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FEBRUARY 2020

G.S PAPER II

1. POLITY

1.1 Appointments to Judicial Tribunals

Why in news?

Ministry of Finance has framed new rules prescribing uniform norms for the appointment and service conditions of members to various Tribunals.

What were the rules about?

- It was called Tribunal, Appellate Tribunal and other Authorities (Qualifications, Experience and other Conditions of Service of Members) Rules, 2017.
- It was framed by the government under Section 184 of the Finance Act of 2017, which empowers the Centre to frame rules relating to the appointment and service conditions of members of various tribunals.
- Through Part XIV of the Finance Act, 2017, around 26 Central statutes were amended.
- The power to prescribe eligibility criteria, selection process, removal, salaries, tenure and other service conditions pertaining to various members of 19 tribunals were sub-delegated to the rule-making powers of the Central government.

What happened to the rules?

- A Constitution Bench has struck down the Rules in November 2019.
- The court held that Section 184 does not suffer from excessive delegation of legislative functions as there are adequate principles to guide its framing.
- However, the court struck those rules as a whole, as they suffered from “various infirmities”.
- It described the search-cum-selection-committee as an attempt to keep the judiciary away from the process of selection and appointment of members, vice-chairman and chairman of tribunals.
- The Court held that the executive is a litigating party in most of the litigation and hence cannot be allowed to be a dominant participant in tribunal appointments.
- These Rules were contrary to the parent enactment and the principles envisaged in the Constitution as interpreted by the Court.
- The court ordered the Centre to re-formulate the Rules within six months strictly in conformity with the principles delineated by the Supreme Court.
- The court further ordered the Union Ministry of Law and Justice to conduct a ‘Judicial Impact Assessment’ of tribunals to analyse the ramifications of the changes caused by the Finance Act, 2017.
- For now, as an interim measure, the Bench directed that the terms and conditions of appointment to the tribunals would be in accordance with the respective statutes which were in place before the enactment of the Finance Bill, 2017.
- The majority opinion referred the issue to a larger Bench and also the question whether the 2017 Act could have been passed as a money bill.
- The court said a seven-judge Bench should also decide the question whether the Lok Sabha Speaker acted in the right by certifying it as money bill, thus allowing it to circumvent Rajya Sabha.

How has the new rules fared?

- **Membership** - In the 2017 rules, except for NCLAT selection committee, all other committees comprised only one judge and three secretaries.
- To deny the executive an upper hand in appointing members to tribunals, the court ordered to have two judges of the Supreme Court to be a part of the four-member selection committee.
- Now, in the 2020 rules, by default, all committees consist of a judge, the president/chairman/chairperson of the tribunal concerned and two secretaries to the Government of India.
- A non-judicial member can become the president/chairman/chairperson.
- Therefore, when a non-judicial member becomes a member in the selection committee, the Supreme Court judge will be in minority, giving primacy to the executive, which is impermissible.
- **Tenure** - The Court held that the term of 3 years in 2017 rules is too short, and by the time members achieve a refined knowledge, expertise and efficiency, one term will be over.
- It advised that the term of office “shall be changed to a term of 5 or 7 years”.
- Now, in the 2020 rules, the tenure of members has been increased from three years to four years, thereby blatantly violating the directions of the Supreme Court.

1.2 Judge's Recusal

Why in News?

A Supreme Court judge recused from hearing a petition against the government's move under the Public Safety Act.

What is the story so far?

- The petition was against the government's move to charge former Jammu and Kashmir CM Omar Abdullah under the Public Safety Act.
- The petition was filed for issuance of habeas corpus writ for authorities to produce Mr. Omar Abdullah before the SC and set him at liberty.
- After the SC judge recused, the case was finally heard by another bench.

What is Recusal?

- Recusal is the withdrawal of a judge, prosecutor, or juror from a case.
- It usually takes place when a judge has,
 1. A possible conflict of interest or
 2. A prior association with the parties in the case which may lead to lack of impartiality.

What are the rules on recusals?

- There are **no written rules** on the recusal of judges from hearing cases listed before them in constitutional courts.
- It is left to the **discretion of a judge**.
- The reasons for recusal are not disclosed in an order of the court.
- The decision to convey the reasons rests on the conscience of the judge.
- At times, parties involved raise apprehensions about a possible conflict of interest.
- A recusal inevitably leads to delay. The **case goes back to the Chief Justice**, who has to constitute a fresh Bench.



Should the reasons be put on record?

- Justice (now retd.) Kurian Joseph talked about this in his opinion in the National Judicial Appointments Commission judgment, 2015.
- He highlighted the need for judges to give reasons for recusal as a measure to build transparency.
- He wrote that it is the constitutional duty of a Judge, as reflected in one's oath, to be transparent and accountable.
- Another judge, Justice (retd) Madan B. Lokur agreed that specific rules require to be framed on recusal.

What happened in recent cases?

- **Judge Loya case** - In 2018, petitioners in the Judge Loya case sought the recusal of SC judges from the Bench.
- The court refused the request and observed that recusal would mean abdication of duty.
- **Assam's detention centres case** - In 2019, the then-Chief Justice Ranjan Gogoi was asked to recuse himself in the middle of a hearing of a PIL filed about the plight of inmates in Assam's detention centres.
- Justice Gogoi said that a litigant cannot seek recusal of the judge.
- The court observed that the judicial functions may involve performance of unpleasant and difficult tasks, which require asking questions and soliciting answers to arrive at a just and fair decision.
- If the assertions of bias as stated are to be accepted, it would become impossible for a judge to seek clarifications and answers.

Why did Justice Arun Mishra argue against recusal?

- He refused to recuse himself from the Constitution Bench hearing a question of law on the Indore Development Authority v. Manohar Lal.
- The issues involved in the case were related to a reading of Section 24(2) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- The petitioners had objected to Justice Mishra leading the Constitution Bench which was hearing a question of law challenging his own earlier judgment in the case.
- Justice Mishra said accepting reluctantly the wishes of parties to recuse himself would sound the death-knell for judicial independence.

1.3 Sedition Law - Section 124A of the IPC

What is the issue?

- The Section 124A (Sedition) of the Indian Penal Code (IPC) is being used more often recently.
- So, it is important to have a look at what courts and the Maharashtra government have said about the Section 124A IPC.

What is the Section 124A?

- Section 124A IPC states that whoever brings or attempts to bring hatred or contempt, or excites or attempts to excite disaffection towards, the Government established by law in India shall be punished.
- The punishment may involve imprisonment of 3 years to life term, to which a fine may be added; or, with fine.

What is its validity?

- Section 124A has been challenged in various courts in specific cases.
- The validity of the provision itself was upheld by a Constitution Bench of the Supreme Court (SC) in 1962, in Kedarnath Singh vs State of Bihar.



- That judgment went into the issue of whether the law on sedition is consistent with the fundamental right under Article 19 (1) (a).
- [Article 19(1)(a) guarantees freedom of speech and expression].
- The SC laid down that every citizen has a right to say or write about the government by way of criticism or comment.
- It also added that this comment shouldn't incite people to violence against the government established by law or with the intention of creating public disorder.
- The SC ruled that casual raising of slogans, once or twice by two individuals alone cannot be said to be aimed at exciting or attempt to excite hatred or disaffection by the government.

What is the Maharashtra circular?

- In a 2015 circular, the Maharashtra government laid down the preconditions to its police personnel before invoking sedition.
- The circular came during the hearing of a public interest litigation (PIL) in the Bombay High Court, after a cartoonist was booked for sedition.
- The sedition charge was subsequently dropped by the police; a PIL was filed in 2015 on the alleged arbitrary application of the charge.

What the High Court (HC) said?

- In 2015, the HC referred to the Kedarnath judgment and said there was a need to lay down parameters for the invocation of Section 124A.
- Otherwise a situation would result in which an unrestricted recourse to Section 124A resulting in a serious encroachment of guarantee of personal liberty conferred upon every citizen of a free society.
- However, the court said it did not feel the need to dwell on the subject further.
- It said so due to the fact that the then state government had proposed that it would issue guidelines in the form of a circular to all its police personnel for the invocation of Section 124A.

What are the state guidelines?

- The circular was issued, and its guidelines included preconditions to be kept in mind while invocation of 124A.
- The preconditions were that the words, signs or representations must,
 1. Bring the government into hatred or contempt or
 2. Cause or attempt to cause disaffection, enmity or disloyalty to the government.
- Along with these, it must also inciting violence or tend to create public disorder or a reasonable apprehension of public disorder.
- The comments expressing criticism of the government with a view to change the government by lawful means without any of the above are not seditious under Section 124A.
- To ensure that the section is used arbitrarily, the circular directed that a legal opinion from the district law officer should be taken by the public prosecutor addressing fulfilment of these conditions.

1.4 SC judgment on Reservation

Why in news?

A recent Supreme Court judgment states that there is no fundamental right to claim reservation in promotions.

What does the latest judgment remind?

- The received wisdom in affirmative action jurisprudence is that a series of Constitution amendments and judgments have created a sound legal framework for reservation in public employment.
- The latest judgment is a reminder that affirmative action programmes allowed in the Constitution flow from “**enabling provisions**” and are **not rights as such**.

- Major judgments note that **Article 16(4)**, on reservation in posts, is **enabling in nature**. The state is not bound to provide reservations.
- But if it does so, it must be in favour of sections that are backward and inadequately represented in the services based on quantifiable data.

What is the Uttarakhand High Court order?

- The **Supreme Court set aside an Uttarakhand HC order** directing data collection on the adequacy of representation of SC/ST candidates in the State's services.
- Based on the above "enabling nature", the Court is not wrong in setting aside this order.
- Its reasoning is that once there is a decision not to extend reservation to the section, the question whether its representation in the services is inadequate is irrelevant.
- The root of the current issue lies in the then government's decision to give up SC/ST quotas in promotions in Uttarakhand.
- The present political regime also shares responsibility as it argued in the Court that there is **neither a basic right** to reservations **nor a duty** by the State government to provide it.

1.5 Bidar Sedition Case

What is the issue?

- Police are pursuing a complaint about a play performed by children of the age 9 to 12 of a private school in Bidar district of Karnataka.
- This case is an instance of the misuse of the sedition provision under Section 124A of the Indian Penal Code (IPC).

What is the Sedition law?

- **Section 124A** of the IPC which was included in 1870 deals with sedition.
- It states that whoever brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the Government established by law in India shall be punished.
- The punishment varies from imprisonment up to 3 years to a life term and fine. Sedition is a **non-bailable offence**.

What were the actions taken?

- The police have taken **action for an allegedly seditious play** against the Citizenship (Amendment) Act.
- A teacher who supervised the performance and the parent of a child who added words to the script of the play were arrested.
- The primary school children are subjected to sustained harassment with utter disregard for child-friendly legislations.
- These actions are clear case of misuse of the power to arrest, as it is merely a verbal offence and doesn't require custodial interrogation.
- The police have deemed the opposition to the amendment act as something against the state.

What is the observed trend?

- A Supreme Court Bench observed that words such as 'anti-national' and 'sedition' were being bandied about loosely these days.
- The incident in Bidar serves as an example of this trend.
- This incident also confirms that the law is often used to silence political comment on matters deemed sensitive by the rulers.

How Sedition should be invoked?

- Sedition has been invoked to portray political dissent as promotion of disaffection.

- But, it can't be invoked without the essential ingredients for invoking the section, namely, an imminent threat to public order and incitement to take up arms or resort to violence.
- This is a fact that is being forgotten often.
- The section itself has an explanation that nothing that seeks to get the government to change its policy by lawful means is sedition.

What could be done?

- The police system believes that everyone who is suspected of committing an offence is to be arrested
- This belief is something that needs to be changed.
- The conduct rules to punish the police personnel who violate the constitutional guarantees of free speech and personal liberty in an arbitrary way should be strengthened.

2. GOVERNMENT ACTS & POLICIES

2.1 Assisted Reproductive Technology Regulation Bill, 2020

Why in News?

The Cabinet cleared the Assisted Reproductive Technology (ART) Regulation Bill, 2020 that aims to regulate assisted reproductive technology services.

Why such a Bill is needed?

- India is among countries that have seen highest growth in the number of ART centres and ART cycles performed every year.
- Among Asian countries, India's ART market is pegged at third position.
- ART, including In-Vitro Fertilization (IVF), has given hope to persons suffering from infertility to achieve pregnancy, leading to safe delivery.
- But it has also brought in a plethora of legal, ethical and social issues.
- However, there is no standardisation of protocols yet in the country and reporting is still very inadequate.
- The need to regulate ART services is mainly to protect the affected women and children from exploitation.

What are the provisions of the Bill?

- **National Board** - This will be constituted to lay down a code of conduct to be observed by persons working at clinics.
- It will set minimum standards of physical infrastructure, laboratory and diagnostic equipment and expert manpower to be employed by clinics and banks.
- States and Union Territories shall constitute State Boards and State Authorities after the notification of the Central government.
- **National Registry and Registration Authority** will be formed to maintain a central database through which details of all clinics and banks will be obtained on a regular basis
- It will also assist the National Board in its functioning.
- **Punishment** - The Bill proposes stringent punishment for sex selection, sale of human gametes, and agencies behind such unlawful practices.
- In the first instance, the person will be fined Rs 10 lakh and in second instance, the person shall be imprisoned for up to 12 years.

- **Confidentiality** - The Bill will also ensure confidentiality of intending couples and protect the rights of the child.

What are the concerns?

- The ART Bill came after the Surrogacy Bill that it should have preceded.
- A market projection said the size of the ART market is expected to reach \$45 billion by 2026.
- A lack of regulation and the consequent laxity in operations was the concern which drove a lot of traffic from other nations to India.
- This, in turn, along with the relatively low costs, led to the mushrooming of unethical ART clinics across the country.

What is next?

- The ART Bill 2020 does impinge on surrogacy too.
- So, the government must work on ensuring synchrony in both the ART Bill and the Surrogacy Bill.
- Having come this far to ensure the reproductive rights of women, the state now has the thriving ART industry on a leash.

2.2 Pesticides Management Bill, 2020

Why in News?

The Union Cabinet has approved the Pesticides Management Bill, 2020 that seeks to replace the existing Insecticides Act of 1968.

What is the Bill about?

- The Bill will regulate the business of pesticides and compensate farmers for losses from the use of spurious agro chemicals.
- Farmers will get to know about the pesticides, their risk and alternatives, and this will be in open source and in all languages digitally.

What are the provisions of the Bill?

- **Compensation** - If there is any loss because of the fake or low quality of pesticides then there is a provision for compensations.
- To ensure speedier compensation for these losses, the Bill moots setting up a dedicated fund of Rs 50,000 crore.
- This will be raised from the fines charged from the defaulting pesticides companies and contributions from the Central and state governments.
- **Central Pesticides Board** - This board will regulate the production, trade, and use of pesticides.
- It will comprise representatives from the Centre, states and farmers.
- **Promotion** of environment- and health-friendly organic pesticides is among the other notable features of this Bill.
- **Penalty** - A key proposal was to raise penalties on the sale of prohibited or spurious pesticides to ₹50 lakh and up to 5 years' imprisonment.
- This penalty was raised from the current ₹2,000 and up to 3 years' imprisonment.



Why such a Bill is needed?

- The pesticides industry has grown haphazardly, resulting in the emergence of many **fake and poor-quality chemicals**.
- Only around 300 pesticides have been formally registered for production and use in the country.
- But the number of chemical formulations in circulation is far larger because of the production and sale of **unregistered molecules**.
- Several **pesticides banned abroad are continued to be used** in India, causing deaths and grievous injuries to the farm workers.
- The injudicious and **indiscriminate use of pesticides** is causing widespread air, soil and water pollution.

What are the criticisms?

- By removing the applicability of the Code of Criminal Procedure, 1973, the Bill has favoured decriminalisation of agro-input manufacturing.
- The existing draft provides inadequate representation to States in both pesticide board and the registration committee.
- As States have the best understanding on the agro-ecological climate, environment and soil conditions, they should have a say in the final decision making on pesticide.
- Many of these misgivings could have been avoided by seeking public comments on the final draft of the Bill.

How the new law should be?

- The new proposed law is expected to deter the manufacture and sale of such hazardous chemicals.
- It should formulate stricter norms for approving new molecules.
- It should oblige the farmers to use them cautiously in the recommended manner to avoid leaving any traces in the farm produce.

2.3 Draft Competition (Amendment) Bill, 2020

Why in News?

The Ministry of Corporate Affairs (MCA) has put the draft Competition (Amendment) Bill, 2020, in the public domain to seek feedback.

What is the current legislation?

- The Competition Commission of India (CCI) imposes penalties on companies on the basis of their turnover if they flout competition rules.
- When it comes to directors of companies or proprietorship firms, penalties are imposed on the basis of their income.
- However, the law does not have any provision to empower the CCI to impose penalties on the income of individuals.

What does the draft Bill say?

- The draft Competition Bill, 2020 seeks to amend the Competition Act.
- If the changes proposed by the MCA to the Competition Act are enacted, buyers forming a cartel may be penalised.
- It has sought to give monetary and penal powers to the director general for investigation under the CCI.
- It also seek to empower the director general for investigation to send a person to prison for up to 6 months or impose a fine of Rs 1 crore if the latter refuses to produce any document the former has asked for.

- The Bill has a provision of income, on which penalty could be imposed under Section 27 of the Competition Act.
- It has the word ‘income’ included in the Act, which may provide a legal basis to the CCI to impose penalties on individuals.

What are the clauses introduced?

- The draft amendments also call for introducing a “commitment and settlement” clause in the Competition Act.
- The enabling clause will allow those found in contravention of the competition law to commit to correct their ways to avoid action even before investigation is completed.
- Even in cases where investigation is over, evidence has been found, and the adjudicating process has started, the companies can still enter a settlement.
- The companies will have to pay fine and avoid legal proceedings after ensuring that any anti-competitive practice will be corrected.

