Current Affairs
(CONSOLIDATION)

JANUARY 2020
(PART – I)

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SC's Verdict on Curbs Imposed in J&K

Why in News

The Supreme Court has recently given its ruling on the Kashmir lockdown and communications shutdown cases.

➤ The cases were also related to the impact of the prohibitory orders issued under Section 144 of the **Code of Criminal Procedure (CrPC)** on press freedom.

➤ Internet access was snapped after **Jammu and Kashmir's special status was revoked** and the state bifurcated into two union territories, Jammu and Kashmir, and Ladakh.

Key Points

➤ **Ruling on Suspension of Internet**

○ Suspending Internet services indefinitely is impermissible under the **Temporary Suspension of Telecom Services [Public Emergency or Public Service] Rules, 2017**.

○ The court held that suspension could be done for temporary duration only and the same is subject to judicial review.

○ A "complete and broad" suspension of telecom and Internet services should be only increased as a drastic measure in an "unavoidable" situation.

○ The Court has thus asked the government to review within seven days all orders directing suspension of internet services.

➤ **Upheld Fundamental Rights**

○ The **freedom of free speech and expression on the Internet is a fundamental right under Article 19(1)(a) of the Constitution**. The State cannot cite the extensive reach and impact of the Internet as a medium in order to restrict this right.

○ **Trade, occupation or commerce dependent on the Internet is a fundamental right under Article 19(1)(g).**

○ Restriction upon such fundamental rights should be in consonance with the mandate under **Article 19(2)** and **(6)** of the Constitution, inclusive of the test of proportionality.

> **Note:**
> The **Doctrine of Proportionality** postulates that the nature and extent of the State's interference with the exercise of a right must be proportionate to the goal it seeks to achieve.

- ➤ Ruling on Section 144
    - ○ The Court held that the **repetitive orders** under Section 144 CrPC as an **abuse of power**.
    - ○ The Court said that power under the Section 144 is exercisable not **only where there exists present danger, but also when there is an apprehension of danger**. However, the danger contemplated should be in the nature of **an 'emergency'** and for the purpose of preventing obstruction and annoyance or injury to any person lawfully employed".
    - ○ The government **cannot recourse to blanket use of the power under Section 144 CrPC (for issuing restrictions)** as a tool to prevent the legitimate expression of opinion or grievance or exercise of any fundamental rights. There is a need to find a balance regarding security and liberty of people.
    - ○ The Court has thus asked the authorities to review forthwith the need for continuance of any such order.

Temporary Suspension of Telecom Services [Public Emergency or Public Service] Rules, 2017

- ➤ These are the rules to be followed if the government intends to temporarily suspend telecom services in any part of the country.
- ➤ According to these rules, only the Home Secretary of the country and a secretary of a state's home department can pass such an order.
- ➤ These also state that any such order should be taken up by a review committee within five days.
- ➤ These rules have been framed by the government on the basis of the powers conferred by **section 7 of the Indian Telegraph Act, 1885**.

Relevant Provisions of Article 19

- ➤ **Article 19(1)(a)** states that all citizens shall have the right to freedom of speech and expression.
- ➤ **Article 19(1)(g)** states that all citizens shall have the right to practise any profession, or to carry on any occupation, trade or business.
- ➤ **Article 19 (2)** states that the State can impose reasonable restrictions on the exercise of the right to freedom of speech and expression in the interests of the:
    - ○ Sovereignty and integrity of India,
    - ○ Security of the State,
    - ○ Friendly relations with foreign States,
    - ○ Public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence.
- ➤ Under **Article 19(6)**, the State can impose reasonable restrictions on the exercise of the right provided under Article 19(1)(g) in the interest of the general public.

Section 144 of the Code of Criminal Procedure

- ➤ Section 144 of CrPC, empowers a district magistrate, a sub-divisional magistrate or any other executive magistrate to issue orders on state's behalf to prevent and address urgent cases of apprehended danger or nuisance.
- ➤ **Powers**
    - ○ The magistrate can direct any person to abstain from a certain act or to take a certain order with respect to certain property in his possession or under his management.
    - ○ This usually includes restrictions on movement, carrying of arms and on forming an assembly unlawfully. It is generally believed that assembly of three or more people is prohibited under Section 144.
- ➤ Section 144, CrPC has often been used to clamp down on telecommunication services and order Internet shutdowns.

Swachh Survekshan 2020

Why in News

The Ministry of Housing and Urban Affairs (MoHUA) has announced the results of the first (April-June) and second (July- September) quarters of **Swachh Survekshan 2020**.

- ➤ Swachh Survekshan 2020 is the 5th edition of the **annual urban cleanliness survey** conducted by the Ministry.

Format/Method of Assessment

- ➤ Swachh Survekshan 2020 is evaluated for each quarter on the basis of monthly updation of Swachh Bharat Mission-Urban (SBM-U) online Management Information System (MIS) by cities along with citizen's validation on the 12 service level progress indicators.

Note:

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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.*

➢ Swachh Survekshan 2020 has been conducted in 3 quarters:
  - ❍ April – June, 2019
  - ❍ July – September, 2019
  - ❍ October – December, 2019
➢ These quarterly assessments **will hold 25% weightage** in the annual survey which is scheduled to **commence from 4th January 2020 across India**.
➢ Ranks for Swachh Survekshan 2020 have been assigned into **two categories** based on the **population of cities**, which are as follows:
  - ❍ **1 lakh and above with subcategories of:**
    - ● 1 lakh to10 lakh,
    - ● 10 lakhs and above.
  - ❍ **Less than 1 lakh** (under this category, the rankings are given zone and population-wise).
    - ● It includes five zones namely, North, East, Northeast, South and West.

Key Points

➢ **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 one whereas **Delhi Cantt ranked 1st in quarter two**.
  - ❍ Secunderabad Cantonment Board in Hyderabad is the worst performer.

SC Bats Against the Transfer of Community Resources

Why in News

Recently, the **Supreme Court of India** held that the Government has **no right to transfer "invaluable" community resources** like village water ponds to a few powerful people and industrialists for commercialisation of the property.

➢ It is necessary to **protect village commons** for safeguarding the fundamental right guaranteed by **Article 21 of Constitution**. These common areas like water ponds and wells are the lifeline of village communities and often sustain various chores and provide the resources necessary for life.
  - ❍ **Community Resources:** Resources which are available for everyone's use in a community, village or town are called community resources. For example- ponds, playgrounds, public parks etc.
  - ❍ **Article 21:** Protection of life and personal liberty. No person shall be deprived of his life or personal liberty except according to the procedure established by law.
  - ❍ It is fundamental, non-derogable and is available to every person. Even the State cannot violate that right.

Key Points

➢ Earlier, the **National Green Tribunal (NGT)** refused to intervene on a plea against the transfer of village ponds'. The apex court ordered the authorities and the industrialists to remove all obstructions and restore the water bodies within three months.
➢ SC said the State can not deprive the villagers of their existing source of water and other community resources even after the promise of providing them with an alternative source. There is no guarantee that the adverse effect of destroying the existing water body would be offset and people would be compelled to travel miles to access the alternative site.

Saansad Adarsh Gram Yojana

Why in News

According to the **Ministry of Rural Development**, only 252 Members of Parliament (MPs) have adopted

gram panchayats under phase-4 of **Saansad Adarsh Gram Yojana (SAGY)**.

Saansad Adarsh Gram Yojana

➤ The scheme was launched by the Prime Minister of India on **11th October 2014** on the **birth anniversary of Jai Prakash Narayan**.

➤ **Goal**

○ MPs are responsible for developing the socio-economic and physical infrastructure of **three villages each by 2019** and a total of **eight villages each by 2024**.

○ The first Adarsh Gram (Model Village) was to be developed by 2016, and two more by 2019.

○ From 2019 to 2024, five more Adarsh Grams must be developed by each MP, one each year. This implies that a total of 6,433 Adarsh Grams, of the 2,65,000 gram panchayats, will be created by 2024.

➤ **Process**

○ The **basic unit** for development is **'Gram Panchayat'**.

○ **Lok Sabha MP:** Chooses a Gram Panchayat from within his/her constituency. Rajya Sabha MP: chooses Gram Panchayat from the rural area of a district of his/her choice in the State from which he/she is elected.

○ **Nominated MP:** Chooses a Gram Panchayat from the rural area of any district in the country.

➤ **Action Taken**

○ The MPs engage with the community, facilitate the Village Development Plan and mobilise the necessary resources particularly from **Corporate Social Responsibility (CSR) and philanthropies**.

○ MPs also fill up critical gaps in the plan using the **Member of Parliament Local Area Development Scheme (MPLADs)** funds.

➤ At present, the **total strength** of both Houses is **about 790** which includes elected as well as nominated members.

Analysis

➤ Till now, only 1,753 gram panchayats have been selected across four phases, way below the expected figure.

➤ In Phase-1 of SAGY, 703 MPs adopted gram panchayats but that number went down to 497 in Phase-2 and 301 in Phase-3, showing a gradual decline in subsequent phases.

➤ **Specific To Lok Sabha:** About two-thirds of Lok Sabha MPs are yet to select gram panchayats under Phase-4 of the scheme.

Way Forward

➤ The vision behind the evolution of SAGY villages was to create model villages by ensuring convergence and dovetailing of schemes and its proper implementation on a priority basis. However, the seriousness required to achieve the motto is lacking. MPs need to be more responsible for the scheme.

➤ Ministry of Rural Development should ensure that the SAGY villages are dealt with the vision envisaged under the scheme and are not left behind.

Jai Prakash Narayan

➤ He was born on 11th October 1902 in Uttar Pradesh. He was an Indian political leader and theorist.

➤ He is popularly known as **Lok Nayak**.

➤ Narayan got educated in the universities of the US, where he inclined towards Marxism. **He joined the Indian National Congress in 1929 after returning from the US.**

➤ He was imprisoned in 1932 for his participation in the **Civil Disobedience Movement**. He took a leading part in the formation of the **Congress Socialist Party**, a (left-wing group within the Congress).

➤ In **1952**, he formed the **Praja Socialist Party**.

➤ In **1954**, he decided to devote his life to the **Bhoodan Yajna Movement**, founded by **Vinoba Bhave**, which demanded that land should be distributed among the landless.

➤ In **1974**, the students of Gujarat requested him to lead the **Nava Nirman Andolan**. The same year in June, he gave a call for peaceful **"total revolution"** wherein he exhorted the students to rise against corrupt political institutions and asked for a closure of colleges and universities. During this time, he was popularly called **"JP"**.

➤ This movement culminated in the **proclamation of Emergency** and subsequently in the victory of the **"Janata Party"** which formed the **first-ever non-Congress government** in the **Centre in March 1977**.

➢ He has the credit of bringing all the Non-Congress Parties under a single umbrella of **Janata Party**.

➢ As a tribute to this modern revolutionary, the Government of India posthumously awarded him **Bharat Ratna**, the highest civilian award of the **country, in 1999**.

States' Prerogative to Provide 10% Reservation

Why in News

Recently, the Centre informed the **Supreme Court** that it would be the States' prerogative to provide **10% economic reservation** in government jobs and admission to educational institutions.

➢ The State governments concerned are to decide whether or not to provide reservation to the **Economically Weaker Section (EWS)** in appointment to State government jobs and admission to State government educational institutions, as per provisions of the newly inserted **Articles 15(6) and 16(6) by the Constitution 103rd Amendment Act, 2019**.

Constitution (103rd Amendment) Act, 2019

➢ It introduced **economic reservation by amending Articles 15 and 16**. It inserted **Article 15 (6) and Article 16 (6)** in the Constitution to allow reservation for the economically backward in the unreserved category.

➢ It was enacted to promote the welfare of the poor not covered by the 50% reservation policy for SCs, STs and Socially and Educationally Backward Classes (SEBC).

➢ It enables both Centre and the states to provide reservation to the EWS of society.

➢ Since this is a **central law on subjects (employment, education) in the concurrent list (subjects on which states and the central government both have jurisdiction),** the state governments need to ratify it before adopting it locally.

Key Points

➢ This comes as a response to a **Public Interest Litigation (PIL)** that seeks the Supreme Court's intervention to **implement the 10% EWS quota in Tamil Nadu and Karnataka** without disrupting the **existing reservation framework**, which covers the Scheduled Castes (SC), Scheduled Tribes (ST), Backward Classes (BC) and Most Backward Classes (MBC).

➢ The 10% reservation prescribed by the Amendment Act is **in addition to the existing reservation**. It nowhere affects or infringes anybody's fundamental rights to equality instead gives rights of equal participation and representation to the EWS.

➢ Centre informed the Supreme Court that it has **no role in deciding the reservation policy of any state government**. The concerned state governments have to decide the reservation under Articles 15(6) and 16(6).

25th Western Zonal Council Meeting

Why in News

The **25th meeting of the western zonal council** will be held in **January 2020**, under the **chairmanship** of **Union Home Minister**.

➢ **Maharashtra** will be the **lead coordinator** this time with the **Chief Minister** of the state **co-chairing** the meeting.

➢ It will present a roadmap for womens' safety of women online and ways to curb cyberbullying.

➢ The **24th meeting** of the council was held in **Goa** in **August 2019**.

Zonal Councils

➢ The Zonal Councils are the **statutory (and not the constitutional) bodies**. They were established by the **States Reorganisation Act of 1956**.

➢ The act divided the country into **five zones- Northern, Central, Eastern, Western** and **Southern** and provided a zonal council for each zone.

  ○ The **Western Zonal Council**, comprises the States of Goa, Gujarat, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli.

➢ Each zonal council consists of the **following members**:

  ○ **Chairman:** Home Minister of Central government.

  ○ **Vice Chairman:** The Chief Ministers of the States included in each zone acts as Vice Chairman of the council for that zone by rotation, each holding office for a period of one year at a time.

Note:

○ **Two other ministers** from each state in the zone.

○ **Administrator** of each union territory in the zone.

➢ The Zonal Councils **function under the aegis of the Ministry of Home Affairs' Inter-State Council Secretariat**.

➢ In addition to the above mentioned Zonal Councils, a **North-Eastern Council** was created by a separate Act of Parliament, **the North-Eastern Council Act of 1971**.

○ It includes Assam, Manipur, Mizoram, Arunachal Pradesh, Nagaland, Meghalaya, Tripura and Sikkim.

➢ These are **advisory bodies** that make recommendations with regard to any matter of common interest in the field of economic and social planning between the Centre and States, border disputes, linguistic minorities, inter-State transport or matters connected with the reorganisation of States.

Republic Day Tableaux

Why in News

The **government has selected 22 tableaux proposals** — 6 by central government departments and ministries and 16 by states and Union Territories (UTs) — **for the Republic Day parade in 2020**.

➢ A total of 32 proposals from the states & UTs and 24 from various ministries and departments were sent for the parade this year.

Selection Process of Tableaux

➢ The **Ministry of Defence carries out the selection process** of tableaux for the Republic day parade.

➢ The Ministry **sets up an expert committee** with distinguished people from various fields of arts to shortlist the tableaux proposals received from various states and organizations.

○ The expert committee consists of prominent persons in the field of art, culture, painting, sculpture, music, architecture, choreography, etc.

○ In order for all states to get representation, states are given representation on a rotational basis.

➢ It needs to be noted that writing or use of logos on tableaux is not allowed except the name of states or Union Territories that are presenting it on the day of the parade. There is also a pattern to where the names of the states should be written — in Hindi in the front, in English on the back and in regional language on both sides of the tableau.

Republic Day

➢ **Republic Day** is celebrated as the day when **India acquired a written Constitution** and became an independent republic.

○ The term **'Republic'** indicates that India has an elected head, called the President.

➢ The **Constitution of India** was **adopted** by the Constituent Assembly on **26th November, 1949** and came **into effect** on **26th January, 1950**.

○ **26th November** is observed as the **Constitution Day**.

➢ 26th January was chosen to be observed as the Republic Day because it was on this day in 1930 when the **Indian National Congress (INC)** declared **Purna Swaraj or Indian independence** from the British regime.

○ During **INC's Lahore session of December 1929,** Purna Swaraj resolution was passed. The session was **presided by Jawaharlal Nehru**.

➢ The **chief guest of 2020 Republic Day** parade will be **Brazilian President Jair Bolsonaro**.

SC Judgement on Prohibition of Child Marriage Act, 2006

Why in News

The Supreme Court in a recent judgement has held that the **Prohibition of Child Marriage Act, 2006** does not intend to punish a male aged between 18 and 21 years for marrying a "female adult".

➢ The case concerned a boy who married a 21-year-old woman when he was 17 years old.

Key Points

➢ The Court interpreted **Section 9 of the Act** and ruled that the provision does not punish a male child for marrying a woman and vice versa.

○ A female adult marrying a male child does not get punished because in Indian society, decisions regarding marriage are usually taken by the family members of the bride and groom, and women generally have little say in the matter.

- The **sole objective** of the provision is to **punish a man who marries a minor girl**.
- SC also said that the 2006 Act gives an option to prospective grooms, who are between 18 and 21 years old, to opt out of marriages.

The Prohibition of Child Marriage Act, 2006

- The law **seeks to prevent child marriages** by making certain actions punishable and by appointing certain authorities responsible for the prevention and prohibition of child marriages.
- **Definitions under the Act**
    - **"Child"** means a person who, if a male, has not completed twenty-one years of age, and if a female, has not completed eighteen years of age.
    - **"Child marriage"** means a marriage to which either of the contracting parties is a child.
    - **"Minor"** means a person who has not attained his/her majority under the provisions of the Majority Act, 1875. According to it, every person domiciled in India attains majority on completing the age of eighteen years.
- Child marriage is an offence **punishable with rigorous imprisonment**, which may extend up to 2 years, or with fine up to Rs.1 Lakh, or both. The **offences** under the Act are **cognisable** and **non-bailable**.

Cognisable Offences

- In cognisable offences, an officer can **take cognisance of and arrest a suspect without seeking a court's warrant** to do so, if she has "reason to believe" that the person has committed the offence and is satisfied that the arrest is necessary on certain enumerated bases.
- Within 24 hours of the arrest, the officer must have the detention ratified by a judicial magistrate.
- According to the **177th Law Commission Report,** cognisable offences are those that require an immediate arrest.
- Cognisable offences are generally heinous or serious in nature such as murder, rape, kidnapping, theft, dowry death etc.
- The **First Information Report (FIR) is registered only in cognisable crimes**.

- **Persons who can be punished under the Law include**
    - Whoever performs, conducts or directs or abets any child marriage.
    - A male adult (above 18 years) marrying a female child (Section 9).
    - Any person having charge of the child, including – parent or guardian, any member of an organisation or association, promoting, permitting, participating in a child marriage.

5 Years of UJALA and SLNP

Why in News

The Union government's **Unnat Jyoti by Affordable LEDs for All (UJALA)** and **LED Street Lighting National Programme (SLNP)**, marked their fifth anniversary on 5th January 2020.

- Both schemes have been spearheaded and implemented by **Energy Efficiency Services Limited (EESL)**, a **joint venture of Public Sector Undertakings (PSUs) under the Ministry of Power,** Government of India.

Energy Efficiency Services Limited

- EESL is a **joint venture** of **four national PSUs** under the Ministry of Power:
    - NTPC Limited,
    - Power Finance Corporation Limited,
    - Rural Electrification Corporation Limited and
    - POWERGRID Corporation of India Limited.
- It was founded in the year **2009 by the Government of India**.

Key Points

Unnat Jyoti by Affordable LEDs for All

- **About**
    - It was launched in **2015** with a target of replacing incandescent lamps with LED bulbs and to nullify the high-cost of LEDs.
    - The objective is to promote efficient lighting, enhance awareness on using efficient equipment that will reduce electricity bills and preserve the environment.
    - It is the **world's largest domestic lighting project**.
- **Achievements**
    - Through the UJALA initiative, over 36.13 crore LED bulbs have been distributed across India which has resulted in estimated **energy savings** of 46.92 billion

Note:

kWh per year, **avoiding peak demand** of 9,394 MW, and an estimated greenhouse gas **(GHG) emission reduction** of 38 million tons of CO_2 annually.

○ The **reduced electricity bills** add to a household's disposable income and lifetime savings, thus improving the quality of life, generating prosperity in local communities and in expanding energy access to all.

