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Current Affairs (CONSOLIDATION)

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Polity and Governance

Highlights

- SC on Disqualification Powers of Speakers
- SC's Judgement on Anticipatory Bail
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- Guidelines to Monitor Sand Mining
- Lucknow and Noida to Get Police Commissioner System
- Road Safety Meeting
- National Startup Advisory Council
- Bru Refugee Crisis
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- Fuel Conservation Campaign: Saksham
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- Amendments to National Commission for Homoeopathy Bill, 2019
- 5th Annual Day of CARA

SC on Disqualification Powers of Speakers

Why in News

The Supreme Court has recently held that disqualification petitions under the **Tenth Schedule** should be adjudicated by a mechanism outside Parliament or Legislative Assemblies.

Key Points

- The Court has suggested a permanent tribunal headed by a retired Supreme Court judge or a former High Court Chief Justice as a new mechanism. This would require an amendment to the Constitution.
 - Currently, disqualification of members of a House/Assembly is referred to the Speaker of the House/Assembly.
- However, for the present, the court said the Speakers should decide Tenth Schedule disqualifications within a **"reasonable period"**. What is 'reasonable' would depend on the facts of each case.
- The Court held that unless there are **"exceptional circumstances"**, disqualification petitions under the Tenth Schedule should be decided by Speakers within three months.

Logic Behind the Supreme Court's Judgement

- The Supreme Court questioned why a Speaker, who is a member of a particular political party and an insider in the House, should be the **"sole and final arbiter"** in the disqualification of a political defector.
- For that matter, it asked why disqualification proceedings under the Tenth Schedule should be kept in-house and not be given to an "outside" authority. It reasoned that even the final authority for removal of a judge is outside the judiciary and in Parliament.
- The Court held that only swift and impartial disqualification of defectors would give "real teeth" to the Tenth Schedule.

Disqualification under the Tenth Schedule

- The Anti-Defection Law was passed in **1985** through the **52nd amendment to the Constitution**. It **added the Tenth Schedule** to the Indian Constitution. The main intent of the law was to combat **"the evil of political defections"**.
- According to it, a **member of a House belonging to any political party becomes disqualified for being a member of the House**, if
 - He voluntarily gives up his membership of such political party; or

Note:

- He votes or abstains from voting in such House contrary to any direction issued by his political party without obtaining prior permission of such party and such act has not been condoned by the party within 15 days.

Exceptions to the disqualification on the ground of defection (Two cases)

- If a member goes out of his party as a result of a merger of the party with another party. A merger takes place when two-thirds of the members of the party have agreed to such merger.
- If a member, after being elected as the presiding officer of the House, voluntarily gives up the membership of his party or rejoins it after he ceases to hold that office. This exemption has been provided in view of the dignity and impartiality of the office.

Powers of Speaker with regard to Anti-Defection Law

- Any question regarding disqualification arising out of defection is to be **decided by the presiding officer of the House**.
- After **Kihoto Hollohan versus Zachilhu case (1993)**, the Supreme Court declared that the **decision of the presiding officer is not final** and can be questioned in any court. It is **subject to judicial review** on the grounds of malafide, perversity, etc.

Note:

- This is the **second time in recent months** the court has highlighted the issue of taking away the disqualification power under the Tenth Schedule from Speakers.
- In the **Karnataka MLAs' disqualification case**, the court had held that a Speaker who cannot stay away from the pressures and wishes of his political party does not deserve to occupy his chair.

SC's Judgement on Anticipatory Bail

Why in News

The Supreme Court has recently held that the **protection of anticipatory or pre-arrest bail cannot be limited to any time frame or "fixed period"**.

- The questions referred to the Constitution Bench were twofold:

- Whether the protection granted to a person under **Section 438 of the Code of Criminal Procedure** should be limited to a fixed period till the accused surrenders in court, and
- Whether the life of anticipatory bail should end when the accused is summoned by the court.

Anticipatory Bail

- **Section 438 (anticipatory bail) of the Code of Criminal Procedure** deals with direction for grant of bail to a person apprehending arrest.
- It states that when any person has reason to believe that s/he may be arrested on an accusation of having committed a **non-bailable offence**, s/he may apply to the High Court or the Court of Session for a direction under this section; and that Court may, if it thinks fit, direct that in the event of such arrest, s/he shall be released on bail.
- The **high frequency of arbitrary and heavy-handed arrests to harass and humiliate citizens**, and often at the interest of powerful individuals led to the enactment of Section 438.

Highlights of the Judgement

- **Section 438 and its Importance**
 - Anticipatory bail helps thwart influential powers from implicating their rivals in false cases.
 - It protects people from the **humiliation of detention in jail for days**.

The back story of advance bail

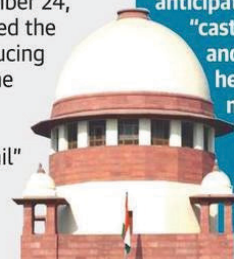
■ The old Cr.PC of 1898 did not contain any specific provision corresponding to the present Section 438. There was a difference of opinion among various HCs whether court had an inherent power to grant pre-arrest bail

■ The Law Commission of India on September 24, 1969, highlighted the need for introducing a provision in the Code enabling courts to grant "anticipatory bail" as an antidote to detention in false cases

■ Clause 447 of the Draft Bill of 1970 was enacted with some modifications and became Section 438 of the Cr.PC, 1973

A five-judge Supreme Court Bench in the 1980 case of **Gurbaksh Singh Sibbia vs. State of Punjab** interpreted that the power to grant anticipatory bail is

"cast in wide terms and should not be hedged in through narrow judicial interpretation". It held that courts could impose conditions which were appropriate



Note:



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- Anticipatory bail is all the more needed now because there is a drive of political rivalry and “this tendency is showing signs of steady increase”.

➤ Duration of Bail

- The **life of an anticipatory bail** order does not normally end at the time and stage when the accused is summoned by the court, or when charges are framed, but **can continue till the end of the trial**.
- A **denial of bail amounts to deprivation of personal liberty (a fundamental right under Article 21 of the Constitution)**, thus, the Court should lean against the imposition of unnecessary restrictions on the scope of Section 438.
- **Parliament has not thought it appropriate to curtail the power or discretion of the courts**, in granting pre-arrest or anticipatory bail, especially regarding the duration, or till chargesheet is filed, or in serious crimes. Therefore, it would not be in the larger interests of society if the court, by judicial interpretation, limits the exercise of that power.

➤ Grant of Anticipatory Bail

- The court held that **a plea for anticipatory bail can be filed even before the registration of FIR** as long as there is reasonable basis for apprehension of arrest and clarity of facts.
- An application for anticipatory bail should be based on **concrete facts and not vague or general allegations**. The application should also contain bare essential facts relating to the offence and why the applicant reasonably apprehends arrest.
- The **grant of protection should not be “blanket”** but confined to specific offence or incident for which relief from arrest is sought. It is open for the police to move court for arrest of the accused if there is any violation of bail conditions.

➤ Conditions on Anticipatory Bail

- It is **open for a court to impose appropriate conditions for grant of anticipatory bail** if the specific facts or the features of the offence involved demands it.
- **Restrictions/conditions can be imposed only on a case-to-case basis**. Courts have to consider the nature of the offence, the role of the person, the likelihood of his/her influencing the course of investigation or tampering of evidence, including intimidating witnesses and fleeing justice.

- It is essential for the court to evaluate the threat or apprehension, its gravity or seriousness and the appropriateness of any condition that may have to be imposed. Special or other restrictive conditions may be imposed if the case or cases warrant, but should not be imposed in a routine manner in all cases.

Proposal for Guidelines to Execute Death Penalty

Why in News

The Central government has filed a petition before the Supreme Court, seeking a time limit of seven days for death row convicts to file a mercy plea.

- The petition seeks appropriate modifications to the judgement passed in 2014, during the case of **Shatrughan Chauhan versus the Union of India and others**.
 - The above judgment **defined the procedure and guidelines** to be adopted in cases of prisoners on death row.
- The move comes in the backdrop of various pleas filed by convicts in the Nirbhaya gang-rape case (2012) that have delayed their hanging.

Other Demands

- The time limit to file curative and review petitions for death row convicts.
- To mandate all the competent courts, State governments, prison authorities in the country to issue the death warrant of a convict within seven days of the rejection of his mercy petition.
- **Execution of the death sentence within seven days** after the issuance of death warrant to the convict irrespective of the stage of **review petition/curative petition/mercy petition** of his co-convicts.

Background

- There are instances where the death sentence is not executed because the co-convicts either by default or by design choose to file review or curative or mercy petition one after the other, even at a belated stage. This causes a delay in the execution of the sentence of other co-convicts whose mercy petition has already been rejected.

Note:



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- The existing guidelines to execute the death penalty are more "convict-centric" rather than "victim-centric". As these guidelines **do not take into account** an irreparable mental trauma of the **victims** and their family members, the **collective conscience of the nation**.
- Over the years, it has been observed that convicts of heinous crimes misuse **Article 21 (Right to life)** to delay the judicial proceedings and in turn death sentences.

Guidelines to Monitor Sand Mining

Why in News

For the first time, the **Ministry of Environment, Forests and Climate Change (MoEFCC)** has released **guidelines to monitor and check illegal sand mining** in the country.

- At present, there are **Sustainable Sand Management Guidelines (SSMG), 2016** that focus on the management of sand mining. However, there was a need to have guidelines for effective enforcement of regulatory provisions and their monitoring.
- The 2020 guidelines are to be enforced simultaneously with the SSMG, 2016, in case of conflict, the new set will hold legal precedence.

Background

- The **Mines and Minerals (Development and Regulation) Act, 1957** has empowered state governments to make rules to prevent illegal mining, transportation and storage of minerals.
- However, there was a large number of illegal mining cases in the country and in some cases, many of the officers lost their lives while executing their duties to curb illegal mining.
- Illegal and uncontrolled illegal mining also leads to loss of revenue to the State and degradation of the environment.

Enforcement and Monitoring Guidelines for Sand Mining 2020

- **Source to Destination Monitoring:** The new set of guidelines focuses on the effective monitoring of sand mining from the identification of sand mineral sources to its dispatch and end-use by consumers and

the general public and look at a uniform protocol for the whole country.

- Constantly monitor mining with drones and night surveillance of mining activity through night-vision drones.
- **Audits:** States to carry out river audits, put detailed survey reports of all mining areas in the public domain.
 - While the Sustainable Sand Mining Guidelines, 2016, require the preparation of District Survey Reports (DSR), which is an important initial step before grant of mining lease, the government has found that the DSRs carried out by state and district administrations are often not comprehensive enough, allowing space for illegal mining.
 - The new guidelines, therefore, list a **detailed procedure of how the DSRs are to be made**, including the development of an inventory, for the first time, of river bed material and other sand sources in the district.
- **Transparency:** Online sales and purchase of sand and other RiverBed Materials (RBM) for transparency in the process.
- **Enforcement:** It gives directions to states to set up dedicated task forces at district levels.
 - In cases where **rivers become district boundaries or state boundaries**, the districts or states sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and participate in the preparation of **District Survey Reports (DSR)** by providing appropriate inputs.
- **Sustainability:** Conduct replenishment study for river bed sand in order to nullify the adverse impacts arising due to excessive sand extraction.
 - No riverbed mining will be allowed during the monsoon.

Constitutional/ Legal

Framework of Mining Sector in India

- The entry at serial No. 23 of List II (**State List**) to the Constitution of India mandates the state government to own the minerals located within their boundaries.
- The entry at serial No. 54 of List I (**Central List**) mandates the central government to own the minerals within the exclusive economic zone of India (EEZ). In pursuance to this Mines & Minerals (Development and Regulation) (MMDR) Act of 1957 was framed.

Note:

- 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.
 - Examples of minor minerals include building stones, gravel, ordinary clay, ordinary sand.
- 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.

Lucknow and Noida to Get Police Commissioner System

Why in News

The **Uttar Pradesh government** has given nod to the **implementation of the police commissionerate system** in the two cities, **Lucknow and Noida**.

- The **system will be monitored for six-months on a review basis** to know its effectiveness in handling law and order better and the **present system of District Magistrates (DMs) will be done away** on an experimental basis.

Structure of the Commissionerate System

- The Additional Director General of Police rank officer will be appointed as commissioner and will have two Inspector General of Police Rank officers as deputies.
- Apart from these, the new team will also have a **special Superintendent of Police (SP) appointed for women security** to ensure control of crime related to women and timely investigation of the registered cases.
- Also, there would be another SP rank officer who would be in **charge of Traffic management**. CCTV cameras would be installed at different places in these two cities for better traffic management and also for law and order.

Police Commissionerate System

- Under the 7th Schedule of the Constitution, **Police is under the State list**. It means individual states can legislate and exercise control over this subject.
 - At the **district level**, a '**dual system**' of control exists, in which the SP has to work with the DM for supervising police administration.
- At the **metropolitan level**, many states have **replaced the dual system with the commissionerate system**, to allow for faster decision-making to solve complex urban-centric issues.
 - Almost all states barring Bihar, Madhya Pradesh, UT of J&K, and some Northeastern states have a commissionerate system.
 - The **British brought the system first in Kolkata** and followed it in Mumbai and Chennai presidencies. **Delhi turned into a commissionerate during 1977-1979**.
- In the commissionerate system, the **Commissioner of Police (CP)** is the head of a unified police command structure.
 - He/she is responsible for the force in the city and is accountable to the state government.
 - The office also has **magisterial powers**, including those related to regulation, control, and licensing.
 - Under this system, **the commissioner does not report to the DM**.
- The CP is drawn from the Deputy Inspector General rank or above and is assisted by Special/Joint/Additional/Deputy Commissioners.

Dual System

- It is a legacy of the colonial system. Under it, **the overall in-charge of a district or region is the district collector and the SP reports to him**.
- The powers of the executive magistrate, such as issuing orders for preventive arrests or imposition of **Section 144 CrPC**, vests with the district collector.

Road Safety Meeting

Why in News

Recently, the **18th meeting of National Road Safety Council (NRSC)** and **39th meeting of Transport Development Council (TDC)** was held in New Delhi under the **Ministry of Road Transport & Highways (MoRTH)**.

Note:

Key Points

- The ministry is discussing with States the steps required for improving the engagement of the society towards accidents, and victims, whose life can be saved within the first 'golden hour'.
 - Golden hour refers to the immediate **one-hour time period** following a traumatic injury, during which, the chances of preventing death by way of prompt medical treatment are the highest.
- Different road safety aspects discussed in the meeting:
 - **The Motor Vehicle (Amendment) Act 2019**
 - Tourist Vehicles Authorisation and Permit Rules 2019
 - Bus port guidelines
 - Digitisation of transport and abolition of border check posts
 - Inter-state transfer of vehicle registration and driving licenses
 - Harmonisation of road tax across States – One Nation One Tax
 - Vehicle scrapping policy
 - Guidelines for setting up, authorisation and operation of vehicle scrapping facility
 - Implementation of vehicle tracking platform under Nirbhaya framework
- The meeting also highlighted 36% improvement on national highways and 26% on State highways.

National Road Safety Council

- It is an **advisory body** which was established under section 215 of the Motor Vehicles Act, 1988 with the objective of improving road safety aspects in the road transport sector.
- The Council is chaired by the Union Minister of Road Transport and Highways.
- In 2011, MoRTH formed five separate working groups on the four Es of road safety:
 - Education
 - Engineering of Roads
 - Engineering of Vehicles
 - Enforcement, and Emergency Care.

Transport Development Council

- It is the **highest body** to advise the Government on all matters relating to roads and road transport.

- The **Union Minister of Road Transport & Highways** is the **Chairman** of the Council.
- It meets **at least once a year**.

National Startup Advisory Council

Why in News

The Government has set up a National Startup Advisory Council to advise the Centre on measures needed to build a strong ecosystem for **nurturing innovation and start-ups** in the country.

- It needs to be noted that **India ranked 136th** on the parameter '**starting a business**' in the **World Bank's Ease of Doing Business** table **against an overall rank of 63**.

Composition of the Council

- The Minister for Commerce & Industry will be the **chairman** of the council. There will be a **convener of the council, ex-officio members** and **non-official members** (to be nominated by the Central Government from various categories like founders of successful startups, veterans of companies in India, etc.

Functions

- The Council will **suggest measures**:
 - To foster a culture of innovation amongst citizens and students, in particular, promote innovation in all sectors of the economy across the country.
 - To facilitate public organisations to assimilate innovation with a view to improve public service delivery, promote creation, protection and commercialization of intellectual property rights.
 - To make it easier to start, operate, grow and exit businesses by reducing regulatory compliances and costs, promote ease of access to capital for startups.

Bru Refugee Crisis

Why in News

A **four-party** agreement among the **Centre, Mizoram Government, Tripura Government and Mizoram Bru Displaced People's Forum (MBDPF)** which seeks to end the 22-year-old Bru refugee crisis was signed recently.

Note:



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Background

- **Bru or Reang** is a community **indigenous to Northeast India**, living mostly in **Tripura, Mizoram and Assam**. In **Tripura**, they are recognised as a **Particularly Vulnerable Tribal Group**.
- In **Mizoram**, they have been **targeted by groups** that **do not consider them indigenous to the state**. In 1997, following **ethnic clashes**, nearly 37,000 Brus fled Mamit, Kolasib and Lunglei districts of Mizoram. They were accommodated in relief camps in Tripura.
 - In June 2018, community leaders from the Bru camps signed an agreement with the Centre and the two-state governments, providing for repatriation in Mizoram. But most camp residents rejected the terms of the agreement.

The New Agreement

- **Choice to Settle:** The new agreement gives Bru the choice to either live in Mizoram or in Tripura. All Bru currently living in temporary relief camps in Tripura will be settled in the state, if they want to stay on. However, the Bru who returned to Mizoram cannot come back to Tripura.
- **Benefits for Migrants:** Each resettled family will get 0.03 acre of land for building a home, Rs 1.5 lakh as housing assistance, and Rs 4 lakh as a one-time cash benefit for sustenance. They will also receive a monthly allowance of Rs 5,000, and free rations for two years from the date of resettlement.
- **Special Development Project:** Apart from the benefits, the Centre will implement a special development project for the resettled Bru. This will be in addition to the Rs 600 crore fund announced for the process.
- **Inclusion in Voter List:** Bru tribals would be included in Tripura's voter list.
- **Mode of Transfer:** All cash assistance will be through Direct Benefit Transfer (DBT), and the state government will expedite the opening of bank accounts and the issuance of Aadhaar, permanent residence certificates, ST certificates, voter IDs, etc.

Benefits

- **Solution Oriented Approach:** Earlier attempts stressed only on peacefully repatriating the Bru. The two other "durable solutions" for refugees and displaced persons suggested by the United Nations – **local integration or assimilation**, and **resettlement**, were never explored.

Therefore, the new agreement is different from the past attempts in its approach as well as outcome.

- **Harmonious Assimilation:** Apart from their own Kaubru tongue, the Bru speak both Kokborok and Bangla, the two most widely spoken languages of the tribal and non-tribal communities of Tripura, and have an easy connection with the state.

Challenges

- **Inadequate Land:** Revenue experts reckon 162 acres will be required. Since Tripura is a small state there will be a requirement of diverting forest lands.
- **Clearance Delays:** Forest land diversion needs clearance from the Union Ministry of Environment, Forest and Climate Change (MoEFCC), which is likely to delay the process.
- **Promote Extreme Ethnocentrism:** The "solution" has evoked mixed reactions with rights activists fearing it could "legitimise" the ejection of minority communities by ethnocentric states.
- **Cascading Demands:** The displaced Brus who returned to Mizoram have already begun demanding a package equivalent to the one those who stayed behind in the Tripura relief camps.
- **Conflicts:** Conflicts between the Brus and the local Bengali non-tribal people have started taking place in Tripura.

Particularly Vulnerable Tribal Groups (PVTGs)

- PVTGs are more vulnerable among the tribal groups. Due to this factor, more developed and assertive tribal groups take a major chunk of the tribal development funds because of which PVTGs need more funds directed for their development.
- PVTGs have some basic characteristics - they are mostly homogenous, with a small population, relatively physically isolated, absence of written language, relatively simple technology and a slower rate of change etc.
- Among the 75 listed PVTG's the highest number are found in Odisha.

Bodo Accord

Why in News

Recently, the central government, the Assam government and the Bodo groups, including all factions

Note:



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of the militant National Democratic Front of Bodoland (NDFB), signed an agreement to redraw and rename the Bodoland Territorial Area District (BTAD) as the **Bodoland Territorial Region (BTR)**, in **Assam**.

- BTAD is spread over four districts of Kokrajhar, Chirang, Baksa and Udalguri.
- The BTAD and other areas mentioned under the **Sixth Schedule of the Constitution** have been **exempted from the Citizenship (Amendment) Act (CAA), 2019**.

Key Points

- **Bodoland Territorial Region would include the villages which are dominated by Bodos but are outside BTAD presently.** Villages with non-Bodo population would be excluded from it.
 - A committee will be formed to decide the exclusion and inclusion of new areas. Subsequently, the total number of Assembly seats will go up to 60, from the existing 40.
 - The representatives of the All Bodo Students Union (ABSU) and of Bodoland Territorial Council (BTC) will be present in the committee.
 - Bodo-Kachari Welfare Council will be set up for focused development of Bodo villages outside BTAD.
- **Bodos living in the hills** would be conferred a **Scheduled Hill Tribe status**.
- **Bodo language with Devanagari script** would be the **associate official language** for the entire Assam.
- However, the agreement has **not addressed the issue of "citizenship or work permit"** for non-domiciles in the BTAD yet.
- Around **1500 cadres of NDFB will be rehabilitated** and assimilated by the Central and the state governments.
 - The criminal cases registered against factions of NDFB members for non-heinous crimes shall be withdrawn and the cases of heinous crimes will be reviewed.
- Comprehensive solutions have been made to redress the grievances of the people.
 - Families of the people killed during the **Bodo movement** would get ₹5 lakh each.
 - A **Special Development Package of ₹1500 crore** would be given by the Centre to undertake specific projects for the development of Bodo areas.

Benefits

- The accord will successfully bring together leading stakeholders under one framework.
- People previously associated with armed resistance groups will enter the mainstream and contribute to the nation's progress.
- It will further protect and popularise the unique culture of the Bodo people and will give them access to a wide range of development-oriented initiatives.
- It will bring peace, harmony and togetherness in the people of Assam.

Background

- Bodos are the **single largest community among the notified Scheduled Tribes in Assam**. Bodos are a **part of Bodo-Kachari** and constitute about 5-6% of Assam's population.
- The first organised demand for a Bodo state came in 1967-68.
- The **Assam Accord of 1985**, gave rise to Bodo aspirations and in 1987, ABSU revived the **Bodo statehood demand**.
- Bodo Security Force which arose in 1986 as an armed group renamed itself NDFB, and later split into factions.
- The **first Bodo accord was signed with the ABSU in 1993**. It led to the creation of the Bodoland Autonomous Council (BAC) with some limited political powers.
- In **2003, the second Bodo Accord was signed** by the extremist group Bodo Liberation Tiger Force (BLTF), the Centre and the state. This led to the **creation of BTC**, which is an autonomous body under the Sixth Schedule of the Constitution.

Bodo-Kachari

- It is a **generic term applied to a number of ethnic groups** that are predominantly living in the Northeast Indian state of Assam.
- They generally speak Assamese and other Tibeto-Burman languages and have a shared ancestry.

Fuel Conservation Campaign: Saksham

Why in News

An annual **one-month long people centric fuel conservation campaign** of the **Petroleum Conservation**

Note:

Research Association (PCRA) named **Saksham**, was launched on 16th January, 2020.

- This campaign aims to spread the **message of fuel conservation and greener environment across India**.

Petroleum Conservation Research Association

- PCRA is a registered society set up under the aegis of the Ministry of Petroleum & Natural Gas.
- As a non-profit organization, PCRA is a national government agency engaged in promoting energy efficiency in various sectors of economy.
- It helps the government in proposing policies and strategies for petroleum conservation, aimed at reducing excessive dependence of the country on oil requirements.
- Its head office is located in New Delhi.

