airlines**, including all major carriers.
- The index includes **199 different passports** and **227 different travel destinations**.
- The data are updated in real time as and when Visa policy changes come into effect.

India's performance

INDIAN PASSPORT OVER THE YEARS

Year	Henley rank	Access to destinations
2006	71	25
2007	73	—
2008	75	37
2009	75	—
2010	77	50
2011	78	53
2012	82	51
2013	74	52
2014	76	52
2015	88	51
2016	85	52
2017	87	49
2018	81	60
2019	82	59
2020	84	58

- Since the index began in **2006,** the Indian passport has ranked in a band of **71st to 88th**. (The number of passports ranked has, however, varied from year to year.)

- The Indian passport's **2020** ranking of **84th** translates into visa-free access to **58 destinations**, including **33** which give **Indians visas on arrival**.

- It ranked higher in both 2019 (82, with visa-free access to 59 destinations) and 2018 (81, with visa-free access to 60 destinations).

- Twenty of the 58 visa-free access destinations in the 2020 list are in Africa, and 11 each in Asia and the Caribbean.

- **Serbia** is the only **European country** to which Indian passport holders can travel visa-free. There is no major or developed Country to which Indian Passport holders have visa-free access.

Global performance

- The top 10 most powerful passports this year are ranked in this order: **Japan, Singapore, South Korea, Germany, Italy, Finland, Spain, Luxembourg** and **Denmark.**

- **Japan** has been topping the Index for three straight years; according to the 2020 index, its citizens are able to access 191 destinations without having to obtain a visa in advance.

- **Afghanistan** at rank **107** is the weakest.

- **Singapore,** in second place (same as in 2019), has a Visa-free/Visa-on-arrival score of 190.

- **Germany** is No. 3 (same position as in 2019), with access to 189 destinations; it shares this position with South Korea, which dropped from the second place it held a year ago.

- The US and the UK have been falling consistently over successive Indices.

Tuberculosis: India renames its programme; WHO endroses India developed tech-TrueNAt MTB

- Government of India renamed its **National TB Control Programme** to **National Tuberculosis Elimination Programme.**

- Also, the WHO (World Health Organization) recently endorsed on technology developed by Indian scientists to detect the disease called **TrueNat MTB** in terms of accuracy.

Renaming

- GoI has renamed the programme to **National Tuberculosis Elimination Programme**.

- The name change is in line with the goal of India in eliminatinating the disease by **2025**.

- This is five years ahead of the goal of **United Nations Sustainable Development** target.

- This will give big thrust to people working towards elimination of tuberculosis.

- Also, with the WHO stating that TruNat MTB, the molecular test developed by Indian Scientists has greatest accuracy, has increased India's confidence in eliminating the disease as planned

TRueNat MTB

- The TrueNat test a **new molecular test** that can diagnose Tuberculosis in **one hour.**

- The test uses **polymerase chain reaction** to detect bacteria. The device that conducts the test is battery operated.

- India's plans The TrueNat MTB kit is to be available at **community health centres** as a first step. Slowly, it is to be extended to the primary health centres as well.

- There are around **5,500 to 6,000 primary health centres** in the country.

Leprosy and Polio

- Previously renaming was also done for leprosy and polio programmes.

- In **1983**, **National Control Programme** was renamed to **National Leprosy Eradication Programme**. Also, in case of **Polio, National Programme for Control of Polio myelitis** was renamed to **Polio eradication Programme.**

National Immunization Day

- The National immunization day was observed on **Jan 19th 2020**. With an aim to maintain the **'NO POLIO'** status, a nationwide programme to administer polio drops to children below 5 years was organized throughout the Country.

- President launched the **Pulse Polio Programme** for this year by administering Polio drops to children below the age of five at Rashtrapati Bhavan

- Around 82,000 children were administered polio drops through 452 centres throughout the union territory.

National road safety week

- **Union Ministry of Road Transport and Highways** along with **National Safety Council of India (NSC)** observed the **31st National Road Safety Week** from 11th January to 17th January 2020 for generating awareness about safe road usage.

- The theme of this year was **"Bringing Change Through Youth".**

National Safety Council of India (NSC):

- National Safety Council (NSC) was set up by the **Ministry of Labour, Government of India (GOI) in 1966** to generate, develop and sustain a voluntary movement on Safety, Health and Environment (SHE) at the national level.

- It is an apex non-profit making, autonomous body, registered under the **Societies Registration Act 1860** and the **Bombay Public Trust Act 1950.**

- It is managed by a tripartite 51-member Board of Governors headed by the Chairman, nominated by the Government of India.