○ Apart from this, the Government of India initiated the Gram Swaraj Abhiyan (GSA) in **2018**, which was aimed at the **promotion of social harmony by appraising rural communities of various government welfare schemes and initiatives**. As a part of it, villages with poor households were able to buy LED bulbs for a special price under UJALA programme.

Gram Swaraj Abhiyan
➢ It was launched under the **Ministry of Rural Development in April 2018**.
➢ It aims to promote social harmony, spread awareness about pro-poor initiatives of government and also to obtain their feedback on various welfare programmes.
➢ During this campaign, saturation of eligible households/persons in identified villages would be made under **seven flagship pro-poor programmes**.
➢ The seven programmes are **Pradhan Mantri Ujjwala Yojana, Saubhagya, Ujala scheme, Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana, Pradhan Mantri Suraksha Bima Yojana and Mission Indradhanush**.

Street Lighting National Programme
➢ **About**
○ It was **launched in 2015** and has been instrumental in replacing over 50 lakh street lights in over 500 cities in India.
○ Under the programme, EESL **replaces the conventional street lights with LEDs at its own costs**, with no upfront investment by the municipalities, thereby making their adoption even more attractive.
○ It is the **world's largest streetlight replacement programme**.
➢ **Achievements**
○ Under the SLNP programme, over 1.03 crore smart LED streetlights have been installed till date, enabling an estimated **energy savings** of 6.97 billion kWh per year with an **avoided peak demand**

of 1,161 MW and an estimated **greenhouse gas (GHG) emission reduction** of 4.80 million tons CO_2 annually.

○ LED streetlights have been installed in various states across the country, helping generate approximately 13,000 jobs to support Make in India **initiative**.

○ It has enabled citizens to **increase productivity at night and made roads safer** for pedestrians and motorists.

○ The power utilities of states **save up to 50% in electricity bills now**.

○ By **March 2020**, SLNP aims to **replace 1.34 crore conventional streetlights** in India with smart LEDs.

State can Regulate Minority Institutions: SC

Why in News

Recently, the Supreme Court held that the **state has the right to introduce a regulatory regime** in the national interest to provide minority educational institutions with well-qualified teachers so that they can achieve excellence in education.

➢ Minority institutions have the fundamental right under **Article 30** of the Constitution **to establish and administer their educational institutions according to their choice**. However, they **cannot ignore the regulations recommended by the state**.

Key Points

➢ The judgment held that the **regulatory law should be a balance of the dual objectives of ensuring the standard of excellence** as well as **preserving the right of minorities to establish and administer** their educational institutions.

➢ For this, the **court broadly divided education into two categories**:
○ Secular education.
○ Education "directly aimed at or dealing with preservation and protection of the heritage, culture, script and special characteristics of a religious or linguistic minority."

➢ When it comes to education related to minorities, the court advocated **"maximum latitude"** to be given to the **management for appointing teachers**.

Note:

drishti

- ❍ Teachers who believe in the religious ideology or in the special characteristics of the concerned minority would alone be able to imbibe in the students admitted in such educational institutions, what the minorities would like to preserve, profess and propagate.
- ❍ However, secular minority institutions should focus on imparting education by availing the best possible teachers.

Article 30 of the Indian Constitution

Right of minorities to establish and administer educational institutions

(a) All minorities shall have the right to establish and administer educational institutions of their choice.

(b) The compensation amount fixed by the State for the compulsory acquisition of any property of a minority educational institution shall not restrict or abrogate the right guaranteed to them. This provision was added by the 44th Amendment Act of 1978 to protect the right of minorities in this regard. The Act deleted the right to property as a Fundamental Right (Article 31).

(c) In granting aid, the State shall not discriminate against any educational institution managed by a minority.

The right under Article 30 also includes the right of a minority to impart education to its children in its own language.

Thus, the protection under Article 30 is confined only to minorities (religious or linguistic) and does not extend to any section of citizens (as under Article 29). However, the term 'minority' has not been defined anywhere in the Constitution.

Tulu Language

Why in News

There has been growing **demand to include Tulu in the Eighth Schedule of the Constitution**. At present, Tulu is not an official language in India or in any other country.

Key Points

➢ **Tulu** is a **Dravidian** language whose speakers are concentrated in the region of Tulu Nadu, which comprises the districts of Dakshina Kannada and Udupi in Karnataka and the northern part of Kasaragod district of Kerala.

➢ **Kasaragod district** is called **'Sapta Bhasha Samgama Bhumi** (the confluence of seven languages)', and Tulu is among the seven.

➢ The **oldest available inscriptions** in Tulu are from the period **between 14th to 15th century AD**.

Eighth Schedule of the Constitution

➢ It enlists **22 languages** recognised by the Constitution of India.

➢ Languages included are: Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.

Case for Inclusion in the Eighth Schedule

➢ **Global Efforts**

- ❍ The **Yuelu Proclamation** made by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** at Changsha, China, in 2018 plays a central role in guiding the efforts of countries and regions around the world to protect linguistic resources and diversity.
- ❍ The United Nations General Assembly has proclaimed **2019 as the International Year of Indigenous Languages (IYIL)**. The IYIL 2019 strives to preserve, support and promote indigenous languages at the national, regional and international levels.

➢ **Constitutional Safeguard: Article 29** of the Indian Constitution deals with the **"Protection of interests of minorities"**. It states that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.

➢ **Number of Speakers:** According to **Census-2011**, there are more than **18 lakh native speakers of Tulu in India**. The Tulu-speaking people are larger in number than speakers of Manipuri and Sanskrit, which have the Eighth Schedule status.

➢ **Literary Recognition:** Robert Caldwell (1814-1891), in his book, "A Comparative Grammar of the Dravidian or South-Indian Family of Languages", called Tulu as "one of the most highly developed languages of the Dravidian family".

Yuelu Proclamation

➢ Yuelu Proclamation was **adopted at the first international conference on language resources protection** in Changsha, Central China's Hunan province in 2018 by UNESCO. It is a document on protection and promotion of the world's linguistic diversity.

Advantages of Recognition in Eighth Schedule

➢ If included in the Eighth Schedule, Tulu would get the following benefits:
   ○ Recognition from the Sahitya Akademi.
   ○ Translation of Tulu literary works into other languages.
   ○ Members of Parliament (MP) and Member of the Legislative Assembly (MLA) could speak Tulu in Parliament and State Assemblies, respectively.
   ○ Option to take competitive exams in Tulu including all-India competitive examinations like the Civil Services exam.
   ○ Special funds from the Central government.
   ○ Teaching of Tulu in primary and high school.

Way Forward

➢ India has a lot to learn from the Yuelu Proclamation. Placing of all the deserving languages on equal footing will promote social inclusion and national solidarity.

➢ It will reduce inequalities within the country to a great extent. So, Tulu, along with other deserving languages, should be included in the Eighth Schedule of the Constitution in order to substantially materialise the promise of equality of status and opportunity mentioned in the Preamble.

Revised Norms for Data-led Probes

Why in News

The **Ministry of Home Affairs** has issued revised guidelines to streamline the process of **seeking legal assistance from foreign countries in criminal matters**. The revised guidelines will direct how data requests are processed in any criminal investigations.

➢ The revised guidelines also include the process for issuing directives on drafting and processing letters of request, mutual legal assistance requests and service of summons, notices and other judicial documents.

➢ Most intermediaries and social media platforms such as Facebook, WhatsApp, Google, Yahoo!, Twitter and YouTube have their servers outside India. Thus Indian investigation agencies need to follow a particular procedure to access the data from these platforms.

➢ The revised norms have come in the backdrop of recently tabled Personal Data Protection Bill, 2019 in the parliament.

Key Points

➢ **Criteria to seek information from foreign countries:**
   ○ Before seeking information about a person's email account hosted on servers in foreign countries, investigating agencies will have to establish that it is linked to a crime.

➢ **Data Preservation:**
   ○ Accessing the internet through an Internet Service Provider (ISP) creates important records and other information such as customer records, connection information and stored data.
   ○ These are very important evidences to prove the guilty intention of the accused.
   ○ Since this type of evidence can disappear quickly, it is important to get the data preserved through appropriate channels.

➢ **Place for Data Preservation:**
   ○ The **G-8 24/7 Network** allows law enforcement agencies to make urgent preservation requests of the digital data before it perishes.
   ○ The request for data may be sent to the service provider or to the **Central Bureau of Investigation (CBI)** — the contact point for India with respect to G-8 24/7 Network.

➢ **Time Period:**
   ○ The requested country has to be informed about the time period for which the data is required.
   ○ Such period shall be consented by the requested country.
   ○ The transferred data shall be kept for no longer than the period required for the purpose for which it has been received and shall be returned to the requested country or deleted at the end of the period specified.

Note:

G-8 24/7 Network

➢ The G8 24/7 provides for investigations involving electronic evidence that require urgent assistance from foreign law enforcement.

➢ Therefore, to enhance and supplement (but not replace) traditional methods of obtaining assistance, the G8 has created the network.

➢ It is a new mechanism to expedite contacts between the Participating States or other autonomous law enforcement jurisdictions of a State.

➢ It is a point to point network for urgent assistance in cybercrime matters.

G7

➢ The Group of Seven (G7) is a forum of the world's seven largest developed economies whose government leaders meet annually to discuss international economic and monetary issues.

➢ The G-7 has its roots in an informal meeting of the finance ministers of France, West Germany, the U.S, Great Britain, and Japan (the Group of Five) in the wake of the 1973 oil crisis.

➢ The 45th G7 summit was hosted by France from August 24-26, 2019, in Biarritz in Nouvelle-Aquitaine, France.

➢ The G7 members are recognized as the seven wealthiest and most advanced nations in the world. The members are:

- ○ France
- ○ Germany
- ○ The United Kingdom
- ○ Italy
- ○ The United States of America
- ○ Canada
- ○ Japan

➢ The European Union is sometimes considered an eighth member of the G7 since it holds all the rights and responsibilities of full members except for chairing or hosting the meeting.

➢ In 1998, after requests from leaders including U.S. President, Russia was added to the G7 group as a full-time member, creating a formal G8. However, in 2014, Russia was suspended from the group after the annexation of Crimea and tensions in Ukraine.

Plea on Scheduled Caste Status to be Religion Neutral

Why in News

The Supreme Court will examine a plea that Dalit Christians or Christians of Schedule Caste origin should enjoy the same quota benefits reserved for Scheduled Castes.

- ○ The plea also requests that reservation for government jobs and admissions in educational institutions should be made **"religion-neutral"**.
- ○ **Paragraph 3 of the Constitution (Scheduled Castes) Order, 1950** restricts Christians of Scheduled Castes origin from availing the Scheduled Castes status.
  - It states that no **person who professes a religion different from Hinduism** shall be deemed to be a member of a Scheduled Caste.

Arguments in favour of the reservation to be religion-neutral

➢ The change in religion does not change social exclusion.

➢ The social hierarchy and specifically caste hierarchy continues to remain within Christianity and Muslims even though the religions forbid it.

➢ Considering the above scenario, the reservation needs to be delinked from religion.

Annual Crime in India Report 2018

Why in News

The National Crime Records Bureau (NCRB) published the **annual Crime in India Report 2018**. It shows the **crime statistics in the country** between 2017 and 2018.

➢ NCRB has also released **Accidental Death and Suicides in India 2018 report** which outlines death and suicide statistics of the country.

Key Points

➢ The report shows an **increase of 1.3% in the registration of cases**.

➢ The **crime rate per lakh population has come down** from 388.6 in 2017 to 383.5 in 2018.

Note:

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- **Crimes Against Women:** A rise has been observed in 2018 compared to 2017.
  - ○ **Uttar Pradesh topped** the list followed by **Maharashtra and West Bengal**.
  - ○ **Delhi tops** the list among the **metropolitan cities**.
  - ○ Cruelty by husband or his relatives (31.9%) followed by an assault on women with intent to outrage her modesty (27.6%) constituted the major share of crimes against women.
- **Suicides:** The total number of people who committed suicide in 2018 has **increased** from 2017.
  - ○ The **highest** number of suicide victims were **daily wage earners** comprising **22.4%** of such deaths.
  - ○ **Maximum** of the suicides were reported from **Maharashtra** followed by Tamil Nadu, West Bengal, Madhya Pradesh and Karnataka.
  - ○ Farm sector workers accounted for **7.7% of the total number**.
  - ○ West Bengal, Bihar, Odisha, Uttarakhand, Meghalaya, Goa, Chandigarh, Daman & Diu, Delhi, Lakshadweep and Puducherry **reported zero suicides by farmers/ cultivators and agricultural labourers**.
- **Economic Offences:** It includes criminal breach of trust, forgery, cheating, fraud, counterfeiting, etc. **Higher** economic offences were observed in 2018 as compared to 2017.
  - ○ **Uttar Pradesh** accounted for the **maximum number** of economic offences followed by Telangana and Bihar.
- **Violence due to Riots:** Riot cases due to communal, political, agrarian and student issues **declined** but riots arising out of **industrial and water disputes rose sharply**.
- **SC/ST related crimes:** The incidents registered under the Scheduled Caste and Scheduled Tribes related Acts observed a **decline** in 2018 from 2017.
- **Cyber Crimes:** An **increase in cybercrimes** has been observed in 2018 compared to 2017.

Unsafe spaces

The rate of crimes against women per one lakh of their population increased to 58.8 in 2018 from 57.9 in 2017.

RATE OF TOTAL CRIMES AGAINST WOMEN

7.3 — 166

Haryana 107.5
Delhi 149.6
Nagaland 7.3
Assam 166
Telangana 87.1
Tamil Nadu 15.4

Suicides in 2018

As many as 30,127 daily wage earners committed suicide in 2018, the highest among all professions. The number of suicides among persons engaged in agriculture came down by 2.9% in 2018, compared to 2017.

Profession	Total suicides	% share of total suicides
Daily wage earner	30,127	22.4
Housewife	22,937	17.1
Student	10,159	7.6
Farmer / cultivator	5,763	4.3
Agricultural labourer	4,586	3.4

Assam recorded 166 crimes per one lakh women, the highest in the country, followed by Delhi (149.6)

Source: National Crime Records Bureau's report for 2018
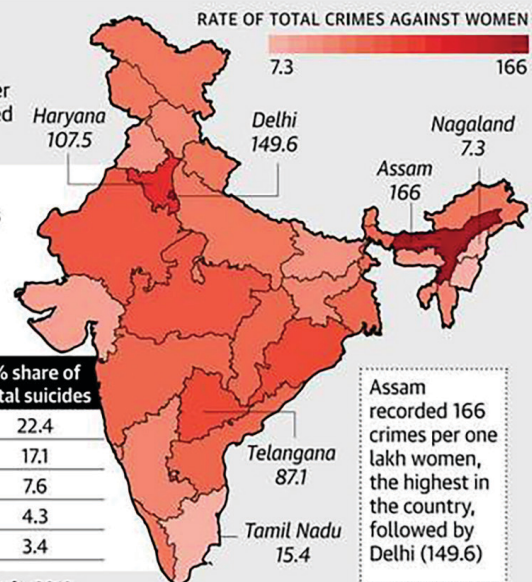
National Crime Record Bureau
- NCRB, headquartered in **New Delhi**, was set-up in **1986** under the **Ministry of Home Affairs (MHA)** to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators.
- It was set up based on the recommendations of the National Police Commission (1977-1981) and the MHA's Task Force (1985).
- NCRB brings out the annual comprehensive statistics of crime across the country ('Crime in India' report).
  - ○ It has been published since 1953, and it serves as a crucial tool in understanding the law and order situation across the country.

Curative Petition

Why in News

Recently two Nirbhaya case convicts have filed curative petitions in the Supreme Court.
- Earlier, the convicts had filed a **mercy petition** and a **review petition,** which have been rejected.

Key Points
- **Origin:**
  - ○ The concept of the curative petition was **first evolved** by the **Supreme Court of India** in **Rupa Ashok Hurra vs. Ashok Hurra and Another case**

Note:

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(2002) on the question whether an aggrieved person is entitled to any relief against the final judgement/order of the Supreme Court, even after the dismissal of a review petition.

➢ **Objectives:**
  ❍ It's objectives are twofolds – **avoid miscarriage of justice** and to **prevent abuse of process**.

➢ **Constitutional Background:**
  ❍ The concept of the curative petition is supported by **Article 137** of the Indian Constitution. It provides that in the matter of laws and rules made under **Article 145**, the **Supreme Court has the power to review any judgement pronounced** (or order made) by it. Such a petition needs to be filed **within 30 days** from the date of judgement or order.

➢ **Procedure:**
  ❍ A curative petition may be filed **after a review plea against the final conviction is dismissed**.
  ❍ It can be entertained if the petitioner establishes that there was a **violation of the principles of natural justice**, and that he/she was not heard by the court before passing an order.
  ❍ It **must be rare** rather than regular.
  ❍ A curative petition must be first circulated to a Bench of the three senior-most judges, and the judges who passed the concerned judgment, if available. **Only when a majority of the judges conclude** that the matter needs hearing, it should be listed before the same Bench.
  ❍ The Bench at any stage of consideration of the curative petition **can ask a senior counsel to assist it as amicus curiae** (Friend of the Court).
  ❍ A curative petition is **usually decided** by judges **in the chamber** unless a specific request for an open-court hearing is allowed.

➢ **Grounds for Rejection:**
  ❍ In the event of the Bench holding at any stage that the petition is without any merit, it may impose a penalty on the petitioner.

Right to Private Property

Why in News

The Supreme Court has recently held that a **citizen's right to own private property** is a **human right**.

➢ The case was of an 80-year-old woman whose 3.34 hectare land was forcibly taken by the **Himachal Pradesh Government in 1967**, for constructing a road.

➢ The Court used its **extraordinary jurisdiction** under **Article 136** and **Article 142** of the Constitution to direct the government to pay the woman compensation of 1 crore rupees.

Key Points

➢ A citizen's **right to own private property is a human right**. The state cannot take possession of it without following due procedure and authority of law.
  ❍ The Bench referred to an earlier verdict in the **State of Haryana v. Mukesh Kumar case (2011)** wherein it was held that the right to property is not only a **constitutional or statutory right, but also a human right**.

➢ **Doctrine of Adverse Possession:** The state cannot trespass into the private property of a citizen and then claim ownership of the land in the name of 'adverse possession.
  ❍ Grabbing private land and claiming it as its own makes the state an encroacher.

➢ In 1967, when the government forcibly took over the land, **'right to private property was still a fundamental right'** under **Article 31** of the Constitution.
  ❍ Right to Property ceased to be a fundamental right with the **44th Constitution Amendment in 1978**.
  ❍ It was made a **Constitutional right under Article 300A**. Article 300A requires the state to follow due procedure and authority of law to deprive a person of his or her private property.

Doctrine of Adverse Possession

➢ It is a **legal doctrine** that allows a person who possesses or resides on someone else's land for an extended period of time to claim legal title to that land.

➢ In India, a person who is not the original owner of a property becomes the owner because of the fact that he has been in possession of the property for a minimum of 12-years, within which the real owner did not seek legal recourse to oust him.

Article 142

➢ It provides **discretionary power to the Supreme Court** as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or

make such order as is necessary for **doing complete justice** in any cause or matter pending before it.

Article 136 (Special Leave Petition)

➢ It allows the Supreme Court to hear, at its discretion, an appeal against any order from any court or tribunal in the territory of India. However, this does not apply to any judgment, determination, sentence or order passed or made by any court or tribunal constituted by or under any law relating to the Armed Forces.

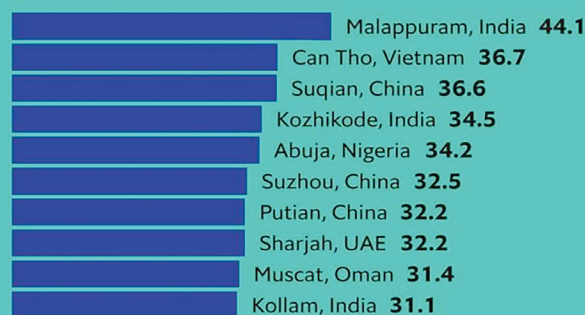# Urbanisation Trends: EIU

Why in News

Recently, the **Economist Intelligence Unit (EIU)** survey released a ranking of the fastest-growing urban areas across the world which features three cities from Kerala among the top 10.