Other Initiatives Taken by the PCRA

- PCRA in association with the **Institute of Petroleum-Dehradun** has developed high energy efficient **Piped Natural Gas (PNG)** burner/Gas stove for household where piped gas is supplied which will save gas as compared to modified LPG stove for PNG.
- The **annual Saksham National Competition** which generally is launched in the month of July, has seen participation of 1.48 crore students.
- An awareness Campaign on 100 busiest intersections of Delhi through the Central Road Research Institute (CRRI) on encouraging the behaviour of switching-off engine at red light was recently carried out by PCRA.
 - The campaign led to approximately 22% reduction in idling fuel losses for petrol.
 - Similarly, approximately 14%, 12% and 19% reduction in Diesel, CNG and LPG respectively was observed due to awareness campaigns.

Democracy Index: EIU

Why in News

India has **slipped 10 places in the 2019 Democracy Index to 51st position**. In 2018, India was ranked at 41.

- The Democracy Index (**began in 2006**) which is prepared by the **Economist Intelligence Unit**, provides a snapshot of the state of democracy worldwide in 165 independent states and two territories.

- The Economist Intelligence Unit is the research and analysis division of The Economist Group, which is the sister company to The Economist newspaper.

Democracy Index

- Democracy Index is based on **five** categories namely, Civil liberties, Electoral process and pluralism; Functioning of government; Political participation; and political culture.
- The countries are **scored on a scale of 0 to 10** on 60 indicators within the above categories. Based on their scores, each country is classified as one of **four** types of regimes:
 - Full democracy (scores greater than 8);
 - Flawed democracy (greater than 6 and up to 8);
 - Hybrid regime (greater than 4 and up to 6); and
 - Authoritarian regime (less than or equal to 4).
- **Global Scenario:**
 - The average global score has **fallen from 5.48 in 2018 to 5.44** in 2019. This is the worst average global score since 2006.
 - The fall is driven by sharp regressions in Latin America and Sub-Saharan Africa, four out of the five categories that make up the global average score has deteriorated.
 - There are only 22 **“full democracies”** as compared to 54 **“authoritarian regimes”** and as many **“flawed democracies”**.
 - Almost one-half (48.4%) of the world’s population lives in a democracy of some sort. However, only 5.7% reside in a “full democracy”, down from 8.9% in 2015. This is due to the US being demoted from a “full democracy” to a “flawed democracy” in 2016.
 - Thailand registered the biggest improvement in score owing to an election in March 2019, which was the first since the military coup d’état in May 2014.
 - China registered the greatest decline because of **discrimination against minorities, especially in Xinjiang**, and digital surveillance of the population.

India’s Performance

- **Fall in Score:** India’s score is down from 7.23 in 2018 to 6.90 in 2019. This is the **lowest score since 2006**.
- **Primary Cause:** Erosion of civil liberties in the country. Specific examples include:

Note:



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- **Stripping of Jammu and Kashmir's special status** with the repeal of Articles 370 and 35A and the various security measures that followed the bifurcation of the state including restriction of Internet access.
- The exclusion of 1.9 million people from the final **National Register of Citizens (NRC)** in Assam and with the majority of people excluded being Muslims.
- On the **Citizenship Amendment Act**, the report said that the law has enraged the large Muslim population, stoked communal tensions and generated large protests in major cities.
- **Flawed Democracy:** India's score of 7.23 places it in the "flawed democracy" category i.e. countries that hold free and fair elections and where basic civil liberties are respected but have **significant weaknesses in aspects of democracy**, such as problems in governance, an underdeveloped political culture and low levels of political participation.
- **Comparison with Other Countries:** In Asia and Australasia region, India ranks eighth, even behind countries like Taiwan and Timor-Leste.
 - The United States, with a score of 7.96 that is just below the benchmark for a "full democracy", is a "flawed democracy", in the same category as India.
 - Bangladesh (5.88) is in a "flawed democracy" category.
 - Pakistan, with a score of 4.25, is categorised as a "hybrid democracy";
 - China (2.26) and North Korea (bottom-ranked with 1.08) are categorised as "authoritarian regimes"; and
 - Norway (top-ranked with 9.87) is counted as a "full democracy". Following Norway at the top of the rankings are Iceland (9.58), Sweden (9.39) and New Zealand (9.26). Other "full democracies" include Germany, the United Kingdom and France.

GeM Samvaad

Why in News

Public procurement platform '**Government e-Marketplace (GeM)**' has launched a **national outreach program called GeM Samvaad** to attract sellers to sell products online to government buyers.

- The government is trying to reach out to stakeholders across the country and also local sellers in order to facilitate the on-boarding of local sellers on the

marketplace while catering to specific requirements and procurement needs of buyers.

- Under the '**Voice of Customer**' initiative, the GeM is also looking forward to receiving feedback from users which will be used for making improvements and advancements in the system.

Government e-Marketplace

- GeM is a **one-stop National Public Procurement Portal to facilitate online procurement** of common use Goods & Services required by various Central and State Government Departments/Organizations/Public Sector Undertakings (PSUs).
- It was **launched in 2016** to bring **transparency and efficiency** in the government buying process.
- It operates under the **Ministry of Commerce and Industry**.
- The procurement of goods and services by Ministries and the Central Public Sector Enterprises (CPSEs) is mandatory for goods and services available on GeM.
- It also provides the tools of e-bidding and reverse e-auction to facilitate the government users achieve the best value for their money.
- At present, GeM has more than 15 lakh products, around 20,000 services, and more than 40,000 Government buyer organizations.

Establishment of Chairs in the Name of Eminent Women

Why in News

On the occasion of **National Girl Child Day (24th January)**, the **University Grants Commission (UGC)** and the **Ministry of Women and Child Development (MWCD)** have launched an initiative called '**Establishment of Chairs in the Universities in the name of eminent women administrators, artists, scientists and social reformers**'.

- The programme intends to establish 10 chairs across different universities after eminent women to encourage women to pursue higher education and excel in their chosen fields.

Key Points

- **Objectives:** To help universities in recognising women's contributions and promote female role models in respective fields especially in the formulation of public policies.

Note:

- **Time Period:** Initially, the chairs will be set up for a period of 5 years.
- **Funding:** Each chair will be **funded by the Ministry of Women and Child Development** (₹50 lakh per year).
- **Eligibility:**
 - All the universities that are eligible to receive grant-in-aid from the UGC are eligible to apply for the establishment of the Chairs.
 - Any scholar or academician in the age group of 55-70 years with specialisation in their fields, will be eligible for the chair.
 - The selected academicians will be appointed for a period of five years, which can be extended to another five years.
- **Functions:**
 - **Engagement in research** to contribute to the advancement of knowledge in the area of the study.
 - **Strengthening the role of university/academics** in public policymaking.
 - **Designing short-term capacity-building programmes** for teachers in higher education.
 - **Providing a forum** for inter-university/intercollegiate Post Graduate and Research level **dialogues, discussion meetings, seminars.**
- **Assessment:**
 - The University will review the progress of the Chair **annually** and submit a final report on the activities and outcomes of the Chair to the UGC after **five years.**
 - However, the UGC may undertake the exercise of reviewing the Chair for its continuance, at any stage.

Sr. No	Subject	Proposed Name of the Chair
1.	Administration	Devi Ahilyabai Holkar ➤ A proficient ruler and an erudite politician of Malwa; also known as Malwa queen.
2.	Literature	Mahadevi Varma ➤ A freedom fighter, Hindi poet, academician.
3.	Freedom Fighter (North East)	Rani Gaidinliu ➤ Naga spiritual and political leader who had led a revolt against British rule in India.

4.	Medicine & Health	Anandibai Gopalrao Joshi ➤ India's first woman physician.
5.	Performing Art	Madurai Shanmukhavadiyu Subbulakshmi ➤ Indian Carnatic singer from Madurai, Tamil Nadu. ➤ The first musician ever to be awarded the Bharat Ratna, India's highest civilian honour.
6.	Forest/ Wildlife Conservation	Amrita Devi (Beniwal) ➤ She sacrificed her life along with her three daughters to save green trees being felled by the Maharaja of Jodhpur in Marwar, Rajasthan in 1730.
7.	Mathematics	Lilavati ➤ Daughter of Bhāskara II and efficient in mathematics. Her father wrote a treatise on mathematics with her name as its title in 1150.
8.	Science	Kamala Sohoni ➤ The first Indian woman to receive a PhD in a scientific discipline and also paved the way for women to study at the Indian Institute of Science (IISc), Bengaluru.
9.	Poetry & Mysticism	Lal Ded ➤ Played a lead role in the creation of Vatsun style of mystic poetry.
10.	Educational Reforms	Hansa Mehta ➤ A social activist, educator and eminent writer.

Maharashtra's Agribusiness and Rural Transformation

Why in News

Recently, the Union government, Maharashtra and the **World Bank (WB)** signed a loan agreement of \$ 210 million to support small farmers **participate in competitive agriculture** value chains, **facilitate agri-business**

Note:



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investments, increase market access and productivity, and build the **resilience of crops** to recurrent floods or droughts in Maharashtra.

Key Points

- It is a significant step towards transforming the state's rural economy through **sustainable agriculture**. It will empower farmers by connecting them directly to the markets and thus doubling agriculture exports from the state.
- This project is also in line with the **National Action Plan on Climate Change (2008)**.
- **Maharashtra Agribusiness and Rural Transformation Project** will help to:
 - Enhance the adoption of **climate-resilient production techniques** in the state.
 - Increase private sector investments in agricultural value chains.
 - Remove constraints for producers and entrepreneurs in accessing emerging domestic and export markets.
 - Capacity-building of state to respond to commodity-price fluctuations by providing access to timely information on markets.
 - **Focus on Women:**
 - At least 43% of farmers and farm-workers participating in project activities are expected to be women.
 - Specific focus will be given to **women-led enterprises** and the participation of women in the decision-making processes of **farmer producer organizations**.

Maharashtra and Agricultural Transformation

- The state has emerged as one of the **country's largest producers and exporters of fruits, vegetables, pulses, cotton and soybean**.
- However, the area under cultivation for cereals such as **rice and wheat** has been **declining** since 2000.
- Agricultural transformation is **already underway** in Maharashtra with an upsurge in the **production of high-value crops**.
- Such transformation has led to several **positive developments** for Maharashtra:
 - **Employment Generation** as horticulture and floriculture are labour intensive sectors.

- **Climate-resilient (pulse-based** cropping systems increases resilience, e.g. pigeon pea intercropping leads to higher soil **carbon sequestration** than mono-crop system).
- **Able to meet domestic and global market needs.**
- With a substantial urban population, relatively high per capita incomes, and highest industrialization levels, Maharashtra is **well-placed for an agriculture-sector transformation**.

79th Foundation Day of ITAT

Why in News

Recently, the **Income Tax Appellate Tribunal (ITAT)** celebrated its 79th foundation day.

- **Establishment:** It is a **quasi-judicial** institution **set up in 1941 under section 5A of the Income Tax Act, 1922**.
 - **Initially**, it had three Benches at **Delhi, Kolkata (Calcutta) and Mumbai (Bombay)**.
 - But **presently** ITAT has **63 Benches at 27 different stations** covering almost all the cities having a seat of the High Court.
 - ITAT is referred to as '**Mother Tribunal**' being the oldest Tribunal in the country.
- **Functions:** It deals with **appeals under the Direct Taxes Acts** namely, the **Income-tax Act, 1961**.
 - The orders passed by the ITAT are final, an appeal lies to the High Court only if a substantial question of law arises for determination.

PM to Chair PRAGATI Meeting

Why in News

The Prime Minister recently chaired the 32nd interaction through PRAGATI (Pro-Active Governance and Timely Implementation) on 22nd January 2020.

- It is **held once every month** on Fourth Wednesday at 3.30 PM and known as PRAGATI Day.

PRAGATI

- It is a **platform which enables the Prime Minister to discuss the issues with the concerned Central and State officials** with full information and latest visuals of the ground-level situation.

Note:

- It was **launched in 2015** and has been designed by the Prime Minister's Office (PMO) team with the help of **National Informatics Center (NIC)**.
- It is a **three-tier system** (PMO, Union Government Secretaries, and Chief Secretaries of the States).
- The **three objectives of PRAGATI** are:
 - Addressing common man's grievances.
 - Implementation of the government programmes.
 - Monitoring and reviewing important programmes.
- The PRAGATI platform uniquely bundles three latest technologies: Digital data management, video-conferencing and geo-spatial technology.
- It **promotes cooperative federalism** as it brings on one platform the Secretaries of Government of India and the Chief Secretaries of the States.
 - However, the direct interaction of the PM with the state secretaries without involving the political executives of the states is undermining the State political executive. It is also said that this is leading to a concentration of power in the extra-constitutional office of PMO.
- It is a robust system for bringing **e-transparency and e-accountability** with real-time presence and exchange among the key stakeholders. It is an innovative project in e-governance and good governance.

Corruption Perceptions Index 2019: Transparency International

Why in News

India's ranking in the **Corruption Perceptions Index (CPI-2019)** has **slipped from 78 to 80** compared to the year **2018**.

- The 2019 CPI draws on **13 surveys** and expert assessments to measure public sector corruption in **180 countries and territories**, giving each a score from **zero (highly corrupt) to 100 (very clean)**.
- **First** launched in 1995 by the Transparency International, the Index has been widely credited with putting the issue of corruption on the international policy agenda.
- **Transparency International** is a **non-profit, non-governmental organisation** dedicated to fighting corruption. It was founded in **1993** and is based in **Berlin, Germany**.

Status check

The Corruption Perceptions Index uses a scale of zero (highly corrupt) to 100 (very clean). The global average for 2019 is 43

Country	Score in 2019	Rank in 2019	Change in rank from '18
Denmark	87	1	0
New Zealand	87	1	1
U.K.	77	12	-1
U.S.	69	23	-1
India	41	80	-2
China	41	80	7
Brazil	35	106	-1
Pakistan	32	120	-3
Russia	28	137	1
Bangladesh	26	146	3
Somalia	9	180	0

Key Points

➤ Global Status

- A majority of countries are showing **little to no improvement in tackling corruption**.
 - In the last eight years, only 22 countries **significantly improved** their CPI scores, including **Greece, Guyana and Estonia**. In the same period, among the 21 countries that saw a **significant fall** in their scores are **Canada, Australia and Nicaragua**.
 - In the remaining 137 countries, the levels of corruption show little to no change.
- Corruption is more pervasive in countries where money can flow freely into electoral campaigns and where governments only listen to the voices of wealthy or well-connected individuals.
- Few of the vibrant economic powers like **China (41), Indonesia (40), Vietnam (37), the Philippines (34)** struggle to tackle corruption. The **reasons include** keeping decision-making out of public scrutiny and silencing dissenting voices.

➤ Top Rankers

- New Zealand and Denmark, with scores of 87 each, followed by Finland (86), Singapore (85), Sweden (85) and Switzerland (85).

➤ Bottom Rankers

- The countries ranked at the bottom of the list are Somalia, South Sudan and Syria with scores of 9, 12 and 13 respectively.

➤ Asia-Pacific Region

- In 2019 Index, the **average score is 45** (marginally better than the **global average of 43**) after many

Note:

consecutive years of an average score of 44, which “illustrates general stagnation” across the region.

- Despite the presence of high performers like New Zealand (87), Singapore (85), Australia (77), Hong Kong (76) and Japan (73), the Asia Pacific region hasn’t witnessed substantial progress in anti-corruption efforts or results.
- Low performers like Afghanistan (16), North Korea (17) and Cambodia (20) continue to highlight serious challenges in the region.
- **China has improved its position** from 87 to 80 with a score of 41 out of 100 (same as that of India).

➤ India’s Performance

- **India’s score of 41 out of 100 remains the same as that in 2018.** It has been **ranked at number 80**.
- In democracies like India, unfair and opaque political financing, undue influence in decision-making and lobbying by powerful corporate interest groups, has resulted in stagnation or decline in the control of corruption.
- The same reasons are also responsible for India’s low rank (51) in the **2019 Democracy Index**.

Way Forward

- Transparency International has **recommended a series of measures to combat rising corruption** across the world. These are:
 - Manage conflicts of interest.
 - Control political financing.
 - Strengthen electoral integrity.
 - Regulate lobbying activities.
 - Empower citizens.
 - Tackle preferential treatment.
 - Reinforce checks and balances.

Fund Crunch in MGNREGA

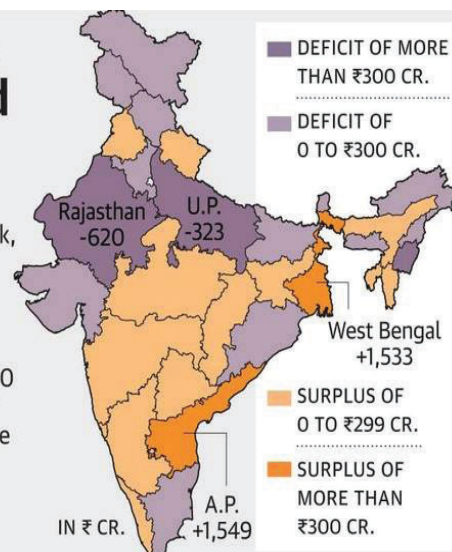
Why in News

According to the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme’s financial statement as on 26th January 2020, the **centre is on the verge of running out of funds for the scheme**.

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

Surplus demand

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



Key Points

- **Budget Allocation:** The budget allocation for 2019 for MGNREGA scheme was ₹60,000 crores which is **lower than** the amount spent in 2018.
- **Current Status:**
 - Many **state governments have not paid the wages to workers as the Centre has not released funds**. It is contrary to the spirit of the Act and violates the principle of rights-based implementation of the MGNREGA scheme.
 - The **Central Employment Guarantee Council** has not met in two years despite it being mandatory to hold a meeting every six months.
 - Central Employment Guarantee Council is a forum constituted under **Section 10(3) (d) of the MGNREGA Act, 2005**.
 - It is responsible for a central monitoring and evaluation system for the scheme, besides advising the government on its implementation.
- **State-wise Scenario:** Rajasthan has the highest negative net balance of ₹620 crores, followed by ₹323 crores in Uttar Pradesh.
 - Some States still have funds remaining only because they are actively suppressing demand and turning workers away. State governments do not want to be liable to pay interest for delayed wages, so they suppress demand.
 - The actual situation may be worse as States do not always enter pending payments into the information system.

Note:



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➤ Urgency for Funds:

- January, February and March are months with little agricultural activity when rural workers need employment.
- There is a high demand for work in 2019 as the rural economy is in distress and informal employment has also collapsed. A number of economists have recommended that putting money into the hands of rural consumers via MGNREGA is a key to kickstarting the economy.
- The scheme is running out of money and will enter in 2020-21 with pending liabilities.

Mahatma Gandhi National Rural Employment Guarantee Act, 2005

- The Act aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage employment in a financial year to a rural household whose adult members (at least 18 years of age) volunteer to do unskilled work.
- The central government bears the full cost of unskilled labour, and 75% of the cost of material (the rest is borne by the states).
- It is a demand-driven, social security and labour law that aims to enforce the 'right to work'.
- Ministry of Rural Development (MRD), Government of India in association with state governments, monitors the implementation of the scheme.

Citizen-centric Services of NCRB

Why in News

Recently, the **National Crime Record Bureau (NCRB)** has launched various police-related citizen-centric services on the **Crime and Criminal Tracking Network and Systems (CCTNS)** platform.

- These are being launched in order to **promote 'Ease of Living'** among citizens.
- Such services are being provided through the state-citizen portals so far but these are being **launched centrally for the first time**.

Key Points

- **Missing Person Search**

National Crime Record Bureau

- NCRB 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 is headquartered in **New Delhi**.
- It was set up based on the **recommendations of the National Police Commission (1977-1981)** and the **MHA's Taskforce (1985)**.
- It was constituted by **merging** the Directorate of Coordination and Police Computer (DCPC), Inter-State Criminals Data Branch of CBI, Central Finger Print Bureau of CBI and Statistical Branch of BPR&D.
- NCRB brings out the **annual comprehensive statistics of crime** across the country through '**Crime in India**' report.
 - **Being published since 1953**, the report serves as a crucial tool in understanding the law and order situation across the country.
- It **developed CCTNS in 2009** which interconnects approximately 15000 police stations and 6000 higher offices across the country.
 - CCTNS digitises data related to FIR registration, investigation and charge sheets in all police stations leading to the development of a **national database of crimes and criminals**.

- Citizens can search for their missing kin in this **user-friendly portal**, against the national database of the recovered unidentified found person/dead bodies.

➤ **Generate Vehicle NOC**

- It allows citizens to **ascertain the status of a vehicle before its second-hand purchase** to know if it is suspicious or clean from police records.
- One can generate and download the relevant No Objection Certificate (NOC) after searching against the National database on vehicle's details. NOC is required by the Regional Transport Office before the transfer of ownership.

➤ **CCTNS Hackathon and Cyber Challenge 2020**

- **NCRB and Cyber Peace Foundation** (global civil society organisation and think tank of cybersecurity and policy experts) have designed it together.
- The Hackathon aims to enhance skills and deepen understanding of the police personnel at ground

Note:



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level to adopt smart strategies for effectively addressing the evolving threats and to promote coordination with industry and academia.

- The Challenge invites the participation of law enforcement personnel across all ranks and files, as well as cybersecurity experts (civilians) across India.
- **NCRB and National Centre for Missing and Exploited Children (NCMEC), USA** has signed a **Memorandum of Understanding (MoU)** to receive information on child pornography or such related material originating from India.
 - NCMEC is a **non-profit organization established by the United States Congress**.
 - It has a **centralized reporting system** by which internet service providers across the world or intermediaries like Facebook, Youtube, etc. can report about persons who circulate images of child pornography.
- **Cyber Tipline monitoring facility**
 - It is a **centralised system for reporting online exploitation of children**.
 - The public and electronic service providers can make reports of suspected online enticement of children for sexual acts, molestation, pornography, sex tourism, sex trafficking, unsolicited obscene materials sent to a child, misleading domain names and misleading words or digital images on the internet.

Andhra Pradesh to Scrap Legislative Council

Why in News

The **Andhra Pradesh** assembly has passed a resolution to **abolish the state's Legislative Council**.

- The Andhra Pradesh government has to send the resolution to the Governor for his approval and then to the Parliament for ratification.
- The **move comes after the Legislative Council referred the Capital Decentralisation Bill to a Select Committee** for review.
- Andhra Pradesh's Legislative Council, set up in 1958, was abolished in 1985, then reconstituted in 2007.

Note:

Select committees are formed for a specific purpose, for instance, to deliberate on a particular bill. Once the Bill is disposed of, that select committee ceases to exist.

Legislative Council

➤ Basis For Formation

- India has a **bicameral system of legislature**. Just as the Parliament has two Houses, the states can also have a Legislative Council (LC) in addition to the Legislative Assembly through Article 169 of the Constitution.

➤ Abolition and Creation - Article 169

- The **Parliament** can abolish a Legislative Council (where it already exists) or create it (where it does not exist) by a **simple majority**, if the **legislative assembly** of the concerned state, by a **special majority**, passes a resolution to that effect.

Note:

- **Simple Majority** implies a majority of the members of each House present and voting.
- **Special Majority** implies:
 - A majority of the total membership of the assembly.
 - A majority of not less than two-thirds of the members of the assembly present and voting.

➤ States having Legislative Councils

- Besides Andhra Pradesh, the other states having Legislative Councils are Telangana, Uttar Pradesh, Bihar, Maharashtra and Karnataka.
- Legislative assemblies of Rajasthan, Assam and Odisha have passed resolutions for the formation of the Council.

➤ Arguments in Favour of the Formation of the Council

- A Legislative Council can help check hasty actions by the directly elected House.
- The Legislative Council also enables non-elected individuals to contribute to the legislative process.

➤ Arguments Against

- The Legislative Council can delay legislation.
- It can also be used to park leaders who have not been able to win an election.
- It strains state finances.

Note:



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Way Forward

- The Parliamentary Committee that examined the Rajasthan Bill for the formation of the Legislative Council advocated for the **evolution of a national policy for creation/abolition of Legislative Councils**.
- It argued that the **status of Legislative Councils cannot be temporary in nature** depending on the mood of the Government of the day.