What does the Bill have to say about hub-and-spoke cartel?

- The proposed amendment seeks to provide clarity to these cartels.
- The MCA suggested hubs also be covered under Section 3(3), which deals with cartels that hinder competition.
- A hub-and-spoke cartel is basically an arrangement between companies where a dominant player (hub) is wooed by other firms (spoke), to destroy competition by, say, increasing or lowering prices.
- The hub-and-spoke agreements were not specifically covered under the Competition Act.

How do these amendments impact the CCI’s powers?

- The CCI has imposed penalties by independently invoking Section 3(1) of the Competition Act.
- However, the CCI’s powers to invoke Section 3(1) independently are pending adjudication before the Supreme Court.
- The proposed amendments also seek to expand the composition of the CCI by including part-time members in the Commission.
- The Commission is currently a 4-member body, including the chairman.

Quick Fact

Competition Commission of India (CCI)

- The CCI is the competition regulator of India.
- In accordance with the provisions of the Competition (Amendment) Act, 2007, the CCI and the Competition Appellate Tribunal have been established.
- It is the duty of the Commission to -
 1. eliminate practices having adverse effect on competition
 2. promote and sustain competition
 3. protect the interests of consumers
 4. ensure freedom of trade in the markets of India

2.4 Attaching Medical Colleges to Hospitals

What is the issue?

- The Centre has proposed in the Union Budget 2020 to attach medical colleges to existing district hospitals in the PPP mode.
- This is being done to ostensibly address the shortage of doctors in the country.

What is the proposal?

- The proposal says that the States which fully allow the facilities of the hospital to the medical college and wish to provide land at a concession would be eligible for viability gap funding.
- Several details are already available in the public domain, as part of the plan, first proposed by NITI Aayog.

What did the NITI Aayog propose?

- The NITI Aayog argues that it is practically not possible for Central and State governments to bridge the gaps in medical education due to their limited resources and finances.
- This necessitated the formation of a public-private partnership (PPP) model which will combine the strengths of both sectors.
- (PPP model - Collaboration between a government agency and a private-sector company to finance, build and operate projects).

What would be the impacts?

- This would **augment the number of medical seats** available and moderate the costs of medical education.
- Experts have argued that the NITI Aayog hasn't given sufficient role to the district hospital as the pivot of primary health care in every State.
- Allowing private parties to operate and maintain the district hospital could dent public health services.
- It is problematic that the NITI Aayog envisages the creation of free patients versus others, because this will create a new category of have-nots.
- The agreement indicates that the private firm can demand, collect and appropriate hospital charges from patients.

Why is there an opposition?

- There is understandable opposition to the scheme in States such as Tamil Nadu that have a robust public health-care system, and a medical college in nearly every district.
- These States are naturally loath to turning over a key unit in their health-care network to the private sector motivated by profit rather than public interest.
- This is because they are already running reasonably efficiently.
- The creation of quality medical professionals for a country should be on any government's to-do list.
- But destabilising people's access to affordable public health services will be disastrous.

What could be done?

- The government must consider raising health-care spending beyond the usual under 2% of GDP.
- It should ensure more resources are available to provide free, quality health care to all.
- If it does stay on its path of giving the private sector some control over district hospitals, it will be a small act that will lead to much larger, more serious, and less desirable consequence.

2.5 Need for a Data Protection Law

Why in News?

A German cyber security firm reported that the medical details of many Indian patients were leaked and are freely available on the Internet.



What kind of data were leaked?

- The firm listed 1.02 million studies of Indian patients and many medical images like CT Scans, MRIs and patients' photos as being available.
- Such information has the potential to be mined for deeper data analysis and for creating profiles.
- These profiles could be used for social engineering, phishing and online identity theft, among other practices.

Why these critical data were made available?

- These data were made available due to the absence of any security in the Picture Archiving and Communications Systems (PACS) servers used by the medical professionals.
- These PACS servers seem to have been connected to the public Internet without protection.

How these data can be protected?

- Public data leaks have been quite common in India. Even the data are leaked from the government websites, among others.
- Unlike the data protection regulations in place in the European Union and US, India still lacks a legal framework to protect data privacy.
- The Draft Personal Data Protection Bill 2019 is still to be tabled.
- If tabled, it could enable protection of privacy.
- The draft Bill follows up on the provisions submitted by the Justice B.N. Srikrishna committee to the Ministry of Electronics and Information Technology in 2018.

What the committee wanted to do?

- The committee sought to codify the relationship between individuals and firms/state institutions as one between "data principals" and "data fiduciaries" so that privacy is safeguarded by design.
- [Data principals - whose information is collected; Data fiduciaries - those processing the data].

What is the 2019 version of the Bill?

- This version seeks to retain the intent and many of the recommendations of the Srikrishna committee, but it has also diluted a few provisions.
- The Bill tasks the fiduciary to seek the consent in a free, informed, specific, clear form from the principal.
- But, it has removed the proviso that said selling or transferring sensitive personal data by the fiduciary to a third party is an offence.
- There are other issues with the Bill pertaining to the situations when state institutions are granted exemption from seeking consent from principals to process or obtain their information.
- Yet, considering the manner in which public data are being stored and used by both the state and private entities, a comprehensive Data Protection Act is the need of the hour.

2.6 Medical Device Rules, 2020

Why in News?

The Medical Devices (Amendment) Rules, 2020 was notified by the Government of India to make changes in the Medical Devices Rules, 2017 that regulates medical devices.

What are the notified changes?

- The 2020 rules are applicable to devices intended for internal or external use in the diagnosis, treatment, mitigation or prevention of disease or disorder in human beings or animals.
- It requires online registration of these devices with the Central Licensing Authority through the online portal of the Central Drugs Standard Control Organisation (CDSCO).
- Manufacturer has to upload certificate of compliance along with other details like name and address in the portal.

- Manufacturer shall mention the registration number, which is generated after the above information online, on the label of the medical device.
- The notification calls for a voluntary registration within a period of 18 months from April 2020.
- It also calls for obtaining manufacturing/import licence under the Medical Device Rules within 36 months for some devices and 42 months for others.

What are the items covered under these rules?

- A large number of commonly used items including hypodermic syringes and needles, cardiac stents, lenses, sutures, etc are covered under the new rules will have to comply starting April 2020.
- For items such as sphygmomanometers, thermometers and glucometers deadlines for compliance have been set from January 2021.
- For CT scan and MRI equipment, dialysis and X-ray machines, implants etc, deadlines for compliance have been set from April 2021.
- For ultrasound equipment, it is November 2020.

Why was the move required?

- The Indian health sector has been at the centre of attention following the faulty hip implants marketed by Johnson & Johnson (J&J).
- This has exposed the lack of regulation when it came to medical devices.
- The matter dragged on, exposing the regulatory loopholes until finally the company agreed in court to pay compensation to those who had to undergo revision surgeries because of the defective implants.
- J&J had for a very long time maintained that it had not received any adverse events report in the product, but had given compensation in other countries where people were impacted due to their implants.
- That is really where the discussion started about regulation of medical devices.

What are the penal provisions under Indian law?

- There are various penal provisions under the Drugs and Cosmetics Act, 1940 for various kinds of offences.
- Manufacture or sale of substandard items is punishable with imprisonment of 10 years, which may extend to imprisonment for life.
- There is also a provision for fine that will not be less than Rs 10 lakh rupees or three times value of the confiscated items.

How has the industry reacted to the government move?

- **Welcomed move** - The industry has so far reacted positively.
- But doubts remain about the ability of the CDSCO to effectively regulate both drugs and medical devices.
- The Chairman of CII's Medical Technology Division said that this move will ensure that all medical devices available will be safe and effective.
- **Temporary registration** - The temporary registration application for devices that are currently unregulated will require basic administrative documents and basic product information.
- The registration process carries no government processing fees.
- This registration may be cancelled or suspended by the CDSCO for product safety concerns, or when superseded by an Import/ Manufacturing License.
- Once registered the local registration holder will be required to notify the CDSCO and Materiovigilance Programme of India (MvPi) of Serious Adverse Events (SEA) occurring in India.

2.7 Supreme Court Order on AGR

Why in News?

SC came down heavily on the Department of Telecommunications (DoT) for issuing a notification regarding AGR.



What is AGR?

- The Telecom operators are required to pay licence fee and spectrum charges in the form of 'revenue share' to the government.
- The revenue amount used to calculate this revenue share is termed as adjusted gross revenue (AGR).

What is the story behind?

- DoT notified that no coercive action should be taken against telecom companies, even though they had not paid the AGR dues by the stipulated deadline of January 23, 2020.
- A three-judge SC Bench initiated contempt proceedings against the telecom companies for not paying the AGR dues.
- The court also asked DoT to immediately withdraw this notification.

What is the background of SC order?

- In October, 2019, the court had said the companies **must pay all dues** along with interest and penalty.
- Some telcos had tried to persuade DoT to relax the deadline. After failed to do so, they moved the court seeking a review of its judgment.
- The court dismissed the review petition in January 2020, and did not extend the deadline for paying AGR dues.

What does SC order on AGR mean?

- The SC order means that the telcos will have to immediately clear the pending AGR dues, which amount to nearly Rs 1.47 lakh crore.
- Some telcos face the prospect of shutting down business due to the trouble they undergo for not paying the AGR dues on time.
- Other than the telcos, non-telecom companies could also be facing huge payouts individually, which amount to total of Rs 3 lakh crore.

What exactly did the government notification say?

- The Licensing Finance Policy Wing of DoT directed all government departments to **not take any action** against telecom operators if they failed to clear AGR-related dues as per the SC's order.
- The order came as a huge relief for operators that would have otherwise faced possible contempt action for not paying dues by the deadline that ran out on that same day of SC's order.
- There was no change in the amount they had to pay, but it did buy them time as they hoped for relief from the SC.
- The SC was to hear their plea seeking permission to negotiate the timeline for payment of dues with the DoT.
- Prior to the DoT order, the companies had told the government that they would wait for the outcome of the SC hearing, which however gave no relief to the companies.

Where does the government stand in this situation?

- The payout by telecom and non-telecom companies is likely to lead to windfall gains for the central government.
- This payout could help the government to close some of the fiscal deficit gap for the current financial.
- At the same time, however, the government will be under pressure to ensure that the telecom market does not turn into a duopoly.
- It will also have to manage the payouts to be done by **non-telecom companies** as most of them, such as Oil India, Power Grid, Gail, and Delhi Metro Rail Corporation are public sector units.

What does this situation mean for customers and lenders?

- **Customers** - If Vodafone Idea exits, an Airtel-Jio duopoly may be created which could lead to bigger bills.
- It was the cutthroat competition of the sector, which made mobile telephony and Internet almost universally affordable.

- **Lenders** - The AGR issue has triggered panic in the banking industry, given that the telecom sector is highly leveraged.

2.8 None Of The Above

What is the issue?

- The 2020 Delhi Assembly elections were the 45th Assembly polls since the inception of the NOTA option in 2013.
- But, the meagre share of NOTA votes, and NOTA in its current form, are pointers to it being a toothless option.

What does some data reveal?

- Delhi has now provided data from five elections with the NOTA option; no other state has yielded such a preference for yet.
- But, Delhi's preference to NOTA is less than the national average.
- The percentage of NOTA votes has increased in 71% constituencies in 2019 than in 2015.
- Roughly one in 200 voters of Delhi opted for NOTA in the last 6 to 7 years, with relatively larger support for NOTA in reserved constituencies.
- In the 2019 Maharashtra Assembly election, NOTA became a runner-up in two constituencies.

What is the NOTA system of India?

- In 2013, India became the 14th country to institute negative voting through NOTA. However, it is **not a "right to reject"**.
- Even if there are 99 NOTA votes out of a total of 100, and candidate X gets just one vote, X is the winner, having obtained the only valid vote.
- The rest of the NOTA votes will be treated as invalid or 'no votes'.
- NOTA enfeeble the electorate as it does not empower to "select" either.
- It provides democratic means to express resentment anonymously rather than boycotting the polls outright.

What are the pleas to extend the scope of NOTA?

- A former Chief Election Commissioner recommended **holding elections again** in those constituencies where the victory margin is less than the total numbers of NOTA.
- A PIL has been filed in Madras High Court seeking the **full right to reject in place of NOTA**.
- In 2018, the Maharashtra State Election Commission (SEC) issued an order that if NOTA has received the highest number of valid votes, a fresh election shall be held for such a post.
- The SEC of Haryana issued an order that if NOTA gets maximum vote, none of the "real" candidates will be declared elected.
- The re-elections will be held afresh and the candidates securing votes less than NOTA would be barred from contesting in that re-election.

Will NOTA bring any significant change?

- While introducing NOTA, the Supreme Court anticipated that there will be a systemic change.
- It also predicted that the political parties will be forced to accept the will of the people and field candidates who are known for their integrity.
- NOTA percentage should either increase to enforce the political parties to field candidates with "integrity".
- Or NOTA percentage should consistently decrease if the electorates feel that the system has achieved the desired level of cleansing.
- In contrast, the share of NOTA votes in India remained around a meagre level of 1% on an average; 1.11% in the 2014 Lok Sabha, and 1.08% in 2019, if we consider constituency-wise averages.
- This perhaps represents a confused state of mind of the electorate.



3. SOCIAL JUSTICE

3.1 Delhi Model of Education

What is the issue?

- The Delhi model of education has caught the attention of people in Delhi and beyond in the last five years.
- The validation of this model now creates a pathway for the next set of reforms.

Why the Delhi model is a success?

- For too long, there have been two kinds of education models in the country: one for the classes and another for the masses.
- The Delhi government sought to bridge this gap. Its approach stems from the belief that quality education is a necessity, not a luxury.
- Hence, it built a model which essentially has five major components and is supported by nearly 25% of the State Budget.

What are the key components of the model?

- **Transformation of school infrastructure** - Dilapidated school buildings that lack basic facilities indicate the apathy of the government.
- It will also lower the teachers' motivation and the students' enthusiasm.
- So, the government of Delhi sought to change this by building new, aesthetically designed classrooms equipped with high facilities.
- **Training of teachers and principals** - Many opportunities were given to teachers for their professional growth.
- They had been exposed to new education models of excellence in India and abroad and, also had been given leadership training.
- This enabled Delhi to gradually move away from a uniform training model for all to learning from the best practices in India and abroad.
- **Engaging with community by reconstituting SMC** - The annual budget of each school management committees (SMC) is ₹5-7 lakh.
- The SMCs can spend this money on any material or activity, such as even hiring teachers on a short-term basis.
- Regular dialogue between teachers and parents was initiated through mega parent-teacher meetings.
- Guidelines are provided on how to engage with parents.
- **Curricular reforms in teaching learning** - Special initiatives to ensure that all children learn to read, write and do basic maths was made part of regular teaching learning activities in schools.
- A 'happiness curriculum' was introduced for all children between nursery and Class 8 for their emotional well-being.
- An 'entrepreneurship mindset curriculum' was introduced to develop the problem-solving and critical thinking abilities of Class 9 to 12 children.
- Apart from these new curricular initiatives, the focus on existing subjects ensured better performance in Board examinations by Classes 10 and 12.
- **No fee increase in private schools recently** - In the past, almost all the schools increased their fee 8-15% annually.
- The Delhi government ensured that any fee hike proposal was examined by authorised chartered accountants.
- Thus, for 2 years no school was allowed to raise its fee.

What is the Agenda 2.0?

- Manish Sisodia, the leader of the Delhi education models said that there will be a shift in focus now.



- It will shift from “having built the foundation of education” to “education as foundation”.
- Going forward, there will be three key areas of reform apart from consolidating the gains of the past.

What will be the Agenda 2.0’s key areas of reform?

- **Reviewing the Classes 1 to 8 syllabus** - This review will emphasise the foundational learning skills, the ‘happiness curriculum’ and the ‘deshbhakti’ curriculum.
- Apart from that, early childhood care and education will be deepened further through Anganwadis. There will be nurseries in all govt schools.
- **Setting up a Delhi Education Board** - This will promote a learning that encourages critical thinking, problem solving and application of knowledge among children.
- This will prepare them to tackle the challenges of the 21st century with an entrepreneurial mindset.
- For those who have graduated from Delhi schools in the recent past, programmes will be initiated to raise their employability opportunities.
- **Creating specialised schools** - These schools will be created in each of the 29 zones of Delhi to nurture the aptitude and talent of children in the areas of science and technology, literature and language, etc.
- Delhi has acknowledged education as a top agenda of governance now.
- So, the natural expectation from it would be to ensure that all children get education that passes the test of quality, opportunity and equity.

3.2 Ways to Treat a Child Witness

What is the issue?

- The police have been allegedly violated the rules while questioning the school children in Bidar (Karnataka) for a [case](#).
- After this, much of the spotlight has been on reports of how the police treated the children.

What are the international conventions?

- Since 1992, India has been a signatory to the United Nations (UN) **Convention on the Rights of the Child of 1989**.
- The Convention states that in all actions concerning children, whether undertaken by public or private social welfare institutions, law courts, etc, the best interests of the child shall be a primary consideration.

What are the international guidelines?

- ‘UN: Justice in Matters involving Child Victims and Witnesses in Crime: **Model Law of 2009**’ provided a more specific set of guidelines in the context of child witnesses.
- It recommends that authorities treat children in a caring and sensitive manner, with interview techniques that minimise trauma to children.
- They recommend specifically that an investigator specially trained in dealing with children be appointed to guide the interview of the child.
- The investigator shall, to the extent possible, avoid repetition of the interview during the justice process in order to prevent secondary victimisation of the child.
- [Secondary victimisation - Occurs not as a direct result of a criminal act, but through the response of institutions and individuals to the victim.]

How do Indian laws address the issue of child witnesses?