➢ **From the period of 2015-2020, Malappuram had 44.1% change, Kozhikode had 34.5% change and Kollam had 31.1% change**. These are the only places from India to feature in the top 10 rankings.

➢ **Thrissur, Kerala** is at 13th position with 30.2% jump between 2015 and 2020. **Tiruppur, Tamil Nadu** is at 30th rank. **Thiruvananthapuram** is at 33rd position.

Top ten fastest-growing cities
Total % change, 2015–20 forecast

City	Total % change
Malappuram, India	44.1
Can Tho, Vietnam	36.7
Suqian, China	36.6
Kozhikode, India	34.5
Abuja, Nigeria	34.2
Suzhou, China	32.5
Putian, China	32.2
Sharjah, UAE	32.2
Muscat, Oman	31.4
Kollam, India	31.1

Source: UN Population Division

Key Points

➢ **Data:** The list is based on data from the **United Nations Population Division**.

➢ **Time Period:** The Economist has listed the rate at which the populations of the Urban Agglomerations (UAs) are expected to increase between 2015 and 2020 and it provides a measure of the pace of urbanisation.

➢ **Unusual Findings:** The rankings seem unusual because the **total fertility rate** (**TFR**, the number of children a woman is likely to have in the childbearing age of 15-49) in Kerala is 1.8 as per **NITI Aayog** data from 2016, below the **replacement rate** (the number of children needed to replace the parents, after accounting for fatalities, skewed sex ratio, infant mortality, etc) of 2.1.

With Reference to Kerala

➢ **Transformation of Villages to Town:** Kerala has **low fertility rate** which means the increase in the population of Malappuram and other cities is not because women are having more children but because more villages are being transformed into towns and city borders are expanding.

   ○ When a village becomes a census town, its population is included in the urban population of the district.

   ○ Cities of Kerala are seeing rapid urbanisation and the main reason is the inclusion of new areas in the UA's limits.

➢ **Effects of Migration:** Kerala sees both **emigration** (migration from the state to other places) and **immigration** (the migration of workers to the state)

   ○ The remittances that emigrants send allow the residents of villages to move away from agriculture, which changes the status of a village to census town.

➢ **Shift from Agriculture:** In Kerala, **urbanisation is driven by a move away from agriculture,** which leads to a change in a village's Census classification status.

Way Forward

➢ Urbanisation leads to the **growth of cities and infrastructure** which gives more opportunities to youth. People leave behind caste and class divisions (to some extent) that dominate life in the villages and move upwards in society.

➢ However, **unplanned urbanisation can be exclusionary** making it difficult for migrants to live there given the high cost. Unregulated housing, lack of reliable public transport, and longer commutes within these towns put a strain on the meagre resources of migrants.

Note:

PACE OF URBANISATION MOST RAPID IN KERALA

FASTEST GROWING URBAN AGGLOMERATIONS, 2015-20	FASTEST GROWING INDIAN URBAN AGGLOMERATIONS, 2015-20 (Rate of growth in per cent)	
1. Malappuram, India	Malappuram	44.05
2. Suqian, China	Kozhikode	34.51
3. Can Tho, Vietnam	Kollam	30.99
4. Kozhikode, India	Thrissur	30.22
5. Abuja, Nigeria	Surat	26.69
6. Suzhou, China	Tiruppur	26.21
7. Sharjah, UAE	Thiruvananthapuram	25.57
8. Putian, China	Raipur	22.21
9. Muscat, Oman	Kochi	21.87
10. Dar-es-Salam, Tanzania	Bangalore	21.55
11. Kollam, India	Indore	19.01
12. Wuhu, China	Kota	18.76
13. Thrissur, India	Vijayawada	18.61
14. Yaounde, Cameroon	Rajkot	17.21
15. Batam, Indonesia	Moradabad	17.11

Factors for Population Growth

➢ When the birth rate exceeds the death rate (natural growth).

➢ When workers migrate to the city in search of jobs.

➢ When more areas get included within the boundaries of the city.

➢ When existing rural areas are reclassified as urban.

➢ According to the **Census definition**, an urban area is either a census town (CT) or a statutory town (ST).

   ❍ **Statutory Town:** Any place with a municipal corporation, municipal council, or cantonment board.

   ❍ **Census Town:** It can be a place with "urban characteristics", a population of more than 5,000, population density more than 400 people per sq km, and with more than 75% of the population not engaged in agriculture for their livelihood.

➢ According to the UN, **"urban agglomerations"** (UA) are defined as continuous urban spread consisting of a town and its adjoining urban outgrowths or two or more physically contiguous towns together.

   ❍ **For example,** the **National Capital Territory of Delhi** is a UA that includes the Municipal Corporation of Delhi (MCD) and New Delhi Municipal Council (NDMC) areas as well as 107 census towns (erstwhile surrounding villages where more than 75% of the population is now engaged in non-agricultural pursuits).

Economist Intelligence Unit

➢ It is the research and analysis division of The Economist Group and the world leader in global business intelligence. It was created in 1946.

Kerala Challenges Constitutionality of CAA

Why in News

Kerala has become the **first state to move the Supreme Court challenging** the **Citizenship (Amendment) Act, 2019** (CAA).

➢ CAA seeks to provide citizenship to illegal migrants from Buddhist, Hindu, Sikhs, Jain, Parsi and Christian faiths, who have come to India from the neighbouring countries of Afghanistan, Pakistan and Bangladesh, on or before 31st December, 2014.

Key Points

➢ The suit has been filed under **Article 131 of the Constitution**.

   ❍ Under Article 131, the **Supreme Court has "original" jurisdiction** in disputes between States or the Centre and State(s). The Article allows the court to directly take cognisance of such a dispute.

   ❍ Kerala has said in its suit that it would be compelled under **Article 256** to comply with the CAA, which it considers arbitrary, unreasonable, irrational and violative of fundamental rights.

     ● **Article 256** of the Constitution states that the executive power of every State shall be so exercised as to ensure **compliance with the laws made by Parliament**.

   ❍ Thus, there **exists a dispute, involving questions of law and fact**, between the State of Kerala and the Union of India, regarding the enforcement of legal rights as a State and as well for the enforcement of the fundamental, constitutional and other legal rights of the inhabitants of the State of Kerala.

➢ The Kerala Government has asked for the law to be declared unconstitutional and in violation of:

   ❍ **Article 14** (equality before law).

   ❍ **Article 21** (protection of life and personal liberty).

   ❍ **Article 25** (freedom of conscience and free profession, practice, and propagation of religion).

➢ It has also sought directions to declare the **Passport (Entry into India) Amendment Rules, 2015, and Foreigners (Amendment) Order, 2015,** to be **"ultra vires the Constitution of India and to be void"**.

➢ As per the petition, the amendments also **violate India's International Obligations under**:

- **Article 14 of the** Universal Declaration of Human Rights (which provides that everyone has the right to seek and enjoy asylum from persecution in other countries).
- **Article 15 of the Universal Declaration of Human Rights** (which provides that everyone has the right to a nationality and that no one shall be arbitrarily deprived of his nationality nor denied the right to change his nationality) and
- **Article 26 of the** International Covenant on Civil and Political Rights (which provides that all persons are equal before the law, that all persons are entitled to the equal protection of the law without any discrimination and that the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status).

Article 131 of the Constitution (Original Jurisdiction of the Supreme Court)

- ➢ The Supreme Court has **original jurisdiction** in any dispute:
  - ○ between the Government of India and one or more States; or
  - ○ between the Government of India and any State or States on one side and one or more other States on the other; or
  - ○ between two or more States.
- ➢ **Notable Points**
  - ○ The dispute **must involve a question (whether of law or fact)** on which the existence or extent of a legal right depends.
  - ○ Any suit brought before the Supreme Court by a **private citizen** against the Centre or a state **cannot be entertained under this**.
- ➢ The **original jurisdiction** of a court means the power to hear a case for the first time, as **opposed to appellate jurisdiction**, in which the court reviews the decision of a lower court.
- ➢ **Different from Article 32**
  - ○ Unlike the original jurisdiction under **Article 32** (which gives the Supreme Court the power to issue writs, etc.), the jurisdiction in **Article 131 is exclusive**, meaning it is **only the Supreme Court**

which has this authority. Under **Article 226**, the High Courts too have the power to issue writs, directions etc.

- ➢ **Supreme Court's Stand on Article 131**
  - ○ There have been **two conflicting judgments** from the Supreme Court on whether a State can file an original suit under Article 131 to challenge the constitutionality of a central law.
  - ○ The **first judgment (2012), State of Madhya Pradesh vs Union of India,** held that States cannot challenge a central law under Article 131.
  - ○ The **second judgment (2015), State of Jharkhand Vs State of Bihar - took the opposite view** and referred the question of law to a larger Bench of the Supreme Court for final determination. Kerala's plaint relies on the 2015 verdict.

National Youth Day 2020

Why in News

National Youth Day (NYD) is **observed on** Swami Vivekananda's **birth anniversary** on **January 12** every year.

- ➢ To honour Swami Vivekananda's contributions to the country, the government in the **year 1984**, declared his birthday as National Youth Day.
- ➢ The **main objective of NYD** is **to promote rational thinking** among the youth.
- ➢ On this occasion, the Ministry of Youth Affairs and Sports and Uttar Pradesh government also jointly organized **23rd National Youth Festival (NYF) 2020**. The theme of the NYF 2020 is **'FIT YOUTH FIT INDIA'**.
  - ○ The Government has been organizing National Youth Festival (NYF) **since 1995**.
  - ○ The **objective of NYF** is to provide an arena where youth can interact and exchange their social and cultural uniqueness. This blend of diverse socio-cultural milieu proves belief in **'Ek Bharat Shrestha Bharat'**.

Swami Vivekananda (1863-1902)

- ➢ He was **born as Narendranath Datta** on January 12, 1863.
- ➢ Introduced the world to the Indian philosophies of Vedanta and Yoga.

Note:

- He was the **chief disciple of the 19th-century mystic Ramakrishna Paramhansa**.
- Laid the greatest emphasis on education for the regeneration of our motherland. He advocated a man-making character-building education.
- **Established the Ramakrishna Mission in 1897.** It is an organization which works in the area of value-based education, culture, health, women's empowerment, youth and tribal welfare and relief and rehabilitation.
- He **died at Belur Math in 1902**. Belur Math, located in **West Bengal**, is the headquarters of Ramakrishna Math & Ramakrishna Mission.

Ramakrishna Paramhansa
- He was **born as Gadadhar Chattopadhyay in 1836** in West Bengal.
- He was **one of the leading Hindu spiritual leaders** in the 19th century.
- He believed that the realization of the existence of God is the supreme goal of all living beings.

■■■

Economic Scenario

Highlights

- *National Infrastructure Pipeline*
- *New Norms For Reward To Whistleblowers*
- *Pradhan Mantri Fasal Bima Yojana (PMFBY)*
- *Urban Co-operative Banks*

- *MANI App by RBI*
- *State Energy Efficiency Index 2019*
- *Investment in Coal Mining*
- *Review of India's Energy Policies*

National Infrastructure Pipeline

Why in News

Recently, the Government has released a report of the task force on National Infrastructure Pipeline for 2019-2025.

➤ Earlier, the Prime Minister in his Independence Day speech 2019 had highlighted that ₹100 lakh crore would be invested on infrastructure over the next 5 years.

  ❍ The emphasis would be on ease of living: safe drinking water, access to clean and affordable energy, healthcare for all, modern railway stations, airports, bus terminals and world-class educational institutes.

➤ Task Force was constituted to draw up the National Infrastructure Pipeline (NIP) for each of the years from financial years 2019-20 to 2024-25.

National Infrastructure Pipeline

➤ 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.

➤ 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.

  ❍ It has outlined plans to invest more than ₹102 lakh crore on infrastructure projects by 2024-25, with the Centre, States and the private sector to share the capital expenditure in a 39:39:22 formula.

New Norms For Reward To Whistleblowers

Why in News

The **Securities and Exchange Board of India (SEBI)** has come out with a new mechanism to **reward whistle-blowers** and other informants for sharing information about **insider trading cases**.

Key Points

➤ It would be **mandatory** to **disclose the source of information**. At the same time, confidentiality regarding the **identity** of the **informant** would be **protected**.

➤ Reward would be given in case the information provided leads to a disgorgement of at **least ₹1 crore** in accordance with the **"Prohibition of Insider Trading (PIT) Regulations"**.

  ❍ **Disgorgement** is repayment of ill-gotten gains that is imposed on wrongdoers by the courts. This implies that funds that were received through illegal or unethical business transactions are disgorged, or paid back, with interest to those affected by the action.

➤ The **Office of Informant Protection (OIP)** has been established by the **SEBI** as an independent office for receiving and processing the **Voluntarily Information Disclosure Form (VID)**. The OIP would serve as a **medium of exchange** between the **informant** or legal **representative and the SEBI**.

  ❍ An informant would have to voluntarily submit original information pertaining to any violation of insider trading laws to the OIP, through a VID

Note:

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form. He has to **reveal his identity** at the time of submission of the VID form.

○ In case, the information is submitted **through a legal representative**, the identity of the informant is **not** required to be revealed at the time of submission of VID form. However, the identity of the informant would be required to be revealed prior to payment of reward, if any.

Note:
➢ **Insider Trading**
○ It is the act of trading, directly or indirectly, in the securities of a publicly listed company by any person, who may or may not be managing the affairs of such company, based on certain information, not available to the public at large, that can influence the market price of the securities of such companies.
○ SEBI through **SEBI (Prohibition of Insider Trading) Regulations, 2015** and by making amendments to the Regulations and issuance of Circulars from time to time, regulates Insider Trading.
○ According to PIT Regulations, it is prohibited to pass **Unpublished Price Sensitive Information (UPSI)** for a purpose other than legitimate purposes.
➢ **Whistleblowing**
○ According to the **Companies Act, 2013**, whistleblowing is an action aimed at drawing the attention of stakeholders to instances of unethical practices in an organization.
○ A whistleblower can be anyone who chooses to expose wrong practices and has evidence to support the allegations. They **can be either from within or outside the organization**—such as current and former employees, shareholders, external auditors, and lawyers.
○ In India, whistleblowers are protected by the **WhistleBlowers Protection Act, 2014**. The law provides for the protection of their identity and also has strict norms to prevent their victimization.
● The act establishes a mechanism to receive complaints related to disclosure of allegations of corruption or wilful misuse of power or discretion, against any public servant, and to inquire or cause an inquiry into such disclosure.

Pradhan Mantri Fasal Bima Yojana (PMFBY)

Why in News

Maharashtra has become the **first state in the country** to integrate its **land records with the web portal of the Pradhan Mantri Fasal Bima Yojana (PMFBY)**.

➢ This will help in **checking** the cases of **"over-insurance"** — insurance of more land than in possession — as well as **insurance of ineligible people**.
➢ Maharashtra also counts itself among the top five states in the country in terms of payment of claims under the PMFBY.
➢ During the financial year 2018-19, the state had 1.39 crore farmers opting for the scheme and the total premium collected was Rs 4,778.30 crore.

Pradhan Mantri Fasal Bima Yojana (PMFBY)

➢ The Pradhan Mantri Fasal Bima Yojana was **launched in 2016** and is being administered by the **Ministry of Agriculture and Farmers Welfare**.
➢ It provides a comprehensive insurance cover against failure of the crop thus helping in stabilising the income of the farmers.
➢ **Scope:** All food & oilseed crops and annual commercial/horticultural crops for which past yield data is available.
➢ **Premium:** The prescribed premium is 2% to be paid by farmers for all Kharif crops and 1.5% for all rabi crops. In the case of annual commercial and horticultural crops, the premium is 5%.
➢ The scheme is **compulsory** for loanee farmers availing Crop Loan /Kisan Credit Card (KCC) account for notified crops and **voluntary** for others.
➢ The scheme is implemented by empanelled general insurance companies. The selection of the Implementing Agency (IA) is done by the concerned State Government through bidding.

Urban Co-operative Banks

Why in News

The **Reserve Bank of India (RBI)** has revised the **Supervisory Action Framework (SAF)** for **Urban**

Co-operative Banks (UCBs). It seeks to ensure expeditious resolution of financial stress faced by some of the UCBs.

➢ The move comes in the backdrop of the **alleged irregularities in the Punjab and Maharashtra Cooperative (PMC) Bank** causing distress to over 9 lakh depositors.

➢ The SAF is **similar to the Prompt Corrective Action (PCA) framework** which is imposed on **commercial banks**.

Co-operative Banks

➢ Co-operative Banks, which are **distinct from commercial banks**, were born out of the concept of co-operative credit societies where members from a community group come together to extend loans to each other, at favourable terms.

➢ Co-operative Banks are broadly classified into **Urban and Rural co-operative banks** based on their **region of operation**.

Commercial Banks

➢ A commercial bank is a financial institution which performs the functions of accepting deposits from the general public and giving loans with the aim of earning profit.

➢ The RBI has specified certain regulatory trigger points for initiation of certain structured and discretionary actions with respect of banks hitting such trigger points.

➢ The trigger points are part of the **Prompt Corrective Action (PCA) Framework**, in terms of three parameters:
  ○ **Capital Adequacy Ratio (CAR):** It is a measurement of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures.
  ○ **Net Non-Performing Assets (NPA)**
    ● **Non-Performing Assets (NPA)** refer to a classification for loans or advances that are in default or are in arrears on scheduled payments of principal or interest.
    ● In most cases, debt is classified as non-performing, when **the loan payments have not been made for a minimum period of 90 days**.
    ● **Gross non-performing assets** are the sum of all the loans that have been defaulted by the individuals who have acquired loans from the financial institution.

● **Net non-performing assets** are the amount that is realized after provision amount has been deducted from the gross non-performing assets.
  ○ **Return on Assets (RoA):** It is an indicator of how profitable a company is relative to its total assets.

➢ The PCA framework is **applicable only to commercial banks** and is not extended to co-operative banks and Non-Banking Financial Companies (NBFCs).

Difference between UCBs and Commercial Banks

➢ **Regulation:** Unlike commercial banks, **UCBs are only partly regulated by the RBI**. Their banking operations are regulated by the RBI, which lays down their capital adequacy, risk control and lending norms. However, their management and resolution in the case of distress is regulated by the Registrar of Co-operative Societies either under the State or Central government.

➢ **Borrower can be a Shareholder:** In general for a commercial bank, there is a clear distinction between its shareholders and its borrowers whereas in a UCB, borrowers can even double up as shareholders.

Revised SAF

➢ UCBs will face **restrictions for worsening of three parameters**:
  ○ When **net Non-Performing Assets (NPAs) exceed 6%** of net advances,
  ○ When **losses are incurred for two consecutive financial years** or losses have accumulated on the balance sheets, and
  ○ If **Capital Adequacy Ratio (CAR) falls below 9%**.

➢ However, RBI can also take action if there are serious governance issues.

➢ **Possible Restrictions and Actions that can be taken by the RBI**
  ○ UCBs may be asked to submit a **board-approved action plan** to correct the situation like reducing net NPAs below 6%, etc.
  ○ The board of the UCB may be asked to review the progress under the action plan on quarterly/monthly basis and submit the post-review progress report to the RBI.
  ○ The RBI can impose **restrictions on declaration or payment of dividend or donation** without

Note:

prior approval if any one of the above mentioned parameters is breached.

- ❍ The RBI may also seek a board-approved proposal for **merging the UCB with another bank** or converting itself into a credit society if CAR falls below 9%.

- ❍ The RBI may also consider the issue of **show-cause notice for cancellation of banking licence** when continued normal functioning of the UCB is no longer considered to be in the interest of its depositors/public.

Shivalik Mercantile Co-operative Bank Limited To Convert Into A Small Finance Bank

➢ The Shivalik Mercantile Co-operative Bank Limited has become **the first Urban Co-operative Bank (UCB)** to be granted 'in-principle' permission by the RBI **to convert into a Small Finance Bank (SFB)**.

➢ The move comes after the RBI had announced a scheme on voluntary transition of UCBs into a SFB in September, 2018.

➢ **Small Finance Banks** are a specific segment of banking created by RBI under the guidance of Government of India with an objective of furthering financial inclusion by primarily undertaking basic banking activities to un-served and underserved sections including small business units, small and marginal farmers, micro and small industries and unorganized entities.