Amendments to National Commission for Homoeopathy Bill, 2019

Why in News

Recently, the Union Cabinet has given its approval to the amendments in the **National Commission for Homoeopathy Bill, 2019**.

- The **draft Bill** seeks to set up the **National Commission for Homoeopathy** and replace the **Central Council of Homoeopathy** by **amending the Homoeopathy Central Council (HCC) Act, 1973**.
- Currently, the Bill is pending in Rajya Sabha.

Key Points

- The amendments will:
 - Ensure necessary **regulatory reforms** in the field of Homoeopathy education.
 - Enable **transparency and accountability** for protecting the interest of the general public.
 - Promote the **availability of affordable healthcare** services in all parts of the country.

Homoeopathy Central Council Act, 1973

- It was enacted for the constitution of a **Central Council of Homoeopathy** for the regulation of education and practice of Homoeopathy, for maintenance of **Central Register of Homoeopathy** and for other related matters.
- This Act has been modelled on the pattern of the **Indian Medical Council Act, 1956**.
 - The broad functions, constitution, regulation-

making powers are identical to those of the **Medical Council of India**.

- In recent times, it has been seen that there are some problems in the functioning of the Council.
 - This has resulted in **harmful effects on medical education** and **on quality of Homoeopathy** healthcare services.

5th Annual Day of CARA

Why in News

The **Central Adoption Resource Authority (CARA)** has celebrated its **5th Annual Day** recently.

- CARA has conducted various training programmes and workshops at national and state levels for all the stakeholders of the adoption programme.
- It has also carried out advocacy programs for creating awareness and sensitization of the general public.

Central Adoption Resource Authority

- It has been set up as a **statutory body** of the **Ministry of Women and Child Development**.
- It functions as a **nodal body** for the **adoption of Indian children** and is mandated to **monitor and regulate** in-country and inter-country adoption.
- CARA is designated as the **Central Authority** to deal with inter-country adoptions in accordance with the provisions of the **Hague Conventions** on Inter-Country Adoptions, 1993, ratified by the Government of India in 2003.
- It primarily deals with adoption of orphan, abandoned and surrendered children through its associated / recognised adoption agencies.

Hague Convention on the Civil Aspects of International Child Abduction

- The **Hague Convention** is a multilateral treaty which came into existence on **1st December 1983**.
- It is an international treaty to ensure the prompt return of the child who has been "abducted" from the country of their "habitual residence".
- The Convention **applies to children aged under 16 years**.



Note:

Economic Scenario

Highlights

- *Bidding Under Open Acreage Licensing Policy*
- *Telecommunication Consumers Education and Protection Fund*
- *World Economic Situation and Prospects 2020*
- *Growth Projection by IMF*
- *Global Investment Trend Monitor Report: UNCTAD*
- *World Employment and Social Outlook-Trends 2020: ILO*
- *Misery Index*
- *Freedom of Speech and Expression on Social Media*

Bidding Under Open Acreage Licensing Policy

Why in News

Recently, the Government has launched the **bidding process offering 11 areas in oil and gas blocks**.

- The 11 blocks under **Open Acreage Licensing Policy Round-V (OALP-V)** are spread across 8 sedimentary basins and include eight on land blocks, two shallow water blocks and one ultra deep water block.
- The government has awarded 94 blocks so far under the **Hydrocarbon Exploration & Licensing Policy (HELP)** regime.
 - **HELP** was approved by the Government in March 2016 **replacing New Exploration Licensing Policy (NELP)**.
 - The new policy promises simpler rules, tax breaks, pricing and marketing freedom and is part of a government strategy to double oil and gas output by 2022-23.
 - Under **HELP**, **oil companies can select blocks of their choice under the Open Area Licensing (OAL) regime**. Earlier it was the government which selected the blocks where oil exploration can be carried out.

Open Acreage Licensing Policy

- The **OLAP** was **declared by the Union Government in 2016-17**.
- Under it, the potential investors choose the exact areas they are interested in, convey their interest to the government, which then places just those blocks up for bidding.

- The **process offers attractive and liberal terms** like reduced royalty rates, no oil cess, round the year bidding, a single licence to cover both conventional and unconventional hydrocarbon resources, exploration permission during the entire contract period, and an easy, transparent and swift bidding and awarding process.

Telecommunication Consumers Education and Protection Fund

Why in News

- Recently, the **Telecom Regulatory Authority of India (TRAI)** has directed telecom service providers to put all unclaimed subscriber money in consumer protection fund.
 - **Telecommunication Consumers Education and Protection Fund Regulations were notified in 2007**. The income from the fund is utilised for programmes and activities relating to consumer education and protection.

Key Points

- TRAI has notified the **amendment to the Telecommunication Consumers Education and Protection Fund (TCEPF) regulations** to remove any kind of ambiguity and facilitate deposit of any unclaimed money of the consumer.
- With this amendment, **service provider will deposit any unclaimed consumer money of any form such as excess charges, security deposit, plan charges of failed activations, or any amount belonging to**

Note:

a consumer, which service providers are unable to refund to consumers.

- It provides a **time of 12 months or period of limitation specified under law** whichever is later, after which unclaimed consumer money should be deposited to the fund.

World Economic Situation and Prospects 2020

Why in News

The **United Nations Conference on Trade and Development (UNCTAD)**, **United Nations Department of Economic and Social Affairs (UN DESA)** and the five United Nations Regional Economic Commissions have jointly released the **World Economic Situation and Prospects 2020 (WESP)** recently.

- The report warns about strong economic risks, deep political polarization and increasing scepticism about the benefits of multilateralism.

Key Points Related to India

- The report suggested that **India needs to implement structural reforms** to face a global as well as domestic economic slowdown.
- The **combination of fiscal stimulus, loose monetary policy and financial sector reforms** is expected to support a recovery in GDP growth to 6.6 %.
 - India experienced a sharp drop from 6.8% in 2018 to 5.7 % in 2019
- The report also indicated that India may be among the few countries where the **per capita GDP growth rate could exceed 4% in 2020**.
 - Per capita GDP is the ratio of the country's gross domestic product by its total population.

Fiscal Stimulus

- It refers to an **increase in public spending** or a **reduction in the level of taxation by a government** so as to put **more money in the hands of consumers**.
- It is an attempt to encourage and support economic growth.

Other Findings

- **World's fastest-growing region:** East Asia, which also remains the largest contributor to global growth.

- **Growth in large emerging countries:** Brazil, India, Mexico, Russia and Turkey are expected to gain economic momentum in 2020.
- **Shift in Global economic decision power:** The shift in global economic decision-making power from the EU, the US and other developed countries towards China, India and other developing countries has been observed. Thus Global cooperation mechanisms will need to recognise this shifting balance.
- **Per capita income:** One in five countries will see per capita income stagnate or decline in 2020.
 - Per capita income measures the average income earned per person in a given area in a specified year.
- **Poverty reduction:** The share of the population living in extreme poverty has declined steadily and significantly over the past few decades, largely owing to successful experiences in China and India.
- **Impact of climate change on economy:** **Climate disruption** poses a serious and growing threat to short- and long-term economic prospects.
 - One of the primary ways to **break the link between greenhouse gas emissions and economic activity** is to change the energy supply mix, transitioning from fossil fuels to renewable sources of energy. This transition will require policies that steer nations towards carbon neutrality by 2050.
- **Roadblocks for Sustainable Development Goals:** The prolonged weakness in global economic activity may severely impact the implementation of **Sustainable Development Goals**.

UNCTAD

- United Nations Conference on Trade and Development (UNCTAD) was **established in 1964** to promote development-friendly integration of developing countries into the world economy.
- UNCTAD is a **permanent intergovernmental body** headquartered in **Geneva, Switzerland**.
- Some of the **reports published by it** are:
 - Trade and Development Report
 - World Investment Report
 - The Least Developed Countries Report
 - Information and Economy Report
 - Technology and Innovation Report
 - Commodities and Development Report

Note:

Growth Projection by IMF

Why in News

According to the **International Monetary Fund (IMF)**, **global growth is projected to rise** from an estimated 2.9% in 2019 to 3.3% in 2020 and 3.4% for 2021.

- The latest trend in global growth is a downward revision of 10 basis points for 2019 and 2020 and 20 basis points for 2021 compared to the forecast in the IMF's October 2019 **World Economic Outlook (WEO)**.

Key Points Related to India

- For 2019, IMF revised downward its forecast for India to 4.8% from its October projection of 6.1%.
- For the year 2020, a 1.2% point cut in India's growth forecast to 5.8%. This is the biggest downward revision for any emerging market, which also pulled down global growth forecast.
 - The reasons cited for lowering growth estimate include stress in the non-bank financial sector and weak rural income growth.
- The growth will improve in 2020 owing to monetary and fiscal stimulus as well as subdued oil prices.

Key Points Related to Global Economy

- The pickup in global growth for 2020 remains **highly uncertain** as it relies on improved growth outcomes for stressed economies like Argentina, Iran, and Turkey and for underperforming emerging and developing economies such as Brazil, India, and Mexico.
- However, there are preliminary signs that the decline in manufacturing and trade may be bottoming out.
 - This is partly from an improvement in the auto sector and diminished fears of a no-deal Brexit. A no-deal Brexit means the UK would leave the European Union (EU) and there would be no agreements in place about what the relationship between the UK and the EU will be like in the future.
 - Also, a US-China Phase I deal (to ease tensions related to trade between the two nations), if durable, is expected to reduce the cumulative negative impact of trade tensions on global GDP by end 2020-from 0.8% to 0.5%.

Global Investment Trend Monitor Report: UNCTAD

Why in News

According to the recently released **Global Investment Trend Monitor Report** by the **United Nations Conference on Trade and Development (UNCTAD)**, India was among the top 10 recipients of **Foreign Direct Investments (FDI)** in 2019.

Key Highlights

- **Global Trend:** The global FDI marked a **decline by 1%** from revised \$1.41 trillion (in 2018) to \$1.39 trillion (in 2019). This was against the backdrop of weaker macroeconomic performance and policy uncertainty for investors in the midst of **ongoing trade tensions**.
 - Developing economies continued to attract more than half of global FDI flows, whereas, the FDI flows to developed countries decreased further by 6%.
 - Despite this, the United States remained the largest recipient of FDI, followed by China and Singapore.
- **Regional & India:** **South Asia** recorded a **10% increase** in FDI and this growth was driven by India marking a 16% increase in FDI inflows.
 - India attracted \$49 billion FDI inflows in 2019 as compared to \$42 billion (in 2018). The majority of this went into services industries, including Information Technology.
 - Inflows into Bangladesh and Pakistan declined by 6% and 20%, respectively.
- **Future Projections:** However, UNCTAD expects FDI flows to rise moderately in 2020, as according to current projections, the global economy is set to improve from its weakest performance since the global financial crisis in 2009.
 - The GDP growth, gross fixed capital formation and trade are projected to rise, at the global level (especially in many large emerging markets).
 - However, significant risks persist, including high debt accumulation among emerging and developing economies, geopolitical risks and concerns about a further shift towards **protectionist policies**.

Note:



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World Employment and Social Outlook -Trends 2020:ILO

Why in News

The **International Labour Organisation (ILO)** has released the **World Employment and Social Outlook: Trends 2020 (WESO)** report.

- The annual WESO Trends report analyses key labour market issues, including unemployment, labour underutilisation, working poverty, income inequality, labour income share and factors that exclude people from decent work.

Key Findings

- **Global Unemployment**
 - The number of people unemployed around the world stands at some 188 million.
 - Some 267 million young people aged 15-24 are not in employment, education or training, and many more endure substandard working condition.
- **Working Poverty**
 - Working poverty is defined as earning less than USD 3.20 per day in purchasing power parity terms.
 - It affects more than 630 million workers or one in five of the global working population.
- **Future Status of Global Unemployment**
 - It is projected to increase by around 2.5 million in 2020. Though, global unemployment has been roughly stable for the last nine years.
 - Moderate or extreme working poverty is expected to increase in 2020-21 in developing countries, increasing the obstacles to achieving **Sustainable Development Goal 1** on eradicating poverty everywhere by 2030.

Reasons for Rising Unemployment

- **Inequalities**
 - Persisting and substantial work-related inequalities (Gender, age and geographical location) and exclusion are preventing from finding decent work and better futures.
 - These inequalities also limit both individual opportunity and economic growth.
- **Global Economic Slowdown**

- It is one of the major reasons for not creating enough new jobs to absorb new entrants to the labour market.
- In addition, many African countries are experiencing a drop in real incomes and a rise in poverty.

➤ Rising Protectionism

- A rise in trade restrictions and protectionism restricts national as well as global employment generation.

➤ Decreasing Value of Human Capital

- Labour underutilisation and poor-quality jobs mean our economies and societies are missing out on the potential benefits of a huge pool of human talent.

Recommendations

- It suggests countries to ensure that economic growth and development occurs in a way that leads to the reduction of poverty and better working conditions.
- It also recommends for structural transformation, technological upgrading and diversification in global as well as national economies.

International Labour Organisation

- International Labour Organisation (ILO) was created in **1919**, as part of the **Treaty of Versailles** that ended World War I, to reflect the belief that universal and lasting peace can be accomplished only if it is based on social justice. It became a **specialized agency of the United Nations in 1946**.
- It is a tripartite organization, the only one of its kind bringing together representatives of governments, employers and workers in its executive bodies.
- **India is a founder member of the International Labour Organization.**
- It is Headquartered at **Geneva in Switzerland**.
- In 1969, **ILO received the Nobel Peace Prize** for improving fraternity and peace among nations, pursuing decent work and justice for workers, and providing technical assistance to other developing nations.

Misery Index

Recently, there has been a **demand to measure Indian economy on 'Misery Index'**.

Note:

- The **first misery index** was created by **Arthur Okun** in the 1960s and was equal to the **sum of inflation and unemployment rate figures** to provide a snapshot of the US economy.
- The **higher the index**, the **more is the misery** felt by average citizens.
- It has broadened in recent times to include other economic indicators, such as **bank lending rates**.
- In recent times, variations of the original misery index have become popular as a means to gauge the overall health of the global economy.
- A variation of the original misery index is the **Bloomberg misery index**, developed by the online publication.

Freedom of Speech and Expression on Social Media

Why in News

The High Court of Tripura has held that **posting on social media was virtually the same as a fundamental right applicable to all citizens, including government employees**.

- It also asserted that government servants are entitled

to hold and express their political beliefs, subject to the restrictions laid under the Tripura Civil Services (Conduct) Rules, 1988.

Key Points

- In another significant judgement, the High Court of Tripura ordered the police to refrain from prosecuting the activist who was arrested over a social media post where he criticised online campaign in support of the **Citizenship Amendment Act (CAA), 2019** and warned people against it.
- The HC held that these orders are in line with the very essence of the Indian Constitution.

Other Recent Judgements

- The **Supreme Court of India** also gave judgement on the **internet shutdown and curbing of other civil liberties in the Jammu and Kashmir**. It upheld the Right to access the Internet and released guidelines on imposition of **section 144 of CrPC**.
- Recently, the Kerala High Court, in *Faheema Shirin v. the State of Kerala* case, declared the **Right to Internet Access** as a fundamental right, forming a part of the right to privacy and the right to education under Article 21 of the Constitution.



Note:

International Relations

Highlights

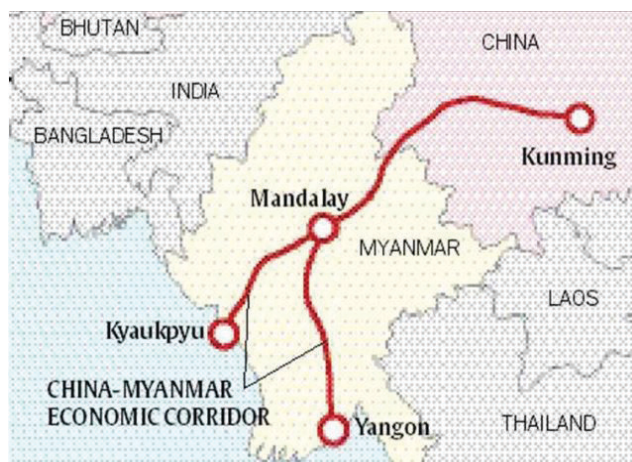
- Proposal for China Myanmar Economic Corridor
- Arab World's Longest-Serving Ruler Passes Away
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- Sagarmatha Sambaad
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Proposal for China Myanmar Economic Corridor

Why in News

China's President Xi Jinping will be visiting Myanmar to mark the **70th anniversary of the establishment of diplomatic relations between China and Myanmar.**

- President's visit will focus on the **three pillars of the China Myanmar Economic Corridor (CMEC)** — the Kyaukpyu Special Economic Zone, the China-Myanmar Border Economic Cooperation Zone and the New Yangon City.
 - CMEC is a **branch of the Belt and Road Initiative (BRI)** in the Indian Ocean.
 - The CMEC to the Bay of Bengal is the **replica of the China-Pakistan Economic Corridor (CPEC)** that connects Beijing's western province of Xinjiang to Karachi and Gwadar on the Arabian Sea.



Historical Background of CMEC

- The **East India Company** and the British Raj were eager to **develop connectivity into Yunnan (China)** through Burma to promote trade between India and western China.
- In the late 19th century, the **Indian Railways surveyed the route for a railway line** from the Arakan coast (Myanmar) to Yunnan (China), **but could not implement it.**
- Thus, **China will be implementing the vision of the East India Company.**

- By developing ports such as the Gwadar and Kyaukpyu, China aims to lower its strategic dependence on the Malacca straits — the vital trade link between the Indian and the Pacific oceans, which is the **Indo-Pacific Command of the U.S.**

CMEC and China-Myanmar Relations

- CMEC enforces the centuries old idea of **Southern Silk Road** by China.
- CMEC will reinforce **China's status as the most important economic partner of Myanmar**, and rejuvenate the historic special relationship between the two countries.
- **Diplomatic Relations**
 - The US and the West have been critical of Myanmar's handling of the Rohingya problem. China, in contrast, has played the role of mediator between Myanmar and Bangladesh.
 - China is making the case that some of its BRI projects can help alleviate the Rohingya conflict by accelerating the development of the Arakan region.

Note:

Impact on India

- China's economic stakes in the **Bay of Bengal** will signify **larger maritime presence and naval engagement in the region** which in turn **reinforces the string of pearls policy**.
 - The String of pearls is a **geopolitical theory** referring to the network of Chinese military and commercial facilities extended from the Chinese mainland to Port Sudan in the Horn of Africa.
 - But this **theory is denied by China** and it views its actions as their efforts to strengthen a new maritime Silk Road.
- Like CMEC and CPEC, **China is also developing the China-Nepal Economic Corridor (CNEC) which will link Tibet to Nepal**. The endpoints of the project will touch the boundaries of the Gangetic plain. Thus three corridors signify the economic as well as strategic rise of China in the Indian subcontinent.

Steps to be Taken by India

- India should focus on making a more effective contribution to **Myanmar's development and security**.
- India needs to focus on **quickly completing its own infrastructure projects in Myanmar** and develop a new strategy for commercial partnership that is in tune with India's own capabilities and strengths.
- India **needs to strengthen its collaboration with like-minded partners** like Japan which has a growing economic presence in Myanmar. Thus, **India's Act East Policy and Japan's Free and Open Indo-Pacific Strategy needs to combine**.
- India also needs to **revive the dormant dialogue with China on the BCIM corridor involving Bangladesh, China, India and Myanmar**.
 - The **2800 km BCIM corridor proposes** to link Kunming in China's Yunnan province with Kolkata, passing through nodes such as Mandalay in Myanmar and Dhaka in Bangladesh before heading to Kolkata.

Belt and Road Initiative

- BRI is an ambitious project that focuses on **connectivity and cooperation** among multiple countries spread across the continents of Asia, Africa, and Europe. BRI spans about 150 countries (China's Claim).

- Initially **announced** in the **year 2013**, the project involves building networks of roadways, railways, maritime ports, power grids, oil and gas pipelines, and associated infrastructure projects.
- The project covers **two parts**:
 - **Silk Road Economic Belt**: It is **land-based** and is expected to connect China with Central Asia, Eastern Europe, and Western Europe.
 - **21st Century Maritime Silk Road**: It is **sea-based** and is expected to connect China's southern coast to the Mediterranean, Africa, South-East Asia, and Central Asia.

China-Pakistan Economic Corridor

- CPEC is one of the **flagship projects of BRI** which is **seen by India as infringing its sovereignty**.
- CPEC links the Western part of China to the Gwadar Port in Balochistan, Pakistan running some 3000 km from Xinjiang to Balochistan via Khunjerab Pass in the Northern Parts of Pakistan.

Arab World's Longest-Serving Ruler Passes Away

Why in News

Recently, Oman's Sultan **Qaboos bin Said Al Said**, the **Arab world's longest-serving ruler** passed away..

- In 1970, with the help of British, Qaboos overthrew his father in a bloodless coup, emerging as the Sultan at age 29.
- He ruled Oman for almost half a century.

Oman

- Oman is the **oldest independent state** in the Arab world.



Note:

- It occupies the southeastern coast of the Arabian Peninsula at the **confluence of the Persian Gulf and Arabian Sea**.
- **Geography**
 - Much of the country's interior falls within the **desert of the Rub'al-Khali**. The region is still the domain of **Bedouin nomads**.
 - Bedouins are **Arabic-speaking nomadic peoples** of the Middle Eastern deserts, especially of North Africa, the Arabian Peninsula, Egypt, Israel, Iraq, Syria, and Jordan.
- **Polity**
 - Oman is **governed by a monarchy (sultanate)** with **two advisory bodies**.
 - The sultan is Oman's paramount decision-maker, and also holds the positions of the prime minister, supreme commander of the armed forces, minister of defence, finance and foreign affairs.
- **As an independent mediator**
 - Oman was able to facilitate secret talks between the United States and Iran in 2013 that led to the landmark nuclear deal in 2015.
 - Oman was the **only Gulf Cooperation Council (GCC) country not to join a Saudi-led military coalition** against Iran-backed Shiite Houthi rebels in Yemen.

India-Oman relations

- Oman is a **strategic partner of India** in the Gulf and an important interlocutor at the Gulf Cooperation Council (GCC), Arab League and Indian Ocean Rim Association (IORA) fora.
- The two countries across the Arabian Sea are linked by geography, history and culture and have cordial relations.
- These relations are attributed to historical maritime trade linkage and the seminal role played by the Indian expatriate community in the building of Oman. There are about 8 lakh Indians in Oman.
- India is among Oman's top trading partners.
 - For Oman, India was the 3rd largest source of its imports and 3rd largest market for its non-oil exports in 2018.
 - Indian firms have invested heavily in Oman in various sectors like iron and steel, cement, fertilizers, textiles, chemicals, automotive, etc.

Iran to Pull Out of NPT

Why in News

- Iran has warned to withdraw from the **Non-Proliferation Treaty (NPT)** if the European Nations refer the dispute over its atomic programme to the **United Nation Security Council**.

Background

- Iran had signed the **Joint Comprehensive Plan of Action (JCPOA)** with **US, UK, France, Germany, Russia and China** in 2015 that had offered it access to global trade in return for accepting curbs to its atomic program.
- In 2018, the US unilaterally pulled out of the pact and **reimposed sanctions on Iran**.
- Recently, the top **Iranian general Qassem Soleimani** (the commander of the Al-Quds Force of **Iran's Islamic Revolutionary Guard Corps, IRGC**) was assassinated by the US during his visit to Iraq. This has escalated tensions in the international arena.
- Amid rising tensions, Britain, France and Germany declared that Iran was violating the 2015 pact and have launched a dispute mechanism that could eventually see the matter referred back to the Security Council and the reimposition of U.N. sanctions.

Non-Proliferation Treaty

- The NPT is an **international treaty** whose objective is to **prevent the spread of nuclear weapons and weapons technology**, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament.
- The treaty was signed in **1968** and entered into force in **1970**. Presently, it has **190 member states**.
- It requires countries to give up any present or future plans to build nuclear weapons in return for access to peaceful uses of nuclear energy.
- It represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States.
- Nuclear-weapon states parties under the NPT are defined as those that **manufactured and exploded a nuclear weapon or other nuclear explosive devices before January 1, 1967**.