- Under **Section 118 of the Indian Evidence Act, 1872**, there is no minimum age for a witness.
- Usually during a trial, the court, before recording the testimony of a child witness, determines their competency on the basis of their ability to give rational answers.
- When a child doesn’t understand the significance of taking an oath to speak the truth, the judge or the staff should explain to the child that s/he should speak the truth.

Have courts dealt with how child witnesses are to be treated?



- The Delhi High Court (HC) has come up with guidelines for recording of evidence of vulnerable witnesses in criminal matters.
- [Vulnerable witness - Anyone who has not completed 18 years of age.]
- These guidelines allow for a facilitator for such a witness to be appointed by a court for effective communication between various stakeholders.
- In 2016, the Delhi HC said that while children can be pliable, their testimony can be considered after careful scrutiny.

What does the JJ Act say about questioning of children?

- The Juvenile Justice (Care and Protection of Children) Act, 2015 is the primary legislation in the country pertaining to children.
- It says that a **child-friendly approach** in the adjudication and disposal of matters in the best interest of children must be adhered to.
- It also requires that interviews of children be done by specialised units of police who are trained to sensitively deal with them.
- It prescribes that a **Special Juvenile Police Unit** is to be constituted by the state government in each district and city.
- Their work includes coordinating with the police towards sensitive treatment of children.
- The Act also provides for a **Child Welfare Committee** in every district to take cognisance of any violations by the authorities in their handling of children.

What does the POCSO Act say about questioning of children?

- The Protection of Children from Sexual Offences (POCSO) Act, 2012 has specific guidelines regarding interviewing children as witnesses.
- While it **pertains to child sexual abuse victims**, child rights activists say the guidelines are a framework for all children witnesses who are being interviewed by the police.
- The Act states that interviews should be conducted in a safe, neutral, child-friendly environment.
- It also says a child should not be made to recount the incident in question multiple times.
- The Act allows for a support person, who could be trained in counselling, to be present with the child to reduce stress and trauma.

3.3 Permanent Commission to Women-in-Army

Why in News?

The Supreme Court (SC) brought women officers in 10 streams of the Army on a par with their male counterparts in all respects.

What is the story behind?

- The induction of women officers in the Army started in 1992.
- They were commissioned for a period of 5 years in certain chosen streams such as Army Education Corps, Corps of Engineers, etc.
- Women Special Entry Scheme (WSES) recruits had a shorter pre-commission training period than their male counterparts commissioned under the Short Service Commission (SSC) scheme.

What happened when WSES was replaced?

- In 2006, the WSES scheme was replaced with the SSC scheme, which was extended to women officers.
- They were commissioned for a period of 10 to 14 years.
- Serving WSES officers were given the option to move to the new SSC scheme, or to continue under the erstwhile WSES.
- They were restricted to roles in streams that excluded combat arms.

- While male SSC officers could opt for permanent commission at the end of 10 years of service, this option was not available to women officers.
- They were kept out of any command appointment, and couldn't qualify for government pension that starts after 20 years of service as an officer.

What were the petitions filed in the courts?

- In 2003, a PIL was filed before the Delhi High Court (HC) for grant of permanent commission (PC) to women SSC officers in the Army.
- In 2006, another writ petition was filed primarily to challenge the terms and conditions of service imposed by circulars earlier that year, and to seek PC for women officers.
- In 2008, the Defence Ministry passed an order saying PC would be granted prospectively to SSC women officers in the Judge Advocate General (JAG) department and the Army Education Corps (AEC).
- This circular was challenged before the Delhi High Court on the ground that it granted PC only prospectively, and in certain specified streams.

What did the Delhi HC say?

- The Delhi HC heard the 2003, 2006, and 2008 challenges together, and passed its **judgment in 2010**.
- It ruled that women officers of the Air Force and Army on SSC who had sought permanent commission would be entitled to PC.
- However, this benefit was only available to,
 1. Women officers in service who instituted proceedings before HC,
 2. Women officers who had retired during the pendency of the writ petitions.
- Women officers who had not attained the age of superannuation for permanently commissioned officers would be reinstated with all consequential benefits.
- The government challenged the order in the SC.
- Even though the HC judgment was not stayed, the Defence Ministry did not implement those directions.

What is the Government order, 2019?

- A government order passed in February 2019 granted PC status to SSC women officers in 8 streams of the Army, in addition to JAG and AEC.
- But they would not be offered any command appointments, and would serve only in staff posts.
- The government then came up with a proposal whereby women officers of up to 14 years of service would be granted PC in line with the letter of February 2019.

What is the SC Order?

- The SC has rejected the government's arguments, saying they are based on sex stereotypes which discriminate against women.
- It has also said that it only shows the need to emphasise the need for change in mindsets to bring about true equality in the Army.
- It has done away with all discrimination on the basis of years of service for grant of PC in the Army, bringing them on a par with male officers.
- It has also removed the restriction of women officers only being allowed to serve in staff appointments, which is the most significant and far-reaching aspect of the judgment.

What are the implications of the order?

- It means that women officers will be eligible to tenant all the command appointments, at par with male officers.
- This would open avenues for further promotions to higher ranks for them.
- It also means that in junior ranks and career courses, women officers would be attending the same training courses and tenancing critical appointments, which are necessary for higher promotions.

- The Army had not officially responded to the judgment until evening, although Defence Minister Rajnath Singh welcomed it.

4. HEALTH

4.1 Nutrition and Union Budget

What is the issue?

- There was reference made to the unprecedented scale of developments under the National Nutrition Mission in the 2020 Budget speech.
- This had reflected the urgency around nutrition in India.

What is the nutritional status of India?

- The Global Hunger Index 2019 reported that India suffers from “serious” hunger, ranked 102 out of 117 countries.
- It also reported that just a tenth of children between 6 to 23 months are fed a minimum acceptable diet.

What is the National Nutrition Mission?

- Prime Minister’s Overarching Scheme for Holistic Nutrition (POSHAN Abhiyaan) is the National Nutrition Mission.
- It is a major initiative to address malnutrition.
- (Malnutrition - A condition that results from eating a diet in which one or more nutrients are either not enough or are too much.)
- POSHAN’s focus of the bulk of the funding has been on technology, whereas, actually, it is convergence that is crucial to address nutrition.

What is the plan?

- There are multiple dimensions of malnutrition that include calorific deficiency, protein hunger and micronutrient deficiency.
- An important approach to **address nutrition is through agriculture**.
- The Bharatiya Poshan Krishi Kosh which was launched in 2019 is a recent attempt to bridge this gap.
- Existing schemes can well address India’s malnutrition dilemma but there are gaps in addressing this concern.

Where are the gaps in addressing this concern?

- For understanding this, one needs to analyse the Budgetary allocation and the expenditure in the previous year (2019-20) to understand more.
- **Calorific deficiency** - The Integrated Child Development Services (ICDS) scheme provides a package of services which address community malnutrition and also tackle calorific deficiency.
- The allocation in 2020-2021 is marginally higher, but clearly, the emphasis needs to be on implementation.
- **Protein hunger** - A scheme for State and Union Territories aims to reach pulses into welfare schemes (Mid-Day Meal, ICDS, etc) also shows under utilisation of budgetary allocation in the 2019-20.
- **Micronutrient deficiency** - The Horticulture Mission is one way to address micronutrient deficiency but here too implementation is low.
- In 2018-19, the Government of India launched a national millet mission to promote these nutritious cereals in a campaign mode.
- This could have been further emphasised in the Budget as well as in the National Food Security Mission (NFSM) which includes millets.



- However, the 2019-20 budgetary allocation points to an underutilisation of the resources and low implementation in these above schemes.

What are the impacts of linkage schemes?

- **Under-spending** - With under-spending, allocations for subsequent years will also be affected.
- This will be limiting the possibility of increasing budgets and the focus on nutrition schemes.
- **Agriculture-nutrition link** - While agriculture dominated the initial Budget speech, this link was not explicit.
- This link is important because about 3/5th of rural households are agricultural in India (National Sample Survey Office, 70th round) and malnutrition rates, particularly in rural areas are high.
- Therefore, agriculture-nutrition linkage schemes have potential for greater impact and need greater emphasis.

How can better nutrition be brought into India?

- India needs to hasten to achieve Sustainable Development Goal 2 of 'Zero Hunger' by 2030.
- The convergence component of POSHAN should be intensified, using the platform to bring all departments in one place to address nutrition.
- These should be an announcement to form 10,000 farmer producer organisations with a ₹500 crore allocation to nutrition-based activities.
- There should be promotion of youth schemes to be directed to nutrition-agriculture link activities in rural areas.
- There should be an explicit emphasis and fund allocation to agriculture-nutrition linked schemes.
- The early disbursement of funds and an optimum utilisation of schemes linked to nutrition should be ensured.

Why concentrating on nutrition is important?

- Nutrition goes beyond just food, with economic, health, water sanitation, gender perspectives and social norms contributing to better nutrition.
- This is why implementation of multiple schemes can contribute to better nutrition.
- The Economic Survey notes that "Food is not just an end in itself but also an essential ingredient in the growth of human capital and therefore important for national wealth creation".
- Malnutrition affects cognitive ability, workforce days and health, impacting as much as 16% of GDP.
- In that sense, while Budget 2020-21 looks toward an 'Aspirational India', fixing the missing pieces on the plate, can make a difference not just to better nutrition but to build a wealthier nation too.

4.2 Cough Syrup Poisoning

Why in News?

Due to a poisoned cough syrup, 12 children died in Jammu and more are fighting for their life in a hospital.

Why these deaths had occurred?

- The doctors attributed the deaths to the presence of **diethylene glycol** in the cough syrup which was consumed by all the dead children.
- Diethylene glycol is an anti-freezing agent used in medicines.
- But, it causes acute renal failure in the human body followed by paralysis, breathing difficulties and ultimately death.

Is this the first time such a poisoning has occurred?

- This is the fourth mass glycol poisoning event in India that has been caused due to a pharmaceutical drug.
- This kind of poisoning had occurred in Chennai (1973), Mumbai (1986) and New Delhi (1998).
- In all these three cases, the manufacturers of the suspect syrup failed to contain the level of glycol in the syrup due to negligence or human error.

What should be the immediate concern?

- The immediate concern for doctors, pharmacists and the drug regulators should be **to prevent any more deaths**.
- For this, all the poisoned syrup that has ever been sold in the Indian market should be accounted and stopped from reaching the patients.
- Any patient who has consumed even a spoon of the syrup should then immediately be referred to a hospital for treatment.

What public health measures were taken?

- When the US faced a similar poisoning situation, its entire field force of inspectors and chemists were tracking down every single drug bottle.
- This effort was accompanied by publicity blitz over radio and television.
- There are no such public health measures undertaken here.
- The Himachal Pradesh authorities who are responsible for oversight of this syrup manufacturer have made statements that they've ordered the withdrawal of the drug which is sold across the country.
- However, there is no transparency in this recall process.
- There is no public announcement by the Drug Controller General of India (DCGI).
- [DCGI - Responsible for overall regulation of the entire Indian market.]
- The DCGI website, which is supposed to communicate drug alerts and product recalls, has no mention of suspect product as being dangerous.

What is the need for a recall policy?

- Unlike other countries, India has **no binding guidelines or rules on recalling** dangerous drugs from the market.
- This is one of the key reasons why the DCGI and state drug authorities have been so sloppy.
- The 59th report of the Parliamentary Standing Committee on Health as well as the WHO (in its national regulatory assessment) had warned the DCGI on the lack of a national recall framework in India.
- A set of recall guidelines was drafted in 2012 but never notified into law.

What should be done?

- A **national recall** of the adulterated medicine is the immediate need.
- The administration needs to quickly identify which other pharmaceutical companies have received this spurious ingredient by the same trader.
- It is important for regulatory enforcement to raid and seize the records of this trader in question and verify the sales.
- The lackadaisical response of drug regulators in India is the result of a larger lethargy and arrogance of the administrative bureaucracy.
- They are the ones who are responsible for ensuring safety by keeping unethical practices of pharmaceutical companies under control.
- **National level binding guidelines** or rules on recalling dangerous drugs from the market should be notified soon.



5. GOVERNANCE

5.1 Central Consumer Protection Authority

Why in News?

Union Ministry of Consumer Affairs, Food and Public Distribution announced that a Central Consumer Protection Authority (CCPA) will be established soon.

Under which Act, the CCPA will be constituted?

- The CCPA is being constituted under Section 10(1) of The Consumer Protection Act, 2019.
- The new Act replaced The Consumer Protection Act, 1986, and seeks to widen its scope in addressing consumer concerns.
- It recognises offences such as providing false information regarding the quality or quantity of a good or service, and misleading advertisements.
- It also specifies action to be taken if goods and services are found “dangerous, hazardous or unsafe”.

How the CCPA will function?

- It aims to **protect the rights of the consumer** by cracking down on unfair trade practices, and false and misleading ads that are detrimental to the interests of the public and consumers.
- It will have the powers to **inquire or investigate into matters** relating to violations of consumer rights or unfair trade practices
 1. Suo motu, or on a complaint received, or
 2. On a direction from the central government.
- It will ensure that all **standards on packaged food items** set by regulators such as the Food Safety and Standards Authority of India (FSSAI) are being followed.

What can the possible structure of CCPA be?

- The proposed authority will have a **Chief Commissioner as head**, and only two other commissioners as members.
- One of the members will deal with matters relating to goods while the other will look into cases relating to services.
- It will be headquartered in the National Capital Region of Delhi but the central government may set up regional offices in other regions.
- The CCPA will have an **Investigation Wing** that will be headed by a Director General.
- District Collectors will have the power to investigate complaints of violations of consumer rights, unfair trade practices, and false or misleading ads.

What will the CCPA do if goods or services are not of standard?

- The proposed authority will have powers to recall goods or withdrawal of services that are “dangerous, hazardous or unsafe”.
- It can pass an order for refund the prices of goods or services so recalled to purchasers of such goods or services.
- It can also pass an order on discontinuation of practices which are unfair and prejudicial to consumer’s interest.
- For manufacture, selling, storage, distribution, or import of adulterated products, the penalties will be given if the consumer is injured or died.

How will it deal with false or misleading advertisements?

- Section 21 of the new Act defines the powers given to the CCPA to crack down on false or misleading ads.



- The CCPA may **issue directions** to the trader, manufacturer, endorser, advertiser, or publisher to discontinue a misleading advertisement, or modify it in a manner specified by the authority, within a given time.
- It may also **impose a penalty** on the manufacturer or endorser of false and misleading advertisements.
- CCPA may ban the endorser of a false or misleading advertisement from making endorsement of any products or services in the future, for a period that may extend to one year.
- Ban may extend up to 3 years in every subsequent violation of the Act.

What other powers will the CCPA have?

- While conducting an investigation after preliminary inquiry, officers of the CCPA's Investigation Wing will have the powers to enter any premise and search for any document or article, and to seize these.
- For **search and seizure**, the CCPA will have similar powers given under the provisions of The Code of Criminal Procedure, 1973.
- The CCPA can **file complaints** of violation of consumer rights or unfair trade practices before the Consumer Disputes Redressal Commission established at the district, state and national levels.
- It will issue **safety notices to alert consumers** against dangerous or hazardous or unsafe goods or services.

5.2 Political Micro-targeting

What is the issue?

- Social media platforms need to be regulated by a holistic data protection law that take issues such as political micro-targeting seriously.
- The Personal Data Protection Bill, 2019 is the draft of the data protection law that was introduced recently.

What does the new draft law say?

- It empowers the Centre to notify social media platforms as significant data fiduciaries if those platforms'
 1. User base crosses a certain threshold and
 2. Actions may have an impact on electoral democracy.
- This provision merits serious discussion to ensure that digital tools are used for enhancing democracy through citizen engagement.
- It will also ensure that these digital tools are not for harvesting personal data for voter targeting.
- In the Internet age, any data protection law must be alive to the potential impact of social media companies in shaping public opinion.

How is today's world of political advertising?

- **Online presence** is a key source of competitive advantage.
- This realisation gave rise to strategic efforts by political parties to tap into the fragmented political discourse by catering to the individual.
- Earlier, the idea was to capture mass issues. But in the present day, the **focus of the campaign is the individual**.
- Over the years, political advertising firms have devised sophisticated tools to gather voter data and made proper campaign products out of it.
- The reason why this issue becomes important is that the passive users are just not aware of what they are being subjected to.

How political parties target individual voters?

- Political parties are increasingly employing data-driven approaches to target individual voters using tailor-made messages.
- Such profiling has raised huge concerns of data privacy for individuals and has become a burning issue for political debate.



- Therefore, the concerns related to regulation of the digital world are being debated in all jurisdictions which have experienced the impact of this technological advancement.
- The reason for these debates is common to all jurisdictions i.e. to arrest any negative externalities emerging out of the Internet.
- **Solution** - Any regulatory framework needs to have both supervisory mechanisms in place and effective law enforcement tools in its quiver.

Is this practice a characteristic of Indian politics?

- Not particularly. The US and European countries are equally affected by the impact of this unregulated practice of micro-targeting.
- This practice has raised some serious concerns with regard to,
 1. The kind of data that is being collected,
 2. The manner in which voters are being profiled,
 3. How transparent the process of profiling and targeting is,
 4. What the nature of functioning of organisations engaged in this business is, and
 5. How neutral globally present intermediaries such as Google are.

Why informational autonomy of the voter is under threat?

- It is under threat because the entire business of collecting personal data continues to remain **unregulated** and is also **proprietary in nature**.
- It is extremely difficult to trace the methods used by such firms to scrutinise the personal life and intimate details of the individual.
- Profiling the potential voter has become a thriving industry. So, there are extremely well-crafted techniques are used in electoral campaigning.

What would be the impact?

- There is serious harm to the country's democratic nature resulting on account of loss of informational autonomy.
- The liberating and anti-establishment potential of the Internet are considered as a promise for the health of a liberal democracy.
- At the same time, it can have serious ramifications if this potential is used by demagogues to spread fake news and propaganda.