- ❍ Like other commercial banks, these banks can undertake all basic banking activities including lending and taking deposits.

- ❍ The RBI issued the guidelines of Small Finance Bank in November 2014.

MANI App by RBI

Why in News

The **Reserve Bank of India (RBI)** has launched a **mobile app- Mobile Aided Note Identifier (MANI)** to help **visually-impaired people to identify the denomination of currency notes**.

➢ There were reports of problems faced by visually-challenged people in identifying new currency notes launched after demonetisation (2016).

➢ 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**.

➢ The application will work on Android and iOS operating systems. It will work in offline mode once installed.

State Energy Efficiency Index 2019

Why in news

The government has released the **'State Energy Efficiency Index 2019'**. The Index tracks the progress of **Energy Efficiency (EE)** initiatives in states and union territories based on 97 significant indicators.

➢ Assessment is based on their efforts and achievements in policy and regulation, financing mechanisms, institutional capacity, adoption of energy efficiency measures and energy savings achieved.

➢ The index incorporates **qualitative, quantitative** and **outcome-based** indicators to assess energy efficiency initiatives, programs and outcomes in five distinct sectors – **buildings, industry, municipalities, transport, agriculture** and **DISCOMs**.
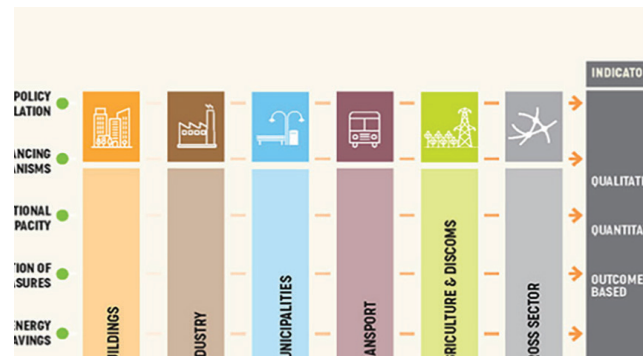
About Index

➢ The first **"State Energy Efficiency Preparedness Index 2018"**, was launched on August 1, 2018.

➢ The index is developed by the **Bureau of Energy Efficiency (BEE)** in association with **Alliance for an Energy-Efficient Economy (AEEE)**.

➢ The 2019 index has included new indicators like the **adoption of Energy Conservation Building Code (ECBC) 2017, energy efficiency in MSME clusters,** etc.


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- ➤ **Data collection:** The required data were collected from the concerned state departments such as DISCOMs, Urban Development departments and other departments with the help of State Designated Agencies (SDAs).

Key Points

- ➤ **Comparison:** For rational comparison, States/UTs are grouped into four groups based on aggregated **Total Primary Energy Supply (TPES)** required to meet the state's actual energy demand (electricity, coal, oil, gas, etc.) across sectors.
  - ○ The index categorises states as **'Front Runner', 'Achiever', 'Contender'** and **'Aspirant'** based on their efforts and achievements towards energy efficiency implementation.
    - The top-performing states for 2019 Haryana, Kerala and Karnataka are in the **'Achiever' category**.

Front Runner	>60
Achiever	50-60
Contender	30-49
Aspirant	<30
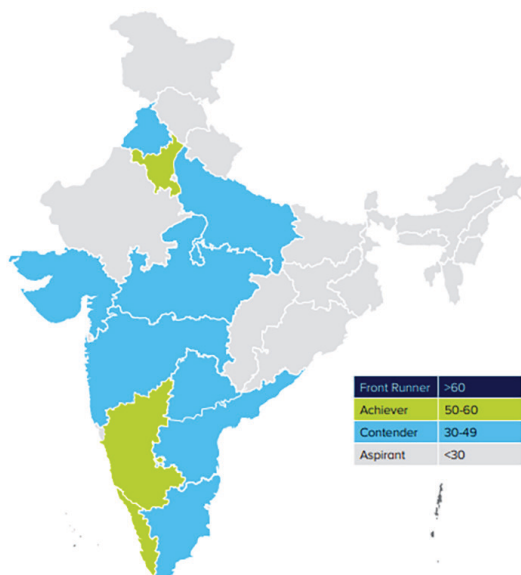
* For State EE Index 2019, unified Jammu & Kashmir and Ladakh have been considered.

  - Manipur, Jammu & Kashmir, Jharkhand and Rajasthan performed the worst in the **Aspirant groups**.
  - ○ Since there isn't a state in the 'Front runner' category, it can be inferred that a lot more can be done at the **state level to realise energy savings from energy efficiency**.
  - ○ TPES grouping helps states compare their performance and share best practices within their peer group.

- ➤ The index will help states contribute towards national goals on energy security and climate action by helping drive EE policies and program implementation at the state and local level.
- ➤ It will track progress in managing the states' and India's energy footprint and institutionalising the data capture and monitoring of EE activities by states.

Bureau of Energy Efficiency

- ➤ The BEE is a **statutory body** under the **Ministry of Power, Government of India**.
- ➤ It assists 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 organizations to identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the **Energy Conservation Act, 2001**.

Investment in Coal Mining

Why in News

The **Union Cabinet** has approved an **ordinance** to attract investment in **coal mining**.

- ➤ The ordinance amends the Mines and Minerals (Development and Regulation) Act, 1957 and the Coal Mines (Special Provisions) Act, 2015.
- ➤ The **Mines and Minerals (Development and Regulation) Act, 1957** regulates the mining sector in India and specifies the requirement for obtaining and granting mining leases for mining operations.
- ➤ The **Coal Mines (Special Provisions) Act, 2015** is an Act that provides for allocation of coal mines and vesting of the right, title and interest in and over the land and mine infrastructure together with mining leases to successful bidders with a view to ensure continuity in coal mining operations and production of coal.

Key Points

- ➤ The amendment **opens up coal mining to any firm** whose office is registered in India.
  - ○ **Open To All:** Earlier, the government used to auction coal and lignite mining licences only to companies engaged in iron and steel, power coal washing sectors. By opening to everyone,

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the government seeks to **democratize the coal mining sector**.

○ **Foreign Direct Investment:** The move will promote foreign direct investment in the sector. This will help India gain access to sophisticated technology for underground mining used by global miners.

- This may also bring an **end to state-run Coal India Ltd's (a Maharatna company) monopoly** in the sector.

○ **Coal Production:** With this move, the government aims at greater participation in commercial mining of coal and **targets 1000 Million Tonnes (MT) coal production by Financial Year (FY) 2023 -24**.

- The country produced 730 million tonne of coal in 2018-19.

○ **Import Substitution:** The move will boost both production and mining efficiency besides substituting import of coal worth Rs 30,000 crore.

- Despite having the world's fourth largest coal reserves, India imported 235 million tonnes (mt) of coal in 2019.

○ **Enhanced Competitiveness:** The steel industry would get cheaper inputs, leading to an increase in 'competitiveness'.

➢ The amendment **extends the policy of composite mining licence to the coal sector**.

○ Composite Mining Licence is a prospecting license which is followed by a grant of Mining Lease.

○ Earlier, the policy of composite mining licence was in force for unexplored blocks of most non-coal minerals.

○ This move will add to the certainty of tenure from the prospecting to the production stages.

Coal in India

➢ Coal is the **main source of energy** in India. This fossil fuel is found in a form of **sedimentary rocks** and is often known as **'Black Gold'**.

➢ **Formation:** It originates from organic matter wood. When large tracts of forests are buried under sediments, wood is burnt and decomposed due to heat from below and pressure from above. The phenomenon makes coal but takes centuries to complete.

➢ **Classification:** Coal can be classified **on the basis of carbon content** as follows:

○ **Anthracite:** It is the best quality of coal which carries 80 to 95% carbon content. It has the highest calorific value. It is found in small quantity in Jammu and Kashmir.

○ **Bituminous:** It carries 60 to 80% of carbon content and a low level of moisture content. It is widely used and has high calorific value. It is found in Jharkhand, West Bengal, Odisha, Chhattisgarh and Madhya Pradesh.

○ **Lignite:** It is often brown in colour. It carries 40 to 55% carbon content. It has high moisture content so it gives smoke when burnt. It is found in Rajasthan, Lakhimpur (Assam), and Tamil Nadu.

○ **Peat:** It has less than 40% carbon content. It has low calorific value and burns like wood.

➢ **Regulation**

○ **Ownership of Mineral**

- The State Governments are the owners of minerals located within the boundary of the State concerned.

- The Central Government is the owner of the minerals underlying the ocean within the territorial waters or the Exclusive Economic Zone of India.

○ **Granting Mineral Concessions**

- The **State Governments grant mineral concessions for all the minerals located within the boundary of the State,** under the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 and Mineral Concession Rules, 1960.

- However, for minerals specified in the **First Schedule to the Mines and Minerals (Development and Regulation) Act, 1957 approval of the Central Government** is necessary. **Schedule I** contains minerals such as **coal and lignite**, minerals of the "rare earths" group containing Uranium and Thorium.

➢ Also, the **Central Government notifies certain minerals as 'minor' minerals** from time to time for which the absolute powers for deciding on procedures of seeking applications for and **granting mineral concessions**, fixing rates of royalty, dead rent, and power to revise orders rest only with the **State Government**. **Example** of minor minerals include building stones, gravel, ordinary clay, ordinary sand.

Note:

Review of India's Energy Policies

Why in News

The **International Energy Agency (IEA)** has released the first in-depth review of India's energy policies.

➢ The report highlights the achievements of India's energy policies and provides recommendations to support the government's goals of promoting well-functioning energy markets and boosting deployment of renewables.

➢ IEA regularly conducts in-depth reviews of energy policies for its members and associated countries. This is the **first review carried out for India**, which has been an **IEA-association country since March 2017**.

Key Findings

➢ **Policies Appreciated**

  ○ Government's achievements in extending citizens' access to electricity, affordable efficient lighting and clean cooking through historic schemes like **SAUBHAGYA**, **UJALA** and **UJJWALA**.

  ○ Energy efficiency improvements in India avoided 15% of additional energy demand, oil and gas imports and air pollution as well as 300 million tonnes of CO_2 emissions between 2000 and 2018.

  ○ Government policies designed to conduct large-scale renewable energy auctions, open up coal mining to private companies and promote access to oil and gas markets for foreign investors.

➢ **Status of Renewables:** There is a strong growth of renewables in India, which now accounts for almost **23% of the country's total installed capacity**.

➢ **India's Demand for Energy**

  ○ The **country's demand for energy** is set to **double by 2040** and its **electricity** demand may **triple**.

  ○ Indian oil consumption is expected to grow faster than that of any other major economy (including China). This makes further improving energy security a key priority for India's economy.

  ○ India's **oil demand** is expected to reach **6 million barrels per day (bpd) by 2024** from 4.4 million bpd

in 2017, but its domestic production is expected to rise only marginally, making the country more reliant on crude imports and more **vulnerable to supply disruption in the Middle East**.

  ○ India's **oil refining capacity is expected to rise to 5.7 million bpd by 2024**, making it a very attractive market for refinery investment.

➢ **Recommendations**

  ○ NITI Aayog can play a strong role in working with the states to implement power sector reforms, advanced grid integration, improve flexibility and coordinate energy policy decisions.

  ○ In renewables-rich states, the share of variable renewables in electricity generation is already above 15%, a level that calls for dedicated policies to ensure they integrate smoothly into the power system.

  ○ The review encourages India to institutionalise energy policy coordination across government with a national energy policy framework.

  ○ India should also expand its **Strategic Petroleum Reserves (SPR)**.

Note:

➢ India ranks **third in terms of global oil consumption** after China and the United States.

➢ India ships in over 80% of its oil needs, of which 65% is from the Middle East through the **Strait of Hormuz**.

➢ India is the **world's fourth largest oil refiner and net exporter of refined fuels**, mainly gasoline and diesel.

International Energy Agency

➢ The IEA was created in 1974 to help coordinate a collective response to major disruptions in the supply of oil.

➢ It is made up of **30 member countries**. It also includes 8 association countries.

➢ It is an **autonomous inter-governmental organisation within the Organisation for Economic Co-operation and Development (OECD) framework,** headed by its Executive Director.

➢ It is headquartered in **Paris, France**.

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International Relations

Highlights

- Protecting Power
- Operation Sankalp
- Raisina Dialogue
- WHO Report on Global Tobacco Epidemic 2019
- 2020 as Year of the Nurse and Midwife: WHO

Protecting Power

Why in News

An American drone has killed Iranian military and intelligence commander Major General Qassem Soleimani in Baghdad (capital of Iraq). The Iranian government has registered its protest against the killing with the Embassy of Switzerland in Tehran.

➤ Switzerland represents the interests of the US in Iran (capital of Iran). This is because the US itself does not have an embassy there. In an arrangement such as this, **Switzerland is the "Protecting Power" of the United States' interests in Iran**.

➤ Iran's interests in the United States, on the other hand, are represented by the Pakistan Embassy in Washington.

How The Above Arrangement is Possible?

➤ The instrument of Protecting Powers is provided for under the **1961 and 1963 Vienna Conventions on Diplomatic Relations**.

➤ The **1961 Vienna Convention** states that if diplomatic relations are broken off between two States, or if a mission is permanently or temporarily recalled, the sending State may entrust the protection of its interests and those of its nationals to a third State acceptable to the receiving State. **E.g.:**

  ❍ In the case, where Switzerland is the "Protecting Power" of the United States' interests in Iran, sending state would be US, third state would be Switzerland; and receiving state would be Iran.

➤ The **1963 Convention** reiterates that a sending State may with the prior consent of the receiving State, and at the request of a third State not represented in the receiving State, undertake the temporary protection of the interests of the third State and of its nationals."

Vienna Convention on Diplomatic Relations, 1961

➤ The Convention was adopted on **14th April 1961** by the United Nations Conference on Diplomatic Intercourse and Immunities held at the Neue Hofburg in Vienna, Austria, from 2nd March to 14th April 1961. **India has ratified the convention.**

➤ It provides **a complete framework for the establishment, maintenance and termination of diplomatic relations** on the basis of consent between independent sovereign States.

➤ It sets out the special rules – privileges and immunities – which enable diplomatic missions to act without fear of coercion or harassment through enforcement of local laws and to communicate securely with their sending Governments.

➤ It makes provision for withdrawal of a mission – which may take place on grounds of economy or physical security – and for breach of diplomatic relations which may occur in response to abuse of immunity or severe deterioration in relations between sending and receiving States. In either of these cases – or where permanent missions have not been established – a framework is provided for the interests of each sending State to be protected in the receiving State by a third State.

Operation Sankalp

Why in News

Indian Navy continues to deploy one warship for **Operation SANKALP** in order to ensure the safe passage of Indian Flag Vessels transiting through the **Strait of Hormuz** amidst deteriorating US-Iran relations.

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- Indian Navy launched Operation SANKALP in the Gulf Region on 19th June 2019.
- Indian Navy warships and aircraft are deployed to **establish presence, provide a sense of reassurance to the Indian merchantmen, monitor the ongoing situation and respond to any emergent crises** like deteriorating US-Iran relations in the recent times.

Strait of Hormuz
- It separates Iran and Oman, linking the Persian Gulf to the Gulf of Oman and the Arabian Sea.
- Most of the crude exported from Saudi Arabia, Iran, the UAE, Kuwait and Iraq – all members of the Organization of the Petroleum Exporting Countries (OPEC) – is shipped through this waterway.
- It is also the route used for nearly all the liquefied natural gas (LNG) produced by the world's biggest LNG exporter, Qatar.

US-Iran

- **1979: US-backed Shah of Iran was overthrown** and the country became an Islamic republic.
  - Dozens of Americans were taken hostage inside the US embassy in the capital Tehran.
- **2015: Iran agreed on a landmark deal to limit its nuclear programme** in return for the lifting of tough economic sanctions.
  - This move improved Iran's diplomatic relations with other nations.
- **2018:** The **US President abandoned the Nuclear Accord** and reinstated US sanctions to force Iran's leaders to agree to a new deal.
  - Iran rejected it even the economy of the country was sent into recession.
- **2019:** The pressure was stepped up in May by application of **secondary sanctions on countries that continued to do business with Iran**.

- Relations further deteriorated when **oil tankers were sabotaged** in the **Gulf of Oman**.
- Later, Tehran started suspending some of the commitments under the nuclear deal.
- It was followed by attacks and counter-attacks by both countries until January 2020.
- **2020:** On 3 January, **Qasem Soleimani was killed in a US drone strike at Baghdad airport**.
  - Iran **abandoned the last limit on its enrichment of uranium** imposed by the nuclear accord as a way of revenge.
- These issues have led to turbulent situations in the Gulf region.

Raisina Dialogue

Why in News

Recently, the 5th edition of Raisina Dialogue was held in New Delhi. The 1st edition was held in 2016.

- The title of the Raisina Dialogue this year (2020) is **"Navigating the Alpha Century"**.

Raisina Dialogue
- It is a **multilateral conference** committed to addressing the most challenging issues facing the global community. Every year, global leaders in policy, business, media and civil society are **hosted in New Delhi** to discuss cooperation on a wide range of pertinent international policy matters.
- The Dialogue is structured as a **multi-stakeholder, cross-sectoral discussion,** involving heads of state, cabinet ministers and local government officials, as well as major private sector executives, members of the media and academics.
- The conference is hosted by the **Observer Research Foundation** in collaboration with the Ministry of External Affairs, Government of India.

Observer Research Foundation
- It is an **independent think tank** based in **New Delhi** with three centres in Mumbai, Chennai and Kolkata.
- It provides **non-partisan, independent, well-researched analyses and inputs** to diverse decision-makers in governments, business communities, and academia and civil society around the world.

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Key Points

➢ The Dialogue has been **India's contribution to global efforts** to discover solutions, identify opportunities and provide stability to a century that has witnessed an eventful two decades.

➢ A session on the Indo-Pacific will be attended by the military or naval commanders from the **"Quadrilateral or Quad (Australia, India, Japan, and the United States)"**. This session will also have a **French Defence official on the panel** this year.

WHO Report on Global Tobacco Epidemic 2019

Why in News

Recently, the **World Health Organization** (WHO) has released a report projecting a powerful shift in the global tobacco epidemic. The shift is reflected in the **decline in the overall global tobacco use** and the **number of people consuming it**.

Tobacco Use
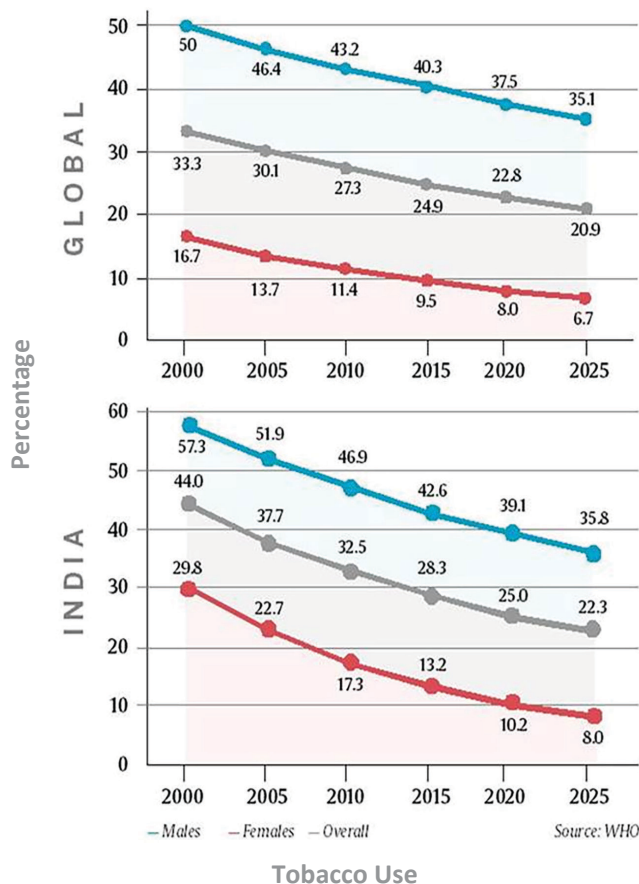
Key Points

➢ **Number of males using tobacco:** It **rose** from 1.050 billion (2000) to 1.093 billion (2018), however, the report projects a **decline in the number of males using tobacco**.