Note:



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India's Stand on NPT

- India is **one of the only five countries that either did not sign the NPT or signed but withdrew later**, thus becoming part of a list that includes **Pakistan, Israel, North Korea, and South Sudan**.
- India always considered the NPT as discriminatory and **had refused to sign it**.
- India has opposed the international treaties aimed at non-proliferation since they were selectively applicable to the non-nuclear powers and legitimised the monopoly of the five nuclear weapons powers.

Integrated Check Post

Why in News

- Recently, the Prime Minister of India along with Prime Minister of Nepal jointly inaugurated the **second Integrated Check Post (ICP) at Jogbani (Bihar)-Biratnagar (Nepal)**.

Key Points

- Jogbani-Biratnagar is equipped with modern facilities and is an important trade point between the two countries.
- It was built with Indian assistance to facilitate trade and people's movement across the India-Nepal border.
- This is in line with India's **Neighbourhood First** Policy. Improving cross connectivity projects of Road, Rail and Transmission lines in Nepal, is an important aspect of it.
 - India played the role of the first responder in relief and rescue operations in Nepal during the after the earthquake in 2015.



External Intervention on Kashmir Issue

Why in News

Recently, Pakistan has reiterated the United Nations (UN) and United States(US) intervention in Kashmir issue at the **World Economic Forum (WEF)** summit in **Davos**.

- Pakistan has demanded that **UN Military Observer Group** in India and Pakistan (UNMOGIP) be allowed along the Line of Control(LoC).
- Pakistan also wanted US intervention in the Kashmir issue to help de-escalate tensions with India and prevent the possibility of nuclear conflict.
- India has always rejected the third party role in its bilateral relationship with Pakistan.

UN Military Observer Group in India and Pakistan (UNMOGIP)

- It was established in January **1949**.
- After the **first war in Kashmir (1947-1948)**, India approached the **United Nations Security Council (UNSC)** to bring the conflict in Kashmir to the notice of Security Council members.
- In January **1948**, the **UNSC adopted Resolution 39**, establishing the three-member **United Nations Commission for India and Pakistan (UNCIP)** to investigate and mediate the dispute.
- In April 1948, by its **Resolution 47**, the UNCIP was reconstituted as UNMOGIP.
 - UN Military Observer Group in India and Pakistan (UNMOGIP) was meant to supervise the Cease Fire Line (CFL) established in Jammu and Kashmir in July 1949 under the Karachi Agreement.
 - UNMOGIP is funded through the UN's regular budget.

Karachi Agreement

After the 1st Indo-Pak armed conflict in 1948, under the supervision of the UNCIP, military representatives of both Pakistan and India met in Karachi and signed the Karachi Agreement on 27 July 1949. It established a cease-fire line (CFL) in Kashmir.

Role of UNMOGIP

- **India's stand on UNMOGIP:**

Note:

- The mandate of UNMOGIP had lapsed since it was related specifically to the ceasefire line under the Karachi Agreement.
- India has maintained that UNMOGIP has outlived its utility and is irrelevant after the Simla Agreement and the consequent establishment of the Line of Control (LoC).
- Pakistan did not accept India's position.
- **UN's Stand:** Given the disagreement between the two parties over UNMOGIP's mandate and functions, the UNMOGIP could be terminated only by a decision of the Security Council.
- Despite their differences with the provisions of Resolution 47, both India and Pakistan welcomed the UNMOGIP and agreed to work with it.

Simla Agreement

- India and Pakistan signed it in July 1972.
- It established a Line of Control (LoC) in Kashmir which, with minor deviations, followed the same course as the ceasefire line established by the Karachi Agreement.

Global Talent Competitiveness Index

Why in News

India has **moved up eight places** to the **72nd** position in the **Global Talent Competitiveness Index (GTCI) 2020**.

- **Switzerland topped** the list of 132 nations, followed by the US and Singapore.

Rank	Country	Score
1	Switzerland	81.26
2	US	79.09
3	Singapore	78.48
4	Sweden	75.82
5	Denmark	75.18
6	Netherlands	74.99
7	Finland	74.47
8	Luxembourg	73.94
9	Norway	72.91
10	Australia	72.53
72	India	40.42

Key Points

- It was started in **2013** and is an **annual** benchmarking report that measures the ability of countries to compete for talent, their ability to grow, attract and retain talent.
- **Theme for 2020** was '**Global Talent in the Age of Artificial Intelligence**'.
- It explores how the development of **artificial intelligence** (AI) is not only changing the nature of work but also forcing a re-evaluation of workplace practices, corporate structures and innovation ecosystems.
- **Inequality:** The report noted that the gap between high income, talent-rich nations and the rest of the world is widening. More than half of the population in the developing world lack basic digital skills.
- **About GTCI Report:** It is launched by **INSEAD**, a partner and sponsor of the **United Nation's Sustainable Development Goals** (SDGs) Davos, Switzerland recently.
- INSEAD is one of the **world's leading and largest graduate business schools** with locations all over the world and alliances with top institutions.
- The six metrics used to decide a country's rank are - enable, attract, grow, retain, vocational skills and global knowledge skills.

India

- The report stated that India's GTCI score and **GDP** per capita are both lower than the other emerging market economies such as **BRICS** - Brazil (80th), Russia (48th), China (42nd), and South Africa (70th).
- India's key strength relates to growing talent, due to its levels of lifelong learning and access to growth. However, more could be done to improve India's educational system.
- The country's highest-ranked sub-pillar is employability but the ability to match labour market demand and supply stands in contrast to the country's poor "mid-level skills", which result in a mediocre score in vocational and technical skills.
- India faces the challenge of attracting and retaining talent and the weak ability to overcome it. India has to strengthen the role of minorities and women to raise the level of internal openness in the country which would make it more appealing.

Note:

India Helps Maldives Tackle Measles

Why in News

India has helped the **Maldives in tackling measles outbreak** by providing over 30,000 doses of **Measles and Rubella (MR) vaccine**.

- The outbreak comes less than **three years after the World Health Organisation (WHO) declared the Maldives measles-free in 2017**.
- The Maldives presented a certificate of appreciation to the Government of India for the “gesture of goodwill and solidarity”.

Key Points

- It is an important step towards strengthening **India-Maldives relations**.
- Both the countries signed a Memorandum of Understanding (MoU) on Health cooperation in June 2019.
 - The MoU draws a roadmap for cooperation in capacity building and training of doctors and medical professionals, disease surveillance, training of mental health professionals, setting up of digital health capacities in the Maldives.
- India is also helping the Maldives in building a 100-bed Cancer Hospital in Hulhumale as part of its \$800 million Line of Credit.
- Both India and the Maldives are the members of the WHO’s **Regional Committee for South-East Asia**.

Measles

- It is a highly contagious viral disease and is a cause of death among young children globally.
- It can cause serious complications, including blindness, encephalitis, severe diarrhoea, ear infection and pneumonia.

Rubella

- It is also called German Measles.
- Rubella is a contagious, generally mild viral infection that occurs most often in children and young adults.
- Rubella infection in pregnant women may cause fetal death or congenital defects known as Congenital Rubella Syndrome (CRS). CRS causes irreversible birth defects.

Measles and Rubella Vaccine

- Measles and Rubella are caused by different viruses but share more or less the same symptoms, including the red rashes.
- The Measles & Rubella Initiative, a global program, aims at eliminating both these diseases.
- The **vaccine for the diseases** are provided in the form of Measles-Rubella (MR), Measles-Mumps-Rubella (MMR), or Measles-Mumps-Rubella-Varicella (MMRV) combination.

Sagarmatha Sambad

Why in News

Nepal has invited the Prime Minister of India to Sagarmatha Sambad.

- Besides many global figures, the event draws all the **South Asian Association for Regional Cooperation (SAARC) leaders**. Thus, it provides an opportunity to break the ice between India and Pakistan.

Key Points

- Sagarmatha Sambad is an initiative of the Government of Nepal to host a **permanent biennial global dialogue starting from 2020**.
 - It is expected to be the biggest diplomatic initiative in Nepal’s recent history.
- It was established in 2019 and is **headquartered in Kathmandu (Nepal)**.
- The Sambad (dialogue) is named after the **world’s tallest mountain Sagarmatha (Mt. Everest)** which is also a **symbol of friendship** and is meant to promote the notions of the common good and collective well-being of humanity.

South Asian Association for Regional Cooperation

- SAARC was established with the signing of the SAARC Charter in Dhaka (Bangladesh) on 8th December 1985.
- **Eight Member States:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
- **Secretariat:** Kathmandu (Nepal).
- **Objective:** To promote the welfare of the people of South Asia and to improve their quality of life, and to accelerate economic growth, among other things.

Note:

- It is a **multi-stakeholder dialogue** forum committed to deliberate on the most prominent issues of global, regional and national significance.
- The **first edition of Sagarmatha Sambaad** will be held in **Kathmandu from 2 to 4 April 2020** featuring the theme '**Climate Change, Mountains and the Future of Humanity**'.

Oslo Peace Accords

Why in News

Palestine has threatened to withdraw from key provisions of the **Oslo Accords** if the US announces its **Middle East Peace Plan**.

- It is being said that the plan will turn Israel's temporary occupation of Palestinian territory into a permanent occupation.

Oslo Accords

- Oslo Accords are a **series of agreements between Israel and the Palestinians** signed in the **1990s**.
- **Oslo I (1993)** was formally known as the **Declaration of Principles (DOP)**. The pact established a timetable for the Middle East peace process. It planned for an interim Palestinian government in Gaza and Jericho in the West Bank.
- **Oslo II** is officially called the **Israeli-Palestinian Interim Agreement on the West Bank and Gaza (1995)**, expanded on Oslo I.
 - It included provisions for the **complete withdrawal of Israeli troops** from six West Bank cities and about 450 towns.
 - Additionally, the pact set a timetable for elections for the Palestinian Legislative Council.
 - The interim pact was only supposed to **last five years** while a permanent agreement was finalised but it has tacitly been rolled over for more than two decades.
- The question of Jerusalem was left undecided under the Oslo Accords.

India - Brazil

Why in News

Brazilian President Jair Bolsonaro attended India's **71st Republic Day parade** as the chief guest for the event.

- **India-Brazil Business Forum** was held during his visit and **15 Memorandums of Understanding (MoU)** were signed between the two countries.

Key Points

- **MoUs Signed:** The MoUs related to investments, trade facilitation, social security, agriculture, defence and double taxation were signed.



- **India – Brazil Business Leader's Forum:** The demand for reconstitution of the Forum was raised to make it more relevant and contemporary to businesses in both countries.
- **Trade Target:** India-Brazil has set a target of **USD 15 billion trade by 2022**.
 - It needs to be noted that Brazil is one of the most important trading partners of India in the entire LAC (Latin America and the Caribbean) region.
 - However, bilateral trade between the two countries stands at a dismal \$8 billion.
- **Tourism:** Both the countries announced for **visa-free travel** which is expected to deepen ties, especially in the business and tourism sector.
- **Cultural Cooperation:** India's services in the wellness sector like Yoga and Ayurveda are expected to grow as Brazil has a strong community of Yoga and Ayurveda practitioners.
 - Brazil has an association of Ayurveda (ABRA) and the third International Congress on Ayurveda was held from 12 to 15 March 2018 in Rio de Janeiro (a city in Brazil).
- **Case at the World Trade Organization**
 - The **Brazilian government has challenged the minimum price (Fair and Remunerative Price -FRP) for sugarcane set by the Indian government** at the World Trade Organisation (WTO).

Note:



drishti

- Indian farmers' groups have requested the Brazilian President to withdraw its complaint against India.
- Brazil has responded that it is open to finding a "non-litigious solution" to the dispute. Also, added that the present issue would not affect bilateral collaborations on biofuels derived from sugarcane.

Fair and Remunerative Prices for Sugarcane

- **Minimum Support Price (MSP)** for the different agricultural crops viz., food grains, oilseeds, fibre crops, sugarcane and tobacco are announced by the Government of India before their sowing seasons.
- In the case of sugarcane, the announced price is termed as a **statutory minimum price**, rephrased as Fair Remunerative Price (FRP).
- There is statutory binding on sugar factories to pay the minimum announced price and all those transactions or purchase at prices lower than this are considered illegal.

➤ Relationship between the countries:

- India and Brazil share a very close and multifaceted relationship at **bilateral level** as well as in **plurilateral fora** such as **BRICS, IBSA, G4, G20, BASIC**, International Solar Alliance, Biofuture Platform and in the larger multilateral bodies such as the UN, WTO, UNESCO and WIPO.
- The **strategic partnership** was established between Brazil and India in 2006.

India-Togo Relations

Why in News

Recently, the **Togolese Republic** (also known as **Togo**) and **India** have come together for the development of about 300 MW Solar Power Projects in **Dapaong** (Dalwak region) and **Mango** (Savanes region).

- **National Thermal Power Corporation (NTPC) Limited** will be the **Project Management Consultant (PMC)** for the projects.
- **Togo is the first International Solar Alliance (ISA) country to avail the services of NTPC.**

Key Points

- NTPC had submitted a proposal to the **(ISA)** for giving Project Management Consultancy to the member countries for the implementation of Solar Projects.

National Thermal Power Corporation Limited

- It is **India's largest energy conglomerate** with roots planted way back in 1975 to accelerate power development in India.
- Its **mission** is to provide reliable power and related solutions in an economical, efficient and environment-friendly manner, driven by innovation and agility.
- NTPC became a **Maharatna company in May 2010**.
- It is located in **New Delhi**.
- It has an **installed power capacity** of more than 58,000 MW which include 870 MW of Solar Projects and 1062 MW under development.

- The proposal was put on **Swiss challenge** on the ISA website and subsequently submitted to the ISA Finance Committee. It was cleared in **2nd ISA Assembly** held in October 2019.

Swiss Challenge

- Swiss challenge method is a method of bidding, often used in public projects, in which an interested party initiates a proposal for a contract or bid for a project.
- The government then puts the details of the project out in the public and invites proposals from others interested in executing it.
- On the receipt of these bids, the **original proposer gets an opportunity to match the best bid**. In case, the original proposer fails to match the bid, the project is **awarded to the proposer of the best bid**.

Togo

- It is a country in **West Africa** that extends **south to the Gulf of Guinea** and is bordered on the **north by Burkina Faso, Benin to the east, and Ghana on the west**.
- Togo's capital is **Lomé**, located in the Gulf of Guinea and is the **largest city and port** of the country.
- Togo is a **sub-Saharan nation**, with a good growing climate that supports its dependence on agriculture.
 - The economy rests largely on agricultural products such as **coffee, cocoa beans, and peanuts (groundnuts)**.
 - It has extensive **phosphate reserves** and is **one of the world's largest phosphate producers**.
- Its **official language is French** and many other languages of the **Gbe family** are spoken in Togo.

Note:



➤ History:

- Togo was initially populated by various tribes and later became a centre for the slave trade known as “The Slave Coast” in the 16th century.
- It was later a **German colony until World War I** when it was divided by England and France.
- In **1914 Togoland became Togo**. British Togoland eventually became part of Ghana and French Togoland.
- Togo gained **independence in 1960**.

➤ Memberships:

- It is a member of the **United Nations, the Organisation of the Islamic Conference**, the **African Union**, the **International Solar Alliance** among others.
- Togo has set an ambitious plan to **achieve universal electricity access by 2030** with focus on capacity addition in Solar Power generation.

Public Health Emergency of International Concern

Why in News

The **World Health Organization (WHO)** has declared **Wuhan coronavirus** a **Public Health Emergency of International Concern (PHEIC)**.

- A PHEIC is defined in the **International Health Regulations (IHR, 2005)** as, “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response”. This definition implies a situation that is:

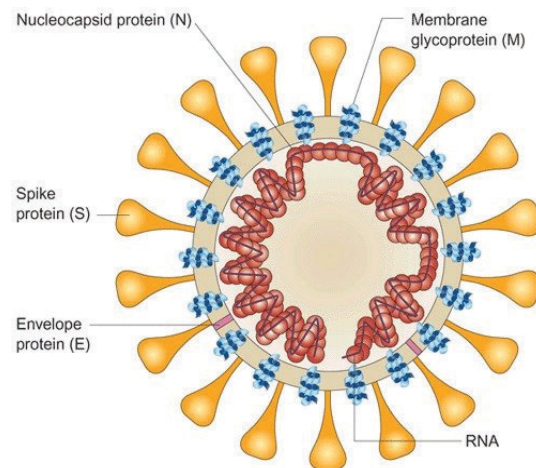
- Serious, sudden, unusual or unexpected.
- Carries implications for public health beyond the affected State’s national border.
- May require immediate international action.
- The declaration of PHEIC leads to boosting public health measures, funding and resources to prevent and reduce global spread. It could include recommendations on trade and travel, although the WHO generally tries to avoid disruptive trade restrictions.
- The **Emergency Committee**, made up of international experts, provide technical advice to the WHO Director-General in the context of a PHEIC.
- The WHO has declared five global emergencies in the past decade, including the **Ebola epidemic**.

The International Health Regulations (2005)

- IHR (2005), represents a **binding international legal agreement** involving 196 countries across the globe, including all the Member States of the WHO.
- Their aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.

Coronavirus

- **Coronaviruses** are a specific family of viruses, with some of them causing **less-severe damage**, such as the common cold and others causing **respiratory and intestinal diseases**.
- A coronavirus has many “**regularly arranged protrusions on its surface**”, because of which the entire virus particle looks like an **emperor’s crown**, hence the name “coronavirus”.



Note:

- It is an **RNA virus with ribonucleic acid (RNA)** as its genetic material **instead of deoxyribonucleic acid (DNA)**. That means the virus blends with its host's DNA and can mutate rapidly.
 - Due to this property of rapid mutation, coronaviruses can be quite different from one another.
- These can affect **humans** as well as **mammals including pigs, cattle, cats, dogs, martens, camels, hedgehogs and some birds**.
- There are **four common disease-causing coronaviruses**, while the two other are the **Severe Acute Respiratory Syndrome (SARS) coronavirus** and the **Middle East Respiratory Syndrome (MERS) coronavirus**, both of which can cause **severe respiratory diseases**.
- In the newly identified coronavirus, a direct link with the disease has not been established yet. It was speculated that it was related to the SARS epidemic of 2002.
- **World Health Organisation (WHO)** has said that further investigations and research are required to

determine the source, modes of transmission and extent of infection caused by the new virus.

Difference Between DNA and RNA Viruses

- A virus is a **biological agent** that can self-replicate inside a host cell. The infected cells by viruses may produce thousands of new copies of the original virus at an extraordinary rate.
- The genetic material of a virus can be either DNA or RNA. The viruses that contain DNA as their genetic material are called the **DNA viruses**. **RNA viruses**, on the other hand, contain RNA as their genetic material.
- DNA viruses are mostly **double-stranded** while RNA viruses are **single-stranded**.
- **RNA mutation rate is higher** than the DNA mutation rate.
- **DNA replication takes place in the nucleus** while **RNA replication** takes place in the **cytoplasm**.
- DNA viruses are stable while RNA viruses are unstable.



Note:

Science and Technology

Highlights

- *Rajasthan to Get its First Biotechnology Park*
- *GSAT-30*
- *Living Robots: Xenobots*
- *International Summit on Women in STEM*
- *Proposal to Change Location of TMT*
- *Vyom Mitra: ISRO's Half-Humanoid Robot*
- *NavIC in Mobiles*
- *Bhuvan Panchayat 3.0*

Rajasthan to Get its First Biotechnology Park

Why in News

Rajasthan government will be signing a memorandum of understanding with the Centre's Department of Biotechnology to set up its first biotechnology park and incubation centre in the state.

- The biotechnology park and incubation centre would be set up in the State with the support of the Biotechnology Industry Research Assistance Council (BIRAC).
- Objectives
 - This will enable the State government to take up research in the field of biotechnology and provide employment to the youths.
 - It would also help to promote interdisciplinary field research such as bioinformatics, biomedical engineering and nanomedicine.
 - Further, it will also help to promote biotechnology on the lines of health, agriculture, industry and food which will intensify the science-based manufacturing and industrialisation.

Biotechnology Parks and Incubators

- The Department of Biotechnology (under the Ministry of Science & Technology) has established Biotechnology Parks/Incubators across the country to translate research into products and services by providing the necessary infrastructure support.
- These Biotechnology Parks offer facilities to Scientists, and Small and Medium-sized Enterprises (SMEs) for technology incubation, technology demonstration

and pilot plant studies for accelerated commercial development of Biotechnology.

- The Department so far has supported 9 Biotechnology Parks in various States.
- The Department has also come up with 'National Biotechnology Parks Scheme'.
 - The scheme aims to create an ecosystem to absorb the start-ups which have graduated from incubators and give them a platform for further scaling up their R&D activities in collaboration with the state government and industry.

Biotechnology Industry Research Assistance Council

- BIRAC is a Public Sector Enterprise, set up by Department of Biotechnology (DBT).
- BIRAC is a industry-academia interface and implements its mandate through a wide range of impact initiatives.
- It aims to strengthen and empower the emerging Biotech enterprise to undertake strategic research and innovation, addressing nationally relevant product development needs.

GSAT-30

Why in News

Recently, the [Indian Space Research Organisation \(ISRO\)](#) has launched telecommunication satellite GSAT-30 into a Geosynchronous Transfer Orbit (GTO) from Kourou launch base, French Guiana by European Ariane-5 VA-251.

- GSAT-30 satellite will replace INSAT-4A which was launched in 2005.

Note:

- A European communication satellite named EUTELSAT KONNECT was also launched with GSAT-30.

Key Points

- **Weight**
 - GSAT-30 weighs 3,357-kg and will be gradually adjusted into a orbit 36,000 km from the earth.
- **Launched from**
 - It was **launched from the foreign launcher because it is much heavier than the lifting capacity of India's geostationary launch vehicle GSLV-MkII** (It has the capacity to lift 2000kg).
 - The **GSLV-MkIII can lift up to 4,000 kg**, but ISRO plans to use the upcoming MkIIIs mainly for its first human space flight **Gaganyaan of 2022**.
- **Use**
 - It has a **mission life of more than 15 years**. It will provide DTH (Direct To Home) television services, connectivity to VSATs (that support working of banks') ATMs, stock exchange, television uplinking and teleport services, digital satellite news gathering and e-governance applications.
 - The satellite will also be used for **bulk data transfer** for a host of emerging telecommunication applications.
- **Coverage**
 - The satellite provides **Indian mainland and islands coverage in Ku-band** and **extended coverage in C-band covering Gulf countries**, a large number of Asian countries and Australia.

Geosynchronous Orbit

- Geosynchronous satellites are **launched into orbit in the same direction the Earth is spinning** and can have any inclination. While **geostationary orbit lie on the same plane as the equator**.
- In the case of geostationary satellites, the Earth's force of gravity is exactly enough to provide acceleration required for circular motion.
- **Geosynchronous Transfer Orbit (GTO):** To attain geostationary or geosynchronous earth orbits, a spacecraft is first launched into a Geosynchronous Transfer Orbit.
 - From the GTO the spacecraft uses its engines to shift to geostationary or geosynchronous orbit.

Living Robots: Xenobots

Why in News

Scientists in the United States have created the **world's first "living robots" named "xenobots"**.

- The tiny robots have been built from the cells of the **African clawed frog**. Scientists have repurposed living cells scraped from frog embryos and assembled them into entirely new life-forms.
- The robots have been named after the species of **aquatic frog *Xenopus laevis***, found across sub-Saharan Africa from Nigeria and Sudan to South Africa.
- The latest research is a breakthrough because it designs, for the first time ever, "completely biological machines from scratch".
- The xenobots can move toward a target, perhaps pick up a payload (like a medicine that needs to be carried to a specific place inside a patient) — and heal themselves after being cut.
- Many useful applications of these living robots include searching out nasty compounds or radioactive contamination, gathering microplastic in the oceans, travelling in arteries to scrape out plaque, etc.

Why *Xenopus Laevis*?