What needs to be done?

- While Internet innovators have continued to develop more advanced technologies, the regulators have never been able to catch up with it.
- The scope of a data protection framework needs to be sensitive towards the magnitude of a variety of data usage.
- It is likely that within a few years, Indian political parties may use data effectively to target individual voters.
- It is to be seen how the privacy law responds to the implications of political micro-targeting.

6. INDIA & ITS NEIGHBORHOOD

6.1 Pakistan and FATF

Why in News?

The Financial Action Task Force (FATF) at its plenary held in Paris decided to keep Pakistan on its "greylist" to monitor its record against terror financing.

What is FATF?

- Headquartered in Paris, it was set up in 1989 by the G7 countries.
- **Objective** - FATF acts as an ‘international watchdog’ on issues of money-laundering and financing of terrorism.
- It is empowered to curtail financing of UN-designated terrorist groups.
- It is to limit the concerned countries from sourcing financial flows internationally and thereby constraining them economically.
- **Members** - FATF has 39 members which comprise 37 member jurisdictions and 2 regional organisations, representing most major financial centres in all parts of the globe.
- India became a full member in 2010.

What is the story behind?

- In a plenary meeting held in 2018, the FATF had determined that Pakistan was to be placed on the “grey list”.
- FATF also presented Pakistan with a **27-point list of actions**.
- These included freezing the funds of UN Security Council entities such as 26/11 mastermind Hafiz Saeed and designated groups such as Taliban.
- The actions also entailed a sustained effort to bring legal action against these groups.
- It called for changes to Pakistani law in line with global standards for measures against money laundering and financing terrorism.
- It also calls on Pakistan to begin prosecutions against terrorists and sanction entities that are flouting the UNSC’s rules for designated terror organisations.

What does the recent decision mean?

- The FATF decided to keep Pakistan on its “greylist” at its Paris plenary.
- Pakistan government has yet to complete the 27-point action plan.
- But, according to the FATF, Pakistan has made some progress and has cleared about 14 points.
- So, it has decided to extend Pakistan’s September 2019 deadline until June 2020.
- Pakistan must comply with all 27-action points in the next four months or face financial strictures by being placed on the “blacklist”.
- The FATF’s Chairman said that there is a danger that Pakistan has not sustained punitive action against many designated terrorists and entities, will feel immunity from the process.

Can Pakistan slip through the new deadline?

- If Pakistan is able to ensure that **China, Turkey and Malaysia veto** any move to blacklist it, it can slip through the deadlines.
- These three countries have already pledged their support.
- Pakistan also appears to have benefited from playing a role in **U.S.-Taliban talks**.
- The U.S. and its allies are not enforcing the deadline to complete the action plan as before.
- A command performance of the Pakistani court is its [conviction of LeT chief Hafiz Saeed](#) on terror financing charges just before the Paris meet.
- Pakistan has submitted to the FATF that it cannot trace Masood Azhar, the leader of the terrorist organisation Jaish-e-Mohammed.

What could be done?

- Pakistan’s submission about Masood Azhar must be scrutinised further by the FATF.
- During U.S. President’s India visit, it is necessary that India raise the need to continue to hold Pakistan to account on terror.



6.2 Hafiz Saeed Conviction

Why in News?

An anti-terrorism court in Pakistan has sentenced a hard line Islamist cleric Hafiz Mohammad Saeed to 11 years in jail for financing terrorist operations.

How this conviction is viewed?

- Hafiz Saeed, the alleged mastermind of the 2008 Mumbai attacks, was tried to be protected by the Pakistani government for years.
- Along with Saeed, his close aide Malik Zafar Iqbal has been sentenced to 5½ years by an anti-terrorism court.
- This conviction vindicated India's years-long position that Saeed had been using his organisations to finance terrorist activities.
- While the conviction is a welcome step, Pakistan has to do more if it wants the international community to take its self-declared resolve to fight terror seriously.

Why should Pakistan do more?

- This is because Pakistan's actions in the past against terrorist outfits have hardly been convincing.
- It started cracking down on Saeed's groups in 2018 only after it was threatened to be put on the "grey list" of the FATF.
- [FATF (Financial Action Task Force) - An inter-governmental body fighting money laundering and terror financing].
- The Pakistan government endorsed the UN ban on these organisations in February 2018, just a few days ahead of an FATF meeting.
- Despite these actions, Pakistan was placed on the grey list.

Why the timing of the conviction matters?

- Unsurprisingly, the conviction of Saeed and Iqbal comes a few days ahead of another crucial FATF meeting.
- In the October 2019 meeting, FATF warned Pakistan to take measures for the complete elimination of terror financing and money laundering.
- If the FATF is not satisfied with Pakistan's actions, the country faces the risk of being downgraded to the "black list".
- This downgrading could bring tough sanctions on its financial system and it is evidently under international pressure.
- So, the question is whether Pakistan's actions are half-hearted steps aimed at avoiding the wrath of the international community or part of a genuine drive against terror.

How did Pakistan protect Saeed?

- Pakistan had avoided taking action against him and his groups for years.
- Saeed was put under house arrest several times, only to be released once the international attention turned away.
- The fundamental problem is Pakistan's policy of exporting terrorism to its neighbours for geopolitical leverage.

What could Pakistan do?

- Historically, Pakistan has adopted a **dual policy towards terrorism**,
 1. Fight it at home but

Financial Action Task Force

- FATF was set up in 1989 by the western G7 countries, with headquarters in Paris.
- It acts as an 'international watchdog' on issues of money-laundering and financing of terrorism.
- It has 37 members that include all 5 permanent members of the Security Council, and other countries with economic influence.
- Two regional organisations, the Gulf Cooperation Council (GCC) and the European Commission (EC) are also its members.
- India became a full member in 2010.

2. Export it through proxies to its neighbours.

- It could change this policy and join the regional drive against terrorism.
- Doing so would protect the peace and stability of the region.
- The international community shouldn't let up its pressure on Pakistan.
- Pakistan could be asked to take legal action against terror financing and also hard measures against terror groups and infrastructure.

6.3 Regional Bonding - A Suggestion

Why in News?

The former Sri Lankan Prime Minister Ranil Wickremesinghe set out a number of suggestions for regional co-operation at a private conclave.

What did he suggest?

- He has pushed for **regional economic integration** and for **India-Pakistan dialogue** should be studied carefully by New Delhi.
- He blamed India-Pakistan tensions for bringing economic integration within the SAARC region to a "standstill".
- He said that the SAARC's original purpose was to build a platform where bilateral issues could be set aside in the interest of regional growth.

What was the sub-grouping that he suggested?

- He said that there is a lack of economic integration in South Asia, and the failure of SAARC and BIMSTEC.
- When it comes to the intra-regional share of total trade, SAARC and BIMSTEC languish behind ASEAN, EU and MERCOSUR.
- To **engender more intra-regional trade**, he suggested forming a sub-grouping of four countries with complementary economies (**India, Sri Lanka, Bangladesh and Thailand**).
- They should begin the process of reducing tariffs and demolishing non-tariff barrier regimes.
- He suggested that with India's leadership, a more integrated South Asian region would be better equipped to negotiate for better terms with RCEP.
- He also envisioned an **Economic Integration Road Map** to speed up the process.

Will these suggestions be accepted by India?

- Given the current policy trajectory of the present Indian government, it is unlikely that any of the suggestions will be welcomed.
- India has made it clear that talks with Pakistan are strictly off the table.
- Due to the protectionist turn that India has taken on multilateral trade pacts, it is relying more on direct bilateral deals with countries.
- SAARC summit, which has not been held since 2014, is unlikely to be convened anytime soon.
- It has also walked away from the ASEAN-led Regional Comprehensive Economic Partnership (RCEP).

What could India do?

- For any regional sub-grouping in South Asia to flourish, it is India that will have to make the most concessions which it may not wish to do.
- However, India's global reach will be severely constrained unless it is integrated with its neighbours, and tensions with Pakistan are resolved.
- This is a projection which cannot be disproved.
- India needs to be **more accommodative** for the realisation of its ambitions.

BIMSTEC

- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a **sector-driven** sub-regional organization.
- It came into being in 1997 through the **Bangkok Declaration**.
- Its member States lie in the littoral and adjacent areas of the Bay of Bengal.
- **7 Member States** - Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar and Thailand.

SAARC

- South Asian Association for Regional Cooperation (SAARC) was established with the signing of the **SAARC Charter** in Dhaka in 1985.
- **8 Member States** - Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
- SAARC Secretariat was set up in Kathmandu in 1987.
- Objectives of SAARC –
 1. To provide a platform for the peoples of South Asia to work together in a spirit of friendship, trust and understanding.
 2. It aims to promote the welfare of the peoples of South Asia and to improve their quality of life through accelerated economic growth, social progress and cultural development in the region.

7. BILATERAL RELATIONS

7.1 “Developed” Tag for India

Why in News?

USA has removed India from its list of countries that are classified as “developing” economies for trade purposes.

What is the story so far?

- Apart from India, the US has also removed some other countries from the list.
- Now, these countries will be classified as “developed” economies, thus stripping them of various trade benefits.
- This move has led to doubts over the chances of a trade deal being signed between India and the US, during their President’s visit to India in February 2020.

What is the “developing country” status?

- The office of the United States Trade Representative maintains a list of countries that it classifies as developing, developed, and least developed.
- The “developing” countries are allowed to export certain goods to the US without being hit by punitive tariffs that are usually imposed on goods from “developed” countries.
- The “developing country” status owes its origin to the **US Trade Act of 1974**.
- This Act authorized the Generalized System of Preferences (GSP) to help poor countries develop faster.
- These benefits were extended further under the World Trade Organization, wherein rich countries grant trade benefits to countries that classified themselves as poor.
- About two-thirds of countries that are WTO members classify themselves as “developing” countries and avail benefits.

Is such a classification justified?

- Any classification of whether a country is “developing” or not is bound to be **arbitrary**.
- Some people see the economic progress that India and China have achieved over the last few decades as reason enough to get rid of their special status.

- Others point to the various development indicators in which India and China still lag behind the rich world.
- Further, the opinion on whether such a classification is required in the first place is divided.

Why is India being stripped of this status?

- The US has repeatedly accused fast-growing countries such as India and China of wrongly claiming trade benefits that are reserved for truly “developing” countries.
- This, it believes, is enough reason to scale back the various trade benefits.
- It has further cited the share of global trade enjoyed by India and China and their membership in the G20 club to argue that they enjoy significant economic power.
- Therefore, it has sought to renegotiate trade deals with countries; essentially trying to make these deals more ‘fair’ to the US interests.

How will India be impacted by this move?

- India had been one of the largest beneficiaries under the GSP, with over 2,000 goods exempted from import tariffs.
- But, in 2019, the Trump administration stripped off this special benefit.
- With the current change in India’s status under the USTR’s classification, the task of reclaiming the lost GSP benefits now becomes even harder.

How will the US decision affect global trade?

- Any move to end duty-free access for foreign goods into the US, will increase the overall tax burden on goods crossing international borders.
- This will add further pressure on the global economy, which has already witnessed a slowing of growth this year.
- The countries that are stripped of their “developing” status may retaliate by imposing tariffs on US import.
- If so, it could raise further the growth effects of a tariff war.
- Recently, India offered to scale back tariffs on American dairy and other products that are imported into India.
- This came after the US complained about the restricted access that its companies have to developing countries.
- If such trade tactics manage to bring down trade barriers on both sides, it can benefit the global economy.
- But, the US and its various warring trading partners look to protect their domestic producers rather than consumers.
- So, a general fall in tariffs across the board may seem unlikely.

7.2 US President’s Visit to India

Why in News?

The United States of America’s (USA) President Donald Trump visited India on February 24 and 25, 2020.

What were the MoUs signed?

- Only three Memoranda of Understanding (MoUs) were signed: Two on health care, and one Letter of Cooperation.
- A MoU was signed on **mental health** between the health departments of the countries.
- Another MoU on the **safety of medical products** was signed between the Central Drugs Standard Control Organization with the US Food and Drug Administration.
- A Letter of Cooperation on **LNG pipeline infrastructure** was signed between Indian Oil Corporation Limited and Exxon Mobil India LNG Limited and Chart Industries Inc, US.

What was the agreement signed?

- An agreement has been signed for **defence purchases** worth \$3-billion, including American helicopters.



- This agreement has led to both sides signalling more cooperation in defence, military exercises and technology sharing.

What could have been done?

- The visit's concrete outcomes were not dramatic or historical.
- The two leaders shared strong language in references aimed at China's hegemony in the South China Sea as well as the Belt and Road Initiative.
- But, they could have introduced the steps in the Indo-Pacific partnership including,
 1. Possible militarisation and
 2. Joint funding to counter the challenge from Chinese loans in the region.

8. INTERNATIONAL ISSUES

8.1 UK's New Immigration System

Why in News?

The United Kingdom's (UK's) has launched the new points-based immigration system which will become effective from January 1, 2021

What is this new immigration system?

- This points-based system intends to change the way migrants will come to the UK to visit, work, study, or join their family.
- It will end free movement between the UK and European Union (EU).
- This system will now treat EU citizens at par with non-EU citizens who already follow a points-based system to migrate to UK.
- [Before the Brexit, EU citizens had unrestricted rights to stay in the UK and work under the EU Settlement Scheme (EUSS).]
- The implementation of this system doesn't change the status of those EU citizens already in the UK as per EUSS and those whose status under EUSS is settled.

How will this new immigration system work?

- Points will be assigned for specific skills, qualifications, salaries or professions and visas will be awarded to those who have enough points.
- Both EU and non-EU citizens will need to demonstrate that they have a job offer from an approved sponsor which should be at the required level and that they speak English.
- As per the Migration Advisory Committee's (MAC) recommendations, salary thresholds have been established.
- The following characteristics are absolutely required to be eligible for visa i.e. not tradeable,
 1. Offer of job by approved sponsor,
 2. Job at appropriate skill level,
 3. Speaks English at required level.
- Further, a total of 70 points are required to be eligible to apply, with some tradeable characteristics of the system.

Who are the other people who can gain points?

- **Students** will also be able to gain points if they can demonstrate that they have an offer from an approved educational institution.
- They should speak English and are able to support themselves during their studies in there.
- Additionally, a small number of some of the **most highly-skilled workers** may be able to come to the UK without a job offer, but the details of how this work out haven't been specified yet.

- MAC's current list of shortage jobs included civil engineers, medical practitioners, classical ballet dancers and psychologists.
- Even so, there will be no routes for lower-skilled workers, since the government wants the country to not rely on cheap labour from Europe.

What is the need for such a system?

- The system will end the reliance on cheap, low-skilled labour coming into the country.
- It will reduce the overall levels of migration and a better experience for those coming into the UK, attracting high-skilled workers.
- The system will work in the interests of the whole of the UK and prioritises the skills a person has to offer, not where they come from.

8.2 India & International Maritime Organization

What is the issue?

- The International Maritime Organization (IMO) lists India as among the 10 states with the largest interest in international seaborne trade.
- But India's participation in the IMO has been haphazard and inadequate.

What is IMO?

- Shipping accounts for over 90% by volume and about 80% by value of global trade.
- The International Maritime Organization (IMO) is a body that regulates the shipping industry with a range of legislations.
- It currently has 174 member states and three associate members.
- There are also many non-governmental and inter-governmental organisations.

How does IMO work?

- The IMO is primarily a secretariat that facilitates decision-making processes on all maritime matters through meetings of members.
- The binding instruments are brought in through the conventions.
- Maritime matters are dealt by the committees of the IMO like the Maritime Safety Committee (MSC), Marine Environment Protection Committee (MEPC) etc.
- Each committee is designated a separate aspect of shipping and supported by sub-committees.
- The subcommittees are the main working organs, where the proposals from a member state are analysed and forwarded to a main committee.
- The main committees put the approved proposal for enactment through the Convention.

How do prominent maritime nations operate in IMO?

- They have their permanent representatives at London (HQ, IMO).
- They are supported by a large contingent of domain experts from their maritime administration, seafarers and industry associations.
- They ensure that they have representation in every subcommittee, working group.
- European countries move their proposals in unison and voting or support are given en bloc.
- China, Japan, Singapore, Korea and a few others follow the same pattern ensuring that a large delegation intervenes in the meetings for their cause.
- This has resulted in these countries fiercely protecting their interests.

How does India operate?

- India has followed the same pattern.
- India's permanent representative post at London has remained vacant for the last 25 years.

- Representation at meetings is often through a skeletal delegation.
- The number of submissions made by India in the recent past has been very few and not in proportion to India's stakes in global shipping.

How does it affect India's interests?

- **High Risk Areas Demarcation** - IMO has demarcated "High Risk Areas" in Indian Ocean based on presence of pirates.
- This resulted in half the Arabian Sea and almost the entire south-west coast of India being seen as piracy-infested, despite the presence of the Indian Navy and Coast Guard.
- The High Risk Area formulation led to a ballooning of insurance costs. It affected goods coming into or out of India.
- So, it took great efforts to revoke the promulgation and negate the financial burden.
- **NavIC** - There was also great difficulty in introducing the indigenously designed NAVigation with Indian Constellation (NavIC) in the worldwide maritime navigation system.
- **Environmental Regulations** - IMO had recently mandated that merchant ships should not burn fuel with sulphur content greater than 0.5% beginning January 1 from the previous level of 3.5%.
- Refineries in India struggle to meet the demand.
- Freight costs also have increased resulting in a cascading effect on retail prices.
- New legislative mandates of IMO, fitment of new equipment and changes to ship structural designs being brought on have been driven by developed countries.
- They are not entirely pragmatic from the point of view of India's interests.

What should be done?

- So far, India's presence and participation in the IMO has been at the individual level.
- India should now make its presence felt so that its national interests are served.

9. ECONOMY

9.1 15th Finance Commission's Interim Report

Why in News?