  ○ The number has **stopped growing** and is projected to **decline by more than 1 million (or 1.091 billion) male users** by **2020** and 5 million (or 1.087 billion) less by **2025**, compared to **2018** levels.

➢ **Global tobacco use:** It **declined** from 1.397 billion (2000) to 1.337 billion (2018).

  ○ The fall was largely driven by **reductions in the number of females using tobacco products,** with their numbers shrinking from 346 million (2000) to 244 million (2018).

  ○ Some **60% of countries** have been experiencing a **decline in tobacco use** since 2010.

➢ **Projections:** By 2020, there will be **10 million fewer tobacco users** compared to 2018 and another 27 million less by 2025, amounting to 1.299 billion.

➢ **Other findings:** Approximately **43 million children (aged 13-15) over the world used tobacco in 2018** (14 million girls and 29 million boys).

In Indian Context

➢ In India, the **prevalence of tobacco use** in 2000 was 44% and is expected to reduce almost by half to 22.3% by 2025.

  ○ Globally, the prevalence was 33.3% (2000) and is projected to reach 20.9% in 2025.

2018 PREVALENCE

TOBACCO USE (%)

	Overall	Male	Female
Global	23.6	38.6	8.5
India	27.0	42.0	12.1

TOBACCO SMOKING (%)

	Overall	Male	Female
Global	18.9	32.4	5.5
India	11.8	22.2	1.4

➢ **Current tobacco use rates** in India in 2018 for people aged 15 years and older, were **higher than global rates** among both males and females. However, the **rates of tobacco smoking were lower** than global rates.

Tobacco Control Provisions

➢ Governments adopt and implement the tobacco control provisions of the **WHO Framework Convention on Tobacco Control (WHO FCTC)**.

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- ➢ It is the **first international treaty** negotiated under the auspices of the WHO.
- ➢ It was **adopted** by the World Health Assembly on 21 May **2003** and **entered into force** on 27 February **2005**.
- ➢ It was developed in response to the **globalization of the tobacco epidemic** and is an **evidence-based treaty** that reaffirms the right of all people to the highest standard of health.
- ➢ The FCTC's measures to combat tobacco use include:
  - ○ Price and tax measures.
  - ○ Large, graphic warnings on tobacco packages.
  - ○ 100% smoke-free public spaces.
  - ○ A ban on tobacco marketing.
  - ○ Support for smokers who want to quit.
  - ○ Prevention of tobacco industry interference.

2020 as Year of the Nurse and Midwife: WHO

Why in News

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**.

- ➢ This will help to strengthen nursing and midwifery for Universal Health Coverage which 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**.

- ➢ 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

- ➢ She 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 (1853-1856), 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'**.

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Science and Technology

Highlights

- Iron Snow on Earth's Inner Core
- TOI 700 d
- ISRO's Astronaut Training Hub in Karnataka
- Chandrayaan-3 and Gaganyaan
- New Satellites to Help Gaganyaan Crew
- 107th Indian Science Congress
- ICAR to Set up Farmers' Innovation Fund
- A (H9N2) Virus
- IndigenousTB Diagnostic Tool
- Taal Volcano
- Artificial Humans – NEONs

## Iron Snow on Earth's Inner Core

Why in News

According to a study published in journal JGR Solid Earth, the **Earth's inner core is capped by snow made of tiny particles of iron** which are much heavier than any snowflake on Earth's surface.

➢ The iron-snow falls from the molten outer core and piles up in the inner core of the Earth creating stacks that are up to 320 km thick.

➢ This finding was unearthed **after analyzing signals from seismic waves** as they pass through the Earth. Seismic Waves are vibrations generated by an earthquake, explosion, or similar energetic source and that propagate within the Earth or along its surface.

  ❍ The seismic waves **moved much slower** than expected when they passed **through the base of the outer core**.

  ❍ However, they **moved faster** than estimates as they passed through the eastern hemisphere of the top **inner core**.

  ❍ The scientists found out that **slurry-like (semi -liquid) composition of the snow pack slows the seismic waves (P-waves: can travel through solid, liquid and gas)**. The variation in snow pile size – thinner in the eastern hemisphere and thicker in the western – affected the speed of the waves.

➢ Earlier studies had also pointed about the existence of slurry layer exists between the inner and outer core.

❍ The same is supported by the latest data from experiments on core-like materials. The scientists have found that **crystallisation is possible** and that about 15% of the lowermost outer core could be made of iron-based crystals (snow).

❍ These crystals could eventually fall down the liquid outer core and settle on top of the solid inner core.

Earth's Internal Structure

The earth is made up of **three different layers**: the crust, the mantle and the core.
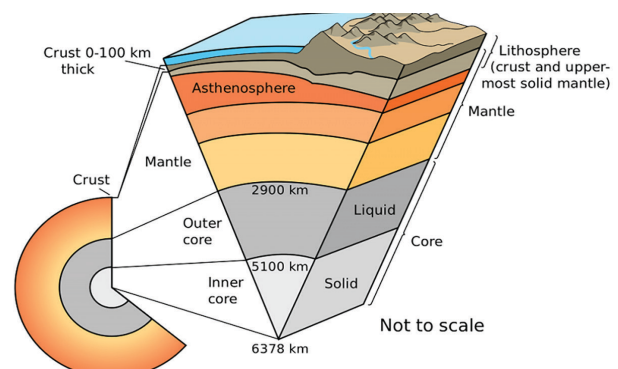
➢ **The Crust**

  ❍ This is the outside layer of the earth and is made of solid rock, **mostly basalt and granite**.

  ❍ There are two types of crust; **oceanic and continental**. Oceanic crust is denser and thinner and mainly composed of basalt. It is also known as **Sima** (most abundant minerals being silicate and magnesium)

  ❍ **Continental crust** is less dense, thicker, and mainly composed of granite. It is also called as **Sial** (most abundant minerals being silicate and aluminium).

Note:

- **The Mantle**
  - The portion of the **interior beyond the crust** is called the mantle. The mantle extends from **Moho's discontinuity** (boundary between the crust and mantle) to a depth of 2,900 km.
  - The crust and the uppermost part of the mantle are called **lithosphere**. Its thickness ranges from 10-200 km.
  - The upper portion of the mantle is called **asthenosphere** which is the main source of magma that finds its way to the surface during volcanic eruptions.
 - The lower mantle extends beyond the asthenosphere. It is in **solid state**.

- **The Core**
  - The mantle - core boundary **(gutenberg discontinuity)** is located at a depth of 2,900 km.
  - The **outer core** is in a **liquid state** while the **inner core** is in **solid state**.
  - The core is made up of very heavy material mostly constituted by nickel and iron. Thus, it is sometimes referred to as the **nife layer**.

TOI 700 d

Why in News

The **National Aeronautics and Space Administration (NASA)** has reported the **discovery** of an **Earth-size planet**, named **TOI 700 d**.

Habitable Zone
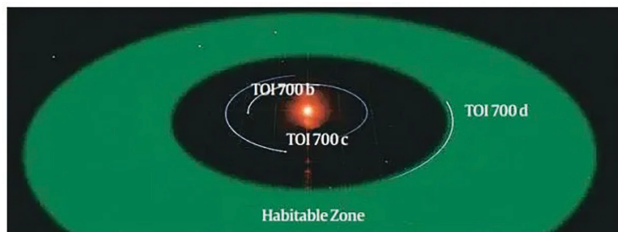
- The planet was found by NASA's **Transiting Exoplanet Survey Satellite (TESS) mission**, which was launched in 2018. TESS is an all-sky survey for transiting **exoplanets (planets around the solar system)**. With TOI 700 d, TESS has discovered its first Earth-size planet in its star's habitable zone.
- **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 star"** 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.
  - **TOI 700 c,** the middle planet, which is 2.6 times larger than Earth, is probably gas-dominated, and orbits every 16 days.

- **Orbits in Habitable Zone:** TOI 700 d is the outermost planet, and the only one in the TOI 700's habitable zone.
- **A habitable zone, also called the "Goldilocks zone"** is the area around a star where it is not too hot and not too cold for liquid water to exist on the surface of surrounding planets.
  - **Earth is in the Sun's Goldilocks zone.** If Earth were where the dwarf planet Pluto is, all its water would freeze; on the other hand, if Earth were where Mercury is, all its water would boil off.
  - Goldilock Zone is always defined with reference to a particular star. It can be different for different stars.

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.

ISRO's Astronaut Training Hub in Karnataka

Why in News

The Indian Space Research Organisation (ISRO) has proposed **Human Space Flight Centre (HSFC)** at **Challakere** in Chitradurga district of **Karnataka**.

- The region already houses some facilities of ISRO, the Defence Research & Development Organisation's Advanced Aeronautical Test Range, the Bhabha Atomic Research Centre and the Indian Institute of Science. Thus, it is also known as **Science City**.

Note:

➤ Moreover, ISRO has also planned to add a **quarantine facility** at the Sriharikota space port.

- ❍ Quarantine is a restriction on the movement of people and goods which is intended to prevent the spread of disease or pests.
- ❍ The quarantine facility would ensure that astronauts who are about to enter the spacecraft before the launch stay unexposed.

Key points

➤ **All in one facility:** Challakere will be the single-stop consolidating infrastructure and activities related to space travellers.

- ❍ Currently, Human Spaceflight Programme (HSP) work is split across various centres such as the Vikram Sarabhai Space Centre in Thiruvananthapuram, Kerala and the U.R. Rao Satellite Centre in Bengaluru.
- ❍ Challakere will also host work related to crew and service modules of the spacecraft that carries the astronauts.

➤ **Reduction of Cost:** The first set of four astronaut candidates for the Gaganyaan mission of 2022 are to train in Russia. For such programmes, the country pays a large amount of money to avail space training facilities abroad.

Challakere

➤ Challakere is a city in Chitradurga district in the state of Karnataka. India.

➤ It is called **oil city** with numerous edible oil mills around the city.

➤ Challakere is famous for **kambali (woven blankets)** made by the **local Kuruba people**.

➤ It is also known as the **"second Mumbai"** of India because it is the second-largest producer/supplier of edible oil after Mumbai. There are as many as 60+ oil industries in Challakere.

Chandrayaan-3 and Gaganyaan

Why in News

The **Indian Space Research Organisation (ISRO)** is working simultaneously on the **Chandrayaan-3** and **Gaganyaan**.

Chandrayaan-3

➤ It is the **successor to the Chandrayaan-2** and it is likely to attempt another soft-landing on the lunar surface.

- ❍ It will be almost a repetition of the July 2019 Chandrayaan-2 mission in the configuration of spacecraft, the landing spot on the moon and the experiments to be conducted on the lunar surface.

➤ Although scores of landers sent by Russia, the U.S. and the Chinese have explored the moon's surface so far, **none has landed in the southern hemisphere of the moon**. ISRO hopes to be the first to do so.

➤ The **total cost** will be over **₹600 crores**.

Gaganyaan

➤ It was announced by the Prime Minister in August 2018 and is the **₹10,000-crore Indian human space flight scheduled for 2022**. It is designed to have 3-7 crew members and spend 3-7 days in space in a 400-km orbit.

➤ ISRO has already constituted an advisory committee for the Gaganyaan and has identified four astronauts whose training will commence in Russia from January in 2020.

Second Space port in Tamil Nadu

➤ The Tamil Nadu government has started acquiring 2,300 acres of land in **Thoothukudi** district for ISRO's second launch port. Currently, satellites are launched from the **Sriharikota launch centre in Andhra Pradesh**.

➤ Thoothukudi offers a **locational advantage** to launch towards India's South. It will handle mainly the **Small Satellite Launch Vehicle (SSLV)** that is under development. SSLVs are meant to put a **payload of up to 500 kg** in space.

➤ Thoothukudi, located on the east coast and near the equator, was selected for the following reasons:

- ❍ **Speed Boost To Rockets:** The **Earth's rotation provides a speed boost to rockets launched in the eastward direction** and headed for an equatorial orbit around the planet.
- ❍ **Save Lives:** If there is a failure during the launch, then the debris from an explosion would fall directly into the Bay of Bengal instead of land, which would have less impact on damaging property or taking lives. Further, a southern space port reduces the distance to the South Pole and ensures access to a vast, unpopulated area below the flight path.

Note:

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○ **Fuel Efficiency:** Another advantage of the new space port include **straight southward launches** as the current rockets have to be manoeuvred around Sri Lanka.

● At present, once the rocket lifts off from Sriharikota, it flies further east to avoid Sri Lanka and then steers itself back towards the South Pole. This manoeuvre requires more fuel and for a smaller rocket like the SSLV, this could hamper its limited payload capacity and reduce the rocket's value for Antrix, ISRO's commercial ventures operator.

New Satellites to Help Gaganyaan Crew

Why in News

India is planning to put up a new satellite series called the **Indian Data Relay Satellite System (IDRSS)**.

➢ The IDRSS is planned to track and be constantly in touch with Indian satellites, mainly with those in **low-earth orbits (LEO)** which have limited coverage of earth.

> **Low Earth orbit:** It is an Earth-centered orbit with an altitude of 2,000 km or less. Most of manmade objects in space are in this orbit.

Key Points

➢ It will play a crucial role in **helping Indian Space Research Organisation (ISRO)** with its advanced LEO missions such as space docking, space station and distant expeditions to the Moon, Mars and venus.

➢ It will also be useful in **monitoring launches**.

➢ IDRSS satellites of the 2,000 kg class would be launched on the **Geosynchronous Satellite Launch Vehicle (GSLV) launcher to geostationary orbits** around 36,000 km away. A satellite in **Geosynchronous Equatorial Orbit (GEO)** covers a third of the earth and therefore three of them can provide total coverage.

➢ Crew members of the **Gaganyaan mission** of 2022 will be the first ones to benefit from the IDRSS by staying in touch with mission control fully and continuously throughout the travel.

➢ **Background**

○ At present, in the absence of a data relay satellite system, spacecraft are not visible all the time.

○ The scientists have **already started working on two IDRSS satellites** planned initially.

○ The **first** will be sent towards the **end of 2020** which will precede the pre-Gaganyaan experimental unmanned space flight. The **second** one will follow in **2021**.

○ Both satellites will offer near-total tracking, sending and receiving of information from the crew 24/7.

➢ **Global Scenario**

○ The U.S. and Russia started relay satellite systems in the late 1970s and 80s. These are being used to monitor the space stations Mir and the International Space Station, trips made to them and to monitor the Hubble Space Telescope, as well.

○ Currently, the **U.S.** is putting up its third-generation advanced fleet of **Tracking & Data Relay Satellites (TDRS)**.

○ **Russia** has its **Satellite Data Relay Network**.

○ **Europe** is building its own **European Data Relay System**.

○ **China** is into its **second generation Tianlian II** series.

> **Mir:** It was a space station operated by the Soviet Union and later by Russia in low Earth orbit from 1986 to 2001. Mir was the first modular space station.
>
> **Geostationary Orbits:** It fall in the same category as geosynchronous orbits, but with that one **special quality of being parked over the equator**. Geosynchronous satellites are launched into orbit in the same direction the Earth is spinning and can have any inclination.
>
> **International Space Station**
>
> ➢ It is a **habitable artificial satellite** - the single largest man-made structure in low earth orbit.
>
> ➢ The ISS programme is a **joint project between five participating space agencies: NASA** (United States), **Roscosmos** (Russia), **JAXA** (Japan), **ESA** (Europe), and **CSA** (Canada) but its ownership and use has been established by intergovernmental treaties and agreements.
>
> ➢ Its **first** component was launched into orbit in **1998** and its development and assembly still continues. It is **expected to operate until 2030**.

Note:

Hubble Space Telescope

➢ The NASA named the **world's first space-based optical telescope** after American astronomer Edwin P. Hubble (1889-1953).

➢ It is the **first major optical telescope to be placed in space**, the ultimate mountaintop.

107ᵗʰ Indian Science Congress

Why in News

Recently, the Prime Minister has inaugurated **107ᵗʰ Indian Science Congress**.

➢ It is scheduled to take place between January 3-7, at the University of Agricultural Sciences (UAS) in **Bengaluru, Karnataka**.

➢ 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.

During the session the Indian Railways has announced that it will build a **hydrogen-powered rail engine** by the **end of 2021**.

➢ The **Indian Railways Organisation for Alternate Fuels (IROAF)** will be developing a hydrogen-powered rail engine — a technology that has been demonstrated successfully only in Germany so far.

➢ The proposed train will have four passenger coaches operating at 75 km/hr speed.

  ○ One coach will carry the hydrogen gas cylinders, fuel cells, supercapacitors and DC converters.

➢ Hydrogen will be the input to the fuel cell and the power output of the fuel cell will drive the train.

➢ The next phase is to generate hydrogen on board the train from water. This means that water will be converted into hydrogen through water splitting technologies and hydrogen will then be used as the input for fuel cells.

➢ Hydrogen-powered rail engine will help to reduce reliance on fossil fuel-based energy sources like diesel and electricity and to find alternative sources of fuel to power its trains.

Fuel Cell

➢ Fuel cells are electrochemical devices that convert chemical energy from the reactants directly into electricity and heat.

➢ The device consists of an electrolyte layer in contact with a porous anode and cathode on either side.

➢ In a standard fuel cell, gaseous fuels are fed continuously to the anode (negative electrode), while an oxidant (oxygen from the air) is fed continuously to the cathode (positive electrode). Electrochemical reactions take place at the electrodes to produce an electric current.
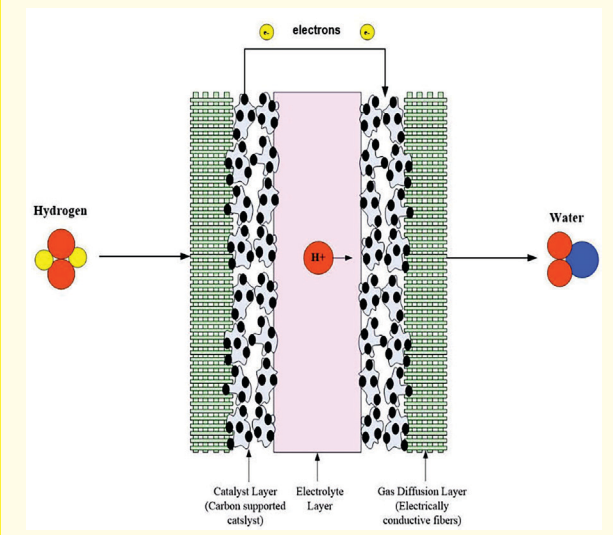
➢ At the same session the **importance of communication and community outreach programmes** was discussed to make people aware of scientific research.

➢ The Department of Science and Technology also mentioned about the Centre's policy on implementing **Scientific Social Responsibility (SSR)**.

Scientific Social Responsibility

➢ **Definition:**

  ○ Scientific Social Responsibility (SSR) is the confluence of scientific knowledge with visionary leadership and social conscience.

  ○ It is about building synergies among all stakeholders in scientific knowledge community and also about developing linkages between science and society.

➢ **Need:**

  ○ The SSR policy will facilitate easy access to resources and knowledge about the investments and impacts of Science and Technology (S&T) on society.

Note:

○ It would inculcate moral responsibility amongst the scientific community which may trigger social entrepreneurship and start-ups impacting S&T ecosystem and society.

➢ **Objectives:**

○ It aims to harness the voluntary potential in the country's scientific community to strengthen science and society linkages.

○ This primarily involves bridging science-society, science-science and society-science gaps, thereby bringing trust, partnership and responsibility of science at an accelerated pace towards achieving social goals.

➢ **SSR Policy:**

○ Under the programme, researchers who are working on a science project funded by any of the Ministries under the Central government will have to undertake activities to popularise science and make it more accessible to the public.

○ It will include a range of activities like delivering lectures in educational institutes, writing an article in a magazine or doing something beyond the curriculum.

○ The science outreach would be mandatory and researchers will have to include this as part of their outcome report.

○ Soon the government will list activities that could be taken up under the Scientific Social Responsibility programme that was similar to Corporate Social Responsibility (CSR).

● The term "Corporate Social Responsibility" in general can be referred to as corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare.

● In India, the concept of CSR is **governed** by **clause 135 of the Companies Act, 2013**.

Indian Science Congress

➢ The Indian Science Congress Association (ISCA) owes its origin to the foresight and initiative of two British Chemists, namely, Professor J. L. Simonsen and Professor P.S. MacMahon.