- *Xenopus* is a genus of African frogs that are commonly known as the African clawed frogs.
- Two species of *Xenopus* are regularly used by biologists, *Xenopus laevis* and *Xenopus tropicalis*. Both species are fully aquatic, and are easy to maintain in captivity.
- *Xenopus* is a valuable tool because they are:
 - Hardy, fully aquatic and easy to maintain in the laboratory,
 - Produce eggs year-round,
 - Eggs are a reliable and flexible material for research,
 - Embryos are a good model for vertebrate development,
 - Genetically similar to humans thus a good model for human disease



Note:

International Summit on Women in STEM

Why in News

The **Department of Biotechnology** (Ministry of Science & Technology) organized an International Summit on Women in STEM (Science, Technology, Engineering and Mathematics) in New Delhi in January 2020.

- The overall aim was to boost the participation of women in the STEM fields for the development of a scientific career.
- **Theme:** Visualizing the Future: New Skylines.

Key Points

- The objective of the summit was to showcase successful women in the field of STEM as real-world examples of women scientists, doctors and engineers as well as the rewards associated with it.
- STEM (Science, Technology, Engineering and Mathematics).
 - It is a curriculum based on the idea of educating students in 4 specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach.
- India is one of the countries that produce the highest number of scientists and engineers, the growth of STEM has picked up significantly over the last few years.
- According to the National Science Foundation, it is predicted that 80% of the jobs created in the next decade will require some form of math and science skills.
- Under Article 51A of the Constitution of India it is a duty of every citizen of India to develop the scientific temper, humanism and the spirit of inquiry and reform.

Proposal to Change Location of TMT

Why in News

India, a partner in the construction of the **Thirty Meter Telescope (TMT)**, has requested that the **project be moved out of the proposed site at Mauna Kea**, a dormant volcano in Hawaii, USA.

Key Points

- **India's Proposal for Changing the Location**
 - The TMT has been a litigious site since 2014. The project has not made any progress because of regular obstructions.
 - The **initially proposed site is considered sacred to indigenous Hawaiians**, and already has too many observatories in the region.
- **Alternate Site**
 - The proposed alternate site to locate the telescope is the **Observatorio del Roque de los Muchachos (ORM)** on La Palma in the Canary Islands, **Spain**.
- **Reasons for Choosing Mauna Kea Initially:**
 - Mauna Kea in Hawaii is considered a superior site for telescope establishment because it offers **best imaging possibilities, stable weather**.
 - Additionally, it also has the necessary infrastructure to manage telescopes as it already hosts several telescopes.
- **India's Role in TMT:**
 - India has **committed \$200 million**, which is about a tenth of the proposed cost.
 - The telescope needs 492 precisely **polished mirrors** and India is to contribute 83 of them.
 - India, in 2020 stands to get **10% of the available slots**. As the level of contribution determines the amount of viewing time, or slots, that the member-countries' scientists get on the machine.

Thirty Metre Telescope

- The Thirty Metre Telescope (TMT) will enable scientists to **study fainter objects in the universe**, which gives information about the early stages of evolution of the universe.
- It will also allow to see deeper into space and observe cosmic objects with unprecedented sensitivity.
- With its 30 m prime mirror diameter, TMT will be three times as wide, with nine times more area than the largest currently existing visible-light telescope in the world.
- The Thirty Metre Telescope is a **joint venture (JV)** involving following countries namely, USA, Japan, China, India and Canada.

Note:



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Vyom Mitra: ISRO's Half-Humanoid Robot

Why in News

Recently, the **Indian Space Research Organisation (ISRO)** unveiled its **first 'woman' astronaut named Vyom Mitra** who will ride to space in the **first test flight of the human space mission, Gaganyaan**.

- Under the Gaganyaan schedule, three flights will be sent in orbit. Of the three, there will be two unmanned flights and one human spaceflight.

Key Points

- She is **half-humanoid** and her body stops at the torso and has no legs. She is capable of switching panel operations, performing **Environment Control and Life Support Systems (ECLSS) functions**, conversations with the astronauts, recognising them and solving their queries.
 - The humanoid can detect and give out warnings if environmental changes occur within the cabin.
- She will **simulate the human functions required for space** before real astronauts take off before August 2022. She will be sent in a space capsule around the end of 2020 or early 2021 to study how astronauts respond to living outside earth in controlled zero-gravity conditions.
- The **humanoid has been developed by the ISRO Inertial Systems Unit, Thiruvananthapuram**.



NavIC in Mobiles

Why in News

Qualcomm Technologies has unveiled mobile chipsets supporting the **Indian regional satellite navigation system - NavIC (Navigation in Indian Constellation)**.

- Users of such mobile chipsets will be able to use NavIC within the Indian region and neighbouring countries.

Key Points

- The release of chipsets will help accelerate the **adoption of NavIC by smartphone Original Equipment Manufacturers (OEMs)**. The OEMs can now release

any new models for the Indian market which are NavIC enabled, thus eventually making **NavIC as a standard feature in the upcoming handsets, applications, processors, etc.**

- OEM traditionally is defined as a company whose goods are used as components in the products of another company, which then sells the finished item to users.
- The availability of NavIC across multiple mobile platforms will help **enhance the geolocation capabilities of smartphones** in the region.
- **An Aid Against Crime:**
 - In April 2019, the government has made **NavIC-based vehicle trackers mandatory for all commercial vehicles** in the country in accordance with the Nirbhaya case verdict.
 - NavIC in mobiles will facilitate the implementation of a key mandate from the Nirbhaya case verdict which required the installation of vehicle tracking systems and **panic buttons in all commercial vehicles**.
 - NavIC is set to become the backbone of a public vehicle tracking system in India since it **offers flexibility to local law enforcement agencies** to monitor vehicles unlike international systems like the GPS (global positioning system).

Navigation in Indian Constellation (NavIC)

- It has been developed by the **Indian Space Research Organization (ISRO)**.
- The main objective is to provide reliable position, navigation and timing services over India and its neighbourhood.
- Named after Indian fishermen and navigators, NavIC will provide **two types of services**:
 - **Standard Positioning Service (SPS)** is meant for the general public.
 - **Restricted Service (RS)** is an encrypted service meant for authorised users and agencies.
- Unlike the widely used GPS which includes 24 satellites, NavIC has **7 satellites and their range is within India and its adjoining regions extending up to 1,500 km from the country's border**.
- Technically satellite systems with more satellites provide more accurate positioning information. However, compared to GPS which has a position accuracy of 20-30 metres, the NavIC is able to pinpoint location to an **estimated accuracy of under 20 metres**.

Note:

- In addition to NavIC, these chipsets will also support the widely used **GNSS (Global Navigation Satellite System)**.
 - GNSS includes USA's GPS, European Union's Galileo, Russia's GLONASS and China's BeiDou Navigation Satellite System for global coverage.

Bhuvan Panchayat 3.0

Why in News

Recently an **upgraded geo-imaging web portal, Bhuvan Panchayat 3.0** was launched during the National Workshop on **"Space-based Information Support for Decentralised Planning-2"**.

- The launch is a part of the advanced **Space-based Information Support for Decentralised Planning (SISDP)** project.
 - The **SISDP was launched in 2011** and its first phase of making databases was completed in 2017.

Key Points

- The portal uses high-resolution data from recent earth observation satellites and offers detailed information to **panchayats** about their key assets.
- For the first time, the thematic maps of 1:10,000 scale have been generated based on high-resolution data given by **the Indian Space Research Organisation's (ISRO)** new earth observation satellites.
- It is jointly implemented by the **Ministry of Panchayati Raj and Department of Space, ISRO**.

Advantages

- **Decentralised Planning:** "Bhuvan Panchayats" is facilitating decentralised planning at grass-root level. **E.g.:** It is possible for rural planners to plan and locate a healthcare unit, water harvesting, rural communication network even as they sit in panchayat offices.
- **Empowering the Panchayats:** The workshop addressed modalities and mechanisms that would be adopted to empower the local bodies in utilizing the space technology in the form of simple-to-use maps, location-based services through **Navigation in Indian Constellation (NavIC)** and high-resolution space images based local tools to enable the panchayats with modern technology for sustainable development.

- **Technology and Governance:** The Panchayat Raj institutions could effectively use space technology for planning, implementation, monitoring and management of resources, including governance.
- **Digital India:** It can also prove to be an important component for **"Digital India"** platform for reaching digital thematic maps to about 2.56 Lakh Gram panchayats in the country.

Bhuvan Portal

- **Bhuvan (Sanskrit for Earth)** is a **Geoportal of ISRO**, allowing a host of services covering visualization, free data download, thematic map display and analysis, timely information on disaster and project-specific GIS applications.
- The portal was **launched in 2009** and is available in English, Hindi, Tamil and Telugu.
- Bhuvan, as a platform, is open and can be used by a diverse user community such as Central and State Governments Departments, Academia and Industry. Few examples are:
 - **Bhuvan-Bhujal:** Ground Water Prospects Information System.
 - **School Bhuvan:** An e-learning portal for the students.
 - **ENVIS program** of the Ministry of Environment, Forests & Climate Change.
 - **Bhuvan Ganga:** Enables people participation in providing vital information for the Clean Ganga project.
 - **Srishti-Drishti:** An Integrated Watershed Development Program.

ENVIS Program

- Environmental Information System (ENVIS) program was started in **December 1982** to provide environmental information to decision-makers, policy planners, scientists and engineers, research workers, etc. all over the country.
- ENVIS has started implementing the **World Bank assisted Environment Management Capacity Building Technical Assistance Project (EMCBTAP)** since January 2002 which aims at structuring the ENVIS scheme by extending its reach through the involvement of Institutions/Organizations in State Governments, academia sector, corporate sector, NGO sector, etc.



Note:

Environment and Ecology

Highlights

- Exemptions from Environmental Clearances
- 2019: Second Hottest Year
- Australian Bushfire
- One-fifth of the Country's Forests Prone to Fire
- Species-rich Forests Offer Stable Carbon Capture
- Irrawaddy Dolphins in the Chilika Lake
- Rare Steppe Eagle Spotted in Andhra Pradesh
- White Rhino
- Wollemi Pines
- Ranthambore Tiger Reserve
- Koala: Bushfires in Australia
- Archaea Microorganism
- Planting of Exotic Trees in Nilgiris is Harmful
- Hydrochlorofluorocarbon (HCFC)-141 b
- Ophichthus Kailashchandrai: Snake Eel
- India's Neutrino Observatory Opposed by Gram Sabhas
- Tadoba Andhari Tiger Reserve
- Colour-Coded Warnings by the IMD
- Yellow Rust
- E-Retailers to Collect Plastic Waste
- Introduction of African Cheetah in India
- Addition to Ramsar Sites

Exemptions from Environmental Clearances

Why in News

The Environment Ministry has issued a notification to exempt oil and gas firms from seeking environmental clearance for **on-shore and offshore drilling explorations**.

- Onshore drilling refers to drilling deep holes under the earth's surface whereas offshore drilling relates to drilling underneath the seabed.
 - These drilling methods are used in order to extract natural resources – usually oil and gas – from the earth.

Key Points

- **Demotion of Exploratory Projects:** The notification has demoted exploratory projects to the **category of 'B2'** in the process of **Environment Impact Assessment (EIA)**.
 - Category B projects are appraised at the state level and they are classified into two types.
 - **Category B1 projects (Mandatorily requires EIA).**
 - **Category B2 projects (Do not require EIA).**
- **Exceptions:** The development of an offshore or onshore drilling site as a hydrocarbon block will continue to be classified as a "category A".

- **Decentralisation:** The exemption is part of a process of 'decentralisation' by the Centre as it seeks to delegate more regulatory actions to State and local units.

Background

- Previously, exploratory surveys required the highest level of environmental scrutiny and were classified under category 'A' projects.
 - The category 'A' project needs to prepare an EIA plan and is scrutinised by a Centrally constituted committee of experts.
 - The project would also be subject to a public hearing involving the locals of the proposed project site.
 - Though, Public hearings, for category 'A' projects, are generally exempted if they are offshore projects

Environmental Concerns

- The exploratory drilling process is an **ecologically-intensive exercise** that involves digging multiple wells and conducting seismic surveys offshore. Thus exemptions may cause **loss of biodiversity**.
- The offshore drilling operations can possibly affect fish, lead to a build-up of heavy water contaminants, disorient whales and sea life.
- The **risk of oil spills** threatens the coastal as well as terrestrial ecosystems.

Note:

2019: Second Hottest Year

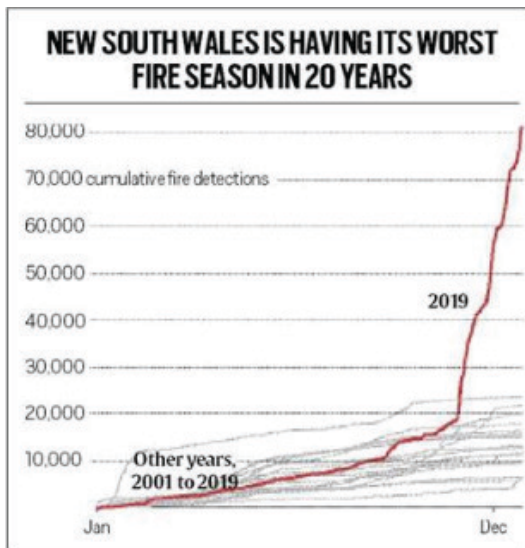
Why in News

According to the **World Meteorological Organization (WMO)**, the year 2019 was the second-hottest year since records began in 1850.

- It has also warned that heat is likely to lead to more extreme weather events like the **Australian bushfires in 2020** and beyond.
- **Status in India**
 - The **India Meteorological Department (IMD)** has declared the **decade of 2010-19, India's hottest** since records began in 1901, with the average temperature 0.36 degrees Celsius higher than the 30 year (1981-2010) average.

Key Points

- **Hottest Decade**
 - **Trend:** Since the 1960s, each decade has been significantly warmer than the previous one. This trend continued in the 2010s, and five of the hottest years ever were experienced in the second half of the decade.
 - **Reason:** The warming is caused to a large extent by the emissions of carbon dioxide and other heat-trapping gases emitted from the burning of fossil fuels.
 - **Implication:** This pace of warming means the world will almost certainly fail to meet the goals set to combat catastrophic climate change.



➤ Hottest Years

- The **hottest year on record was in 2016** due to the warming impact of a strong **El Nino event**.
- The global average surface temperatures in 2019 were nearly 1 degree Celsius higher than the average from the middle of last century, making 2019 the second hottest year.

Australian Bushfire

Why in News

Australia is witnessing its most devastating bushfire season in at least 20 years.

Bushfires

- **Season:** Forest fires or bushfires, routinely occur across the world in hot and dry seasons.
- **Reason:** Dry leaves, grass, shrubs, deadwood etc. are easily combustible. Ignition happens naturally from lightning or accidentally from sources such as cigarette stubs.
- **Spread and End:** Suitable speed and direction of wind helps spread a forest fire faster. It usually comes to an end due to rain or because there is no further contiguous vegetation.
- **Man-made fires:** In 2019, the fires in the **Amazon forests in Brazil** become controversial because they were largely ignited by farmers and large agro-industry players who were keen on getting more land.
- **Indian Context:** During the summer months, **fires are common in the forests of India** as well.

Common in Australia

- **Driest Inhabited Continent**
 - Australia, where the summer starts around October, is known to be the most fire-prone of all continents. This is mainly because Australia is the driest inhabited continent.
 - Almost 70% of its area comprises arid or semi-arid land, with average annual rainfall less than 350 mm.
- **Bushfires and forest cover**
 - Australia has about 134 million hectares of forest land. Bushfires are pretty common every year in summer.
 - Australian government data shows that more than 40% of the entire forests, had been affected

Note:

by at least one such fire in the period between 2011 and 2016.

Difference in 2020

- This Australian summer, the spread and intensity of forest fires are something never seen before. The fire has impacted more than 10.3 million hectares of forest land so far, an area the size of South Korea. People and millions of wild animals have died.
- **Reasons**
 - **Prolonged Drought**
 - The three years between 2017 and 2019 were the driest 36-month period ever in the New South Wales.
 - **2019 happened to be the warmest and driest year for the country since 1900.**
 - Daytime temperatures were, on average, 2°C higher than normal, while the average rainfall for the country was 40% below normal.
 - **Heat and dryness are the key preconditions** for the ignition and spread of forest fires.
 - **Positive Indian Ocean Dipole (IOD)**
 - In 2019, the problem has been compounded by the presence of one of the strongest-ever positive **Indian Ocean Dipole (IOD)** events.
 - **Rare stratospheric warming over Antarctica**
 - Temperatures were 30°C to 40°C higher than normal in the region 10 to 50 km from Earth's surface, another extraordinary weather event that could have contributed to the unusual heat and dryness in Australia.
- **Link with climate change**
 - Experts say **climate change has worsened the scope and impact of natural disasters such as fires and floods.** Weather conditions are growing more extreme. Fires have been starting earlier in the season and spreading with greater intensity for the past few years.

Impact of IOD on India and Australia

- The IOD refers to the difference in sea-surface temperatures in the eastern and western Indian Ocean. This either aids or cuts off moisture supply to Australia, depending on whether the western Indian Ocean is cooler or the eastern.

- This year, the **eastern Indian Ocean has been unusually cold**, and that contributed to the **rainfall deficiency over Australia.**
- The **2019 June-September monsoon** in India started its withdrawal on October 9, against the normal date of September 1, making it the most delayed in recorded history. It was also the strongest in recent years with a surplus of 10% in 2019, both attributed in part due to the positive phase of the Indian Ocean Dipole (IOD).
- During a **positive IOD phase, the west Indian Ocean warms up** anomalously (creating lower pressure and wet climes) relative to the east (higher pressure and a dry phase, towards the Australian side).
- A positive IOD that has persisted longer than usual is thought to have contributed to a delay in transition of the monsoon trough from the Northern Hemisphere to the Southern Hemisphere and onset of the Australian monsoon.

One-fifth of the Country's Forests Prone to Fire

Why in News

Recently, the **2019 report by Forest Survey of India (FSI)** was released. It states that about 21.40% of forest cover in India is prone to fires, with forests in the north-eastern region and central India being the most vulnerable.

- FSI carried out a study along **forest fire points (FFP)** identified across the country from 2004 to 2017.
- There are total 2,77,758 FFP identified during the 13 years.
- FFPs were analysed using a moderate resolution imaging spectroradiometer (MODIS) by overlaying the points coverage over the grid coverage of 5 km x 5 km.

Forest Survey of India

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

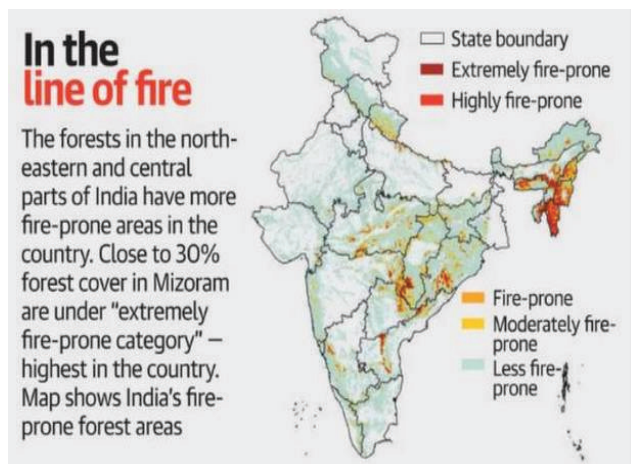
Key Points

- Extremely fire-prone areas account for 3.89% of total forest cover, very highly fire-prone areas account for

Note:

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

- From November 2018 to June 2019, there were total 29,547 alerts based on MODIS. Mizoram recorded the highest number of fire alerts (2,795).
 - The north-eastern region accounted for about one-third of alerts in the country.
 - The Central Indian States also recorded a high number of forest fire alerts.
 - Alerts: Madhya Pradesh > Maharashtra > Odisha > Chhattisgarh.
- The overall green cover has increased in the country but the forest cover in the north-east, particularly in Mizoram, Arunachal Pradesh and Nagaland, has decreased.
- The uncontrolled forest fires can lead to significant loss of forest cover. Climate change influences the frequency and intensity of forest fires and results in forests becoming increasingly inflammable.
- **Reasons for Forest Fires**
 - Thunderstorms are the most likely natural cause for forest fires.
 - In central India, the reasons are mainly manmade, particularly in cases where people visit forests and leave burning bidis, cigarette stubs or other inflammable materials.
 - A major reason for forest fires in the north-east is slash-and-burn cultivation, commonly called jhum or jhum cultivation.
 - The north-east has tropical evergreen forests which are not likely to catch fire easily on their own, like the dry deciduous forests of central India.



Species-rich Forests Offer Stable Carbon Capture

Why in News

Surveys conducted inside **Anamalai Tiger Reserve** have shown that **carbon storage was highest in species-rich evergreen forest**.

- The study was conducted in the natural evergreen and deciduous forests and in teak and eucalyptus plantations.
- The results showed that the species-rich evergreen forests stored carbon at approximately 300 tons per hectare. The **storage in teak and eucalyptus plantations was 43% and 55% less, respectively**.
- According to government data, currently, **five species or less** are used for compensatory afforestation plantations which are way lower than natural forests.

Significance

- **Transforming reforestation policies**
 - Protecting and regenerating natural forests comprising a diverse mix of native tree species is more reliable in the long term as a strategy for **mitigating climate change**.
 - **Inadequacy of variety of species** is not good for biodiversity and for the stability of carbon capture.

Anamalai Tiger Reserve

- It is **one of the four Tiger Reserves in Tamil Nadu**. Mudumalai, Kalakad-Mundanthurai Tiger Reserves and Sathyamangalam Wildlife Sanctuary are the other three.
- It falls **within the Western Ghats range of South West India**, a region designated as **one of the 25 Global Biodiversity Hotspots**.
- **Animals and birds found:** Elephant, gaur, tiger, panther, sloth bear, wild boar, wild dog, Nilgiri langur, lion-tailed macaque, sambar, four horned antelope, chital, the trogar, pied hornbill and several eagles.
- The Tiger Reserve **supports diverse habitat types** like Wet evergreen forests, semi evergreen forests, moist deciduous, dry deciduous, dry thorn and shola forests. Other unique habitats like montane grasslands, savannah and marshy grasslands are also present.

Note:

- **Benefitting biodiversity:** Species-rich forests provide habitat to diverse flora and fauna and are also resistant to diseases.
- **Securing resources:** Species-rich forests have better resistance to forest fire because different trees have varying degrees of fire resistance depending on the thickness of the bark.

Irrawaddy Dolphins in the Chilika Lake

Why in News

During the **Dolphin Census in Chilika lake**, direct sighting of **146 Irrawaddy dolphins** has been reported.

- The Census is being carried out using **Hydrophone monitoring technique**. A hydrophone is a microphone designed to be used underwater for recording or listening to underwater sound.

Irrawaddy dolphins

- Irrawaddy dolphins (*Orcaella brevirostris*) are found in coastal areas in South and Southeast Asia, and in three rivers: the Irrawaddy (Myanmar), the Mahakam (Indonesian Borneo) and the Mekong (China).
- They are listed as **'Endangered'** as per the IUCN Red List.
- The total population of these aquatic mammals in the world is estimated to be less than 7,500.
 - More than 6,000 Irrawaddy dolphins have been reported from Bangladesh.
 - **Dolphin distribution in Chilika** is considered to be the **highest single lagoon population**.



Chilika Lake

- Chilika is **Asia's largest and world's second-largest lagoon**.
- It lies on the east coast of India in the state of Odisha, separated from the mighty Bay of Bengal by a small strip of sand.
- It is the **largest wintering ground for migratory birds** on the Indian sub-continent and is home to a number of threatened species of plants and animals.

- In 1981, Chilika Lake was designated the first **Indian wetland of international importance** under the **Ramsar Convention**.
- The major attraction at Chilika is **Irrawaddy dolphins** which are often spotted off Satpada Island.
- The large **Nalabana Island (Forest of Reeds)** covering about 16 sq km in the lagoon area was declared a **bird sanctuary** in 1987.
- **Kalijai Temple** is located on an island in the Chilika Lake.

Rare Steppe Eagle Spotted in Andhra Pradesh

Why in News

A **Steppe Eagle (Aquila nipalensis)** has been sighted in **Andhra Pradesh** during Asian Bird Census.