The interim report of the 15th Finance Commission (FC) has been tabled in Parliament this budget session.

How the devolution to the States is to be carried out?

- The report has largely preserved the devolution mathematics of its predecessor, belying concerns of a sizeable cut in States' share.
- (Devolution - A process in which a central government of a country grants powers to sub-national governments).
- The report has recommended a **one percentage point reduction** in the vertical split of the divisible pool of tax revenues accruing to States to 41%.
- This follows the reorganisation of the erstwhile State of Jammu and Kashmir into the Union Territories of Jammu and Kashmir and Ladakh.
- The former State's notional share based on the parameters for horizontal devolution would have been about 0.85%.
- But, the FC has cited the security and other special needs of the two territories to enhance their aggregate share to

Finance Commission

- **Article 280** of the Constitution of India provides for a quasi-judicial body, the Finance Commission.
- It is constituted by the President of India every fifth year or at such earlier time as he considers necessary.
- The recommendations made by the Finance Commission are only advisory in nature and hence, not binding on the government.
- The 15th Finance commission makes recommendations for the period of 2020-2025 (5 years).

1%, which would be met by the Centre.

How the devolution to the local bodies is to be carried out?

- Urban local bodies, especially municipalities in cities with populations of more than one million, are set to get a larger share of the devolution.
- There has been an increase in the percentage of outcome-tied funds from 10% to 50%
- This could prove vexing to the last mile providers of basic services in India's federal and highly fragmented structure of governance.

What is done to balance the financial needs?

- As part of an effort to balance the principles of fiscal needs, the following have been changed,
 1. Equity and performance,
 2. The need to ensure stability and predictability in transfers,
 3. The criteria for the horizontal sharing of taxes among States.

What is the new added parameter?

- The **demographic performance** is the new crucial parameter that has been added to the mix.
- The mandate to adopt the population data from the 2011 Census is the reason why the FC has incorporated this additional criterion.
- This will ensure that the States which have done well on demographic management are not unfairly disadvantaged.
- The norm has been assigned a 12.5% weight, as it indirectly evaluates performance on the human capital outcomes of education and health.
- This should address the concerns voiced by several States over the switch to the 2011 Census from the 1971 data.

What does the report say about the tax system?

- Among the States, with the exception of Tamil Nadu, all the other four southern States see a reduction in the recommended share of taxes for the year 2020-21.
- Notably, the suggested devolution to Odisha and Uttar Pradesh has also shrunk in percentage terms.
- Crucially, the FC has flagged the issues dogging the GST as indirect taxes constitute almost half the total tax revenues of the Union.
- The **new tax has yet to stabilise** which leaves a majority of the States dependent on compensation from the Centre.

What was the criticism the report made?

- The FC has also been justifiably critical of the Union and State governments' tendency to finance spending through off-budget borrowings and via parastatals.
- It has done well to ask that such extra-budgetary liabilities be clearly earmarked and eliminated in a time-bound manner.

9.2 NRIs to Pay Tax

What is the issue?

- An amendment is proposed to the Income Tax Act in the Finance Bill or the Union Budget 2020.
- It says that all Indians who are working abroad and not paying any income tax in those countries would be liable to pay tax in India.

What is the response?

- Kerala Chief Minister wrote to Prime Minister recording his government's disagreement with the provision.
- He said that the proposal would hurt those who toil and bring foreign exchange to the country.

What is the existing law?

- Two parameters determine whether India levies income tax on an individual.
- **Residency** - In India, residency requires a person to actually live in the country for a specified number of days in a year.
- **The Source of the Income** - It is the country where the income is being generated.
- For a resident Indian citizen, the income tax law applies to that person's worldwide income and such a resident Indian is required to pay tax on all of it.
- But for a non-resident Indian, the income tax law applies only to the income earned from within India.
- This difference between residents being taxed on their global income and non-residents being charged only on their Indian income lies at the heart of the confusion.

What is the amendment proposed by the government?

- The proposed amendment to the IT Act has three parts.
- **Number of Days** - The number of days that an Indian citizen can stay in India without becoming a resident is cut from 182 to 120.
- The Memorandum to the Budget said this provision was being misused.
- **NOR category** - The Memorandum has carved out the "Not Ordinarily Resident (NOR)" category.
- This status ensures that an individual who isn't ordinarily a resident isn't taxed as a resident, just because he spends more than specified number of days in India during a particular year.
- The amendment states that an NOR would be someone who has not been a resident of India for seven of the past 10 years.
- Under the existing law, it is nine out of the past 10 years.
- **The Confusion** - This amendment said that an Indian citizen who isn't liable to tax in any other country or territory shall be deemed to be resident in India.

What is the problem with this?

- The amendment tries to tax non-residents as residents.
- This led to panic because, in the absence of clarifications, all non-residents working in tax-free jurisdictions concluded that all their income in there will now attract the Indian income tax rate.
- Apart from the likely harassment, this undermined the whole point of people leaving their homes in India to work in tax-free jurisdictions.

Why did the government propose this?

- The government has clarified that its intention isn't to target bona fide workers.
- It says it wants to catch tax evaders who game the residency provisions to evade all taxes.
- It says that the tax laws should not encourage a situation where a person is not liable to tax in any country.

9.3 High Allocation for Defence Pension

Why in News?

The Union Budget for 2020-21 has allocated Rs 1,33,825 crore to defence pensions which is up by 10½ times the allocation made in 2005-06.

How much allocation is made?

- **Allocation** - This budgetary allocation is 4.4% of the total expenditure of the central government or 0.6% of GDP.
- Of the overall allocation made to the Defence Ministry, 28.4% goes towards pensions.
- The bill for defence pensions has gone upper than the Defence Ministry's total capital expenditure.
- It now nearly equals the salaries bill for Defence Ministry.



- The more the government spends on salaries and pensions, the less it can spend on modernizing the armed forces.
- **Comparison** - To compare it with other sectors, the government's rural employment scheme MGNREGA has an allocation of 46% of the bill for defence pensions.

Why the bill is high?

- As per the Defence Ministry, there are about 26 lakh armed forces pensioners and family pensioners, and approximately 55,000 pensioners added every year.
- In 2015, government announced the OROP (One Rank, One Pension) scheme that cost it Rs 8,600 crore.
- The implementation of the 7th Pay Commission's recommendations in 2017 again increased the defence pensions bill.

How defence pensions are unique?

- Defence personnel retire at a young age and thus continue to get pensions for a longer period than their civilian counterparts do.
 1. The current ratio of military pensioners to serving military personnel is 1.7 to 1
 2. The current ratio of civil pensioners to civil working personnel is 0.56 to 1.
- This ratio in defence is projected to further change as life expectancy in India goes up and retired personnel live far longer than earlier.
- All civilian employees in the government who joined service on or after 1 January 2004 do not get an assured pension but come under the ambit of the contributory National Pension Scheme (NPS).
- However, military personnel have been excluded from the ambit of the NPS because of their short service span.

Where this can lead?

- With economic growth stalling and competing requirement from development and infrastructure sectors, the government is being hard-pressed for the last rupee in its kitty.
- The defence services themselves need more funds to modernise themselves but are struggling with budgetary allocations.
- In such a scenario, attention is likely to come to the fast-rising defence pensions bill.

10. INFRASTRUCTURE

10.1 Indian Railways' Corporate Train Model

Why in News?

The Kashi Mahakal Express is the country's third 'corporate' train after the two Tejas Express trains started over the past few months.

What is this corporate model?

- This is a new model being actively pushed by Indian Railways.
- In this model, the running of regular passenger trains will be outsourced to the Indian Railway Catering and Tourism Corporation (IRCTC).
- Around 100 routes will be leased out to private players to run 150 trains, something that is in the works.
- This is the same model that was used in the two Tejas Express trains running between Delhi-Lucknow and Mumbai-Ahmedabad.

How does the model work?

- In this model, the **corporation takes all the decisions** of running the service - fare, food, onboard facilities, complaints etc.



- Indian Railways is free from these encumbrances and gets to earn from IRCTC a pre-decided amount, being the owner of the network.
- This amount has three components- **haulage, lease and custody**.

How these components are worked out?

- **Haulage** - The haulage charge is to be paid by IRCTC.
- This includes use of the fixed infrastructure like tracks, signalling, driver, traction and pretty much everything needed to physically move the rake.
- **Lease** - IRCTC has to pay the lease charges on the rake as Indian Railways coaches.
- This is so as the coaches are leased to its financing arm, the Indian Railway Finance Corporation (IRFC).
- **Custody** - There is a per-day custody charge, of keeping the rake safe and sound while it is in the custody of the PSU.
- IRCTC has to pay Indian Railways a sum total of these three charges for the trains' runs in a day and then factor in a profit over and above this.
- This money is payable even if the occupancy is below expectation and the train is not doing good business.

What powers does IRCTC have?

- Being a corporate entity, IRCTC insists that the coaches it gets from Railways are new and not in a run-down condition.
- The quality of the coaches has a direct bearing on its business.
- In this model, IRCTC has full flexibility to decide the service parameters and even alter them without having to go to Railway ministry.
- To that end, the business of running trains can be run with the independence needed to run a business with profit motive.
- This, policymakers believe creates the environment for enhanced service quality and user experience for the passengers.
- IRCTC gets the freedom to decide even the number of stoppages it wants to afford on a route, depending on the needs of its business model.

What is Indian Railways' benefit from this model?

- Indian Railways doesn't have to suffer the losses associated with running these trains thanks to under-recovery of cost.
- This under-recovery is due to low fares and its own hefty overheads.
- The lease on its coaches is also taken care of.

Is this the same model for private train operators?

- The model in which private train operators are sought to be engaged is different wherein along with haulage; the operator needs to agree to revenue sharing with Railways.
- The company willing to share the highest percentage of revenue will win the contract.
- Private players may not need to pay lease and custody charges.
- All this is because over the next 5 years, a lot of capacity will free up in the conventional railway lines for more passenger trains to run to cater to the demand.
- The government wants private players, its own PSU, along with Indian Railways, to share the load of pumping in more trains into the system.



11. AGRICULTURE

11.1 Cauvery delta as a Protected Special Agriculture Zone

Why in News?

The Government of Tamil Nadu has announced that the Cauvery delta region will be declared as 'Protected Special Agricultural Zone' (PSAZ).

What does this announcement mean?

- By making such an announcement, the State's Chief Minister (CM) has recognised farmer concerns about hydrocarbon exploration.
- It also accorded primacy to food security.
- The State's CM has rightly sensed that the farmers' emotive and intense opposition can be ignored only at a political cost.
- This decision comes weeks after the CM protested the Centre's unilateral amendment of the Environment Impact Assessment Notification 2006.
- [Amendment - Exempted prior environmental clearance and public consultations for oil and gas exploration.]

Why this region is significant?

- The Cauvery delta region is the rice bowl of Tamil Nadu that comprises eight districts.
- This region produces 33 lakh tonnes of grains in 28 lakh acres.

Why there are protests in this region?

- **Protests** - This delta has seen multiple protests for a decade over methane, hydrocarbon, oil and natural gas projects, which required acquisition of fertile lands and well drilling.
- These proposals triggered fears of groundwater contamination.
- **Response** - In 2013, the then CM ordered suspension on coal bed methane exploration and production in Thanjavur and Tiruvarur and followed it up with a ban in 2015.
- But in 2017, the Centre signed contracts for hydrocarbon extraction from 31 areas of discovered small fields.
- Two years later it allowed Vedanta Limited to conduct tests for 274 hydrocarbon wells in Tamil Nadu and Puducherry.

Is such a zone new?

- Agricultural scientists have for long mooted such zones similar to special economic zones.
- Uttarakhand and Kerala already have them.
- Tamil Nadu now has to enact legislation to protect a vast region, largely in the coastal area, from industries that would affect farming.

What challenges does the State have?

- In 2017, a government notification delineated 45 villages in Cuddalore and Nagapattinam districts in the delta, as a Petroleum, Chemical and Petrochemical Investment Region.
- This notification eyed on over ₹90,000 crore in investments.
- The proposed PSAZ raises a question on this ambitious scheme.
- The government may have to brave central pressure and litigation from companies which pumped in money for exploration.
- The latest decision may have implications for the State's investment climate, as it recently closed the Sterlite Copper plant.
- But the intent to prioritise farmer interests and food security is beyond reproach.

11.2 Maharashtra Sugar Mills' Agreement with Farmers

What is the issue?

- Maharashtra sugar mills have an unusual agreement with farmers for this sugarcane crushing season.
- It enables the former to pay the government-declared Fair and Remunerative Price (FRP) for cane purchased in three instalments.

What is FRP?

- **Definition** - FRP is the minimum price at which sugarcane is to be purchased by sugar mills from farmers.
- On basis of recommendations of Commission for Agricultural Costs and Prices (CACP), the FRP is fixed by Union government.
- The season's FRP is declared before the start of the crushing season.
- **Factors** - The cost of production, demand-supply situation, domestic & international prices etc are the factors that are taken into account while recommending FRP.
- Sugarcane's FRP is determined under Sugarcane (Control) Order, 1966 which will be uniformly applicable all over country.
- **FRP is linked to recovery** - the amount of sugar produced by crushing 1 tonne cane, expressed as a percentage.
- The higher the recovery, the higher be the sugar produced, and thus the higher the FRP too.

What does the 1966 Order mandate?

- It mandates that mills pay the basic FRP within 14 days of purchase.
- If the mill fails to do so, they are to pay 15% per year interest.
- Sugar commissioners are empowered to recover pending dues by attaching properties of errant mills.
- The assured scheme of payment had over the years made cane a preferred crop among growers across the country.
- While the law mandates payment within 14 days, the payment schedule has not been rigorously followed generally.

What happens generally?

- At the start of crushing season, the farmers' union in its Cane Conclave used to make demands for payment, which was above FRP.
- Mills had to accede to the demand to prevent disruption in transportation of cane.
- The first instalment was always the full FRP, while later instalments covered demands made by the farmers.

How do mills generate capital to pay their growers?

- Sugar mills pledge their stock of sugar and avail of working capital from banks to pay their growers as well as to fund their operations.
- Based on the valuation of sugar, banks issue loans to the tune of 75% of the current valuation.

Why did mills feel the need to get into agreements?

- **Case** - During the 2014-15's season, some mills in Maharashtra had defaulted on payment of basic FRP.
- A farmer leader approached the Bombay High Court with demands including payment of 15% interest on late payment of FRP.
- The court eventually asked the sugar commissioner to start the process of calculation of interest.
- The then sugar commissioner started the process in 2019 and appointed government auditors to calculate the interest.
- Given the financial implications, mills took the cue from the 1966 order and started making formal agreements with farmers for part-payment.



- **The cue** - The order mandates payment of FRP within 14 days of cane delivery if there is no agreement otherwise.
- This cue is being used by mills to get their farmers to sign agreements that would allow mills to pay 75% of the FRP as the first instalment and the rest in subsequent instalments.
- Of the 136 mills that have entered the crushing season in Maharashtra, 76 have got into such agreements.
- The payment clause was put in the cane registration forms that farmers sign and submit to the mills.

What are the ramifications of such an agreement?

- Many farmers' leaders claim the agreement would not stand the test of law as it leaves a farmer without the necessary standing to argue for a fair agreement.
- In this case, many have said the agreement clause was put in the forms farmers have not read properly.
- But mills have denied this and said it was only a small section of farmers who were insisting on full payment of FRP.
- Mills claim that the financial constraints make it impossible for them to pay the full FRP at one go.
- Until these agreements are challenged in any court of law, mills in Maharashtra will continue to pay their growers as per these agreements.

12. SCIENCE & TECHNOLOGY

12.1 Genome India Project

Why in News?

The Government of India has cleared a gene-mapping project called "Genome India" recently.

What is a genome?

- A genome is defined as an organism's complete set of Deoxyribose Nucleic Acid (DNA), including all of its genes.
- Each genome contains all of the information needed to build and maintain that organism.
- In humans, a copy of the entire genome — more than 3 billion DNA base pairs — is contained in all cells that have a nucleus.
- The discovery that DNA is structured as a "double helix" was the spark in the long, continuing quest for understanding how genes dictate life.

Hasn't the human genome been mapped before?

- The Human Genome Project (HGP) was an international programme that began in 1990 and completed in 2003.
- It led to the decoding of the entire human genome by sequencing and mapping all of the genes of humans.
- The HGP gave us the ability, for the first time, to read nature's complete genetic blueprint for building a human being.

What then is the 'Genome India' Project?

- **Aim** - To build a grid of the Indian "reference genome", to understand fully the type and nature of diseases and traits that comprise the diverse Indian population.
- This is spearheaded by the Centre for Brain Research at Bengaluru-based Indian Institute of Science as the nodal point of about 20 institutions.
- Each of these institutions will do their bit in collecting samples, doing the computations, and then the research.



So, what will the project broadly do?

- It hopes to form a grid after collecting 10,000 samples in the first phase from across India, to arrive at a representative Indian genome.
- Most genomes have been sourced from urban middle-class persons and are not really seen as representative.
- Over 95% of the genome samples available, which are the basis of new, cutting-edge research in medicine and pharmacology, use the Caucasian genome as the base.
- So, this Indian genome project is seen as a necessity.
- The Indian project will aim to vastly add to the available information on the human species and advance the cause, both because of the scale of the Indian population and the diversity here.

Who is an Indian?

- The Indian subcontinent has been the site of huge migrations.
- **Horizontal diversity** - Scientists associated with the project, recognise that the first migrations were from Africa.
- Later too, there were periodic migrations by various populations, making this a special case of almost all races and types intermingling genetically. This can be seen as “horizontal diversity”.
- **Vertical diversity** - Later, there has been endogamy or inter-marriage practised among distinct groups resulting in some traits inherited by just some groups. This can be seen as “vertical diversity”.
- Studying and understanding both diversities would provide the bedrock of personalised healthcare for a very large group of persons on the planet.