- **Head Quarters:** Mumbai.

Ramnath Goenka Excellence in Journalism Awards

- The awards aim to celebrate **excellence in journalism, recognise courage** and **commitment** and **showcase** the outstanding contributions of journalists from across the country.
- The Awards honour journalists from **print, broadcast and digital media**.
- Named after **Ramnath Goenka**, the awards have been held annually since 2006.
- **Ramnath Goenka (**1904–1991) was an **Indian newspaper publisher**.
- He launched The **Indian Express Newspaper** in **1932.**

Government announces 141 Padma Awards for this year on occasion of 71st Republic Day

- The government has announced 141 Padma Awards for this year on the occasion of 71st Republic Day. The list comprises of 7 Padma Vibhushan, 16 Padma Bhusan and 118 Padma Shri awards. 34 awardees are women and 18 foreigners. 12 persons are awarded posthumously.
- Former Union Ministers George Fernandes, Sushma Swaraj and Arun Jaitley will be awarded Padma Vibhushan posthumously.
- Pejavara Math Seer late Vishveshateertha Swamiji will be awarded Padma Vibhushan posthumously. Former Prime Minister of Mauritius Anerood Jugnauth, Hindustani classical vocalist Chhannulal Mishra and Boxer MC Mary Kom will also get Padma Vibhushan.
- Former Chief Minister of Goa Manohar Parrikar and Legal luminary and educator NR Madhava Menon to be conferred Padma Bhushan posthumously.
- Eminent Writer Manoj Das, Shuttler PV Sindhu, industrialist Anand Mahindra will get Padma Bhushan.
- Footballer Oinem Bembem Devi, Film Director Karan Johar, Actress Kangna Ranaut will get Padma Shri.
- Several unsung heroes like Jagdish Lal Ahuja, Javed Ahmad Tak, Tulasi Gowda, Mohammed Sharif, Satyanayana Mundayoor, S Ramakrishna and Yogi Aeron have been selected for Padma Shri.

2020 as Year of the Nurse and Midwife: WHO

- The **World Health Organisation (WHO)** has designated the year 2020 as the **"Year of the Nurse and midwife"**, in honour of the 200th birth anniversary of **Florence Nightingale.**
- The declaration of **"Year of the Nurse and midwife"** will help to strengthen nursing and midwifery for Universal Health Coverage.
  - ➢ Strengthening nursing will help to achieve **Sustainable Development Goals**, in particular the **(SDG) 3 - ensure healthy lives and promote wellbeing for all at all ages, SDG 5- promoting gender equity and SDG 8- contributing to economic development.**
  - ➢ Nurses and midwives constitute more than 50% of the health workforce in many countries.

- The declaration will also help to endorse "**The Nursing Now!"** a three-year campaign (2018-2020) to improve health globally by raising the status of nursing.
- Moreover, WHO is also leading the development of the **first-ever State of the World's Nursing report** which will be launched in 2020.

Florence Nightingale

- Florence Nightingale was a **British Nurse, Statistician, and Social Reformer** who is also considered as a foundational philosopher of modern nursing.
- She was born in Florence, Italy, on May 12, 1820. The year 2020 marks a bicentenary year of her birth.
- During the Crimean War, she and a team of nurses improved the unsanitary conditions at a British base hospital, greatly reducing the death count. Her writings sparked worldwide health care reform.
- She was known for her night rounds to aid the wounded, establishing her image as the **'Lady with the Lamp'.**

Swarna Jayanti Fellowships awarded

- Swarna Jayanti Fellowships have been awarded to 14 Scientists associated with projects containing innovative research idea and with the potential of making an impact on R&D in the respective disciplines.
- The Swarna Jayanti Fellowships scheme was instituted by Government of India to commemorate India's fifteenth year of independence.

Krishi Karman Awards

- PM distributed Krishi Karman Awards and Commendation Awards to states at a public meeting in **Tumkur Karnataka** .
- He also gave away Agriculture Minister's Krishi Karman Awards for Progressive Farmers.

Muppavarapu Awards

- The first recipients of "**Muppavarapu Venkaiah Naidu National Award for Excellence**" and "**Muppavarapu National Award for Social Service''** were announced
- **Recipients:**
  - ➢ Dr M S Swaminathan
  - ➢ Gutta Muniratnam
- **Awarded by:** The award is instituted by **Muppavarapu Foundation** (for National Award for Excellence) & **Swarna Bharat Trust** (for Social Service).
- **Location:** The awards will be given in an event which held Hyderabad.
- **Award consist**: The award was carrying; **Cash prize** of Rupees Five Lakh & **Citation**

Dr M S Swaminathan:

- Eminent Agricultural Scientist Dr M S Swaminathan was awarded with "Muppavarapu Venkaiah Naidu National Award for Excellence" for his distinguished contributions to the field of agriculture.