- This is the **second time a Steppe Eagle has been sighted in Andhra Pradesh** in the past two decades.
- The sighting of this rare species highlights the need for exploration of the diversity of avian life in the State.



Steppe Eagle

- The Steppe Eagle is a **migratory raptor** which has undergone extremely rapid population declines within all its range.
 - Steppe Eagles may make migratory movements of many thousands of kilometres crossing numerous national jurisdictional boundaries.
 - The bird has moved from 'Least Concern' to **'Endangered'** under IUCN Red List.
- It **breeds** in Russia, Kazakhstan, and Mongolia during the winter season.
- Steppe eagle is the **second-largest migratory eagle species to India**.
- The **threats to the Steppe Eagle** include habitat loss/degradation, electrocution on/ collision with energy infrastructure, poisoning through herbicides/ pesticides/ veterinary drugs in food sources, etc.

Note:



drishti

White Rhino

Why in News

Researchers have created an **embryo of the northern white rhino** by using **In vitro Fertilization (IVF)** process.

- Presently, there are **only two northern white rhinos** in the world.



White Rhino

- White rhinos are the **second largest land mammal** after the elephant.
- They are also known as the **square-lipped rhinoceros** due to their square (not pointed) upper lip.
- **Two genetically different subspecies** exist, the **northern and southern white rhino** and are found in two different regions in Africa.
- The IUCN Status of **White Rhino is Near Threatened**. The IUCN status of its subspecies is as follows:
 - **Northern White Rhino: Critically Endangered.**
 - **Southern White Rhino: Near Threatened.**
- There is also the **black (or hook-lipped) rhinoceros in Africa**, which too, is fighting for survival, and at least three of whose subspecies are already extinct. It is **critically endangered** in the IUCN Red list.
- The **Indian rhinoceros** is different from its African cousins, most prominently in that it has only one horn. It is **vulnerable** in the IUCN Red list.
- There is also a **Javan rhino**, which too, has one horn, and a **Sumatran rhino** which, like the African rhinos, has two horns. Both Javan and Sumatran Rhino are **critically endangered** in the IUCN Red list.

In vitro Fertilization

- IVF is one of the more widely known types of **Assisted Reproductive Technology (ART)**.
- **In vitro** comes from the **latin word 'in glass'**, i.e. studies are done in a test tube rather than in a human or animal.
 - The **opposite to 'In-vitro' is 'In-vivo'**, which comes from the **latin word 'within the living'**. In vivo refers to experimentation being done in a living organism.
- **In vitro means outside the body.** Fertilization means the sperm has attached to and entered the egg.
- During IVF, mature eggs are collected (retrieved) from the ovaries and fertilized by sperm in a **lab**. Then the fertilized egg (embryo) or eggs (embryos) are transferred to a uterus.

Wollemi Pines

Why in News

The prehistoric Wollemi Pine grove, which exists in the **Wollemi National Park northwest of Sydney**, has been saved from bushfires in **Australia**.



Key Points

- Wollemi Pines are thought to have **existed** even during the **Jurassic period**. The **oldest fossil** of the **rare pine species** dates back **90 million years**.
- Wollemi National Park is the **only place in the world** where these trees are found in the wild. Approximately, **less than 200 trees** are left.
- The pines, which prior to 1994 were thought to be extinct. Their location was kept secret to prevent

Note:

contamination. They have benefited from an unprecedented environmental protection mission.

- Wollemi Pine (*Wollemia Nobilis*) is listed as **critically endangered** in the **IUCN Red List**.
- Wollemi National Park is a part of the **Greater Blue Mountains Area** which is a **UNESCO World Heritage Site**.

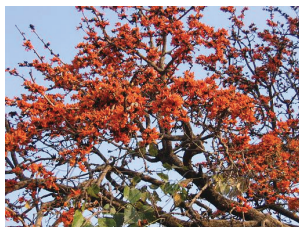
Australia's Wollemi Pines

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



Ranthambore Tiger Reserve

- **Location:** Ranthambore Tiger Reserve lies in the **eastern part of Rajasthan** state in Karauli and Sawai Madhopur districts, at the **junction of the Aravali and Vindhya** hill ranges.
- **Parks and Sanctuaries Included:** It comprises of the **Ranthambore National Park** as well as **Sawai Mansingh and Keladevi Sanctuaries**.
- The Ranthambore fort, from which the forests derive their name, is said to have a rich history of over 1000 years. It is strategically located atop a 700 feet tall hill within the park and is believed to have been built in 944 AD by a Chauhan ruler.
- The vegetation includes grasslands on plateaus and dense forests along the seasonal streams.
 - The forest type is mainly tropical dry deciduous with '**dhak**' (*Butea monosperma*), a species of tree **capable of withstanding long periods of drought, being the commonest**.
 - This tree is also called as '**Flame of forest**' and is one of the many flowering plants that add colour to the dry summers here.



Koala: Bushfires in Australia

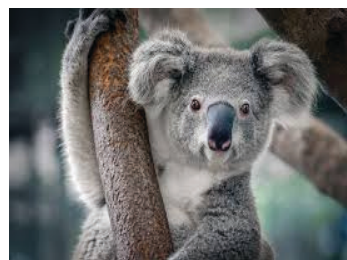
Why in News

Australia is in the grips of a nationwide bushfire emergency which has severely affected wildlife.

- It's been estimated that 1.25 billion native animals have perished in the **Australian bushfires**, including koalas, kangaroos, wallabies, wombats, echidnas and more.
- Koalas are among the first animals to perish in wildfires because the slow-moving creatures can't outrun the flames.

Key Points

- Koala is (*Phascolarctos cinereus*) **an arboreal (lives in trees) marsupial**.
 - **Marsupial:** A marsupial is born in a very incomplete state. They are minute, hairless and with hind limbs only partially formed. Around 2/3rd of them live in Australia. The other third live mostly in South America.
 - Instead of the placenta, the mother's milk nourishes the young and allows it to grow and develop.
 - Although the word 'marsupial' comes from the Latin word 'marsupium', which means 'pouch', not all marsupials have pouches.
- They are **endemic to Australia**.
- Due to the low nutrient levels of the **Eucalyptus leaves** they feed on, the koala can sleep up to 18 hours each day.
- **IUCN status: Vulnerable**
- Threats: Habitat destruction, climate change & severe weather (Droughts, extreme temperatures).



Archaea Microorganism

Why in News

Recently, scientists at the National Centre for Microbial Resource under National Centre for Cell

Note:

Science (NCMR-NCCS) in Pune have reported a new archaeon, which they discovered in **Sambhar Salt Lake** in Rajasthan.

National Centre for Microbial Resource

- It started as Microbial Culture Collection (MCC) in 2009 with a mandate to preserve and catalogue the diversity of bacteria collected from different ecological niches from all over India and to make them available for biotechnological exploitation by researchers.
- In April 2017 MCC was transformed as a Centre of Excellence for National Centre for Microbial Resource (NCMR). It plays a crucial role as custodian of microbial diversity of India.
- It is a part of the National Centre for Cell Science.

National Centre for Cell Science

- It is a national level biotechnology, tissue engineering and tissue banking research centre located at Savitribai Phule Pune University, Maharashtra.
- It is one of the premier research centres in India, which works on cell-culture, cell-repository, immunology, chromatin-remodelling.

Key Points

- Archaea (singular archaeon) are a primitive group of microorganisms that thrive in **extreme habitats** such as hot springs, cold deserts and hypersaline lakes.
- These **slow-growing organisms** are also **present in the human gut** and have a potential relationship with human health.
- They are known for **producing antimicrobial molecules** and for antioxidant activity with applications in eco-friendly waste-water treatment.
- The organism has potential gene clusters that help maintain the metabolism of the archaea to survive in extremely harsh conditions.
- This particular organism also harbours specific pathways for DNA replication, recombination and repair.
- The new archaeon has been named **Natrialba swarupiae**, after **Dr Renu Swarup**, Secretary of



the Department of Biotechnology, for her initiative in supporting microbial diversity studies in the country.

Planting of Exotic Trees in Nilgiris is Harmful

Why in News

A local non-governmental organization (NGO) has proposed mass plantation of exotic trees in the **Nilgiris** because they provide for better soil stability of the slopes on which they are planted.

- However, conservationists argue that it will have a huge impact on soil chemistry, wildlife and is harmful to the environment in the long term because they **increase the water demand** in that region, impacting the flora and fauna of the region.
- The **roots of exotic trees are shallow and they get uprooted by high-velocity winds and heavy rain in the monsoons of the Nilgiris**.

Exotic plants: Plants that have been introduced to an area from outside their native range, either purposefully or accidentally.

Nilgiri Hills

- Western Ghats are locally known by different names such as **Sahyadri in Maharashtra, Nilgiri hills in Karnataka and Tamil Nadu and Anaimalai hills and Cardamom hills in Kerala**.
- The **temperate forests** are called **Sholas in the Nilgiris, Anaimalai and Palani hills**.
- The Sholas are found **only in high altitude (>1500 meters)** regions within the tropics and are limited to the southern part of the western ghats.
 - They are characterized by **undulating grassland patches**, interspersed with thickets of stunted evergreen tree species and are home to a **host of endemic and endangered plants and animals**. They are also vitally important in keeping water cycles alive.
 - Shola require a **lot of maintenance** post-planting to ensure their survival because they are very slow in growing.

Note:

Hydrochlorofluorocarbon (HCFC)-141 b

Why in News

India has successfully phased out Hydrochlorofluorocarbon (HCFC)-141 b.

- The **Ministry of Environment, Forest and Climate Change (MoEFCC)** notified that the **issuance of import license for HCFC-141b is prohibited from 1st January 2020** under Ozone Depleting Substances (Regulation and Control) Amendment Rules, 2019.
 - Ozone Depleting Substances (Regulation and Control) Amendment Rules, 2019 have been issued under the Environment (Protection) Act, 1986.
- This **step is among the first at this scale in Article 5 parties** (special status of developing countries) under the **Montreal Protocol**.

Key Points

- HCFC-141 b is **one of the most powerful ozone-depleting chemicals after Chlorofluorocarbons (CFCs)**.
- It is **mainly used as a blowing agent in the foam manufacturing industries**.
 - In India, the foam manufacturing sector is a mix of large, medium and small enterprises having varying capacities, with the preponderance of **Micro, Small, and Medium Enterprises (MSMEs)**.
- HCFC-141 b is **not produced domestically and all requirements were met through imports**.
- India is one of the few countries who are pioneer in the use of non-Ozone Depleting technologies and have a low Global Warming Potential (GWP).
- The Ministry also adopted a structured approach to engage with foam manufacturing enterprises for providing technical and financial assistance in order to transition to non-ODS and low GWP technologies under **HCFC Phase-out Management Plan (HPMP)**.

Montreal Protocol

- Adopted on 16 September 1987, the Montreal Protocol on substances that deplete the ozone layer regulates the production and consumption of nearly 100 man-made chemicals referred to as **Ozone Depleting Substances (ODS)**.

- The protocol provides for phasing out halogenated hydrocarbons like tetrachloride, CFCs used in aerosols, halons used in fire extinguishers, HydroChloroFluoroCarbons (HCFCs) used in refrigeration and foams, and methyl used in fumigation activity of agriculture.
- In 2016, **Kigali amendment** was made to the protocol to phase out HydroFluoroCarbon (HFC), a set of 19 gases in the hydrofluorocarbon family used extensively in the air-conditioning and refrigeration industry. Though HFCs are not ozone-depleting but are thousand times more dangerous than carbon dioxide in causing global warming.

HCFC Phase-out Management Plan

- The Ministry of Environment, Forests and Climate Change (MoEF&CC) through its Ozone Cell implements the HCFC Phase-out Management Plan (HPMP) as per the reduction schedule agreed with the Montreal Protocol.
- It aims to **phase out the use of HCFCs by switching to non-ozone depleting by 2030**.
- The Government of India has now launched **Stage II of HPMP for the 2017-2023 period** which has a strong focus on **HCFC phaseout in building sector**.

Ophichthus Kailashchandrai: Snake Eel

Why in News

A new snake eel species residing in the Bay of Bengal has been discovered by the **Estuarine Biology Regional Centre (EBRC)** at Gopalpur in Odisha.



- The new marine species has been **named as Ophichthus kailashchandrai to honour the vast contributions of Dr Kailash Chandra** (Director of Zoological Survey of India) to Indian animal taxonomy.
- It is the **eighth species of the Ophichthus genus** found on the Indian coast.
- It **lives at a depth of around 50 metres in the sea**.
- The outer surface of its body is slimy but is **not poisonous**.

Note:

Estuarine Biology Regional Centre (EBRC)

- Estuarine Biology Regional Centre (EBRC) at Gopalpur on-sea Odisha is **one of the 16 regional centres of the Zoological Survey of India (ZSI)**.
- It was established in **1980** under the **Ministry of Environment, Forest and Climate Change**.
- The main objective of the Centre is to conduct surveys, explorations and research on the faunal diversity of estuaries, backwaters, lagoons and mangrove ecosystem of India.
- Their teeth are moderately elongated, conical and sharp and thus they **feed on small fish and crabs**.

India's Neutrino Observatory Opposed by Gram Sabhas

Why in News

Villagers in different parts of Tamil Nadu used Gram Sabhas to pass resolutions against the **India-based Neutrino Observatory (INO)** and hydrocarbon exploration which, they feared, would be detrimental to their respective regions.

- INO is being constructed in the **Bodi West Hills** (Theni district) of **Tamil Nadu**.
- The site is near the **Kerala-Tamil Nadu border** and is close to the **Mathikettan Shola National Park**.
- **Vaigai river** passes through the Theni district.

Concerns

- The region was recovering from the **Gaja cyclone** and the rural economy was in a very bad state.
- The project may have **harmful effects on the fertility of the land** in the region and **adversely affect the agricultural community**, farm labourers and others dependent on the profession.
- Further, it can result in the migration of farm labourers.
- Villagers also alleged that they were **not involved in the decision-making process**.
- The massive scale of construction underground and controlled blasts, the vibrations from the explosions can badly affect the ecologically fragile **Western Ghats**.
- Other concerns voiced range from **radiation, structural damage to the mountain** to the **emission of hazardous chemicals**.

Gram Sabha

- The term Gram Sabha is defined in the Constitution under **Article 243(b)**.
- It is the **primary and permanent body** of the Panchayati Raj system.
- The power to **annul a decision** of the Gram Sabha rests with the **Gram Sabha only**.
- **Composition:**
 - Persons, those who are **above 18 years**, living in the village whose names are included in the **electoral rolls** for the Panchayat at the village level.
- **Powers and functions**
 - The constitution empowered the **State Legislatures** to **define the powers and functions** of the Gram Sabhas through laws passed by them.

Environmental clearance

- **Environmental clearance was given** after going through the geotechnical investigation report on studies carried out for INO set aside the concerns related to radioactivity or leaching of water, besides having the impact of blasting on inhabitation in the vicinity.
- According to the report of the **geotechnical investigation report**, the operation of INO will have **no release of radioactive or toxic substances**.
- Earlier in 2019, the **National Green Tribunal (NGT)** has upheld the environmental clearance granted in March 2018 to the project.
- However, the project could not be implemented until the approval of the **National Board of Wildlife** is also received.

India-based Neutrino Observatory (INO)

- The **INO** is aimed at **building a world-class underground laboratory** with a rock cover to conduct basic research on the neutrino.
- The INO will study atmospheric neutrinos only. Solar neutrinos have much lower energy than the detector can detect.
- The **Tata Institute of Fundamental Research** is the nodal institution. The observatory is to be built jointly with the Department of Atomic Energy and the Department of Science and Technology.
- It is not a weapon laboratory and will have no strategic or defence applications.

Note:



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Tadoba Andhari Tiger Reserve

- Tadoba Andhari Tiger Reserve is located in Chandrapur district in **Maharashtra**.
- It is Maharashtra's oldest and largest national park.
- It is **one of India's 50 "Project Tiger" - Tiger reserves**.
 - Tadoba-Andhari Tiger Reserve was established as the second Tiger Reserve in Maharashtra in 1993-94.
 - The **first Tiger Reserve** established in the State is **Melghat Tiger Reserve (1973-74)**.
- It represents Southern Tropical Dry Deciduous Teak Forests in the Tiger habitat and has a viable tiger population of more than 40 tigers.

Colour-Coded Warnings by the IMD

Why in News

Recently, the **Indian Meteorological Department (IMD)** has issued a **yellow weather warning for heavy rain and snowfall in Himachal Pradesh**.

- Yellow weather warning indicates severely bad weather spanning across several days.

Key Points

- **Colour - Coded Weather Warning**
 - It is issued by the IMD whose objective is to alert people ahead of severe or hazardous weather which has the potential to cause damage, widespread disruption or danger to life.
 - Warnings are updated daily.
 - The IMD uses **4 colour codes** are:
 - **Green (All is well):** No advisory is issued.
 - **Yellow (Be Aware):** Yellow indicates **severely bad weather** spanning across several days. It also suggests that the weather could change for the worse, causing disruption in day-to-day activities.
 - **Orange / Amber (Be prepared):** The orange alert is issued as a warning of **extremely bad weather** with the **potential of disruption** in commute with road and rail closures, and interruption of power supply.

- **Red (Take Action):** When the extremely bad weather conditions are **certainly going to disrupt travel** and power and have significant risk to life, the red alert is issued.

- These **alerts are universal in nature** and are also issued during floods, depending on the amount of water rising above land/in a river as a result of torrential rainfall.
 - For instance, when the water in a river is 'above normal' level, or between the 'warning' and 'danger' levels, a yellow alert is issued.

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.

Yellow Rust

Why in News

In sub-mountainous parts of Punjab and Haryana, yellow rust disease has been detected in the wheat crop which has raised concerns among farmers about a drop in the crop's yield.

Key Points

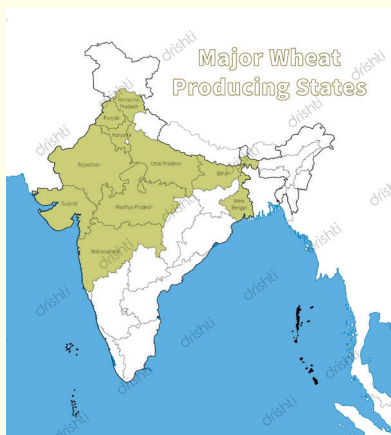
- **Yellow rust or stripe rust** is a **fungal disease** which attacks the leaves of **wheat crop** by forming **yellow stripes** and **affects their photosynthesis** that causes **shrivelling of grain size**.
- It is a disease of **cool weather in the northern hills and north-western plains zone**.
- The **recent rains** in the region coupled with a slight **increase in the temperature** and **humid conditions** are **favourable** for yellow rust.

Wheat

- **Temperature:** Between 10-15°C (Sowing time) and 21-26°C (Ripening & Harvesting) with bright sunlight.
- **Rainfall:** Around 75-100 cm.
- **Soil Type:** Well-drained, fertile, loamy and clayey soil (Ganga-Satluj plains and black soil region of the Deccan).

Note:

- **Top Wheat Producing States:** Uttar Pradesh > Punjab > Madhya Pradesh > Haryana > Rajasthan.
- It is a **rabi (winter) crop**, is sown between late October till December while the harvesting of the crop starts from April onwards.
- India is the **second-largest producer** after China.
- This is the **second most important cereal crop** and the main food crop, in the north and north-western India.
- The **success of Green Revolution** contributed to the growth of Rabi crops especially wheat.
- **Government initiatives to support wheat cultivation:** Macro Management Mode of Agriculture, **National Food Security Mission** and **Rashtriya Krishi Vikas Yojana**.



E- Retailers to Collect Plastic Waste

Why in news

The **Central Pollution Control Board (CPCB)** has told the **National Green Tribunal (NGT)** that **e-commerce giants** Amazon and Flipkart **need to fulfil their extended producer responsibility** under the **Plastic Waste Management Rules, 2016**.

- According to the Plastic Waste Management Rules, 2016 "Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of producers, importers and brand owners who introduce the products in the market".
- Thus, e-commerce giants need to establish a system for collecting back the plastic waste generated due to the packaging of their products.

Extended Producer Responsibility (EPR)

- EPR is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products (Products that have served their intended use).
- Assigning such responsibility could in principle provide incentives to prevent wastes at the source, promote product design for the environment and support the achievement of public recycling and materials management goals.

Plastic Waste Management Rules

- These **rules were framed in 2016** which extended the responsibility to collect waste generated from the products to their producers (i.e persons engaged in the manufacture, or import of carrying bags, multi-layered packaging and sheets or like and the persons using these for packaging or wrapping their products) and brand owners.
 - They have to approach local bodies for the formulation of plan/system for the plastic waste management within the prescribed time frame.
- The rules have been **extended to villages** as well. Earlier, it was limited to municipal districts.
- Central Pollution Control Board (CPCB) has been mandated to formulate the guidelines for **thermoset plastic** (plastic difficult to recycle).
- The 2016 rules were **amended in 2018**, laying emphasis on the phasing out of **Multilayered Plastic (MLP)**, which are "non-recyclable, or non-energy recoverable, or with no alternate use".
 - The amended Rules also prescribe a central registration system for the registration of the producer/importer/brand owner.
 - While a national registry has been prescribed for producers with a presence in more than two states, a state-level registration has been prescribed for smaller producers/brand owners operating within one or two states.

Way Forward

- Plastic packaging constitutes more than 40% of the total plastic waste generated in India and it is important that a direction is issued to the e-retailers that they should stop using plastic packaging materials and shift to environment-friendly packaging materials.

Note:



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Central Pollution Control Board

- The Central Pollution Control Board (CPCB) of India is a **statutory organisation under the Ministry of Environment, Forest and Climate Change**.
- It was established in 1974 under the Water (Prevention and Control of Pollution) Act, 1974.
- The CPCB is also entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.


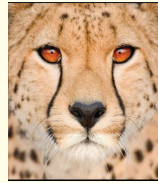
Introduction of African Cheetah in India

Why in News

Recently, the Supreme Court has lifted its seven-year-long stay on a proposal to introduce African Cheetahs from Namibia into the Indian habitat.

- The Court has now allowed to initiate the **re-introduction of foreign Cheetahs** into the **Palpur Kuno sanctuary in Madhya Pradesh** on an experimental basis. **In 1952, the Asiatic Cheetah was officially declared extinct from India.**
- According to the United Nations, **Cheetahs are listed as "Vulnerable" by the International Union for Conservation of Nature (IUCN) Red List of Threatened Species**, but a recent study revealed the decline in its significant population. Hence, scientists are demanding for cheetahs to be uplisted to "Endangered" category.

Sr. No.	Parameter	African Cheetah	Asiatic Cheetah
1.	IUCN status	Vulnerable	Critically Endangered.
2.	CITES status	Appendix-I of the List. This List comprises of migratory species that have been assessed as being in danger of extinction throughout all or a significant portion of their range.	Appendix-I of the List.

3.	Habitat	Around 6,500-7,000 African cheetahs present in the wild.	40-50 found only in Iran.
4.	Physical Characteristics	Bigger in size as compared to Asiatic Cheetah.	Smaller and paler than the African cheetah. Has more fur, a smaller head and a longer neck. Usually have red eyes and they have a more cat-like appearance.
5.	Image		

Addition to Ramsar Sites

Why in News

India has added **10 more wetlands** to the sites protected by the **Ramsar Convention**.

- **These are:**
 - **Maharashtra:** Nandur (state's first).
 - **Punjab:** Keshopur-Miani, Beas Conservation Reserve and Nangal.
 - **Uttar Pradesh:** Nawabganj, Parvati Agra, Saman, Samaspur, Sandi and Sarsai Nawar.
- The **other 27 Ramsar sites** are in Rajasthan, Kerala, Odisha, Madhya Pradesh, Himachal Pradesh, Assam, West Bengal, Jammu and Kashmir, Andhra Pradesh, Manipur, Gujarat, Tamil Nadu and Tripura.
- This addition **will help in achieving India's ambition mission 'Nal se Jal'** which aims to provide piped water connection to every household by 2024.
 - Wetlands provide a wide range of important resources and ecosystem services such as food,

Note:

water, fibre, groundwater recharge, water purification, flood moderation, erosion control and climate regulation.