What are the challenges involved?

- **Medical Ethics** - In a project that aims only to create a database of genetic information, gene modification is not among the stated objectives.
- It is important to note, however, that this has been a very fraught subject globally.
- The lure to “intervene” may be much more if this kind of knowledge is available, without one being fully aware of the attendant risks.
- **Data & storage** - After collection of the sample, anonymity of the data and questions of its possible use and misuse would need to be addressed.
- Keeping the data on a cloud is fraught with problems and would raise questions of ownership of the data.
- India is yet to pass a Data Privacy Bill with adequate safeguards.
- So, launching a Genome India Project before the privacy question is settled could give rise to another set of problems.
- **Social issues** - Scientific studies of genes and classifying them could reinforce stereotypes and allow for politics and history to acquire a racial twist.
- In India, a lot of politics is now on the lines of who are indigenous people and who are not.
- So, this Project could add a genetic dimension to the cauldron.

12.2 Government Notification on RO System

Why in News?

The Environment Ministry has released a draft notification to regulate the use of membrane-based water purification systems.

What is the notification about?

- The notification primarily concerns the **manufacturers** of Reverse Osmosis (RO) water filters.
- It also effectively bars domestic **users** from installing RO systems.
- It mainly deals with rules for integration of systems that inform consumers about total dissolved solids (TDS) levels.

- This is envisaged both before water enters filtration systems and after it has been filtered.
- The aim is also to ensure that after 2022, no more than 25% of water being treated is wasted, and for residential complexes to reuse the residual wastewater for other activities, including gardening.

Why this notification was made?

- There was a legal dispute before the National Green Tribunal.
- It banned RO water filter use in Delhi as the purification process wastes water.
- This legal dispute is the reason why this notification was culminated.
- The association of water filter manufacturers challenged this order and this lawsuit has led to this pan-India notification which intent to **conserve water and cut waste**.

How does RO work?

- In RO, the total dissolved solids (TDS) - a major determinant of water quality - in water are reduced to meet potable water standards.
- (TDS comprise inorganic salts like calcium, magnesium, etc and some small amounts of organic matter that are dissolved in water.)
- Home filters waste nearly 80% of the water during treatment.
- The resort to restrict home filters may cause consumer to worry but it is unlikely that they will be taken to task for using such water filters.
- For one, the notification implies, these filters are prohibited only if the home gets water supply that conforms to Bureau of Indian Standards (BIS) for Drinking Water.
- Although several State and city water boards claim BIS standards, the water at homes falls short of the test parameters.

What does the BIS and NITI Aayog say?

- **BIS** - In 2019, the BIS ranked several cities on official water supply quality.
- In the 28 test parameters, Delhi failed 19, Chennai 9, and Kolkata 10, and only Mumbai met all the standards.
- The BIS norms are voluntary for public agencies that supply piped water but are mandatory for bottled water producers.
- Moreover, most of the country does not have the luxury of piped water.
- **CWMI** - The Composite Water Management Index of NITI Aayog says that 70% of water supply is contaminated.
- Thus, the case for restricting people's choices on the means they employ to ensure potable water is weak.

How the notification should be implemented?

- When implemented, the primary aim of the notification should be to persuade authorities to upgrade and supply BIS-standard water at the consumer's end.
- This should be done without additional costs, particularly on millions who now lack access to protected supply.

12.3 COVID-19 Disease

What is the issue?

- The COVID-19 is a disease caused by the spread of 2019-nCoV (2019 novel Corona Virus).
- Originating in China, it has spread to other parts of the world which is a cause for concern.

What is a Coronavirus?

- Coronaviruses are a class of viruses so named because their electron microscope image resembles the corona of the sun.

- They are usually found in animals, but sometimes get transmitted to human beings possibly through the food chain.
- The symptoms can include fever, cough and shortness of breath.
- This happened during the 2003 outbreak of SARS (Severe Acute Respiratory Syndrome) coronavirus that claimed close to 800 lives.
- The current 2019 strain that had originated in China has been named as 2019 'novel' coronavirus (2019-nCoV) or SARS-CoV-2.

What is the current situation?

- The number of laboratory confirmed 2019-nCoV cases in Wuhan and other parts of mainland China has come down now.
- But, the number of countries/regions that have so far reported at least one confirmed case has also gone up recently.
- The cases were reported in Vietnam, Germany, South Korea, Iran, etc.
- Deaths were observed in 3 countries in the East Mediterranean region.
- In contrast, cases have been increasing only slowly in Hong Kong; Singapore has almost cut the transmission cycle.

What is the South Korean situation?

- South Korea has the most number of infections outside China.
- Beyond the high number of cases reported from South Korea, what is indeed alarming is the rate of viral spread.
- Many of the cases in the country are linked to a religious cult group.
- There is a difficulty in tracing the contacts of cult members, as they prefer not to disclose their link to the church.
- This has made it difficult for South Korea in containing the spread.
- The spread has been equally alarming in Iran as in South Korea.
- The number of those infected in Italy is more than double that of Iran.

What is the cause for concern?

- Generally, the cases were reported in cruise ships, jails and large clusters seen in churches in South Korea and Singapore.
- From cases observed, it becomes apparent that **mass gatherings in enclosed spaces** are an ideal ground for the virus to spread.
- This raises the question whether shutting down many Chinese cities, thus locking both healthy and infected people together, had provided a fertile ground for the virus to spread.

13. ENVIRONMENT

13.1 Importing African Cheetahs

Why in News?

The Supreme Court (SC) has recently given a green signal to introduction of African Cheetahs in a suitable area in India.

What is the story behind?

- This signal has revived a decade-long debate over the controversial plan first floated in 2009 and shot down by the SC in 2013.
- Cheetahs are the only large carnivore to have gone extinct in India.

- In 2009, the then Environment Minister Jairam Ramesh cleared a proposal to import a few cheetahs back in the Indian wild.
- At a 2009 meeting, the Namibia-based Cheetah Conservation Fund offered to help bring in African cheetahs in stages over the next decade, possibly starting in early 2012.
- By 2010, India's cheetah plan was ready and the Centre approved Rs 50 crore for the programme in 2011.

What were the obstacles?

- The matter of import came up before the SC during a hearing on shifting few lions from Gujarat to Kuno-Palpur wildlife sanctuary, Madhya Pradesh.
- It was also one of the sites identified for releasing Cheetahs.
- In 2012, the SC stayed the cheetah plan and in 2013, it ordered translocation of lions while quashing the plan to introduce African cheetahs to Kuno-Palpur.
- The cheetah plan was revived in 2017 when the government sought the SC permission to explore possibilities to reintroduce cheetahs from Africa to suitable sites other than Kuno-Palpur.

Which place will be the first host?

- In April 2013, the SC had set a 6-month deadline for trans-locating lions from Gujarat to Madhya Pradesh.
- Instead, the 3rd National Wildlife Action Plan (2017-2031) released in 2017 said that the identification of an alternative home for the Asiatic lion will be completed during 2018-2021.
- Then, **Kuno** resurfaced as a potential cheetah site in the court.
- But, much of its grasslands have naturally progressed to woodlands, they are not suitable for the African import.
- In the sanctuary, there is barely any presence of the four-horned antelope, chinkara or blackbuck - potential prey for the cheetah.
- **Nauradehi** in Madhya Pradesh will be the host to the first batch of imported animals, as other sites were not feasible.

What is the argument against this host place?

- Wolves are the keystone species in Nauradehi and would have to compete with cheetahs.
- The majestic GIB is a potential prey for the cheetah.
- Putting the cheetah in with the bustard cannot be contemplated, because of the threat to this most gravely endangered bird.
- The project excluded Jaisalmer's Desert National Park, a potential host.
- Yet, it recommended erstwhile GIB habitats for the cheetah, in effect denying the bird any chance of habitat recovery.
- There is a lopsided focus on flying in an exotic species as a replacement for what was long gone, at the cost of undermining the future of an indigenous species that is still around.
- This is one of the reasons why the SC scrapped this plan in 2013.

What could be done?

- The GIB is not the only species staring down the barrel.
- The government has identified 20 others species that need immediate help to survive and it should work on protecting them.
- A three-member expert panel will examine the issues for the government to reach a considered decision on the importing issue.
- Meanwhile, as the policy dash for the fastest land animal is being cheered, the lions are running out of time.
- They also need to be given importance.



13.2 NYU Study on Antarctic Glacier

Why in News?

The New York University (NYU) study has pinned the cause of the melting of the Thwaites Glacier of Antarctica.

Why is the glacier important?

- Thwaites or Doomsday Glacier is 120 km wide glacier at its broadest, fast-moving and melting fast over the years.
- Because of its size (1.9 lakh sq.km.), it contains enough water to raise the world sea level by more than half a metre.
- The amount of ice flowing out of this glacier has nearly doubled over the past three decades.
- Its melting contributes 4% to global sea level rise each year, which has been a cause of alarm for scientists.
- It is estimated that it would collapse into the sea in 200-900 years.
- Thwaites is important for Antarctica as it slows the ice behind it from freely flowing into the ocean.
- A 2019 study had discovered a fast-growing cavity in the glacier.

What has the new study found?

- In 2020, researchers from NYU conducted a study that detected warm water at a vital point below the glacier.
- Warm waters in this part of the world, as remote as they may seem, should serve as a warning about the potential dire changes to the planet brought about by climate change.
- The study reported water at just two degrees above freezing point at Thwaites's "grounding zone" or "grounding line".
- This NYU study was funded by the International Thwaites Glacier Collaboration which has been studying the glacier since 2018.

Why is that significant?

- **Grounding line** is the place below a glacier at which the ice transitions between resting fully on bedrock and floating on ocean as an ice shelf.
- The location of the line is a pointer to the rate of retreat of a glacier.
- When glaciers melt and lose weight, they float off the land where they used to be situated.
- When this happens, the grounding line retreats.
- That exposes more of a glacier's underside to seawater, increasing the likelihood it will melt faster.
- This results in the glacier speeding up, stretching out, and thinning, causing the grounding line to retreat ever further.

How was the warming water detected?

- Scientists dug a 600 m access hole and deployed an ocean-sensing device called Icefin to measure the waters moving below the glacier's surface.
- Such warm water along a section of Thwaites grounding zone where the glacier is melting suggests that it may be undergoing an unstoppable retreat that has huge implications for global sea-level rise.

13.3 India's Antarctic Expedition

Why in News?

The South African vessel SA Agulhas set off on a two-month Indian Scientific Expedition to the Antarctic Ocean 2020.

What is to be known about this expedition?

- This is the 11th expedition of an Indian mission to the Southern Ocean, or Antarctic Ocean.
- On board the vessel is 34 scientific staff from India, which is an 18-institution team led by Dr Anoop Mahajan.
- The first mission took place between January and March 2004.

What is the objective?

- **Objective**- The mission mainly aims to understand the influence of the Southern Ocean across eco-system and atmospheric changes; and how it affects the tropical climate and weather conditions.
- **The cycle** - The carbon dioxide emitted into the atmosphere goes to the Antarctic and polar regions, through atmospheric circulation.
- Since the temperature is very low there, these gases are absorbed and converted into dissolved inorganic or organic carbon.
- Through water masses and circulation, it is coming back to tropical regions. Since it is warmer in these areas, it re-enters the atmosphere.
- It is this cycle, which the mission will help understand better.
- **Sampling** - For this, the team is collecting air and water samples from around 60 stations along the cruise track.

What are six core projects?

- **Study hydrodynamics and biogeochemistry** of the Indian Ocean sector of the Southern Ocean; involves sampling seawater at different depths.
- This will help understand the formation of Antarctic bottom water.
- **Observations of trace gases** in the atmosphere, such as halogens and dimethyl sulphur from the ocean to the atmosphere.
- This will help improve the parameterizations that are used in global models.
- **Study of organisms** called coccolithophores that have existed in the oceans for several million years.
- Their concentrations in sediments will give a picture of past climate.
- **Investigate atmospheric aerosols** and their optical and radiative properties.
- Continuous measurements will quantify impact on Earth's climate.
- **Study the Southern Ocean's impact on Indian monsoons.**
- The sediment core taken from the bottom of the ocean will be looked for signs.
- **Dynamics of the food web** in the Southern Ocean.
- This is important for safeguarding catch and planning sustainable fishing.

What is the progress so far?

- The mission has extracted one of the largest sediment cores from the Southern Ocean measuring 3.4 metres.
- The changes that have occurred in the climate and the ocean over the years can be observed from the sediments collected.
- It is estimated that the sediments may date back to at least 30,000 years.
- When the samples collected are on shore, the first thing will be done is establishing the chronology using radio carbon dating.

13.4 India's Proposals at CMS

Why in News?

India has proposed inclusion of some species on Appendix-I of the UN Convention on the Conservation of Migratory Species of Wild Animals (CMS).

What were India's proposals?

- Those species that India wants to include are the Great Indian bustard, Asian elephant and Bengal florican.
- It was accepted by a committee at the 13th Conference of the Parties to CMS (CMS COP13) held in India for the first time.
- [Appendix-I lists species threatened with extinction.



- Appendix-II lists those species in need of global cooperation for favourable conservation status.]
- If listed on Appendix-I, it would facilitate trans-boundary conservation efforts of these species.

What does the Convention seek to do?

- CMS is a treaty functioning under the UN Environment Programme.
- It works for protection and conservation of species that migrate across frontiers and are facing threats of extinction or require urgent attention.
- It aims to bring together different countries that are part of range of a given species.
- It will also facilitate coherent conservation and protection regimes in a group of countries.

Why do migratory species need special attention for conservation?

- With a change in season, many species move from one country to another in search of food and shelter, and for breeding.
- However, wildlife laws and protection regimes for these species can be different in each country.
- This makes them vulnerable to taking, hunting, poisoning etc.
- Many migratory species are threatened with extinction due to habitat degradation, barriers in their migration routes, and other pressures.
- Therefore, these species need special attention by all countries that are part of their range.

How does listing on a CMS Appendix help a species?

- Listing generally leads to concerted actions in different national jurisdictions in which a species ranges.
- Actions may include cooperation among range countries, harmonization in policies etc through regional agreements.
- CMS has **working groups** specializing in various fauna families.
- It also has a **Scientific Council** that advises research-based solutions for conservation.
- Many countries started shifting towards renewable energy by building infrastructure like wind turbines, solar parks; these pose risks to wildlife.
- CMS set up in 2014 an **Energy Task Force** that advises contracting parties on how to keep their energy projects wildlife-friendly.

So, what changes for the species in India's proposals?

- If the plenary eventually adopts these proposals and the listing goes through, a formal regional cooperation among range countries would become possible.
- Once the listing is done, contracting parties within the range of a species are obliged to cooperate in trans-border conservation efforts.
- Bangladesh welcomed the proposals on the elephant and the florican.
- However, Pakistan did not express any views on the proposal on the great Indian bustard.
- Conservation efforts would also gain from the international expertise of the CMS family.
- It could increase pressure on Pakistan for preventing alleged hunting of the great Indian bustard.

What else is on the agenda of the conference?

- Besides the three species, proposals have been moved for including **seven other species** for listing on CMS Appendices.
- COP13 also discussed marine noise pollution, plastic pollution, light pollution, insect decline etc.
- India has invited the COP13 to adopt the '**Gandhinagar Declaration**'.
- This declaration will urge the world community to strive for ensuring ecological connectivity, especially for sustainable management and conservation of migratory species.



- India has proposed that once adopted, CMS forward this declaration to the 15th meeting of UN Convention on Biological Diversity conference in China in October this year.
- This will prepare post-2020 global bio-diversity framework.

13.5 The State of India's Birds 2020

Why in News?

The State of India's Birds 2020 (SoIB), a new scientific report on bird species was released recently.

What is the significance of this report?

- It is the **first such assessment** of long-term trend, current trend, distribution range size and overall conservation status of 867 birds.
 - a) Adequate data on how birds fared over a period of over 25 years (long-term trend) are available only for 261 species.
 - b) Current annual trends are calculated over a five-year period.
- This report jointly released by **10 organisations** is based on the observations contributed by the birdwatchers on eBird platform.

What are some findings?

- This assessment raises the alarm that several birds face a growing threat from loss of habitat due to human activity, widespread presence of toxins, hunting and trapping for the pet trade.
- It warned that diminishing population sizes of many birds because of one factor brings them closer to extinction because of the accelerated effects of others.
- For every bird species that was found to be increasing in numbers over the long term, 11 have suffered losses, some catastrophically.
- Of 101 species categorised as being of **High Conservation Concern**, endemics such as the Rufous-fronted Prinia, Nilgiri Pipit and Indian vulture were confirmed as suffering current decline.
- All these species except 13 had a restricted or highly restricted range, indicating greater vulnerability to man-made threats.

On what basis, the health of the avifauna is looked on?

- The health of avifauna is looked at based on scientific groupings such as raptors (birds of prey), habitat, diet, migratory status and endemism (exclusively found in an area).
- The analysis concludes that **raptors overall are in decline**, with some 'open country' species such as the eagle suffering the most.
- Migratory shorebirds, along with gulls and terns, seem to have declined the most among water birds.
- Within India, the losses suffered by resident water birds, particularly in the past five years, calls for detailed investigation, it adds.
- From a **dietary viewpoint**,
 1. Meat-eater birds' populations have fallen by half,
 2. Birds depend on insects exclusively have also suffered over the long term.
 3. There has been some stabilisation for omnivores, seed and fruit eaters in recent years.
- **Habitat impacts** have decimated 'specialist' birds, which need specific environmental conditions to survive, particularly those dependent on forests.
- This is followed by declines in numbers of grassland, scrubland and wetland species calling for urgent investigation into the causes.

What are some suggestions in the report?

- Forward-looking actions suggested by the report include an **update to the IUCN Red List** of endangered species using the SoIB.