➢ The first meeting of the Congress was held from January 15-17, 1914 at the premises of the Asiatic Society, Calcutta.

ICAR to Set up Farmers' Innovation Fund

Why in News

The **Indian Council of Agricultural Research (ICAR)** is all set to start a **Farmers Innovation Fund**. ICAR will bring a system to scientifically validate, scale-up and propagate the innovations of progressive farmers.

➢ As part of this system, **an innovation centre** will be established in **New Delhi** where the innovations will be scientifically validated and farmers will be allowed to pursue research work.

Key Points

➢ **Agriculture and Science:** The system intends to link farmers and farming with science and to ensure that their farm practices are science-based. It would also encourage farmers to continue their innovations.

○ **Krishi Vigyan Kendras document the innovations** of farmers.

➢ **Technology in Agriculture:** ICAR emphasises that **agriculture is a science** and application of principles of science help in boosting agriculture.

○ **Scientific approach and use of technology** helped in the success of various agricultural and allied sectors' revolutions like - **green revolution and white revolution**.

➢ **Organic Farming:** ICAR has developed **45 different organic farming models** suitable for different agro-climatic regions and has **validated 51 integrated farming systems** to help increase farm income.

➢ **Fertilisers and Pesticides:** ICAR is developing **nano fertilizers and nano pesticides** to promote organic farming and to reduce the use of pesticides and fertilizers

➢ **Youth and Agriculture:** A programme named Arya is also being implemented to **improve rural bio-economy** and **attract youth to agriculture**.

○ Till now over 5000 youth have been brought into this programme in which they have been **trained to be entrepreneurs and begin a start-up**. Around 104 such startups are marketing processed food items.

➢ **Indian Science Congress:** Its theme for the year 2020 was **"Science & Technology: Rural Development"**.

Also, **Farmers' Science Congress** was inaugurated for the **first time in the 107 years of history of the Indian Science Congress** highlighting the importance of farmer's innovations and their scientific validity.

Indian Council of Agricultural Resource

➤ It is an autonomous organisation under the **Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare**.

➤ It was established on **16 July 192**9.

➤ It is headquartered at **New Delhi**.

➤ It is the apex body for coordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country.

Krishi Vigyan Kendras

➤ These are an integral part of the **National Agricultural Research System (NARS)**, which aims at the assessment of location-specific technology modules in agriculture and allied enterprises, through technology assessment, refinement, and demonstrations.

➤ These are **100% funded by the Government of India**.

➤ The **first KVK** was established in **1974 at Puducherry**.

A(H9N2) Virus

Why in News

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.

Key Points

➤ **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.

Indigenous TB Diagnostic Tool

Why in News

The World Health Organisation (WHO) has endorsed TrueNat - an indigenous molecular diagnostic tool for **tuberculosis** (TB) diagnosis in the country.

Key Points

➤ WHO's approval is important for India because it has the most number of TB patients in the world.

➤ According to the Global Tuberculosis Report 2019, India had 26.9 lakh TB patients in 2018.

➤ According to the National Strategic Plan for TB Elimination 2017-2025, TB kills an estimated 4,80,000 Indians every year and over 1,400 every day.

TrueNat

➤ It was developed by **Goa-based Molbio Diagnostics**.

➤ TrueNat is a **polymerase chain reaction (PCR)**-based test that, by assaying the genes present in the TB bacteria, can not only detect the presence of the bacteria but can also detect drug resistance with the use of chips.

➤ It can be used easily and cost-effectively in the primary health care setup.

➤ It was found to be comparable in accuracy to similar tests currently in use and has been recommended as a replacement for sputum microscopy tests.

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Taal Volcano

Why in News

A volcano called Taal on the island of Luzon, 50 km from **Manila, Philippines** erupted on 12th January, 2020.

➢ **Compound Volcano:** Taal is classified as a "complex" volcano by the **Philippine Institute of Volcanology and Seismology (PHIVOLCS)**.

❍ A complex volcano, also called a compound vol-cano, is defined as one that doesn't have just one main vent or cone but several eruption points. Another such example is **Mount Vesuvius** on the west coast of Italy.

➢ **Unpredictable:** Taal has erupted more than 30 times in the last few centuries, the most recent was in 1977.

➢ It needs to be noted that the Philippines is situated at the boundaries of two tectonic plates — **the Philippines Sea Plate and the Eurasian plate** — thus susceptible to earthquakes and volcanism.

Artificial Humans – NEONs

Why in News

NEON was one of the most-discussed new concepts at the annual Consumer Electronics Show (CES) held in Las Vegas in 2020.

➢ NEONs, being called the **world's first artificial humans**, have been created by Samsung's Star Labs headed by Pranav Mistry, an India - born scientist.

➢ NEONs are computationally created **virtual humans** — the word derives from **NEO (new) + humaN**.

➢ For now the virtual humans can show emotions when manually controlled by their creators. But the idea is for NEONs to become intelligent enough to be fully autonomous, showing emotions, learning skills, creating memories, and being intelligent on their own.

❍ A virtual human is a Computer Generated (CG) human simulation with artificial intelligence. A virtual human can have a CG human body, and CG voice and computer empowered senses.Virtual humans can be applied in various domains such as education, marketing, branding, training & sales.

Coronaviruses

According to the World Health Organization (WHO), a new variant of coronavirus has caused pneumonia outbreak in Wuhan, China.

❍ The new coronavirus is different from previously discovered human coronaviruses and further understanding of the virus requires more scientific research.

About Coronaviruses

❍ Coronaviruses are named for the crown-like spikes on their surface. "Corona" in Latin means "halo" or "crown."

❍ Human coronaviruses were first identified in the mid-1960s. Till date, scientists have identified six coronaviruses that can infect people.

Types

❍ Four common coronavirus that cause mild to moderate upper-respiratory tract illnesses, like the common cold are:
● 229E (alpha coronavirus)
● NL63 (alpha coronavirus)
● OC43 (beta coronavirus)
● HKU1 (beta coronavirus)

❍ While, the two other human coronaviruses that have been known to frequently cause severe symptoms are:
● MERS-CoV (the beta corona-virus that causes Middle East Respiratory Syndrome, or MERS)
● SARS-CoV (the beta corona-virus that causes Severe Acute Respiratory Syndrome, or SARS)

❍ Other coronaviruses can infect animals like cats, dogs, monkeys, and rodents.

Antibodies

Since coronavirus antibodies do not last for a very long time, a person can catch the virus again within months. Also, the antibodies for one strain of coronavirus may be useless against other strains.

Transmission

Human coronaviruses most commonly spread from an infected person to others through
❍ the air by coughing and sneezing,
❍ close personal contact, such as touching or shaking hands,
❍ touching an object or surface with the virus on it, then touching your mouth, nose, or eyes before washing your hands,
❍ rarely through fecal contamination.

Vaccination

There are currently no vaccines available against human coronavirus infection.

Middle East Respiratory Syndrome (MERS)

❍ MERS was first reported in **Saudi Arabia in 2012** and has since spread to several other countries.

❍ It is caused by a virus (more specifically, a coronavirus) called Middle East Respiratory Syndrome Coronavirus (MERS-CoV).

❍ Most MERS patients develop severe respiratory illness with symp-toms of fever, cough and shortness of breath.

❍ About 3 or 4 out of every 10 patients reported with MERS have died.

Severe Acute Respiratory Syndrome

❍ SARS coronavirus (SARS-CoV) was identified in 2003. It first infected humans in the Guangdong province of **southern China in 2002**.

❍ An epidemic of SARS affected 26 countries and resulted in more than 8000 cases in 2003.

❍ Its transmission is primarily from person to person.

❍ Symptoms are influenza-like and include fever, malaise, myalgia, headache, diarrhoea, and shivering (rigors). No individual symptom or cluster of symptoms has proved to be specific for a diagnosis of SARS.

Environment and Ecology

Highlights

- North-East Monsoon Ends with 30% Surplus Rain
- Kerala to Curb Alien Plants' Growth
- Miyawaki Method in Kerala
- Reduced Tiger Mortality in 3 Years
- 'Statement on Climate of India during 2019'
- Mandatory Re-grassing After Mining: SC
- CRZ Rules Eased for 'Blue Flag' Beaches
- Kaziranga National Park
- Nalabana Bird Sanctuary
- Indian Skimmer
- Chinese Paddlefish
- Ghodahada Reservoir

North-East Monsoon Ends with 30% Surplus Rain

Why in News

India witnessed a **30% surplus** in total rainfall during the Northeast monsoon in 2019.

➤ October to December is recognised as the period for **Northeast monsoon** by the India Meteorological Department (IMD).

Key Points

➤ In 2019, the southwest monsoon withdrew late so there was a delay for the onset of the northeast monsoon. Despite this, southern peninsula received normal or above-normal rainfall during the three months.

  ❍ Rainfall during these three months was evenly distributed, both spatially and temporally, with every week recording normal rainfall throughout the season.

  ❍ **2019 witnessed** the rare meteorological **coincidence** of the northeast monsoon making its onset on the **same day** as the southwest monsoon withdrew officially.

Monsoon in India

➤ The **south-west monsoon** (summer monsoon) blows from **sea to land** after crossing the Indian Ocean, Arabian Sea, and the Bay of Bengal.

  ❍ It brings most of the rainfall in the country, approximately **75% of India's annual rainfall**.

  ❍ It gets its name from the direction in which it travels, from the southwest to the northeast.

➤ The **northeast monsoon** (winter monsoon) blows from **land to sea**.

  ❍ During this period, rainfall is experienced over southern states, mainly **Tamil Nadu, Kerala, Andhra Pradesh** along with **some parts of Telangana and Karnataka**.

  ❍ In areas around **Jammu and Kashmir, Himachal Pradesh, Uttarakhand** and along the northeast, precipitation during this period reported is either in the form of rainfall or snowfall.

India Meteorological Department

➤ It was established in 1875.

➤ It 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.

Western Disturbance

➤ Western Disturbances develop in the mid-latitude region (north of the Tropic of Cancer), not in the tropical region, therefore they are called as mid-latitude storms or extra-tropical storms.

  ❍ Extra-Tropical Cyclones are also called as winter storms and blizzards.

➤ Western Disturbances are low-pressure systems, embedded in western winds (westerlies) that flow from west to the east.

Note:

- It can be noted that many other parts of the country, like the Gangetic plains and northern states, also receive rain in November and December but this is not due to the northeast monsoon.
- It is caused mainly by the Western Disturbances, an eastward-moving rain-bearing wind system that originates beyond Afghanistan and Iran, picking up moisture from as far as the Mediterranean Sea, even the Atlantic Ocean. In the higher reaches of Jammu and Kashmir, Himachal Pradesh, and Uttarakhand, the precipitation is often in the form of snow.
  - The northeast monsoon does not have anything to do with northeast India. It derives its name from the direction in which it travels, from the northeast to the southwest.

Kerala to Curb Alien Plants' Growth

Why in News

Kerala Government has planned to arrest the rampant growth of **invasive plants, especially Senna spectabilis,** in the forest areas of the **Nilgiri Biosphere Reserve (NBR), including the Wayanad Wildlife Sanctuary**.

- ➢ Due to mass flowering and drying of bamboo species in Wayanad, lots of open spaces **(78.91 sq km)** have been occupied by Senna spectabilis.
- ➢ The plant has also started to invade the adjacent **Bandipur** and Nagarhole tiger reserves in Karnataka and **Mudumalai Tiger Reserve in Tamil Nadu**.

Senna spectabilis

- ➢ It is a **deciduous tree native to tropical areas of America**.
- ➢ The thick foliage of the tree **arrests the growth of other indigenous tree**, grass species and **affects the germination and growth** of the **native species**. Thus, it causes **food shortage** for the wildlife population, especially **herbivores**.
- ➢ It is categorised as **'Least Concern'** under **IUCN Red List**.

Wayanad Wildlife Sanctuary

- ➢ It is part of the **Nilgiri Biosphere Reserve** along with **Mudumalai Wildlife Sanctuary, Bandipur National Park, Nagarhole National Park, Mukurthi National Park, and Silent Valley**.
- ➢ **Ecological and geographic continuity with other protected areas** such as Bandipur Tiger Reserve and Nagarhole National Park of Karnataka in the north-eastern portion and Mudumalai Tiger Reserve of Tamil Nadu in the south-east makes it a significant sanctuary.
- ➢ It has the **world's largest recorded population of the Asiatic elephant**.
- ➢ Almost the entire Wayanad district is drained by **Kabini and its three tributaries,** the Panamaram, Mananthavady, and Kalindy rivers.
  - The Kabini River, one of the three **east flowing rivers** of Kerala, is an important **tributary of the Kaveri River**.

Miyawaki Method in Kerala

Why in News

Kerala has decided to use the **Japanese Miyawaki method** of afforestation.

- ➢ Earlier Tamil Nadu, Maharashtra, Telangana and some other states adopted this method.
- ➢ The replication of the model across Kerala, which **has suffered floods, landslides and soil erosion**, assumes significance with the **Rebuild Kerala** initiative on.

Key Points

- ➢ The Miyawaki method has revolutionised the concept of **urban afforestation by turning backyards into mini-forests**.
- ➢ Regardless of soil and climatic conditions it has helped create **more than 3,000 forests all over the world**.
- ➢ It creates a **dense forest in just 20 to 30 years,** while through conventional methods it takes anywhere between 200 to 300 years.
- ➢ Forests grow **10 times faster and 30 times denser**.
- ➢ The saplings become **self-sustainable after the first three years**.

Note:

The Miyawaki method for restoring tropical forests

Germinate the seeds in a nursery, When two to three leaves have sprouted, move the seedlings to pots, Cultivate the seedlings in ports until their root groups generally fill the containers,

Cultivate under nets designed to cut out 60 percent of the sunlight for one to two months

Cultivate under nets designed to cut out 40 percent of the sunlight for one to two months.

Obtain seeds from natural tropical forests

"No management is best management"

Plant and conduct maintenance for one to two years, From the third year entrust the trees to natural management At this point the rule is "No management is the best management"

Adapt to the natural environment in an existing forest (period of between one week and one month).

Miyawaki Process

➤ The native trees of the region are identified and divided into **four layers — shrub, sub-tree, tree, and canopy**.

➤ The quality of soil is analysed and biomass which would help enhance the perforation capacity, water retention capacity, and nutrients in it, is mixed with it.

➤ A mound is built with the soil and the seeds are **planted at a very high density**. The ground is covered with a thick layer of mulch.

➤ Multi-layered saplings are planted close to each other. This blocks sunlight from reaching the ground and **prevents weeds** from growing, thus **keeping the soil moist**. The close cropping further ensures that the plants **receive sunlight only from the top** thus enabling them to **grow upwards rather than sideways**.

➤ This is one of the reasons why the saplings grow tall in a short span of time.

Concerns

➤ Such forests **lack** some qualities of natural forests, such as **medicinal properties and the ability to bring rain**.

➤ Such fast-growing plantations are **actually wood lots** (a parcel of a woodland or forest capable of small-scale production of forest products such as wood fuel, sap for maple syrup, saw logs and pulpwood) and **cannot be termed as forests**.

➤ Several environmentalists have questioned the efficacy of the method that accelerates the growth of trees and claims to match a forest's complex ecosystem (as it is **not a good idea to force plants to photosynthesize fast**).

➤ Environmentalists also pointed out that the **technique was started by the Japanese considering the climate in Japan** and the regular occurrence of natural calamities like earthquakes. But, the method is **not good for a tropical country like India**.

Reduced Tiger Mortality in 3 Years

Why in News

According to the Ministry of Forest Environment and Climate Change (MoEFCC), the number of tiger deaths in 2019 has decreased for the first time in three years.

➤ **Numerics:**

  ❍ For 2019, 84 cases of tiger deaths and 11 cases of seizures (a tiger is presumed dead on the basis

Note:

of body parts seized by authorities) are reported in the country.

➢ **Reason:**
  ○ **Poaching** is the main reason for tiger deaths in the country followed by other natural reasons.
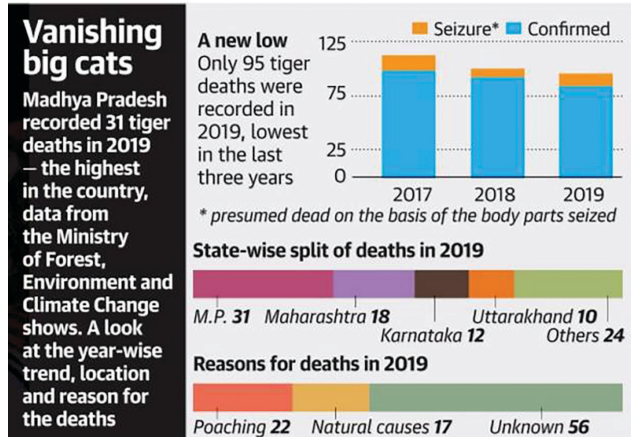
➢ **Location:**
  ○ Tigers are most vulnerable when they are outside reserves as they are not under surveillance.
  ○ Almost over 70% of cases of poaching have been reported outside tiger reserves.

➢ **Use of Technology:**
  ○ The reduced tiger mortalities are due to usage of technology for surveillance, good management of tiger reserves and a lot of awareness and education programmes on tiger conservation.
    • **M-STrIPES** (Monitoring System for Tigers-Intensive Protection & Ecological Status) patrolling app is deployed and used in every tiger reserve.

➢ The number of tiger deaths recorded in previous years are 122 (2016), 115 (2017), 100 (2018) and 95 (2019).

➢ Decreasing tiger mortality has emerged parallelly with the increasing numbers of tigers in the country.
  ○ The tiger census report (2019), reported an increase in the number of tigers compared to 2014.

Vanishing big cats

Madhya Pradesh recorded 31 tiger deaths in 2019 — the highest in the country, data from the Ministry of Forest, Environment and Climate Change shows. A look at the year-wise trend, location and reason for the deaths

A new low
Only 95 tiger deaths were recorded in 2019, lowest in the last three years
* presumed dead on the basis of the body parts seized

State-wise split of deaths in 2019
M.P. **31** Maharashtra **18** Karnataka **12** Uttarakhand **10** Others **24**

Reasons for deaths in 2019
Poaching **22** Natural causes **17** Unknown **56**

'Statement on Climate of India during 2019'

Why in News

The **India Meteorological Department (IMD)** has **released** the **'Statement on Climate of India during 2019'**.

Key Findings

➢ **Deaths due to weather extremes:** 2019 was a year of extremes – heat, cold, rain, and cyclones for India, killing a total of 1,562 people as compared to 1,428 last year.
  ○ The **state-wise death toll** caused due to various extreme weather events: Maharashtra (231), Jharkhand (138), Uttar Pradesh (135), Rajasthan (94), Kerala (86), Odisha (64), Jammu and Kashmir, Ladakh (51), Karnataka (43), Himachal Pradesh (27) and Madhya Pradesh (24).

Killer extreme weather of 2019	
Cause	**Number of deaths**
Heavy rain, floods	849
Heatwave	349
Thunderstorm	210
Lightning	75
Snow avalanche	51
Coldwave	28
Total	**1,562**

➢ **Rainfall:** The rainfall amounts during both the southwest monsoon (June to September) and northeast monsoon (October to December) remained 109% of the Long Period Average (LPA). That is, the country recorded excess rainfall during the entire year, making it an extremely wet year in recent times, when both monsoons reported above normal rain for the seasons.
  ○ **Long Period Average** is a 50 year average of India's monsoon rains. The current LPA is 89 cm, based on the average rainfall over the years 1951 and 2000.

➢ **Rise in Temperature**
  ○ The mean temperatures remained 0.36 degrees above normal, making **2019 the seventh hottest year ever recorded**.
  ○ The **decade 2011 – 2019 remained the warmest** on record for the country, when the annual mean temperature remained 0.36 degree above normal.
  ○ **Since 1901, India has warmed by 1 degree Celsius.** Whereas, the minimum temperature was 0.22 degrees in the century.

➢ **Number of Cyclones:** 2019 was exceptional for the number of cyclones that hit India's east and west coasts.

○ Previously, similar cyclonic activity was reported in the Indian Ocean only during 1893, 1926, 1930, and 1976. During these years, cyclones formed both in the Arabian Sea and the Bay of Bengal put together numbered to ten in a calendar year.