Ramsar Convention

- It was signed in **1971** in the Iranian city of Ramsar and is **one of the oldest inter-governmental accord** for preserving the ecological character of wetlands.
- It is also known as the **Convention on Wetlands**.
- Its aim is to develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits.

- Wetlands declared as Ramsar sites are protected under strict guidelines of the convention.

Montreux Record

- Montreux Record under the Ramsar Convention is a **register of wetland sites on the List of Wetlands of International Importance** where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference.
- It is maintained as **part of the Ramsar List**.
- Currently, **two wetlands of India are in Montreux record**: Keoladeo National Park (Rajasthan) and Loktak Lake (Manipur).
- Chilka lake (Odisha) was placed in the record but was later removed from it.



Note:

History

Highlights

- Statehood Day of Manipur, Meghalaya and Tripura
- Netaji Subhash Chandra Bose Jayanti

- Nagardhan Excavations and Vakataka Dynasty

Statehood Day of Manipur, Meghalaya and Tripura

Why in News

On the **Statehood Day of Manipur, Meghalaya and Tripura (21st January)**, Prime Minister and other leaders praised the traditions and culture of the three northeast states.

- On **21st January, 1972**, all the three states became full-fledged states under the **North Eastern Region (Reorganisation) Act, 1971**.



Merger of Manipur with India

- Before 15th August 1947, peaceful negotiations had brought almost all states whose territories were contiguous to the new boundaries of India, into the Indian Union.
- The rulers of most of the states signed a document called the '**Instrument of Accession**' which meant that their state agreed to become a part of the Union of India.
- A few days before Independence, the Maharaja of Manipur, Bodhachandra Singh, signed the Instrument

of Accession with the Indian government on the assurance that the internal autonomy of Manipur would be maintained.

- Under the **pressure of public opinion**, the Maharaja **held elections** in Manipur in June **1948** and the state **became a constitutional monarchy**. Thus **Manipur was the first part of India to hold an election based on universal adult franchise**.
- In the Legislative Assembly of Manipur there were sharp differences over the question of merger of Manipur with India. The Government of India succeeded in pressuring the Maharaja into signing a **Merger Agreement in September 1949**, without consulting the popularly elected Legislative Assembly of Manipur.

Merger of Tripura with India

- Tripura was a **princely** state till the merger with Indian union on **15th November, 1949**.
- The last king Bir Bikram who was on the throne, before India's independence, died on 17th May, 1947. His **widow queen Kanchan Prabha** took charge of the regency of Tripura.
- She was instrumental in the merger of the Tripura kingdom in Indian Union.

Merger of Meghalaya into India

- In 1947, the **rulers of the Garo and Khasi region** acceded to the newly independent country of India.
- **Meghalaya**, a small hilly state located in the North Eastern Region of India, came into existence as an autonomous state within the state of Assam on 2nd April 1970 comprising the United Khasi and Jaintia Hills and Garo Hills districts.

Changes Made in 1972

- In 1972, the political map of Northeast India underwent a major change.

Note:

- The two Union Territories of Manipur and Tripura and the sub-state of Meghalaya got statehood.

Netaji Subhash Chandra Bose Jayanti

Why in News

The Prime Minister has paid tributes to Netaji Subhash Chandra Bose on his 123rd birth anniversary.

- **Subhas Chandra Bose was born on 23rd January 1897**, in Cuttack, Orissa Division, Bengal Province.



Subhash Chandra Bose

- Netaji Subhas Chandra Bose is **one of the most celebrated freedom fighters of India**.
- In 1942, he earned the title '**Netaji**', in Germany by the Indian soldiers of the Azad Hind Fauj.
- Bose is credited with the very famous slogan, "Give me blood, and I shall give you freedom!" as well as "Jai Hind".
- He is also credited to be the **first man to call Mahatma Gandhi "Father of the Nation"**, in his address from Singapore.

Timeline

- In 1919, Bose headed to London to give the Indian Civil Services (ICS) examination and he was selected. Bose, however, resigned from Civil Services as he believed he could not side with the British.
- In 1921, Bose worked under Chittaranjan Das, a powerful politician in Bengal. He worked as the editor for Das's newspaper, Forward, and later started his **own newspaper, Swaraj**.
- During the mid-1930s, Bose travelled to Europe. He researched and **wrote the first part of his book, 'The Indian Struggle'**, which covered the country's independence movement from 1920–1934.
- After his return, Bose took over as the **elected President of Indian National Congress in 1938 (Haripur)** and stood for **unqualified Swaraj (self-governance)** and the use of force against the British which then combated against Mahatma Gandhi and his views.

- **Bose was re-elected in 1939 (Tripuri) but soon resigned from the presidency** and formed the **All India Forward Bloc**, a faction within the Congress which aimed at consolidating the political left.
- In 1943, he travelled to Japan and took leadership of the Indian Independence Movement in East Asia. With Japanese aid and influence, he took the leadership of a trained army of about 40,000 troops in Japanese-occupied Southeast Asia known as the **Indian National Army**.
 - The **INA was first formed under Mohan Singh** and Japanese Major Iwaichi Fujiwara and comprised Indian prisoners of war of the British-Indian Army captured by Japan in the Malayan (present-day Malaysia) campaign and at Singapore.
- The troops of the INA were under the aegis of a provisional government, the **Azad Hind Government**, which came to produce its own currency, postage stamps, court and civil code, and was recognised by nine Axis states.
- In 1945, the British Indian Army retaliated to the capture of Manipur, Kohima and Imphal by INA and killed almost half of the Japanese forces and the entire participating INA contingent.
- Bose escaped to Manchuria seeking a future in the Soviet Union.
- He is **said to have died in 1945** when his plane crashed in Taiwan. However, there are still many conspiracy theories regarding his death.

Nagardhan Excavations and Vakataka Dynasty

Why in News

Recently, **archaeological excavations** were carried out at **Nagardhan village in Ramtek Taluk near Nagpur, Maharashtra**.

- The area surrounding the Nagardhan Fort in the village has the archaeological remains.
 - The **Nagardhan Fort was constructed during the Gond Raja period** and later renovated and re-used by the Bhosales of Nagpur during the late 18th and 19th centuries.
- The excavations have provided **evidence on the life, religious affiliations and trade practices of the Vakataka dynasty**.

Note:

- Nagardhan is understood to have served as a capital of the Vakataka kingdom.

Vakataka Dynasty

- It originated in the central Deccan in the mid-3rd century CE and its empire is believed to have extended from Malwa and Gujarat in the north to the Tungabhadra in the south and from the Arabian Sea in the west to the Bay of Bengal in the east.
- It was founded by Vindhyashakti.
- The Vakataka rulers followed the Shaiva sect of Hinduism.
- Animal rearing was one of the main occupations of the people. Remains of domestic animals like cattle, goat, sheep, pig, cat, horse and fowl were traced in an earlier study.
- The Vakataka rulers forged several matrimonial alliances with other dynasties of their times. One of the key alliances was with Prabhavatigupta of the Gupta dynasty (Vaishnavites), which was then ruling north India.
 - She was the chief queen of the Vakataka king Rudrasena II and took over as queen after the sudden death of her husband.
 - She ruled for about 10 years until her son Pravarasena II succeeded.
- Queen Prabhavatigupta and Vaishnavism
 - The researchers believe that the practice of worshipping Narasimha in Maharashtra emerged from Ramtek, and that Queen Prabhavatigupta had a pivotal role in propagation of Vaishnava practices in the Vidarbha region of Maharashtra.

- Some of the temples identified as Keval Narasihma, Rudra Narasimha and the one dedicated to Varaha could be traced to Ramtek, and showcase strong affinity to the incarnations of Lord Vishnu. None of these religious structures was, however, present here until the Queen took the throne.

Findings and their Significance

- It is the first time clay sealings have been excavated from Nagardhan.
 - The oval-shaped sealing belongs to the period when Prabhavatigupta was the queen of the Vakataka dynasty.
 - It bears her name in the Brahmi script, along with the depiction of a conch. The presence of the conch is a sign of the Vaishnava affiliation that the Guptas held.
 - The Vakataka rulers followed the Shaiva sect of Hinduism while the Guptas followed Vaishnava sect. Queen's powerful personality allowed her to follow the sect of her choice.
- The sealing was traced on top of a mega wall which could have been part of a royal structure at the capital city.
- The copperplate issued by Queen Prabhavatigupta starts with a genealogy of the Guptas, mentioning the Queen's grandfather Samudragupta and her father Chandragupta II.
- Vakatakas traded with Iran and beyond, through the Mediterranean Sea and the sealings are believed to be used as official royal permission issued from the capital.



Note:

Art & Culture

Highlights

- Jallikattu
- Kathak
- Gond Tribe
- Baiga Tribe
- Gatka Martial Art
- Nagoba Jatara

Jallikattu

Why in News

Over 100 people were injured in three **Jallikattu** events in **Tamil Nadu**.

- **Jallikattu** is a **traditional bull-taming event** that is organised in the state every year as **part of the harvest festival Pongal**.



Key Points

- Jallikattu is considered as a sport which requires fighters to pounce on a running bull, try to hold on to its hump and move along with the animal without falling or getting hurt.
- **Old Tradition**
 - An ancient reference to bull taming is found in a **seal discovered** at **Mohenjodaro**, which is dated between 2,500 BC and 1,800 BC. The sport was called **Eru thazuval** or “**embracing the bull**”.
 - The term '**jallikattu**', comes from **Tamil terms 'salli kaasu'** which means coins and '**kattu**' which means a package tied to the **horns of bulls as prize money**.

Controversies

- In 2014, the Supreme Court had banned the event after a plea filed by the Animal Welfare Board of India and the People for the Ethical Treatment of Animals (PETA).
- However, the state government insisted that Jallikattu is a crucial part of its culture and identity. The ban was lifted in January 2017 after massive protests in Chennai.
- Although there are systems in place to check treatment of the bulls and ensure safety of participants and spectators, activists allege that animal cruelty still continues.

Note:

Kambala is a traditional **bull buffalo race** which generally takes place in coastal Karnataka from November to March. The PETA has alleged that Kambala too involves acts of cruelty on animals which are not physiologically suited for racing.

Kathak

- It is **one of the classical dances of India**.
- The **word Kathak has been derived from the word Katha** which means a story. It is **primarily performed in Northern India**.
- **Evolution**
 - It was primarily a temple or village performance wherein the dancers narrated stories from ancient scriptures.
 - Kathak began evolving into a distinct mode of dance in the **fifteenth**



Note:

and sixteenth centuries with the spread of the **Bhakti Movement**.

- Under the **Mughal emperors and their nobles**, Kathak was performed in the court, where it acquired its present features and developed into a form of dance with a distinctive style.
- Under the **patronage of Wajid Ali Shah**, the last Nawab of Awadh, it grew into a major art form.

➤ **Dance Style**

- **Usually a solo performance**, the dancer often pauses to recite verses followed by their execution through movement.
- The **focus is more on footwork**; the movements are skillfully controlled and performed straight legged by dancers wearing ankle-bells.
- Kathak is the only form of classical dance wedded to **Hindustani or the North Indian music**.
- Some **prominent dancers** include Birju Maharaj, Sitara Devi.

Bhakti Movement

- The **development of Bhakti movement took place in Tamil Nadu** between the **seventh and ninth centuries**.
- It was reflected in the emotional poems of the **Nayanars** (devotees of Shiva) and **Alvars** (devotees of Vishnu). These saints looked upon religion not as a cold formal worship but as a loving bond based upon love between the worshipped and worshipper.
- They wrote in local languages, Tamil and Telugu and were therefore able to reach out to many people.
- In course of time, **the ideas of the South moved up to the North** but it was a very slow process.
- They also translated Sanskrit works to make them understandable to a wider audience. Examples include Jnanadeva writing in Marathi, Kabir, Surdas and Tulsidas in Hindi, Shankaradeva popularising Assamese, Chaitanya and Chandidas spreading their message in Bengali, Mirabai in Hindi and Rajasthani.

Gond Tribe

- Gonds are one of the **largest tribal groups** in the world.
- They mostly live in Madhya Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh, Gujarat, Jharkhand, Karnataka, Telangana, Uttar Pradesh, West Bengal and Odisha.

- Gonds are subdivided into four tribes:

- Raj Gonds
- Madia Gonds
- Dhurve Gonds
- Khatulwar Gonds

- Their staple food is two kinds of millet: kodo and kutki.



- Rice is mostly consumed during festival feasts.
- Gonds believe that earth, water and air are ruled by Gods.
- They majorly speak Gondi which is an unwritten language of the Dravidian family.
- It has been notified as a **Scheduled Tribe**.

Baiga Tribe

- The Baiga (meaning sorcerers) is one of the **Particularly Vulnerable Tribal Groups (PVTGs)**.
- They mainly live in Chhattisgarh, Jharkhand, Bihar, Odisha, West Bengal, Madhya Pradesh and Uttar Pradesh.
- Traditionally, the Baiga lived a semi-nomadic life and practised slash and burn cultivation. Now, they are mainly dependent on **minor forest produce** for their livelihood.
 - Bamboo is the primary resource.

Particularly Vulnerable Tribal Groups (PVTGs)

- In India, tribal population makes up for 8.6% of the total population.
- PVTGs are more vulnerable among the tribal groups. More developed and assertive tribal groups take a major chunk of the tribal development funds because of which PVTGs need more funds directed for their development.
- In 1973, the **Dhebar Commission** created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. In 2006, the Government of India renamed the PTGs as PVTGs.
- PVTGs have **some basic characteristics** - they are mostly homogenous, with a small population, relatively physically isolated, absence of written language, relatively simple technology and a slower rate of change etc.
- Among the **75 listed PVTG's**, the **highest** number are found in **Odisha**.

Note:

- **Tattooing** is an **integral part of Baiga culture**, every age and body part has a specific tattoo reserved for the occasion.

Gatka Martial Art

- Gatka is a **traditional martial art form associated with the Sikh gurus**.
- It imbibes sword and sticks fighting skills and self-control.
- Gatka is believed to have originated when the **6th Sikh Guru Hargobind** adopted 'Kirpan' for self-defence during the Mughal era.
 - 10th **Guru Gobind Singh** made it compulsory for everyone to use the weapons for self-defence.
- A style of stick fighting between two or more practitioners, **Gatka is a toned-down version of the deadlier Shastar Vidya**. The sharp swords of Shastar Vidya have been replaced by wooden sticks (soti) and shields (farri) in Gatka.



- It is considered a battle technique.
- It was earlier confined to gurudwaras, nagar kirtans and akharas, but now it finds **presence in the sports category** after the formation of the Gatka Federation of India (GFI) in 2008.
- Today, it is used to showcase self-defence and fighting skills and is open to people of all faiths and communities.

Nagoba Jatara

Nagoba Jatara is a tribal festival held in **Keslapur village, Telangana**, thus the festival is also known as **Keslapur Jatara**.

- It is a huge religious and cultural event of the **Boigutta branch of Mesram clan** of the aboriginal **Raj Gond and Pradhan tribes**.
- During the festival, the maha puja of **serpent god Nagoba** is held.

Pradhan Tribe

Pradhans are considered to be the **junior branch of Gond tribe** and are traditional bards to Gonds and recite mythologies, folk tales and songs of their gods and goddesses at various festivals, ceremonies and fairs for which service they are paid in cash or kind.



Note:

Social Issues

Highlights

- ASER Report 2019
- Rashtriya Uchchatar Shiksha Abhiyan
- NLU Report on Death Sentence
- Pneumococcal Conjugate Vaccine
- Global Inequality Crisis Report: Oxfam International
- Global Social Mobility Index: WEF
- Non-Communicable Disease Control Programmes
- India Hypertension Control Initiative
- Asbestos
- Draft Bill to Raise Upper Limit for Abortion

ASER Report 2019

Why in News

The **Non-Governmental Organization Pratham's Annual Status of Education Report (ASER) 2019** has flagged **poor learning outcomes** in schools.

- ASER 2019 reported on the **pre-schooling** or **schooling** status of children in the age group **4 to 8 years** in **26 rural districts** (districts with rural population > 70%) across 24 States.
- The report focuses on the **early years (4-8)** and lays emphasis on building memory of children, and not content knowledge. It also focuses on **developing problem-solving faculties**.
- It explores children's performance on **4 competencies** that are identified as important predictors of future success:
 - Cognitive Development,
 - Early Language,
 - Early Numeracy, and
 - Social and Emotional Development

Early Years

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

Key Findings

- The report argues that a focus on **cognitive skills** rather than subject learning in the early years can make a big difference to basic literacy and numeracy abilities.
- It tested the **cognitive skills** of children.

- ASER data shows that children's performance on tasks requiring cognitive skills is **strongly related to their ability to do early language and numeracy tasks**.
- This suggests that focusing on play-based **activities that build memory, reasoning and problem-solving abilities is more productive** than an early focus on content knowledge.
- **Reading and Early Childhood Education**
 - Only **16%** of children in **Class 1** can read the text at the prescribed level, while almost 40% cannot even recognise letters.
 - Global research shows that **90% of brain growth occurs by age 5**, meaning that the **quality of early childhood education** has a **crucial impact** on the development and long-term schooling of a child.
- **Private Schools Ahead**
 - Of 6 year olds in Class 1, nearly 42% of those in private schools could **read words** in comparison to only 19% from government schools.
 - This gap is further exacerbated by a **gender divide**.
 - More than a quarter of Class 1 students in government schools are only 4 or 5 years old, **younger than the recommended age**. These younger children struggle more than others in all skills.
 - At the same time, 36% in Class 1 are **older** than the **Right To Education (RTE) Act (2009)** – mandated age of 6.
- It can be noted that the **draft New Education Policy (NEP), 2019** also links the **"severe learning crisis"** faced by young children in India.

Note:

Learning levels

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

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



Draft New Education Policy (NEP), 2019

- Draft NEP points out that close to 5 crore children currently in elementary schools do not have foundational literacy and numeracy skills.
- **Possible reasons** for this:
 - Many children enter **school before age 6**. This is partly due to the **lack of affordable and accessible options for pre-schooling**. Therefore, too many children go to Std-I with limited exposure to early childhood education.
 - Children from poor families have a **double disadvantage - lack of healthcare and nutrition** on one side and the **absence of a supportive learning environment on the other**.
 - School readiness or early childhood development and education activities have **not** had a high priority in the **Integrated Child Development Scheme (ICDS)** system.

Annual Status of Education Report (ASER)

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

Steps to be Taken

- There is considerable scope for **expanding Anganwadi outreach for 3 and 4 year-old children**. **Strengthen the early childhood components** in the **Integrated Child Development Scheme (ICDS)** system for raising school readiness among young children.
- A **reworking of curriculum and activities** is urgently needed for the entire age band from 4 to 8, cutting across all types of preschools and early grades regardless of whether the provision is by government institutions or by private agencies.
- The year **2020 marks the 10th anniversary of the RTE Act**. This is the best moment to focus on the youngest cohorts before and during their entry to formal schooling and ensure that 10 years later they complete secondary school as well-equipped and well-rounded citizens of India.

Rashtriya Uchchatar Shiksha Abhiyan

Why in News

The **Ministry of Human Resource Development** has approached the Prime Minister's Office (PMO) to take notice of the alleged corruption in the implementation of the Rashtriya Uchchatar Shiksha Abhiyan (RUSA).

- The alleged acts of corruption in the implementation of RUSA were discovered in July, 2019 after Tata Institute of Social Sciences (TISS) director pointed out serious irregularities in the utilisation of funds.

Rashtriya Uchchatar Shiksha Abhiyan

- RUSA is the **centrally sponsored scheme** launched in October 2013 that aims at **providing strategic funding to state higher education institutions** throughout the country.
- Funding is provided by the central ministry through the State governments and Union Territories (UTs), which in coordination with the **Central Project Appraisal Board** monitors the academic, administrative and financial advancements taken under the scheme.
 - Since 2016-17, the government has spent an average of Rs 1,500 crore every year on RUSA.

Note:



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Objectives

- Improve the **overall quality of state institutions** by conforming to the prescribed norms and standards.
- **Adoption of accreditation** (certification of competency) as a mandatory quality assurance framework.
- **Promoting autonomy** in state universities and improving governance in institutions.
- Ensure reforms in the affiliation, academic and examination system.
- Ensure **adequate availability of quality faculty** in all higher educational institutions and ensure capacity building at all levels of employment.
- Create an **enabling atmosphere for research** in the higher education system.
- **Correct regional imbalances in access to higher education** by setting up institutions in unserved and underserved areas

NLU Report on Death Sentence

Why in News

Recently, the **fourth edition** of 'The Death Penalty in India: Annual Statistics' was published by **Project 39A of National Law University (NLU), Delhi**.

- The report states that a higher number of death sentences awarded in India in recent years relates to the cases of sexual offences.

Key Points

- The number of death sentences awarded for murders involving sexual offences in 2019 was the highest in four years.
 - **Trial courts:** Imposed 102 death sentences in 2019, a significant drop from 162 death sentences in 2018. However, the percentage of sexual offences in these cases increased from 41.35% in 2018 to 52.94% in 2019.
 - **High Courts:** 65.38% of cases of confirmations of death sentences involved sexual offences along with murder.
 - **Supreme Court:** In 2019, the SC dealt with 27 capital punishment cases, the highest number since 2001. It confirmed the death penalty of seven cases out of which four were of murder involving sexual offences.

Reasons Stated

- Amendment to the **Protection of Children from Sexual Offences (POCSO) Act**, introducing stringent mandatory minimum punishments and death penalty for penetrative sexual assault on children was a major development.
- Andhra Pradesh's amendment to the **Indian Penal Code** to introduce the death penalty for rape under **Disha Act**.
- Widespread discussions on capital punishment in 2019 involving sexual offences against women and children.

National Law University

- It was established in **2008** under the **National Law University Act, 2007** with the objective of imparting comprehensive and interdisciplinary legal education.

Project 39A

- It is inspired by **Article 39-A** of the Indian Constitution, a provision that furthers the intertwined values of **equal justice and equal opportunity** by removing economic and social barriers.
- Using empirical research to re-examine practices and policies in the criminal justice system, Project 39A aims to trigger new conversations on legal aid, torture, DNA forensics, mental health in prisons, and the death penalty.

Pneumococcal Conjugate Vaccine

Why in News

The government is **planning** for the **nationwide rollout of Pneumococcal Conjugate Vaccine (PCV)** under **Universal Immunisation Programme (UIP)**.

- According to government estimates, a countrywide rollout of PCV would **require about 50% of the budget of UIP** (minus shared costs such as staff salary, establishment costs, etc).
 - PCV is the **costliest vaccine in the UIP basket** that currently covers only about 50% of the 26 million birth cohort in Himachal Pradesh, Madhya Pradesh, Haryana, Bihar, Uttar Pradesh, and Rajasthan.
 - **PCV was first brought into the UIP basket in 2017** but cost concerns have been among the reasons for its still-partial rollout.

Note:



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- The cost challenge for India's immunisation programme is set to mount further as **Global Alliance for Vaccines and Immunizations (GAVI) is set to withdraw its support for India** from 2022.
 - GAVI is an international organisation which brings together public and private sectors to create equal access to vaccines for children.

Pneumococcal Conjugate Vaccine

- Pneumococcal Conjugate Vaccine (PCV) **prevents pneumococcal disease**.
- The vaccine is a mix of several bacteria of the pneumococci family, which are known to cause pneumonia — hence 'conjugate' is included in the name of the vaccine.
 - **Conjugate vaccines** are made using a combination of two different components.

Pneumococcal Disease

- Pneumococcal disease refers to any **illness caused by pneumococcal bacteria**.
- **Symptoms:** These bacteria can cause **many types of illnesses, including pneumonia**, which is an infection of the lungs. Pneumococcal bacteria are one of the most common causes of pneumonia.
- **Vulnerable Population:** Anyone can get pneumococcal disease, but children under 2 years of age, people with certain medical conditions, adults 65 years or older, and cigarette smokers are at the highest risk.
- **Status in India:**

Universal Immunization Programme

- Universal Immunization Programme (UIP) was launched by the government in **1985**, to **prevent mortality and morbidity in children and pregnant women** against **12 vaccine-preventable diseases**.
- Under UIP free of cost vaccination is provided against **following vaccine-preventable diseases** i.e. Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, Hepatitis B, Pneumonia and Meningitis due to Haemophilus Influenzae type b (Hib), Measles, Rubella, Japanese Encephalitis (JE) and Rotavirus diarrhoea.
- The programme is one of the **largest health programmes in the world**. Despite being operational for many years, UIP has been able to fully immunize only 65% of children under 1 year of age.