- There should be a **collaborative research** by scientists and citizens aided by policy with special emphasis on removing gaps in data.
- An urgent **emphasis on habitats** of species of high concern, notably grasslands, scrublands, wetlands and the Western Ghats.

What is the way forward?

- Resolute steps to protect forests and other habitats will confer multiple benefits, protecting other myriad species too.
- It is essential to revive the Great Indian Bustard, now pushed to precariously low numbers.
- Coursers and floricans need help with their delicate habitat.
- Bird diversity in India must be protected to improve the health of forests, wetlands, open country habitat and high mountains.

13.6 Study on Eastern Ghats

Why in News?

University of Hyderabad has studied historical maps and satellite images of Eastern Ghats from 1920 to 2015 to understand the changes in land use and land cover.

Why Eastern Ghats is important?

- The Eastern Ghats is spread across Odisha, Andhra Pradesh, Karnataka and Tamil Nadu.
- It plays important role in modulating climate, fostering biodiversity, providing sustenance and storing energy in trees.
- They play a significant role in the monsoon break of both North-East and South-West Monsoon.
- Many animals, including tigers and elephants, 2600 plant species and some 400 bird species are found in these discontinuous forests.
- New research findings arguing that the Ghats face a serious threat from climate change, and temperature variations are a cause for worry.
- Another study shows that it has lost almost 16% of its forest area over a span of 100 years.

What does the study reveal?

- **Forest cover** - The forest cover was 43.4% of the total geographical area in 1920 and has reduced drastically to 27.5% in 2015.
- **Forest area** - Over the years, 8% forest area was converted into agricultural fields, while 4% converted into scrub or grassland.
- They also found that the number of patches of land had increased indicating fragmentation.
- Eastern Ghats being home to many plant species, this fragmentation and destruction can pose a serious threat to the endemic plants.

What does the study reveal about the threats to species?

- The sampling points are found across the four States where the plants are monitored regularly.
- The study has found that there is fragmentation in areas where several rare, endangered, threatened and endemic species are found.
- It has also found that the best suitable habitats for the plant species have decreased in the Eastern Ghats.
- While agriculture was the main reason for deforestation during the early years, post 1975, mining and other developmental activities such as the construction of dams, roads were the culprits.

What is the international commitment?

- India is committed to the Paris Agreement on Climate Change.
- Under this agreement, it should create an additional carbon sink of 2.5 to 3 billion tonnes through enhanced forest and tree cover.



- Yet, forest protection policies have often failed dismally.
- Schemes for restoration of forest peripheries through indigenous plant and tree species that match the national commitments could be done.
- These schemes could qualify for international climate finance and must be pursued.

What could be done?

- Relieving the pressure on forests can be done through policies that reduce extraction of scarce resources and incentivise settled agriculture.
- Decisive steps need to be taken for mitigating carbon emissions.
- Improving tree cover will confer benefits like monsoon modulation, improved air quality and wider spaces for biodiversity to persist.
- There are many tribal communities in this region and the government needs fund more studies and monitoring programmes in this region.

14. INTERNAL SECURITY

14.1 Envoys to Visit J&K Again

Why in News?

The Indian Government has decided to take a second batch of foreign envoys to visit Jammu and Kashmir (J&K).

Why this decision is significant?

- In January 2020, 15 foreign diplomats, including US Ambassador to India, were taken to Kashmir by Indian Government.
- The Ministry of External Affairs stated that these tours will become a regular feature pointing to a belief that these visits have been productive.
- The government has been under considerable international pressure to lift restrictions in the former State of J&K.
- But still, it has managed to arrange these visits without any incident.
- The delegations have been taken to meet with local groups, and shown a glimpse of 'normalcy' in the Kashmir Valley.

What was the result of the previous visits?

- After these tours, no envoy has come forward with any negative account.
- This indicates that at least for the moment, the government's narrative has prevailed. The visits have also smoothed other diplomatic exchanges.
- The U.S. Ambassador's trip in the first batch to J&K paved the way for the upcoming visit of their President.

How the previous visit was timed?

- The latest visit by European Ambassadors was timed just before Indian Foreign Minister travel to Brussels to prepare for Prime Minister Narendra Modi's trip for the EU-India summit in March 2020.
- However, the government must recognise that these gains in the present are superficial in the absence of change in Kashmir's situation.

What is concern with the meeting?

- It would not have escaped anyone's attention that,
 1. These tours are tightly controlled, and
 2. The people meeting the foreign guests are handpicked by the government.
- European delegates who accepted India's invitation on this trip had earlier opted out in order to request freer access and meetings with leaders in detention.



- But the government refused to relent to this request.
- The chimera of 'normalcy' seems patently fragile.

What should be the priority?

- The truth is managing India's image is important. But the government's primary responsibilities still lie within its borders.
- These responsibilities may include the responsibilities,
 1. To the people of J&K, who have yet to see a return to normalcy;
 2. To those detained in and outside J&K; and
 3. To the people of India as a whole, who are yet to see a credible path to the peace and prosperity that was promised when the momentous decision on Article 370 was announced last August.
- It is their legitimate expectations and not those of the international community that must be a priority for the government.

PRELIM BITS

15. HISTORY AND ART & CULTURE

Pujya Thakkar Bapa

- Pujya Thakkar Bapa, is a social worker of the Servants of India Society.
- Being a close associate of Mahatma Gandhi inspired him to work for removal of deep-rooted poverty of tribals while giving service to untouchables.
- The national level voluntary organization Bhratiya Adim Jati Seval Sangh was constituted by Pujya Thakkar Bapa.
- In formulation of the Sangh, he got active participation of other eminent national level social workers and leaders.
- The first President of the Sangh was Rajendra Prasad, the first President of India.

Kota Rani

- Kota Rani is a medieval queen of Kashmir, the last ruler of the Hindu Lohara dynasty that ruled Kashmir.
- Kota Rani was the daughter of Ramachandra, the commander-in-chief of Suhadeva, the king of Lohara dynasty in Kashmir.
- She was regent during the minority of her son, and ruled as monarch between 1300- 1339.
- Shah Mir, who became the first Muslim ruler of Kashmir, deposed her.
- She was very intelligent and a great thinker. She saved the city of Srinagar from frequent floods by getting a canal constructed, named after her and called "Kute Kol".
- This canal gets water from Jhelum River at the entry point of city and again merges with Jhelum River beyond the city limits.

Dara Shikoh

- Dara Shikoh was a prince of Mughal Empire (1615-59), he was the eldest son of Shah Jahan.
- Dara Shikoh is described as a "liberal Muslim" who tried to find commonalities between Hindu and Islamic traditions.
- He translated into Persian the Bhagavad Gita as well as 52 Upanishads.
- Dara Shikoh realised the greatness of the Upanishads and translated them, which were earlier known only to a few upper caste Hindus.

- Dara Shikoh was killed after losing the war of succession against his brother Aurangzeb.
- He is believed to be buried somewhere in the Humayun's Tomb complex in Delhi, one of around 140 graves of the Mughal clan.
- The Ministry of Culture recently set up a seven-member panel of the Archaeological Survey of India (ASI) to locate the grave of the Mughal prince Dara Shikoh.
- However, there no proper evidence on location of Dara Shikoh's grave, since most graves in the Humayun tomb complex have no names.

State of Rampur

- The state of Rampur was founded by Nawab Ali Muhammad Khan, the adopted son of Sardar Daud Khan, the chief of the Rohillas in Northern India.
- The Rohillas were Afghans who entered India in the 18th century as the Mughal Empire was in decline, and took control of Rohilkhand, at the time known as Katehr.
- Rampur, under Nawab Raza Ali, was the first kingdom to accede to India in 1949, becoming the only Muslim-majority district in Uttar Pradesh.
- Soon after accession, the Nawab handed over the official royal residence - the Rampur Qila or Fort, built in 1775, to the Indian government.
- The fort along with a several other properties such as the royal complex, which is now used as the district collectorate that houses the offices of the District and City Magistrates.
- In return, the Indian government bestowed two key rights to the Nawab such as he was granted full ownership of the properties, and guaranteed succession to the gaddi or rulership of the state based on customary law, which gave exclusive property rights to the eldest son.
- There are five royal properties left with the Rampur royals, now up for division between the different branches of the family.
- These include the summer residence, the Khas Bagh Kothi, the Benazir and Shahbad Kothis, the Sarhari Kunda, and the Rampur royals' railway station, built for the exclusive use of the royal family.
- The Rampur royals have played an important role in the socio-cultural history of the Ganga-Yamuna belt.
- They run the Amir Raza library in Rampur, once known as the official darbar of the Nawab, which is home to some 15,000 manuscripts in Arabic, Urdu, Persian and Turkish, as well as a seventh-century Quran.
- In the 19th century, the royals established courts of law and a standing army, and built irrigation works. In the 20th century, they set up sugar and textile mills.

Conservation Plan for Konark Temple

- The Union Government has decided to restore and preserve the nearly 800-year-old Konark Sun Temple, Odisha.
- Konark was built by King Narasimhadeva I (1238-1264AD) in the 13th century and is located in Eastern Odisha near the sacred city of Puri.
- King Narasimhadeva I was a famous ruler of the Ganga Dynasty and with his accession to the throne, the Ganga Dynasty reached its zenith.
- It is a UNESCO World Heritage Site (1984).
- Dedicated to the Sun God, Konark is the culmination of Odisha temple architecture, and one of the most outstanding monuments of religious architecture in the world.
- Its scale, refinement and conception represent the strength and stability of the **Ganga Dynasty** as well as the value systems of the historic milieu.
- The entire temple was designed in the shape of a colossal chariot with 7 horses and 24 wheels, carrying the sun god, Surya, across the heavens.
- 'Konarka', the place bears a name composed of two world elements : KONA meaning corner and ARKA meaning the Sun.

- The Sun god worshipped in Ark Kshetra is also called Konark.
- In 'Brahma Purana' the Sun God in Ark-kshetra has been described as Konaditya.
- Surya has been a popular deity in India since the Vedic period.

Kaka Hathrasi

- Kaka Hathrasi is counted among the foremost poets of 'haasya' (humour) and 'vyanga' (satire) in Hindi literature.
- Born Prabhulal Garg on September 18, 1906, he took the name 'Kaka Hathrasi' based on his hometown, Hathras in Uttar Pradesh, and on the popular character of a 'Kaka' (uncle) he had essayed in a play.
- His poetry looks at politics, social ills, the pomposity of the cultural elite, the everyday struggles of middle-class life with the same razor-sharp, but good-natured gaze.
- Hathrasi was honoured with the Padma Shri in 1985 for his contributions to Hindi literature.
- Apart from humour, he wrote on classical dance and music under the pen name 'Vasant'. Kaka Hathrasi was also an accomplished painter.
- He founded a whole new genre of humour-writing, which authors since then have tried to emulate.

Bangladesh Liberation War

- The Bangladesh Liberation War was a revolution and armed conflict sparked by the rise of the Bengali nationalist and self-determination movement in what was then East Pakistan during the 1971 Bangladesh genocide.
- It resulted in the independence of the People's Republic of Bangladesh.
- The war began after the Pakistani military junta based in West Pakistan launched Operation Searchlight against the people of East Pakistan on the night of 25 March 1971.
- It pursued the systematic elimination of nationalist Bengali civilians, students, intelligentsia, religious minorities and armed personnel.
- The junta annulled the results of the 1970 elections and arrested Prime minister-designate Sheikh Mujibur Rahman.
- The war ended on 16 December 1971 after West Pakistan surrendered.

The Battle of Çanakkale

- It was also known as the Gallipoli campaign or the Dardanelles campaign, is considered to be one of the bloodiest of World War I.
- During this battle the Ottoman army faced off against the Allied forces, leading to the slaughter of tens of thousands of soldiers on both sides.
- In March 1915, Winston Churchill, devised a plan to take control of the Dardanelles, the strategic strait connecting the Sea of Marmara to the Aegean Sea and the Mediterranean Sea.
- And thus reach Constantinople (today's Istanbul) at the mouth of the Bosphorus.
- By taking Constantinople, the Allies hoped to break the Turks, who had recently entered the war on the side of the Germany.
- The Allies carried out heavy naval bombardment of Turkish forts along the shores of the Dardanelles, and when that failed, followed up with what was the biggest amphibious landing in military history at the time.
- The battle resulted in a demotion for Churchill and the emergence on the Turkish side of the young military hero, Mustafa Kemal Atatürk.



International Mother Language Day

- February 21 was International Mother Language Day.
- It has been observed since 1999 to promote “linguistic and cultural diversity and multilingualism”.
- UNESCO declared International Mother Language Day in 1999, to commemorate a 1952 protest against West Pakistan’s imposition of Urdu as the official language of East Pakistan (present-day Bangladesh).
- Globally, English remains the most widely spoken language with 1.13 billion speakers in 2019, followed by Mandarin with 1.17
- Hindi is third with 615 million speakers while Bengali is seventh with 265 million.
- In India, Hindi is the most spoken language with over 528 million speakers in 2011, as per the Census.
- Bengali had 97.2 million speakers in 2011, followed by Marathi (83 million), while other languages with over 50 million speakers are Telugu (81 million), Tamil (69 million), Gujarati (55.5 million) and Urdu (50.8 million).
- Percentage trends from 1991 to 2011 underline the growth of the most widely spoken language, Hindi, which was spoken by 39.29% of the Indian population in 1991, and whose share grew to 43.63% in 2011.
- For other languages in India’s top 12, the 2011 percentage share has fallen when compared to that in 1991.
- Of the world’s 6,000 languages, 43% are estimated as endangered, according to the UN.
- On the other hand, just 10 languages account for as many as 4.8 billion speakers over 60% of the world population.

Surajkund Mela

- Surajkund is an ancient reservoir of the 10th century located on Southern Delhi Ridge of Aravalli range in Faridabad city of Haryana state.
- Surajkund is an artificial Kund ("lake" or reservoir) built in the backdrop of the Aravalli hills with an amphitheater shaped embankment constructed in semicircular form.
- king Surajpal of Tomar dynasty in the 10th century built by the Surajkund.
- Tomar, a younger son of Anangpal Tomar - the ruler of Delhi, was a sun worshipper and he had therefore built a Sun temple on its western bank.
- It is an important biodiversity area within the Northern Aravalli leopard wildlife corridor stretching from Sariska Tiger Reserve to Delhi.
- Surajkund is known for its annual fair "Surajkund International Craft Mela".
- The Surajkund International Crafts Mela is being organized since 1987 to display the richness and diversity of handicrafts, handlooms and cultural heritage of India.

Herath Festival

- Hindu community in Jammu and Kashmir celebrated most important festival Sivaratri, locally called ‘Herath’.
- It is first such festival since J&K was reduced to a Union Territory (UT) last year.
- Walnuts and fish dishes are central to the festival. In fact, the weather gods also kept their tryst with the festival.
- Several temples, including the traditional temples located in the Kashmir, like the Shri Ganesh temple, the Purshyar Mandir, the Durgeshwari temple etc. saw local Pandits performing important rituals.
- The fact is that at the end of the religious ceremonies, a day is observed as ‘Salaam’, which entailed celebrations with the Muslim brethren in Kashmir.
- During such festivals shops run by Muslims provides paraphernalia for puja.
- Temporary stalls by Muslim vendors will sell local fish and Trout, which is preferred by the pundits during the occasion.



Kala Kumbh

- It is a Handicrafts Exhibitions for promotion of Geographical Indication (GI) Crafts and heritage of India organized by Ministry of Textiles.
- It is a thematic Exhibition in various parts of the country through the Office of Development Commissioner (Handicrafts).
- The exhibitions are planned in various major cities like Bengaluru, Mumbai, Kolkata and Chennai.
- The exhibitions sponsored by Export Promotion Council for Handicrafts (EPCH).
- The GI tag is used on handicrafts which correspond to a specific geographical location or origin (e.g., a town, region, or country).
- As on August 2019, 178 GI handicraft products were registered from all over India.
- Few of the exhibits are as follows - Mysore rosewood inlay, Channapatna lacquerware, Dharwad kasutiembroidery, Kolhapur chappal, Bidriware, Molakalmur handblock printing, Ananthapur leather puppet, Thrissur screwpine, Vishakapatna lacquerware, Sandur lambani embroidery, Jodhpur terracotta etc

Matribhasha Diwas

- The Matribhasha Diwas falls on 21st February was celebrated by Ministry of Human Resource Development across the country.
- The theme of the programme is 'Celebrating our Multilingual Heritage' reflecting the spirit of Ek Bharat Shreshth Bharat.
- MHRD along with educational institutions and language institutions is celebrating the Matribhasha Diwas since 2017.
- Under the even educational institutions will organize activities like Elocution, Debating, Singing, Essay writing competitions, painting Competitions, Music and dramatic performances, Exhibitions, Online resources and activities as well as events exploring the cognitive, economic, social and cultural activities of multilingual society,
- Exhibitions depicting linguistic and diverse wealth of India in at least two languages and also more.
- Matribhasha Diwas coincides with International Mother Language Day, which will be celebrated to promote the use of mother tongues

16. GEOGRAPHY

Midnight Zone

- A team of scientists is preparing to dive deep into the depths of the Indian Ocean into a "Midnight Zone" where light barely reaches but life still thrives.
- The five-week expedition is targeting seamounts — vast underwater mountains that rise thousands of meters from the sea floor.
- To explore such inhospitable depths scientists will board one of the world's most advanced submersibles, called "Limiting Factor".
- Last August, the "Limiting Factor" completed the Five Deeps Expedition, diving to the deepest point in each of the world's five oceans.
- The deepest was almost 11,000 meters (36,000 feet) down, deeper than Mount Everest is tall.