○ **Notably, an active Arabian Sea saw more cyclonic storms than the Bay of Bengal during 2019.** It was only for the second time in 117 years that the Arabian Sea saw such intense and frequent cyclones.

○ In 2019, eight cyclonic storms formed over the north Indian Ocean, of these, five — Cyclones Vayu, Hikka, Kyarr, Maha and Pavan originated in the **Arabia Sea, which is normally calmer**. On the contrary, the Bay of Bengal reported less than normal number of cyclones. The three cyclones formed here were — Cyclones Pabuk, Fani, Bulbul.

○ The Bay of Bengal sees an average of five cyclones each year, making **2019 a year when the Arabian Sea dominated**.

➢ **Coldest Winter**

○ The winter of 2018-2019 was one of the coldest in the northern hemisphere.

○ Jammu and Kashmir, Ladakh reported 51 deaths triggered by snow avalanche in 2019.

India Meteorological Department
➢ IMD was established in **1875**.
➢ It 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.

Mandatory Re-grassing After Mining: SC

Why in News

Recently, the **Supreme Court of India** ordered the government to **include re-grassing of mined areas** as a mandatory condition in every mining lease, environmental clearance and mining.

➢ It also held that mining leaseholders should take responsibility for re-grassing mined areas so that biodiversity can flourish in such areas.

Key Points from the Order

➢ The SC ordered the government to **file a report in three weeks after taking appropriate actions** and directed it to devise methods to ensure compliance by mining leaseholders.

➢ The cost of re-grassing the mined area and wherever damage was caused, would be entirely **borne by the licence holder**.

➢ **Mine closure plan** imposes conditions on the licence holder to restore biodiversity. The mandatory re-grassing would be in addition to these conditions.

➢ The apex court held that mined areas result in the complete elimination of grass and denies fodder to herbivores.

○ Re-grassing of such mined areas is the only solution so that grass and other vegetation, including trees, can grow in the mining area for the benefits of animals and the land is restored to a condition which is fit for the growth of fodder, flora, fauna, etc.

Environmental Issues Caused by Mining

➢ Erosion.
➢ Formation of sinkholes.
➢ Loss of biodiversity.
➢ Contamination of soil, groundwater and surface water by chemicals from mining processes.

Mine Closure Plan
It involves effective planning of the after-mining landscape of a mine after its operating life has ended. These activities include **Water Quality Management, Air Quality Management, Waste Management, Top Soil Management, Disaster Management and Risk Assessment, Safety and Security etc**.

CRZ Rules Eased for 'Blue Flag' Beaches

Why in News

Recently, the Ministry of Environment and Forest has **relaxed Coastal Regulation Zone (CRZ) rules**.

➢ CRZ rules **restrict construction near beaches**. Relaxation in the rules will allow States to construct infrastructure and enable the beaches to receive **'Blue Flag'** certification.

Note:

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Key Points

➢ The Ministry selected **13 beaches** in India for the Blue Flag certificate in 2019.

➢ India's CRZ laws do not allow the construction of infrastructure on beaches and islands.

   ○ However, the Blue Flag certification requires beaches to create infrastructures like portable toilet blocks, greywater treatment plants, a solar power plant, seating facilities, CCTV surveillance, etc.

➢ The government notified that construction activities and facilities shall be permitted in the CRZs, including Islands, for the purpose of Blue Flag Certification in beaches.

   ○ However, these activities are subject to maintaining a minimum distance of 10 meters from the High Tide Line (HTL).

> **High Tide Line:** HTL means the line on the land up to which the highest water line reaches during the spring tide.
>
> **Low Tide Line:** Similarly, it means the line on the land up to which the lowest water line reaches during the spring tide.
>
> **Spring Tides:** The position of both the sun and the moon in relation to the earth has direct bearing on tide height. When the sun, the moon and the earth are in a straight line, the height of the tide will be higher. These are called spring tides and they occur twice a month, one on full moon period and another during new moon period.

Blue Flag Certification

➢ It is an **international recognition** conferred on beaches that meet certain criteria of cleanliness and environmental propriety.

➢ The 'Blue Flag' beach is an **'eco-tourism model'** and marks out beaches as providing tourists and beachgoers clean and hygienic bathing water, facilities/amenities, a safe and healthy environment and sustainable development of the area.

➢ The Blue Flag Programme was started in **France in 1985** and has been implemented in Europe since 1987 and in areas outside Europe since 2001 when South Africa joined.

   ○ The Blue Flag Programme is **run by** the **Foundation for Environmental Education (FEE)** which is an **international, non-governmental, non-profit** organisation.

➢ The certification is accorded by the **Denmark-based Foundation** for Environment Education, with 33 stringent criteria under four major heads for the beaches, that are:

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

➢ **Spain tops the list with 566** such beaches; Greece and France follow with 515 and 395 Blue Flag beaches, respectively.

➢ **Japan and South Korea** are the **only countries** in the **south and southeastern Asia** to have Blue Flag beaches.
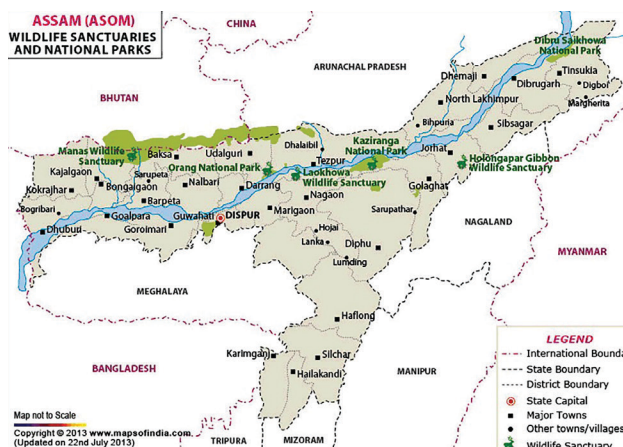

Kaziranga National Park

Why in News

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.

Key Findings

➢ **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 BirdLife 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.

Nalabana Bird Sanctuary

Why in News

Recently, a record number of migratory birds have arrived at the Nalabana bird sanctuary in Odisha.

➢ The **dismantling of illegal prawn gherries inside the lake** is being cited as the main **reason** behind the avian gathering. **Gherries** are areas encroached for illegal prawn cultivation inside the wetland area.

Key Points

➢ The Nalabana bird sanctuary is located on **Nalabana Island in the Chilika lagoon area in Odisha**.

➢ The Nalabana Bird Sanctuary is the **core area of Chilika**.

➢ The large Nalabana Island **(Forest of Reeds)** covering about 16 sq km was declared a **bird sanctuary** in **1987**.

➢ The island **disappears during the monsoon** due to inundation, only to emerge again post-monsoon.

➢ Nalabana and **Mangalajodi** (on the banks of Chilika lake) are the two major places in Chilika where the **birds congregate**.

➢ Migratory birds usually start arriving at Chilika in November as it is a comparatively hospitable alternate habitat compared to the extreme freezing conditions in their natural habitats in **Siberia, China, Japan and other countries in the northern hemisphere**.

➢ Few important migratory birds seen here are: Bar-headed geese, greater flamingos, herons, black-tailed godwits and rare Great Knot. The **Great Knot** was seen after five years.

➢ **Chilika Lake is Asia's largest** and **world's second-largest lagoon** after the **New Caledonian barrier reef** in **New Caledonia**.

Note:

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Great Knot (Calidris tenuirostris)

➢ The Great Knot is an **international migratory bird** that travels vast distances between the northern hemisphere breeding grounds and southern hemisphere summer feeding grounds around.

➢ It is distributed in far northeast Russia, coastal Australia, southeast Asia, India, Bangladesh, Pakistan and eastern Arabian Peninsula.

➢ It is listed as **Endangered** under the **International Union for Conservation of Nature (IUCN) Red List**.

Indian Skimmer

Why in News

The **annual bird census** has commenced in the **Coringa Wildlife Sanctuary** and surrounding wetlands in the Godavari mangroves on the east coast in Andhra Pradesh.

➢ The census aims at the documentation of migratory and resident birds so that a better management plan of the complex ecosystem supporting the waterbird species can be prepared.

➢ The **Godavari mangroves is one among the few places where the Indian Skimmer can be spotted**.

Indian Skimmer

➢ Indian Skimmer **(Rynchops albicollis)** is a waterbird species.

➢ In India, the species can be sighted **near the Chambal river in Central India,** in few parts of Odisha and in Andhra Pradesh.

➢ **IUCN Red List** Status – Vulnerable.

Coringa Wildlife Sanctuary

➢ **Located in Andhra Pradesh,** the CWLS is home to numerous endangered species including the fishing cat, otter, jackal, sea turtles, sea gull, pelican, stork, heron, snipes, flamingos among others.

➢ **Godavari Mangroves at the Coringa Wildlife Sanctuary (CWLS)** are touted to be the **second largest mangroves in India.** The **largest mangrove forest** in the world is **Sundarbans, West Bengal**.

Chinese Paddlefish

Why in news

Recently, the Chinese paddlefish has been declared **extinct** by Chinese scientists. It was last spotted in 2003.

Key Points

➢ It was one of the **largest freshwater fish**.

➢ **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.

Note:

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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**.

Ghodahada Reservoir

Why in News?

The **population of Mugger Crocodile** is on the **rise in Odisha's Ghodahada reservoir**.

➢ The reservoir is located close to the **Lakhari Valley Sanctuary** and is a part of the Eastern Ghats.

➢ The reservoir is fed by Ghodahada river which is a tributary of the Rushikulya.

Mugger Crocodile (Crocodylus palustris)

➢ It is **one of the three crocodile species found in Odisha,** the others being **gharial** in Satkosia and **Saltwater crocodile** in **Bhitarkanika National Park**.

➢ The mugger is an egg-laying and hole-nesting species.

➢ It is **mainly restricted to the Indian subcontinent** where it may be found in a number of freshwater habitat types including rivers, lakes and marshes. However, it can even be found in coastal saltwater lagoons and estuaries.

➢ It is already **extinct in Bhutan and Myanmar**.

➢ **Principal threats:** Habitat destruction, fragmentation, and transformation, fishing activities and use of crocodile parts for medicinal purposes.

➢ **Protection**

  ❍ **IUCN status:** Vulnerable

  ❍ **Wildlife Protection Act, 1972:** Schedule I

  ❍ **CITES:** Appendix I.

Lakhari Valley Sanctuary

➢ It was established in the year **1985**. It is marked by the tropical climate and receives a huge amount of rainfall every year due to its proximity to the Bay of Bengal.

➢ It is **one of the elephant populated sanctuaries in India**.

■■■

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Art & Culture

Highlights

- Savitribai Phule Jayanti
- Lamu Region in Kenya
- Sangita Kalanidhi Award
- Nritya Kalanidhi Award
- Harvest Festivals in India
- Padmanur's Yakshagana
- INTACH Efforts to Protect Buddhist Site
- Monasteries at Moghalmari

Savitribai Phule Jayanti

Why in News

Savitribai Phule Jayanti is celebrated on **3rd January** every year to honour her contribution towards society, women empowerment and education.

➢ She is considered to be **one of India's first modern feminists** and remembered for being **India's first female teacher** who worked for the upliftment of women and untouchables in the field of education and literacy.

Savitribai Phule

➢ She was **born** in Naigaon, Satara district of **Maharashtra** on January 3, 1831 and **married** activist and social reformer **Jyotirao Phule** at the age of nine years.

➢ With her husband's support, Phule learned to read and write and both of them **found India's first school for girls** called **Bhide Wada** in **Pune** in **1848**.

○ In Maharashtra, a nationalist discourse was playing out between 1881-1920 led by **Bal Gangadhar Tilak**, who opposed the setting up of schools for girls and non-Brahmins citing loss of nationality.

➢ Phule started the **Literacy Mission in India** between **1854-55** and the **Satyashodhak Samaj (Society for Truth-Seeking)**, through which she along with her husband wanted to initiate the practice of **Satyashodhak marriage**, in which no dowry was taken.

➢ She wrote **poems** in Marathi in which she advocated for values such as humanism, liberty, equality, brotherhood, rationalism and the importance of education among others.

○ Her books of poems are **"Kavya Phule"** and **"Bavan Kashi Subodh Ratnakar"**.

➢ She **passed away** on **March 10, 1897**.

Lamu Region in Kenya

Why in News

Somalia's Al-Shabaab group has attacked a military base used by the United States of America (USA), and Kenyan forces in **Kenya's coastal Lamu region**.

Lamu Region

➢ Lamu Island is located on the **eastern coast of Kenya**.

➢ Lamu is one of the oldest and the best-preserved living settlements among the **Swahili towns** (in Arabic Swahili means **"of the coast"**) on the East African coast.

○ The old town is thus a unique and rare historical living heritage with more than **700 years of continuous settlement**.

Note:

- It is built on coral stone and mangrove timber and is characterized by structural forms such as inner courtyards, verandas, and elaborately carved wooden doors.
- It was one of the most **important trade centres** in East Africa before other towns such as Zanzibar and Mombasa took over.
- Lamu represents the **Swahili culture**, resulting from the interaction between the Bantu, Arabs, Persians, Indians, and Europeans.
- Lamu has hosted major Muslim religious festivals since the 19th century and has become a significant centre for the study of **Islamic and Swahili cultures**.
- It is recognised as a **World Heritage Site** by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)**.

World Heritage site

- World Heritage site, any of various areas or objects inscribed on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List.
- The sites are designated as having "outstanding universal value" under the Convention Concerning the Protection of the World Cultural and Natural Heritage 1972.
- It provides a framework for international cooperation in preserving and protecting cultural treasures and natural areas throughout the world.
- There are three types of sites: Cultural, Natural, and Mixed.

Sangita Kalanidhi Award

Why in News

Recently, **S. Sowmya** has been conferred with the **Sangita Kalanidhi Award**. The award is conferred by **the Madras Music Academy**.

- It is considered the **highest award** in the field of **Carnatic music**.
- The award comprises of a **gold medal and a birudu Patra (citation)**.

Madras Music Academy

- **Music Conference** held along with **All India Congress Session** in **Madras (1927)** laid the idea of it.


Carnatic music

- It is a system of music commonly associated with southern India including the states of **Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu**. It is also practised in **Sri Lanka**.
- It is one of two main genres of Indian classical music that evolved from ancient Hindu traditions. The other genre is Hindustani music which **emerged** as a distinct form because of **Persian and Islamic influences in northern India**.

- It plays an important role in promoting Carnatic Music.

Nritya Kalanidhi Award

Why in News

Recently, **Bharatnatyam** dancer **Priyadarshini Govind** has been conferred with **Nritya Kalanidhi Award**.

- The award has been **presented by the Madras Music Academy** for her performance and efforts to propagate the art form.
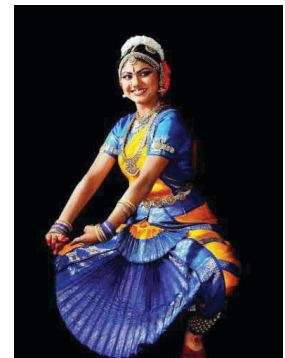
Bharatnatyam

- It is one among the **eight classical dances of India**. The other classical dances are: Kathakali (Kerala), Kuchipudi (Andhra Pradesh), Kathak (North India), Mohiniyattam (Kerala), Manipuri (Manipur), Odissi (Odisha) and Sattriya (Assam).
- It was **conventionally performed by Devadasis** (girls offered to God in the temple) in Hindu Temples of South India. Thus, it is also known as **'Dasiattam'**.
- It was developed in Tanjore and other regions of South India prominently Tamil Nadu, and could **possibly be the oldest classical dance form of India** (around 2000 years old).
- The **Abhinaya Darpana by Nandikesvara** is one of the main sources of textual material for the study of the technique and grammar of body movement in Bharatnatyam Dance.
- Bharatnatyam dance is known to be **ekaharya**, where one dancer takes on many roles in a single performance.

Note:

- The dance involves **transitional movements** of the leg, hip and arm. Expressive eye movements and hand gestures are used to convey emotions. It encompasses of Bhav, Rag, Ras and Taal.

- The **accompanying orchestra** consists of a vocalist, a mridangam player, violinist or veena player, a flautist and a cymbal player. The person who conducts the dance recitation is the **Nattuvanar**.

- In its usual form, the dance is generally broken into **seven main parts** – Alarippu, Jatiswaran, Shabda, Varna, Pada, Thillana and Sloka.

- Bharatnatyam poses are depicted on the gopurams of the Chidambaram temple (Tamil Nadu).

- **E. Krishna Iyer** and **Rukmini Devi Arundale** had played a significant role in helping the dance regain its lost popularity and position.

Harvest Festivals in India

Why in News

The harvest festivals like Lohri, Makar Sankranti and Pongal have recently been celebrated all across the country. The festivals celebrate the hard work and enterprise of millions of farmers across the country.

Makar Sankranti

- Makar Sankranti **denotes the entry of the sun into the zodiac sign of Makara (Capricorn)** as it travels on its celestial path.

- The day marks the onset of summer and the six months auspicious period for Hindus known as **Uttarayan – the northward movement of the sun**.
  - ❍ As a part of the official celebration of 'Uttarayan', the **Gujarat government** has been hosting the **International Kite Festival since 1989**.

- The **festivities associated with the day** is known by **different names** in different parts of the country — Lohri by North Indian Hindus and Sikhs, **Sukarat** in central India, **Bhogali Bihu** by Assamese Hindus, and **Pongal** by Tamil and other South Indian Hindus.

Pongal

- The word **Pongal means 'overflow' or 'boiling over'**. Also known as Thai Pongal, the four-day occasion is observed in the month of Thai, when crops such as rice are harvested and people show their gratitude to the almighty and the generosity of the land.

- Tamilians celebrate the occasion by making traditional designs known as **kolams** in their homes with rice powder.

Makaravilakku festival in Sabarimala

- It is celebrated at the sacred grove of **Lord Ayyappa** at Sabarimala.

- It is an **annual seven-day festival, beginning on the day of Makara Sankranti**.

- The highlight of the festival is the appearance of **Makarajyothi** - a celestial star which appears on the day of Makara Sankranthi on top of Kantamala Hills.

- Makara Vilakku ends with the ritual called **'Guruthi'**, an offering made to appease the god and goddesses of the wilderness.

Padmanur's Yakshagana

Why in News

Recently, the Yakshagana committee hosted the **60th annual Yakshagana** in the Padmanur village, Karnataka.

- The committee is officially known as the **Sarvajanika Yakshagana Bayalata Samithi** and was set up in **1959**.

- It is a multi-faith committee consisting of Hindus, Christians and Muslims and it hosts Yakshagana every year.

Yakshagana

- It is a rare and unique **traditional theatre of Karnataka state** in India and has a recorded history of **more than 5 centuries**.

- It is a rich artistic blend of music, dance, speech, and costumes, this art combines the features of opera as well as drama, the characteristics of moral education and mass entertainment.

- Yakshagana is strongly influenced by the Bhakti movement.

Bhakti Movement

➢ The Bhakti movement probably **began** around in **6th and 7th Century AD** and achieved a great deal of popularity through the poems of the **Alvars and Nayanars**, the **Vaishnavite and Shaivite poets**.

➢ They strongly criticized all sectarian zealotry and caste discrimination in society.

➢ All of them claimed relevance for religion in social life, in the sphere of real human aspirations and social relationships. Bhakti poets emphasized surrender to god.

INTACH Efforts to Protect Buddhist Site

Why in News

The **Indian National Trust for Art and Cultural Heritage (INTACH)**, has almost **stopped the stone-pelting ritual at Bojjannakonda**, a famous **Buddhist site** at Sankaram, near Visakhapatnam, **Andhra Pradesh**.

➢ On the Kanuma day during Sankranti, the villagers used to pelt stones at a belly-shaped object, believing it to be a part of a demon.
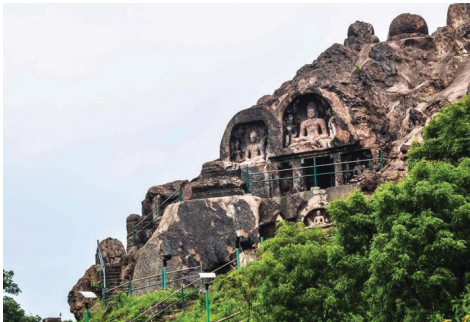
Kanuma Day

➢ It is an **important day during the Pongal and Sankranti festivals**, which are both ancient harvest festivals that take place in mid-January, celebrating the movement of the sun reversing, marking the start of the end of winter.