- In 2010, the annual incidence of severe pneumococcal pneumonia in India was estimated to be 4.8 episodes per 1,000 children younger than 5 years.
- The **top five contributors to India's pneumococcal pneumonia burden** in terms of the number of cases and deaths were Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan and Jharkhand.

Global Inequality Crisis Report: Oxfam International

Why in News

The report, titled **Time to Care: Unpaid and Underpaid Care Work and the Global Inequality Crisis** has been released by Oxfam International ahead of the 50th Annual Meeting of the World Economic Forum (WEF).

- The report **focuses on the alleviation of global poverty**.
- It also states that **economic inequality is out of control** and has created a great divide in the world.
- This great divide is based on a **flawed and sexist economic system** which has accumulated vast wealth and power into the hands of a rich few. The system is also exploiting the labour of women and girls, and systematically violating their rights.

Key Points

- **Number of Billionaires:** The world had 2,153 billionaires in 2019.
 - The number of billionaires has doubled in the last decade, despite their combined wealth having declined in 2018.
- **Concentration of Wealth:** The world's richest 1% have more than twice as much wealth as 6.9 billion people.
- **Unpaid Care Work of Women:** The monetary value of unpaid care work globally for women aged 15 and over is at least \$10.8 trillion annually – three times the size of the world's tech industry.
 - Unpaid care work is the 'hidden engine' that keeps the wheels of our economies, businesses and societies moving.
- **Average Wages:** From 2011 to 2017, average wages in G7 countries grew 3%, while dividends to wealthy shareholders increased by 31%.
- **Role of Taxation:** An additional 0.5% tax on the wealth of the richest 1% over the next 10 years can create 117 million jobs in education, health and elderly care.

Note:



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- **Gender Inequality and Distribution of Wealth:** Globally, extreme poverty rates are 4% higher for women than men and this gap rises to 22% during women's peak productive and reproductive ages.
 - Globally, 42% of working-age women are outside the paid labour force, compared with 6% of men, due to unpaid care responsibilities.
 - 80% of domestic workers worldwide are women and 90% of such domestic workers have no access to social security such as maternity protection and benefits.

Key Points Related to India

- India's richest 1% hold more than four-times the wealth held by the bottom 70% of the country's population.
- The combined total wealth of 63 Indian billionaires is higher than the total Union Budget of India for the fiscal year 2018-19 which was at Rs 24,42,200 crore.

Recommendations

- Invest in national care systems to address the disproportionate responsibility for care work done by women and girls.
- End extreme wealth to end extreme poverty.
- Legislate to protect the rights of all carers and secure living wages for paid care workers.
- Challenge harmful norms and sexist beliefs.

Oxfam International

- Oxfam International is a **group of independent non-governmental organisations** formed in 1995.
- It aims to maximize efficiency and achieve greater impact to reduce global poverty and injustice.
- The Oxfam International Secretariat is based in **Nairobi, Kenya**.

Global Social Mobility Index: WEF

Why in News

The **World Economic Forum (WEF)** has come out with its **first-ever Global Social Mobility Report**.

- The Social Mobility Report showed that across the Global Social Mobility Index, only a handful of nations have put in place the right conditions to promote social mobility.

Social Mobility

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

Global Social Mobility Index

- The WEF's Global Social Mobility Index assesses the 82 economies on **"10 pillars"** spread across the following five key dimensions of social mobility:
 - Health;
 - Education (access, quality and equity, lifelong learning);
 - Technology;
 - Work (opportunities, wages, conditions);
 - Protection and Institutions (social protection and inclusive institutions).
- **Top Performers:** The Nordic nations hold the top five spots, led by **Denmark** in the **first** place (scoring 85 points), followed by Norway, Finland and Sweden (83 points) and Iceland (82 points).
- Among the G7 economies, Germany is the most socially mobile - ranking 11th, followed by France in 12th position.
- Among **BRICS** grouping, the Russian Federation is the most socially mobile (39th), followed by China (45th), Brazil (60th), India (76th) and South Africa (77th).

India's Performance

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

Findings from the Report

- Economies that would gain the most from increases in social mobility: China followed by US, India, Japan, Germany and Russia.

Note:



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- Increasing social mobility by 10% would benefit social cohesion and boost the world's economies by nearly 5% by 2030.
- The report also makes a powerful case for stakeholder capitalism. By comparison, economies that are organized more on "shareholder value maximization", or "state capitalism", tend to perform less well.

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

Note:

- **Stakeholder capitalism** is a system in which corporations are oriented to serve the interests of all their stakeholders. Under this system, a company's purpose is to create long-term value and not to maximize profits and enhance shareholder value at the cost of other stakeholder groups.
- State Capitalism is an economic system in which private capitalism is modified by a varying degree of government ownership and control.
- It calls for a new financing model for social mobility:
 - Improving tax progressivity on personal income, policies that address wealth concentration and broadly rebalancing the sources of taxation can support the social mobility agenda.
 - Most importantly, the mix of public spending and policy incentives must change to put greater emphasis on the factors of social spending.

World Economic Forum

- The World Economic Forum is the International Organization for Public-Private Cooperation.
- It was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland. It is independent, impartial and not tied to any special interests.

- The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance.
- Other Important Reports of WEF:
 - **The Global Risks Report**
 - **The Global Gender Gap Report**
 - **The Global Competitiveness Report**
 - **The Travel & Tourism Competitiveness Report**

Non-Communicable Disease Control Programmes

- It is a **group of various national programmes which focus on different non-communicable diseases separately**. For example- National Mental Health Programme, National Oral Health Programme, National Tobacco Control Programme, etc.
- The programmes focus on identifying non-communicable diseases at the **Primary Health Centre (PHC) level itself** and ensuring treatment up to the district-level and follow-ups with patients to continue medication.
- Also, **Accredited Social Health Activist (ASHA)** workers go door-to-door to draft family profiles and screen them for the non-communicable diseases instead of patients visiting a health centre.

India Hypertension Control Initiative

- It is a **collaborative project** of Indian Council of Medical Research (ICMR), Ministry of Health and Family Welfare (MoHFW), State Governments, WHO and 'Resolve to Save Lives'- initiative of Vital Strategies.
- It was **launched in November 2017** in 25 selected districts in Punjab, Madhya Pradesh, Kerala, Telangana, and Maharashtra. It was expanded to cover 100 districts across all states in 2019.
- The primary goal of this project is **to reduce morbidity and mortality due to cardiovascular diseases (CVDs)**, the leading cause of death in India, by **improving the control of high blood pressure**, which is a leading risk factor for CVDs among adults in India.
- It aims to:
 - Create patient-centred services to improve patient support.

Note:



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- Reduce reliance on bigger hospitals and an increase in the utilization of 'Health and wellness centres' and primary health centres.
- Provide for regular monitoring of health facilities and prompt feedback to program managers to bridge gaps if any in a timely manner.

Asbestos

Why in News

There have been allegations against **Johnson & Johnson** that its **Baby Powder (talcum powder)** contains **asbestos** which **can cause Mesothelioma**, a type of rare cancer.

- Talc or talcum is a naturally occurring clay mineral mined from the earth which is used in baby powder because of its ability to absorb moisture.
- Mines that collect talc also contain asbestos that has been linked to health risks like mesothelioma and asbestosis.

Key Points

- **Malignant mesothelioma** is an aggressive and deadly form of cancer that occurs in the thin layer of tissue that covers the majority of internal organs (mesothelium).
- **Symptoms**
 - Chest pain
 - Painful coughing
 - Unusual lumps of tissue under the skin on chest
 - Unexplained weight loss
 - Abdominal pain
 - Abdominal swelling
 - Breathing difficulty
- **Prevention**
 - **Reducing exposure to asbestos** may lower the risk of mesothelioma.
 - Asbestos exposure is the primary risk factor for this disease.

Asbestos

- It is a **mineral that is found naturally in the environment**. Asbestos fibres are strong and resistant to heat, making them useful in a wide variety of applications, such as in insulation, brakes, shingles, flooring and many other products.

- During the mining process, **asbestos dust is created which settles in the lungs** or in the stomach if inhaled or swallowed. They can cause irritation that may lead to mesothelioma and asbestosis.
 - It can take 20 to 60 years or more for mesothelioma to develop after asbestos exposure. However, the exact process of this is still not understood.
 - Most people with asbestos exposure never develop mesothelioma indicating that other factors like inheriting a predisposition to cancer may be involved in determining whether someone gets mesothelioma.
 - **Asbestosis** is a chronic, inflammatory lung disease, but it's benign. Its sole cause is asbestos exposure.

Draft Bill to Raise Upper Limit for Abortion

Why in News

The **Union Cabinet has approved changes to the Medical Termination of Pregnancy (MTP) Act, 1971** in order to increase the upper limit for termination of a pregnancy from 20 weeks to 24 weeks.

Present Abortion Law

- The **Medical Termination of Pregnancy (MTP) Act, 1971** provides for termination of pregnancy only up to 20 weeks. If an unwanted pregnancy has proceeded beyond 20 weeks, women have to approach a medical board and Courts to seek permission for termination, which is an extremely difficult and cumbersome process.
- According to **Section 3 (2) of the MTP Act, 1971** a pregnancy may be terminated by a registered medical practitioner:
 - Where the length of the pregnancy does not exceed twelve weeks, or
 - Where the length of the pregnancy exceeds twelve weeks but does not exceed twenty weeks. In this case, the abortion will take place, if not less than two registered medical practitioners are of opinion, that the continuance of the pregnancy would involve a risk to the life of the pregnant woman (her physical or mental health); or there is a substantial risk that if the child were born, it would suffer from some physical or mental abnormalities to be seriously handicapped.

Note:



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➤ **Issue**

- The law **does not accommodate non-medical concerns** such as the economic costs of raising a child, effects on career decisions, or any other personal considerations.
- The law says, for minors- written consent from guardian is required, and the unmarried women cannot cite contraceptive failure as a reason for abortion.

Provisions of Proposed Bill

- **Requirement of opinion of one registered medical practitioner** (instead of two or more) for termination of pregnancy up to 20 weeks of gestation (time between conception and birth).
- **Requirement of opinion of two registered medical practitioners** for termination of pregnancy of 20 to 24 weeks.

- **Increase the upper gestation limit (for abortion) from 20 to 24 weeks for survivors of rape**, victims of incest (human sexual activity between family members or close relatives) and other vulnerable women, including minor girls.
- **For unmarried women**, the Bill seeks to **relax the contraceptive-failure condition**. Earlier “only married woman or her husband” were allowed to medically terminate the pregnancy, but the Bill proposes the same for “any woman or her partner”.

Conclusion

- The Bill if passed will provide **greater reproductive rights to women** as abortion is considered an important aspect of the reproductive health of women. **Deaths and injuries from unsafe abortions are largely preventable**, provided services are performed legally by trained practitioners.



Note:

Security

Highlights

- A-SAT and ADTCR
- Submarine-launched Ballistic Missile: K-4
- Sukhoi-30 MKI Equipped with the BrahMos Missile
- SAMPRITI - IX
- Operation Vanilla

A-SAT and ADTCR

Why in News

The **Defence Research and Development Organisation (DRDO)** displayed its **Anti-Satellite (A-SAT) missile** and the **Air Defence Tactical Control Radar (ADTCR)** during the 71st Republic Day parade.

- Additionally, the Indian Air Force's (IAF) latest inductions, **Chinook heavy-lift helicopters** and **Apache attack helicopters**, took part in the Republic Day flypast.
- Moreover, the Army showcased its recent induction, the **155-mm Dhanush towed howitzer** and **K9-Vajra self-propelled artillery gun**.

A-SAT Missile

- **About the Missile**
 - It is an interceptor missile that destroys or jams satellites in space.
 - There are **two types of A-SATs**:
 - **Kinetic A-SATs**, like ballistic missiles, physically strike an object in order to destroy it.
 - **Non-Kinetic A-SATs** are the ones that use non-physical means to disable or destroy space objects, which include frequency jamming, blinding lasers or cyber-attacks.
 - The theoretical maximum range of A-SATs is limited which means satellites above 20,000 km are out of range.
- **India's Test of A-SAT Missile**
 - On 27th March, 2019, **India successfully conducted a Kinetic Anti-Satellite (A-SAT) missile test** from Dr. APJ Abdul Kalam Island launch complex (Odisha).

- The A-SAT missile was developed by the DRDO under **Mission Shakti**.
 - Mission Shakti seeks to defend India's space assets and thus aims at strengthening India's overall security.
- **India became the fourth country** to acquire such technology after USA, Russia, and China.
- The A-SAT technology has a **'hit to kill' feature** which is developed for the first time in India. It enables to destroy an enemy satellite by directly colliding with it with pinpoint accuracy.

Air Defence Tactical Control Radar

- It is used for volumetric surveillance, detection, tracking and friend/foe identification of aerial targets of different types and transmission of prioritised target data to multiple command posts and weapon systems.
- It is also capable of **detecting very small targets and low flying targets**.

Submarine-launched Ballistic Missile: K-4

Why in News

- Recently, India successfully test-fired the **3,500-km range submarine-launched ballistic missile, K-4**.
- The test was carried out by the **Defence Research and Development Organisation (DRDO)** from a submerged pontoon (a flattish boat that relies on floats to remain buoyant) off the Visakhapatnam coast (Andhra Pradesh).
 - A pontoon simulates the situation of a launch from a submarine.

Note:



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- The **Circular Error Probability (CEP)** of the missile is much more sophisticated than Chinese missiles.
 - The CEP determines the **accuracy of a missile**. The lower the CEP, the more accurate the missile is.
- After induction, these will be the chief support of the **Arihant class of indigenous Ballistic Missile Nuclear Submarines (SSBN)**.
 - It will give India the standoff capability to launch nuclear weapons submerged in Indian waters.
 - INS Arihant, the first and only operational SSBN, is armed with K-15 Sagarika missiles with a range of 750 km.
 - It means that the submarine has to move closer to the adversary's coast to launch the missile but the K-4 will be able to overcome that because of its range coverage.

Sukhoi-30 MKI Equipped with the BrahMos Missile

Why in News

A **squadron** of fourth-generation fighter jets **Sukhoi-30 MKI equipped with the BrahMos missile** was inducted in the **Southern Air Command, Thanjavur**.

- The induction will help India to maintain its air and maritime dominance in the **Indian Ocean Region (IOR)**.
- Sukhoi 30 jets have been modified to carry BrahMos air-to-surface missiles giving them the capacity to conduct **long-range precision strikes**.

Integration of Su-30 MKI and BrahMos

- **Hindustan Aeronautics Limited (HAL)** and **BrahMos Aerospace Pvt Ltd (BAPL)** in 2014 signed a contract to modify two Su-30 MKI aircraft for integrating with the missile.
- It was for the **first time in the world** that such a heavyweight missile was integrated on a fighter aircraft.
- Brahmos is the heaviest weapon to be deployed on Su-30 MKI fighter aircraft, with a weight of 2.5 tonnes.
- All weather Brahmos gives the Sukhois a **combat radius of almost 1,500 km without mid-air refuelling**.

BrahMos Missiles

- BrahMos missile is a **supersonic cruise missile** which features Indian propulsion system, airframe, power supply, and other major indigenous components.

- BrahMos is a **joint venture** between the **Defence Research and Development Organisation of India (DRDO)** and the **NPOM of Russia**.
 - Brahmos is named on the rivers **Brahmaputra** and **Moskva**.
- It is a **two-stage** (solid propellant engine in the first stage and liquid ramjet in second) air to surface missile with a **flight range of around 300 km**.
 - However, **India's entry into the Missile Technology Control Regime (MTCR)** has extended the range of the BrahMos missile to reach **450 km - 600 km**.
- Brahmos is a **multiplatform** i.e it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
- It operates on the **"Fire and Forgets" principle** i.e it does not require further guidance after launch.
- Brahmos is one of the **fastest cruise missile** currently operationally deployed with speed of **Mach 2.8**, which is 3 times more than the speed of sound.

SAMPRITI - IX

Why in News

A joint **military training exercise** between **India and Bangladesh 'SAMPRITI-IX'** will be conducted at Umroi, **Meghalaya** from 3rd-16th February 2020.



- The exercise aims to build, strengthen and promote positive relations between the Armies of India and Bangladesh.
- The exercise is **hosted alternately by both countries**.
- The **eighth edition** of the exercise was conducted at **Tangail, Bangladesh**.

Note:

Joint Military Exercises of India with Other Countries

Name of Exercise	Country
Garuda Shakti	Indonesia
Ekuverin	Maldives
Hand-in-Hand	China
Kurukshetra	Singapore
Mitra Shakti	Sri Lanka
Nomadic Elephant	Mongolia

Operation Vanilla

Why in News

Recently, the Indian Navy has launched the 'Operation Vanilla' to assist the population of Madagascar affected by **Cyclone Diane**.

- Indian Navy also diverted the large amphibious ship, **INS Airavat** carrying clothing, medicines and other relief material to provide assistance and support in the relief operations.

Cyclone Diane

- It is a **tropical cyclone**.

- **Origin:** North-west off the coast of **Mauritius in the South-western Indian Ocean**.
- Madagascar has been hit by it and there has been heavy flooding and landslips causing loss of lives and displacement, affecting more than 92,000 people. India has been the **first country to respond to floods in Madagascar**.

Significance

- India's assistance to Madagascar is in consonance with Prime Minister's vision of '**Security and Growth for all in the Region (SAGAR)**'.
- India is working with France to develop strategic and economic partnership involving **Madagascar, Reunion Islands-Comoros** so as to balance the growing influence of China in that part of the Indian Ocean Region.



Note:

Miscellaneous

Highlights

- Henley Passport Index 2020
- 10th National Voters' Day
- Padma Awards 2020
- Bharat Parv 2020
- Karwar Port

Henley Passport Index 2020

Why in News

Henley & Partners, the residence and citizenship planning firm has published the **Henley Passport Index for 2020** according to the number of destinations the respective passport holders can access without a prior visa.

- The ranking is based on data from the **International Air Transport Association (IATA)**, a trade association of some 290 airlines, including all major carriers.
- It was launched in **2006** with the aim of providing a **global picture of freedom of travelling**.

Key Points

- **Japan** has the **world's strongest passport** whereas **Afghanistan (107th rank)** has the **weakest**.
 - Japan has been topping the Index for **three years continuously**.
- **Singapore**, in **second place** followed by **Germany and South Korea** (both shares the **third position**).
- The **Indian passport** is closer to the bottom, ranked **84th** in the world.
 - The **Indian passport** ranked higher in both **2018 (81st)** and **2019 (82nd)**.

MOST POWERFUL PASSPORTS, 2020

Passport	Henley rank	Access to destinations
Japan	1	191
Singapore	2	190
SKorea	3	189
Germany	3	189
Italy	4	188
Finland	4	188
Spain	5	187
Luxembourg	5	187
Denmark	5	187

All information: Henley Passport Index 2020 and earlier editions

- **Serbia** is the **only European country** to which **Indian passport holders** can travel **visa-free**.
- The **USA** and the **UK** both countries are in **eighth** place in **2020**; a significant **decline** from the **rank 1** they **jointly held in 2015**.
- The **top 10 most powerful passports** for 2020 are Japan, Singapore, South Korea, Germany, Italy, Finland, Spain, USA and UK, Luxembourg, Denmark.

10th National Voters' Day

Why in News

10th National Voters' Day (NVD) was organized by **Election Commission of India** on **25th January 2020** to mark 70 years of **Election Commission of India (ECI)**.

- NVD has been celebrated on January 25 every year since 2011.

Key Points

- **Theme:** The theme for NVD 2020 was '**Electoral Literacy for Stronger Democracy**'.
- The theme sets the tone for year-long activities which focus on voter education and renewal of citizens' faith in the electoral process.
- **Aim:** To encourage, facilitate and maximize the voter enrolment, especially for the new voters. The day is utilized to spread awareness among voters for promoting informed participation in the electoral process.

Election Commission of India

- It is an **autonomous constitutional authority** responsible for administering Union and State election processes in India.
 - ECI was **established on 25th January 1950**.

Note:

- The body administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies, and the offices of the President and Vice President in the country.
- **Structure of the Commission**
 - Originally the commission had only one election commissioner but after the **Election Commissioner Amendment Act 1989**, it has been made a multi-member body.
 - The commission presently **consists of one Chief Election Commissioner (CEC) and two Election Commissioners (ECs)**.
 - The secretariat of the commission is located in **New Delhi**.

Padma Awards 2020

Why in News

The Padma Awards are announced **annually** on the eve of Republic Day (26th January).

- Instituted in the year **1954**, it is **one of the highest civilian honours** in India.
- The Award seeks to recognize achievements in **all fields of activities** or disciplines where an **element of public service** is involved.
- The Awards are given in **three** categories:
 - Padma Vibhushan (for exceptional and distinguished service),
 - Padma Bhushan (distinguished service of higher-order) and
 - Padma Shri (distinguished service).
- The Awards are given in various disciplines/ fields of activities, viz.- art, social work, public affairs, science and engineering, trade and industry, medicine, literature and education, sports, civil service, etc.
- The Awards are conferred on the recommendations made by the **Padma Awards Committee, which is constituted by the Prime Minister every year**.
- The awards are **presented by the President of India** usually in the month of March/April every year.
- The award **does not amount to a title and cannot be used as a suffix or prefix** to the awardees' name.
- The total number of awards to be given in a year (excluding posthumous awards and to NRI/foreigners/OCIs) **should not be more than 120**.

- In 2020, the President has approved conferment of 141 Padma Awards including 4 duo cases (in a duo case, the Award is counted as one).
- The list comprises of 7 Padma Vibhushan, 16 Padma Bhushan and 118 Padma Shri Awards.

Note:

- **Bharat Ratna** is the **highest civilian award** of the country.
- It is awarded in recognition of exceptional service/ performance of the highest order in any field of human endeavour.
- It is treated on a different footing from Padma Award. The recommendations for Bharat Ratna are made by the Prime Minister to the President of India.
- The number of Bharat Ratna Awards is **restricted to a maximum of three in a particular year**.

Karwar Port

Why in News

Recently, the High Court of Karnataka has directed the State government to stop all the developmental activities being undertaken at Karwar port under the **Sagarmala project**.

- Karwar is located in Uttar Kannada district **at the Southern side of the Kali River**.
- It is the **only all-weather natural port out of 10 minor ports of Karnataka**.

Sagarmala Project

- Sagarmala project was approved by the Union Cabinet in 2015 which aims at holistic port infrastructure development along the 7,516-km long coastline through modernisation, mechanisation and computerisation.
- Under this project, through **port-led development framework**, government hopes to increase its cargo traffic three-fold.
- It also includes the **establishment of rail/road linkages** with the port terminals, thus providing last-mile connectivity to ports; development of linkages with new regions enhanced multi-modal connectivity including rail, inland water, coastal and road services.

Note:



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- It is sandwiched between the Arabian sea on one side and the Western Ghats on the other.
- It is known as **Kashmir of Karnataka** as it is blessed with a wide variety of flora and fauna.

Bharat Parv 2020

Why in News

The **annual event Bharat Parv** is being celebrated from 26th to 31st January, 2020 in New Delhi.

- **Objective:** To encourage Indians to visit different tourist places of India and to inculcate the spirit of 'Dekho Apna Desh'.
- **Theme for the Year 2020: 'Ek Bharat Shreshtha Bharat'** and 'Celebrating 150 Years of Mahatma'.
- It is organised by the **Ministry of Tourism**.
- It includes highlights of the Republic Day Parade Tableaux, performances by the Armed Forces Bands, theme pavilions of different States and Central Ministries and cultural performances from different regions of the country.



Note:



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Key Points

Details

Summary

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Summary