- He is widely referred to as the **scientific leader** of the **green revolution movement**.

Dr G Muniratnam:

- Dr G Muniratnam was awarded with "Muppavarapu National Award for Social Service" for his extraordinary contribution in improving quality of people's lives through social service.

- He dedicated his life to the cause of **transforming rural India** by **empowering people**.

Sahitya Akademi Award:

- Sahitya Akademi award is a **literary honour** that is conferred annually by Sahitya Akademi, **India's National Academy of letters**.

- Award is presented to the most outstanding books of **literary** merit published in any of the **twenty-four major Indian languages** recognized by the Akademi (including English).

- Sahitya Akademi award is the **second highest literary honour** by the Government of India, after **Jananpith award**.

Kiran Mazumdar Shaw fourth Indian to receive highest Australian civilian honour

- **Australia** has conferred its highest civilian honour, the Order of Australia honour, on **Biocon founder Kiran Mazumdar-Shaw** for her contribution towards advancing the country's relationship with India.

- **Australia's High Commissioner to India Harinder Sidhu** invested Mazumdar Shaw as an Honorary Member within the **Order of Australia (AM)** in the General Division at a ceremony in **Bengaluru.**

- An alumnus of Federation University Australia, Mazumdar Shaw is the founder of Biocon, one of India's largest bio-pharmaceutical companies.

Venus Williams pulls out of Brisbane Tennis International

- **Venus Williams** pulled out of the season-opening Brisbane Tennis International today after a setback during practice.

- The American veteran said she still hoped to play at the **Adelaide International** later this month ahead of the Australian Open, the first Grand Slam of the year.

- The tournament, featuring a strong field including world number one **Ashleigh Barty and Australian Open champion Naomi Osaka.**

Manav Thakkar becomes world no.1 in latest International Table Tennis Federation rankings

- Young Indian paddler **Manav Thakkar** became **world no.1** in the latest International Table Tennis Federation (ITTF) rankings in the Under-21 men's singles category.

- With this, Thakkar became the fourth Indian to achieve the feat after **Harmeet Desai, G Sathiyan and Soumyajit Ghosh.**

- Among other Indians, G. Sathiyan has managed to retain his 30th spot in the senior category.

- Achanta Sharath Kamal has climbed a spot to 33rd position.

- Top woman paddler, Manika Batra was static at the 61st position.

- The 19-year-old Manav Thakkar achieved the top spot after clinching the Under-21 men's singles title at the ITTF Challenge Plus Benemax-Virgo North American Open in Markham, Canada in December last year.

- Thakkar was also world no. 1 in the **Under-18 category** in 2018. He was part of the Indian men's team which won a bronze medal in the 2018 **Asian Games in Jakarta.**

Cristiano Ronaldo bagged best men's player title

- Cristiano Ronaldo was named the year's best men's player at the **Dubai Globe Soccer Awards.**

- Ronaldo has now earned the title for the **sixth time** of its nine years of existence.

- The **'best agent'** award was won by **Ronaldo's agent, Jorge Mendes**.

- England International **Lucy Bronze** was crowned the year's **best female player**.

Wrestling: India bags 7 medals in Rome Ranking Series

- In wrestling, **India** has returned with seven medals from the **Rome Ranking Series. Bajrang Punia** and **Ravi Kumar Dahiya** claimed gold medals in the tournament.

- The 25-year-old Bajrang staged a comeback to secure a 4-3 win against **USA's Jordan Michael Oliver** in the summit showdown of the **65kg freestyle category.**

- The 23-year-old Ravi bagged the gold after defeating **Kazakhstan's Nurbolat Abdualiyev** 12-2 in his final **61 kg category bout.**

Vinesh Phogat wins gold medal in Rome Ranking Series

- A dominant **Vinesh Phogat** won her first gold medal of the **2020** season at the **Rome Ranking Series** event after teen sensation **Anshu Malik** settled for silver in **57kg competition**, in Rome

- Vinesh downed two tough Chinese rivals on her way to the 53kg gold medal bout in which she overpowered **Ecuador's Luisa Elizabeth Valverde** 4-0. She won by technical superiority against KhrystynaBereza (10-0) and LannuanLuo (15-5) before getting the better of Qianyu Pang (4-2).