➢ In Andhra Pradesh, the Kanuma festival is celebrated on the third day of the four-day Sankranti festival.

➢ It is an important festival of Telugu people and is dedicated to cattle and other animals that are an important part of the rural economy in Andhra Pradesh.

Key Points

➢ The **main stupa** is **carved out of rock** and then covered with bricks, with a number of images of the Buddha sculpted on the rock face all over the hill.

➢ **Bojjannakonda and Lingalametta are the twin Buddhist monasteries dating back to the 3rd century BC.**

○ At Lingalametta, there are hundreds of rock-cut monolithic stupas in rows.

➢ These sites have seen **three forms of Buddhism**-

○ **Theravada period:** when Lord Buddha was considered a teacher.

○ **Mahayana:** where Buddhism was more devotional.

○ **Vajrayana:** where Buddhist tradition was more practised as Tantra and esoteric form.

➢ The name Sankaram is derived from the term, 'Sangharama'.

○ It is **famous for votive stupas**, rock-cut caves, brick-built structural edifices, early historic pottery and Satavahana coins that date back to the 1st century AD.

➢ **Visakhapatnam is also famous for Buddhist sites** at Thotlakonda, Appikonda, and Bavikonda.

Indian National Trust for Art and Cultural Heritage

➢ It is a **non-profit charitable organisation** registered under the **Societies' Registration Act, 1860**.

➢ It was founded in **1984 in New Delhi** with the vision to spearhead heritage awareness and conservation in India.

➢ In 2007, the **United Nations** awarded INTACH a special **consultative status with the United Nations Economic and Social Council**.

Monasteries at Moghalmari

Why in News

Recently, a study of inscriptions on clay tablets excavated from **Moghalmari** have confirmed the presence of two monasteries.

➢ Moghalmari is a **Buddhist monastic site** of the early medieval period in West Bengal's Paschim Medinipur district.

➢ Chinese traveller **Xuanzang** (more widely identified as **Huen Tsang**), who visited India in the **7th century**

Note:

CE, referred to the existence of **'ten monasteries'** within the limits of **Tamralipta** (modern day Tamluk in adjoining Purba Medinipur district). However, he did not refer to any specific name or location.

Key Findings

➢ **Presence of two monasteries -** Mugalayikaviharika and Yajñapindikamahavihara at Moghalmari.

   ❍ Six tiny fragments of inscribed seals found contain a set of letters accompanied by the deer-dharmachakra symbols.

   ❍ The inscriptions are in **Sanskrit** and the script is a transitional phase between later north Indian Brahmi and early Siddhamatrika.

   ❍ The first name on the seals - Yajñapindikamahavihara, implies etymologically 'a place of sacrificial offering'.

   ❍ The second name on the seals, Mugalayikaviharika, bears a phonetic resemblance to the modern name of the site, Moghalmari.

➢ The monasteries at Moghalmari date from the 6th century CE and were functional until the 12th century CE. The presence of two monasteries dating to the same period within a single compound is unique in eastern India.

➢ Inscriptions support the point that Buddhist monasteries have a definite hierarchy — **Mahavihara, Vihara and Viharika**.

Brahmi and Siddhamatrika

➢ The oldest deciphered inscriptions belong to the late 4th century BCE and are in Brahmi and Kharoshthi scripts.

➢ These include those of Maurya emperor Ashoka, which are in a number of different languages and scripts, but mostly in the Prakrit language and Brahmi script.

➢ The different stages of Brahmi script are often labelled on the basis if dynasties, e.g. Ashokan Brahmi, Kushana Brahmi and Gupta Brahmi.

➢ In the late 6th century, Gupta Brahmi evolved into a script known as Siddhamatrika or Kutlia.

➢ The modern north Indian scripts such as Devanagari gradually emerged out of Siddhamatrika.

■■■

Note:

Social Issues

Highlights

- *Manual Scavenging in India*
- *Under-5 Girls Face High Mortality in India: UNICEF*
- *Tribes in Odisha*
- *Tribes in Assam*
- *Bhil Tribe*

Manual Scavenging in India

Why in News

The **Central Monitoring Committee to review the implementation of the** Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 has mentioned that **many states are lagging behind in the rehabilitation of manual scavengers**.

➢ Though most of the sewer death compensation had been paid but states like Gujarat, Maharashtra are yet to pay compensation.

Key Points

➢ **Numerical Analysis**
  - ○ Since 1993, a total of 926 deaths related to the manual scavenging are reported in the country, out of which 172 families are yet to receive compensation.

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

DATA NOT AVAILABLE FOR STATES COLOURED GREY

Tripura 2
Gujarat 162
Chhattisgarh 1
Tamil Nadu 234
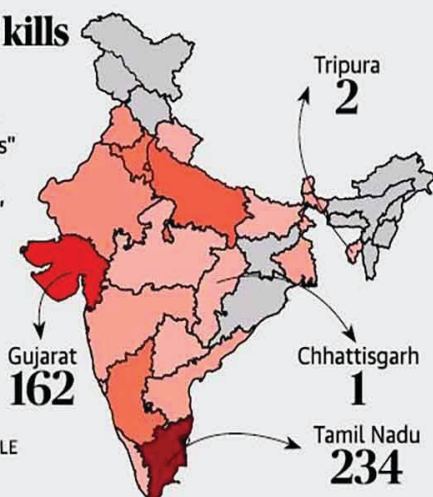
➢ **State-wise Analysis**
  - ○ **Engaged Workers:** According to the National Commission of Safai Karamcharis (NCSK), a total of 53,598 people, of which 29,923 were in Uttar Pradesh alone, had been identified as engaged in manual scavenging after surveys in 2013 and 2018.
  - ○ **Deaths: Tamil Nadu** reported the **highest number of deaths** but has paid compensation in all but seven of the 234 cases.
  - ○ **Compensation Not Paid: Gujarat** has the highest number of cases where the compensation amount was not paid followed by Maharashtra.
➢ **Steps taken for Elimination**
  - ○ Currently, one-time cash assistance, capital subsidy and skill development training are provided to the identified manual scavengers.

Prohibition of Employment of Manual Scavengers and their Rehabilitation Act, 2013

➢ **Prohibition:** The act prohibits the employment of manual scavengers, manual cleaning of sewers and septic tanks without protective equipment, and the construction of insanitary latrines.
➢ **Rehabilitation:** It seeks to rehabilitate manual scavengers and provide for their alternative employment.
➢ **Implementing Authority**
  - ○ The District Magistrate and the local authority shall be the implementing authorities.
  - ○ Each local authority, cantonment board and railway authority is responsible for surveying insanitary latrines within its jurisdiction. They shall also construct a number of sanitary community latrines.
➢ **Offences under the Act** shall be **cognizable and non-bailable** and may be tried summarily.

Note:

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Reasons for Persistence of Manual Scavenging

➢ Despite the most stringent penal provisions in the law against manual scavenging, it **continues in parts of India largely due to governmental indifference and social prejudice**.

➢ The **continued presence of insanitary latrines,** of which there are about 2.6 million that require cleaning by hand, according to Safai Karmachari Andolan.

➢ Many communities still regard the **presence of a sanitary toilet inside the house as physical pollution**.

➢ The entrenched belief in the **caste system** that assumes people belonging to a particular caste group will readily perform the stigmatised task of emptying latrines.

➢ The **state governments are not keen to demolish and rebuild old facilities lacking sanitation**, or conduct a full census of both the latrines and the people engaged in clearing such waste.

National Commission of Safai Karamcharis

➢ The National Commission for Safai Karamcharis (NCSK) was constituted on 12th August 1994 as a statutory body by an Act of Parliament viz. **'National Commission for Safai Karamcharis Act, 1993'**.

➢ **The act** "The National Commission for Safai Karamcharis Act, 1993" **lapsed in February 2004**.

➢ The **Commission is acting as a non-statutory body of the Ministry of Social Justice and Empowerment** whose tenure is extended from time to time through Government Resolutions.

Under-5 Girls Face High Mortality in India: UNICEF

Why in News

Recently, the **United Nations Children's Fund (UNICEF)** released the **'Levels and Trends in Child Mortality'** report.

Global Scenario

➢ **Child deaths**

○ One child or young adolescent died every five seconds in 2018.

○ Half of all under-5 deaths in 2018 occurred in five countries: India, Nigeria, Pakistan, the Democratic Republic of the Congo and Ethiopia. India and Nigeria alone account for about a third.

➢ **Gender Disparity in Child Mortality**

○ Fewer countries showed gender disparities in child mortality in 2018.

○ On average, boys are expected to have a higher probability of dying before reaching age-5 than girls.

○ However, countries primarily located in Southern Asia (including India) and Western Asia have a significantly higher risk of girls dying before age 5.

➢ **Child Deaths Prediction**

○ 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.

Indian Scenario

➢ **Under-5 Mortality**

○ The **burden of child mortality** is determined both by the **mortality rate (the proportion of children who die)** and by the estimated population of any given State (total number of annual births).

○ Unlike global trends, **India's under-5 mortality of girls exceeded that of boys in 2018**.

○ **Jharkhand, Bihar** and **Uttarakhand** showed the **largest gender gaps in under-5 mortality**.

➢ **Neonatal Mortality**

○ The **majority** of child mortality cases in India are attributable to **deaths during the neonatal period**.

● Neonatal mortality rate is the number of neonatal deaths per 1000 live births. A neonatal death is defined as a death during the first 28 days of life (0-27 days).

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

Note:

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- India's neonatal mortality rate is **23 per 1,000 live births**.
  - The **major causes of neonatal mortality** are preterm birth, intrapartum related events and neonatal infection.
  - According to India's 2017 **Sample Registration System** (SRS), 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.
  - **Uttar Pradesh is the state with the highest number of estimated newborn deaths** in India, both because of the high neonatal mortality rate and because of the large number of births that occur every year in the State.

Way Forward

➢ It is urgently required to further accelerate progress in preventing child deaths by adopting proactive measures.

➢ Deaths of newborns can be prevented by reaching high coverage of quality antenatal care, skilled care at birth, postnatal care for mother and baby, and care of small and sick newborns.

Tribes in Odisha

Why in News

The poor implementation of government welfare programmes in the tribal areas of Odisha is affecting the tribes like Juanga, Pudi Bhuyan.

Juanga Tribe

➢ Juangas are one of the 13 **Particularly Vulnerable Tribal Groups (PVTG)** out of the total 62 tribes found in Odisha.

➢ They speak Juanga, a dialect of Munda language.

➢ They usually observe their festivals and marriage ceremony with Changu dance.

➢ Early marriage is a common practice among Juangas, leading to complications among children born out of young parents.

Pudi Bhuyan Tribe

➢ Pudi Bhuyan is a major section of the historically famous Bhuinya tribe.

➢ This tribe is majorly found in Bihar, Odisha, West Bengal and Assam.

➢ It is one of the 13 Particularly Vulnerable Tribal Groups (PVTG) in Odisha.

➢ They speak local Odia language which is pronounced differently.

Tribes in Assam

Why in News

The anti-**Citizenship (Amendment) Act** protests have brought demands of the Adivasis and tea tribes in Assam to the forefront.

➢ The **Adivasis**, comprising 106 sub-groups, are the **largest of the six communities demanding the Scheduled Tribes (ST) status**. The others are Chutiya, Koch-Rajbongshi, Moran, Matak, and Tai-Ahom.
  - The Adivasis **comprise 18% of Assam's population**.

➢ The grant of ST status to these communities will make Assam a tribal-majority State.

Tea Tribes

➢ The tea garden workers were originally brought by the British from Odisha, Madhya Pradesh, Bihar, Andhra Pradesh and West Bengal to work in the tea plantations of Assam during mid 19th century. Later they permanently settled in Assam.

➢ They are known as tea and ex-tea garden tribes, who are **recognized as Other Backward Classes (OBC) by the Government**.

➢ These people not only constitute a sizeable chunk of the population in the State but also play a major role in tea production of the State (about 53% of the total tea production of the country).

➢ Economically, they are quite backward and literacy level among these communities is extremely low. Thus, they are demanding ST status in the state of Assam.

Koch Rajbongshi

➢ Koch Rajbongshi is an ancient tribe originally from the ancient Koch kingdom. The word **"Rajbongshi"** literally means **"royal community"**.

➢ The homelands of this ancient tribe include West Bengal, Assam, Arunachal Pradesh, Meghalaya and various North-Eastern parts of India.

The Citizenship (Amendment) Act, 2019

➢ It seeks to fast-track citizenship for persecuted minority groups in Pakistan, Bangladesh and Afghanistan. The six minority groups that have been specifically identified are Hindus, Jains, Sikhs, Buddhists, Christians and Parsis.

Scheduled Tribes

➢ Under **Article 342** of the Constitution the President after consultation with the Governor of a particular state can specify the tribes or tribal communities or parts of or groups within tribes or tribal communities to be Scheduled Tribes in relation to that State or Union territory, as the case may be.

➢ They speak Rajbongshi/Rajbanshi language. This language is also spoken in Bangladesh and Nepal.

➢ The Rajbongshi were primarily **animist** (perceiving all things animated and alive), but later on, they followed Hinduism/Sanatana (both Shaiva and Vaishnavite). A few sections of Rajbongshi people were also found to be followers of Christianity.

Moran Community

➢ The Moran community is **one of the aboriginal tribes of Assam**.

➢ In the 13th century, they lived in the **south eastern region of the Brahmaputra valley**.

➢ They had their own independent kingdom before the advent of the Ahoms.

➢ It is possible that it is a tribal word that means a group of people like, Mising, Mulung, Mung tai, etc.

➢ In the early 17th century, Aniruddhadeva converted them to Vaishnavism and thus brought about the regeneration of their society and culture.
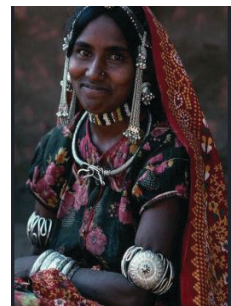
Bhil Tribe

Why in News

Recent controversial references to the Bhil tribe by Madhya Pradesh Public Service Commission (MPPSC) has received severe criticism.

Key Points

➢ The Bhil are **one of the largest tribal groups**, living in Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh and Rajasthan.

➢ The name is **derived** from the **word 'billu'**, which **means bow**.

➢ The Bhil are known to be **excellent archers** coupled with deep knowledge about their local geography.

➢ Traditionally, **experts in guerrilla warfare**, most of them today are farmers and agricultural labourers. They are also skilled sculptors.

■■■

Note:

Security

Highlights

- *Indian Army Day*
- *Sea Guardians*

Indian Army Day

Why in News

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.

Battle of Asal Uttar

➢ The battle of Asal Uttar was a key turning point during the **Indo-Pakistan war of 1965**, which set the course of India's victory. It was fought from 8th - 10th September, 1965.

➢ It is described by historians as one of the largest tank battles in history since World War II.

➢ Asal Uttar is a village 12 km from the international border with Pakistan in Punjab's Tarn Taran district.

MQ-9B Sky Guardian

➢ It is the next generation **Remotely Piloted Aircrafts Systems (RPAS)**.

➢ It is a highly modular aircraft and is rapidly configurable with a variety of payloads and weapons.

Sea Guardians

Why in News

The **sixth joint naval exercise between China and Pakistan** started on 6th January, 2019. It is being held in the **Arabian Sea**.

➢ For the first time, the exercise has been named as **'Sea Guardians'**.

➢ 'Sea Guardians' is expected to become a series of naval exercises between China and Pakistan, similar to:

   ❍ **Warrior:** Series of joint land exercises

   ❍ **Shaheen:** Series of joint air exercises.

Note:

'Dharma Guardian' is the **joint military exercise** between **India** and **Japan**.

■■■

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Miscellaneous

Highlights

- Homo Erectus
- 202nd Anniversary of the Bhima-Koregaon Battle
- Seke Language
- World Hindi Day

Homo Erectus

Why in News

According to a study published in 'Nature', the last known settlement of **Homo erectus** was situated in **Ngandong** on the **Indonesian island of Java**.

➢ Homo erectus (meaning upright man) is an extinct species of the human genus (Homo), perhaps an **ancestor of modern humans (Homo sapiens)**.

➢ As per the study, the human ancestors existed on the Indonesian island between 1,08,000 and 1,17,000 years ago.

➢ While fossil remains from H. erectus are found in Africa, like those of earlier hominins, they have also been identified at fossil sites widely dispersed across Eurasia.

➢ In particular, H. erectus had a similar range of body sizes to modern humans, and it is the first human ancestor to have similar limb and torso proportions to those seen in modern humans. This suggests it had adapted to walking on two feet in a more open, grassland environment, rather than swinging from tree.

Hominin

➢ Hominin is any member of the zoological **"tribe"** Hominini (family Hominidae, order Primates), of which only one species exists today – Homo sapiens, or human beings.

➢ The term is used most often to refer to **extinct members of the human lineage,** some of which are now quite well known from fossil remains: Homo neanderthalensis (the Neanderthals), Homo erectus, Homo habilis, and various species of Australopithecus.

Homo erectus facts

- **Lived:** from about two million years ago until at least 250,000 years ago
- **Where:** Africa, Asia and perhaps Europe
- **Appearance:** human-like body proportions and upright stance, a protruding brow ridge, large face and no chin
- **Brain size:** about 550-1,250cm^3
- **Height:** about 1.4-1.8m
- **Weight:** about 41-65kg
- **Diet:** meat (initially from scavenging but later potentially also from hunting) and plants
- **Species named in:** 1893 (as *Anthropopithecus erectus,* renamed *Pithecanthropus erectus* in 1894 and *Homo erectus* in 1950) following its 1891 discovery
- **Name meaning:** 'upright human'

202nd Anniversary of the Bhima-Koregaon Battle

Why in News

The victory pillar (also known as Ransthamb) in Bhima-Koregaon village (Pune district of Maharashtra) is to celebrate the 202nd anniversary of the Bhima-Koregaon battle of 1818 on January 1, 2020.

➢ In 2018, incidents of violence were registered during the celebration of the 200th anniversary of the Bhima-Koregaon battle.

Historical Background

➢ A battle was fought in Bhima Koregaon between the Peshwa forces and the British on January 1, 1818.

➢ The British army, which comprised mainly of Dalit soldiers, fought the upper caste-dominated Peshwa army. The British troops defeated the Peshwa army.

- Peshwa Bajirao II had insulted the Mahar community and terminated them from the service of his army. This caused them to side with the English against the Peshwa's numerically superior army.
- The defeat of Peshwa army was considered to be a victory against caste-based discrimination and oppression.

➤ It was one of the last battles of the third Anglo-Maratha War, which ended the Peshwa domination.

➤ Babasaheb Ambedkar's visit to the site on January 1, 1927, revitalised the memory of the battle for the Dalit community, making it a rallying point and an assertion of pride.

Seke Language

➤ Seke means **"golden language"** which originated in the **Mustang district of Nepal**.

➤ It is an unwritten language.

➤ It is spoken in just **five villages** of Chuksang, Chaile, Gyakar, Tangbe, and Tetang, a region close to the border with Tibet.

➤ There are just **700 or so Seke speakers left in the world**.

➤ The three reported dialects of Seke are **Tangbe, Tetang, and Chuksang**.

➤ It is one of the **endangered languages** in the world.

- According to the criteria adopted by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)**, a language becomes extinct when nobody speaks or remembers the language. The UNESCO has categorized languages on basis of endangerment as follows:-
  - Vulnerable
  - Definitely Endangered
  - Severely Endangered
  - Critically Endangered
- UNESCO has recognised 42 Indian languages as Critically Endangered.

Degree of endangerment	Intergenerational Language Transmission
Safe	Language is spoken by all generations; intergenerational transmission is uninterrupted.
Vulnerable	Most children speak the language, but it may be restricted to certain domains.
Definitely endangered	Children no longer learn the language as mother tongue in the home.
Severely endangered	Language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves.
Critically endangered	The youngest speakers are grandparents and older, and they speak the language partially and infrequently.
Extinct	There are no speakers left.

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 Rashtriya 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**.

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Key Points   **Details**

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