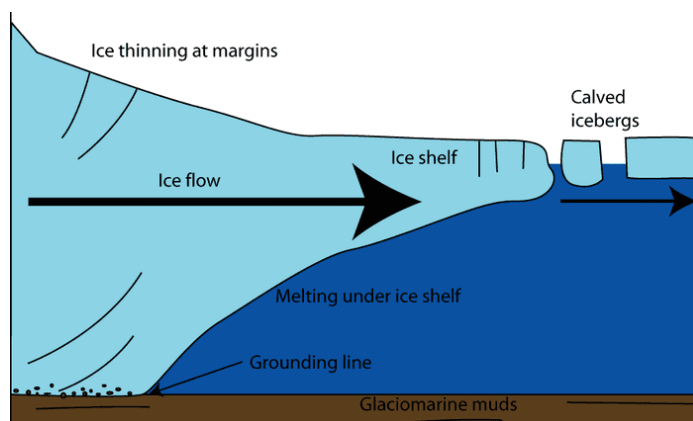
Ciara Strom

- It is a major storm hit northern Europe, disrupting travel and public events in the region.
- The storm, named 'Ciara' in the UK, is expected to hit Ireland, France, Belgium, the Netherlands, Switzerland, and Germany.

- In Germany, it is being referred to as 'Sabine'.
- The storm has two names because there isn't yet a pan-European system in place for labeling weather systems.

Thwaites Glacier

- Thwaites Glacier also known as Doomsday Glacier, it is 120 km wide, fast-moving glacier located in Antarctica.
- Because of its size (1.9 lakh square km), it contains enough water to raise the world sea level by more than half a metre.
- Its melting already contributes 4% to global sea-level rise each year. It is estimated that it would collapse into the sea in 200-900 years.
- Studies have found the amount of ice flowing out of it has nearly doubled over the past 30 years.
- It is important for Antarctica as it slows the ice behind it from freely flowing into the ocean.
- Recently, a new study has detected the presence of warm water at a vital point beneath the Thwaites glacier as the cause of its melting.
- The study has observed that the temperature of the water at the grounding zone or grounding line of the glacier is two degrees higher than the freezing point of the water.
- The grounding line is the place below a glacier at which the ice transitions between resting fully on bedrock and floating on the ocean as an ice shelf.



Jebel Ali Gas Field

- United Arab Emirates (UAE) had discovered a new natural gas field with 80 trillion standard cubic feet (tscf) of shallow gas resources.
- The reservoir, named 'Jebel Ali', is located between the emirates of Dubai and Abu Dhabi, which along with five other emirates form the UAE.
- The gas field discovery, reportedly the largest in the world since 2005, holds the potential of helping UAE's gas self-sufficiency, reducing its reliance on neighboring Qatar for the fuel.
- At 80 tscf, the new reservoir would now be ranked the fourth largest by size in the Middle East, behind the North Field in Qatar, South Pars in Iran, and the Bab field in Abu Dhabi.
- According to officials, it spans around 5,000 square kilometres.

Port at Vadhavan

- Union Cabinet has given its 'in-principle' approval for setting up a Major Port at Vadhavan, Maharashtra.
- Vadhavan port will be developed on "land lord model".
- A Special Purpose Vehicle (SPV) will be formed with Jawaharlal Nehru Port Trust (JNPT) as the lead partner with equity participation equal to or more than 50% to implement the project.
- The SPV will develop the port infrastructure including reclamation, construction of breakwater, besides establishing connectivity to the hinterland.
- All the business activities would be undertaken under PPP mode by private developers.
- With the development of Vadhavan port, India will break into the countries with top 10 container ports in the world.



Buddah Nullah

- Buddah Nullah is a seasonal tributary of Sutlej in Ludhiana, which originates at village Koom Kalan of Ludhiana.
- It runs for 47 kms till Walipur Kalan where it merges with River Sutlej, this stream carrying freshwater was earlier known as 'Buddha Dariya'.
- Over the years, the name got changed to Buddha Nullah (drain) owing to the sewage, industrial and domestic waste that is dumped into it in the 14-km stretch within Ludhiana city municipal corporation limits.
- The pollution in the Buddah Nullah is a major threat to public health and environment and the main sources of pollution in the nullah are direct flow of pollutants by industries and dairies.
- Recently Punjab Cabinet approved ₹650 crore in the first phase for rejuvenation of Buddah Nullah.

India's Polar Stations

- India presently has two research stations at Antarctica namely 'Maitri' and 'Bharati'.
- At both the stations, research and investigations are undertaken to understand the Polar processes and phenomenon.
- Observations and studies are carried out in atmospheric, biological, geological, ecological sciences etc.
- Maitri station has been in operation since 1989.
- Indian Arctic station 'Himadri' is located at Ny Alesund, Spitsbergen Island, Norway and serves as a hub of Indian scientific investigations since 2008.
- In Antarctica scientific studies and investigations are undertaken on the continental part and contiguous shelf ice area.
- India's Polar research vessel is still under construction, National Centre for Polar & Ocean Research; Goa has taken up the task of building the vessel.

Wainganga

- Wainganga River is one of the key tributaries of the river Godavari.
- It rises in the Mahadeo Hills in the Seoni District of Madhya Pradesh and drains Madhya Pradesh and Maharashtra.
- The Wainganga after joining the Wardha River at Chaprala in Gadchiroli district (Maharashtra) is known as the Pranahita River.
- Wardha river originates in Satpura Range in Betul District, Madhya Pradesh.
- Penganga river is a major tributary of the Wardha river and rises in the Ajanta range.
- Pranahita river empties into the Godavari River at Kaleshwaram, Telangana.
- Pranahita river is the largest tributary of the Godavari river covering about 34% of its drainage basin.
- Gosekhurdh irrigation project is being constructed on the Wainganga River.

Godavari River

- It is India's second longest river after the Ganga. Its source is in Trimbakeshwar, Maharashtra.
- It flows east for 1,465 kilometres, draining the states of Maharashtra, Telangana, Andhra Pradesh, Chhattisgarh, Odisha, and Karnataka.
- Major Tributaries: Indravati, Pravara, Wardha, Wainganga, Kanhan, Purna, Pranhita, Sabari, Manjira, Bindusara River etc.
- The Kaleshwaram lift irrigation project is an under-construction multi-purpose irrigation project on the Godavari River in Kaleshwaram, Bhoopalpally, Telangana.
- The project starts at the confluence point of Pranahita River and Godavari River.



Scheduled Tribes in Karnataka

- Recently, the Lok Sabha passed the Constitution (Scheduled Tribes) Order (Second Amendment) Bill, 2019.
- It seeks to include the Parivara and the Taliwara communities in the Scheduled Tribes (ST) category to ensure they get a reservation and other benefits provided by the government.
- The Siddi tribes of Belagavi and Dharwad would also be included in the category apart from those living in the Uttar Kannada districts of Karnataka.
- The Bill was passed in the Rajya Sabha in 2019 and it will amend Part VI of the Constitution (Scheduled Tribes) Order, 1950, that specifies the tribal and tribal communities which are deemed to be Scheduled Tribes.

Parivara and Taliwara

- Most people from these communities live in Mysore, Chamrajanagara, Mandya and Tumkur districts.
- Majority of them employed as coolies, engaged in collecting firewood, husbandry and the cottage industry, thereby leading a life of lower status.
- The communities' life cycle rituals, language, lifestyle, the standard of living, physical features, socio-economic and educational status and their geographical isolation are similar to that of Beda, Nayaka and Valmiki which are already included in the ST category in the state of Karnataka.
- As per the government, Pariwara and Taliwara are socially, politically, economically and educationally backwards.

Siddi Tribe

- The Siddi community is also known by different synonyms such as Habshi and Badsha.
- It is believed that they are of African origin because they clearly show the Negroid racial strain in their physical features.
- Descendants of Bantu people of East Africa, Siddi ancestors were largely brought to India as slaves by Arabs as early as the 7th Century, followed by the Portuguese and the British later on.
- When slavery was abolished in the 18th and 19th centuries, Siddis fled into the country's thick jungles, fearing recapture and torture.
- At present, the Siddis are living on the western coast of Gujarat, Maharashtra and Karnataka states.
- In Karnataka, they mainly live in Dharwad, Belagavi and Uttar Kannada districts.
- In India, the Union government in 2003, classified Siddis under the list of Scheduled Tribes.
- They are included in the Centre's list of Particularly Vulnerable Tribal Groups.
- Previously they depended on hunting and gathering but at present, their main source of livelihood is labour and agriculture.

Asur Tribes

- Asur is among the nine Particularly Vulnerable Tribal Groups found in Jharkhand.
- Of the 32 different tribes recorded in the State, only four to five tribes, including Santhali, Ho and Kuruk, have recorded language scripts.
- As per the 2011 census, the tribe has a population of around 23,000 in Latehar and Gumla districts.
- In the community, 50% of population could barely speak in Asur language; they are not fluent in the language.
- The Asur language figures in the list of UNESCO Interactive Atlas of the World's Languages in Danger.
- Only 7,000 to 8,000 Asur tribals are left in the community who are well conversant in the language.
- With help from tribal rights activists, Asur Tribal Wisdom Centre, an organization involving Asur tribals, was established at Jobhipat village near Netarhat to protect the language and culture of Asur tribals.
- Using mobile radio, the Asur community has been spreading the popularity of the language within their geographical limits.



PVGTs

- In 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups.
- Characteristics of PVGT's
 1. PVTGs have declining or stagnant population,
 2. Low level of literacy,
 3. Pre-agricultural level of technology,
 4. Economically backward.
- Generally, inhabit remote localities having poor infrastructure and administrative support.
- While in 1993 an additional 23 groups were added to the category, making it a total of 75 PVTGs out of 705 Scheduled Tribes, spread over 18 states and one Union Territory (A&N Islands) in the country (2011 census).
- Among the 75 listed PVTG's the highest number are found in Odisha (13), followed by Andhra Pradesh (12).
- The Ministry of Tribal Affairs implements the Scheme of "Development of Particularly Vulnerable Tribal Groups (PVTGs)" exclusively for them.
- Under the scheme, Conservation-cum-Development (CCD)/Annual Plans are to be prepared by each State/UT for their PVTGs based on their need assessment, which are then appraised and approved by the Project Appraisal Committee of the Ministry.
- Priority is also assigned to PVTGs under the schemes of Special Central Assistance (SCA) to Tribal Sub-Scheme (TSS), Grants under Article 275(1) of the Constitution, Grants-in-aid to Voluntary Organizations working for the welfare of Schedule Tribes and Strengthening of Education among ST Girls in Low Literacy Districts.

Nagoba jatara

- Nagoba Jatara is an annual tribal festival held in, Telangana, India.
- It is the second biggest tribal carnival and celebrated by Mesaram clan of Gond tribes for 10-30 days.
- Tribal people from Maharashtra, Chhattisgarh, Orissa and Madhya Pradesh belonging to the Mesaram clan offer prayers at the festival.
- A ceremony of 'bheting' is integral part of the festival where the new brides are introduced to the clan god during first jatra after their marriage.
- During the end of the festival Adivasi will perform 'warrior' jumping, an exercise of jumping into the air wielding a thin bamboo stick like a sword.

17. POLITY

Elections to Rajya Sabha

- Election Commission recently announced biennial elections for 55 Rajya Sabha seats.
- The Constitution provides that the Rajya Sabha shall consist of 250 members, of which 12 members shall be nominated by the President from amongst persons having special knowledge or practical experience in respect of such matters as literature, science, art and social service; and not more than 238 representatives of the States and of the Union Territories.
- Elections to the Rajya Sabha are indirect and the Rajya Sabha is not subject to dissolution; one-third of its members retire every second year.
- According to Section 154 of the Representation of the People Act 1951, a member chosen to fill a casual vacancy will serve for the remainder of his predecessor's term of office.
- Members of a state's Legislative Assembly vote in the Rajya Sabha elections in what is called proportional representation with the single transferable vote (STV) system, Each MLA's vote is counted only once.



- Members representing Union Territories are chosen in such manner as Parliament may by law prescribe.

Doctrine of Severability

- It is a doctrine that protects the fundamental rights enshrined in the Constitution.
- It is mentioned in Article 13, according to which all laws that were enforced in India before the commencement of the Constitution, inconsistent with the provisions of fundamental rights shall to the extent of that inconsistency be void.
- This implies that only the parts of the statute that is inconsistent shall be deemed void and not the whole statute.
- Only those provisions, which are inconsistent with fundamental rights, shall be void.

Doctrine of Eclipse

- This doctrine states that any law that violates fundamental rights is not null or void ab initio, but is only non-enforceable, i.e., it is not dead but inactive.
- This implies that whenever that fundamental right (which was violated by the law) is struck down, the law becomes active again (is revived).
- Another point to note is that the doctrine of eclipse applies only to pre-constitutional laws (laws that were enacted before the Constitution came into force) and not to post-constitutional laws.
- This means that any post-constitutional law which is violative of a fundamental right is void ab initio.

Appointment of District Judge

- The district judge is also called "Metropolitan session judge" when he is presiding over a district court in a city which is designated "Metropolitan area" by the State Government.
- The district court has appellate jurisdiction over all subordinate courts situated in the district on both civil and criminal matters.
- The district and sessions judge is often referred to as "district judge" when presiding over civil matters and "sessions judge" when presiding over criminal matters.
- Under Article 233 (1) Appointments of persons to be, and the posting and promotion of, district judges in any State shall be made by the Governor of the State in consultation with the High Court exercising jurisdiction in relation to such State.
- Under Article 233 (2) A person not already in the service of the Union or of the State shall only be eligible to be appointed a district judge if he has been for not less than seven years an advocate or a pleader and is recommended by the High Court for appointment
- The Constitution makers consciously wished that members of the Bar should be considered for appointment at all three levels, i.e. as District judges, High Courts and the Supreme Court.
- This was because counsel practising in the law courts have a direct link with the people who need their services; their views about the functioning of the courts, is a constant dynamic.
- SC recently ruled that the only opportunity to be District Judges is through promotion in accordance with the Rules framed under Article 234 and held that subordinate judicial officers cannot apply or compete for direct appointment as District Judge even if they have a previous experience of seven years as an advocate.
- SC judgement while interpreting direct appointment under Article 233, said it is only available to advocates or pleaders with seven years of legal practice.
- The Article expressly bars candidates in service of either the Union or the State.
- Thus by the new judgement "Members of judicial service having seven years experience of practice before they have joined the service or having combined experience of seven years as both a lawyer and judicial officer are not eligible to apply for direct recruitment as a District Judge,"



- The court held that prohibition on judicial officers staking a claim to District Judgeship through direct recruitment under Article 233(2) is not ultra vires nor a violation of their fundamental rights to equality and equal opportunities in public employment.
- The judgment also noted that judicial officers directly appointed under Article 233 cannot continue as District Judges.
- They would be reverted to their original posts and the respective High Courts would consider their promotion in accordance with the prevailing Rules in case they were superseded by their juniors.
- The court held that an advocate, to be eligible under Article 233, has to be continuing in practice for seven years as on the cut-off date and at the time of appointment as District Judge.

National Judicial Pay Commission

- The Second National Judicial Pay Commission has filed the main part of the Report in 4 volumes covering the subject of Pay, Pension and Allowances, in the Registry of the Supreme Court.
- The Commission has been constituted pursuant to the Order of the Supreme Court in All India Judges Association case and the Government of India, Ministry of Law & Justice.
- Former Judge of the Supreme Court is the Chairman, Former Judge of Kerala High Court is the Member and, District Judge of Delhi Higher Judicial Service is the Member-Secretary of the Commission.
- The Report recommends for a hike in Judges Salary.
- Recommendation has been made to discontinue the New Pension Scheme (NPS) which is being applied to those entering service during or after 2004.
- The old pension system, which is more beneficial, will be revived.
- The recommendations made by the Commission are applicable to the judicial officers throughout the country.
- Supreme Court will have to issue directions regarding the implementation of recommendations after hearing the stakeholders.

Cabinet Committee on Economic Affairs

- The Prime Minister constitutes Standing Committees of the Cabinet and sets out the specific functions assigned to them.
- He can add or reduce the number of committees.
- Economic Affairs Committee is a Standing committee chaired by Prime Minister (not by Finance Minister)
- The Cabinet Committee on Economic Affairs is supposed to review economic trends, problems and prospects “for evolving a consistent and integrated economic policy”, coordinate all activities requiring policy decisions at the highest level, deal with fixation of prices of agricultural produce and prices of essential commodities.
- It considers proposals for investment of more than Rs 1,000 crore, deal with industrial licensing policies and review rural development and the Public Distribution System.

Technology Group

- Cabinet has approved constitution of a 12-Member Technology Group with the Principal Scientific Adviser to Government of India as its Chair.
- This Group is mandated to render timely policy advice on
 1. Latest technologies.
 2. Mapping of technology and technology products.
 3. The commercialisation of dual use technologies developed in national laboratories and government R&D organisations.
 4. Developing an indigenisation road map for selected key technologies.
 5. Selection of appropriate R&D programs leading to technology development.

- The Technology Group intends to ensure that India has appropriate policies and strategies for effective exploitation of the latest technologies for economic growth and sustainable development of Indian Industry, in all sectors.

Law Commission of India

- The Law Commission of India is a non-statutory body constituted by the Government of India from time to time.
- The Law Commission shall, on a reference made to it by the Central Government or suo-motu, undertake research in law and review of existing laws in India for making reforms therein and enacting new legislations.
- It shall also undertake studies and research for bringing reforms in the justice delivery systems for elimination of delay in procedures, speedy disposal of cases, reduction in the cost of litigation etc.
- The Commission was originally constituted in 1955 and is re-constituted every three years.
- The tenure of twenty-first Law Commission of India was up to 31st August 2018.
- The various Law Commission have been able to make an important contribution towards the progressive development and codification of Law of the country.
- The Law Commission has so far submitted 277 reports.
- Union government recently gave its approval for the constitution of the 22nd Law Commission for a period of three years from the date of publication of its Order in the Official Gazette.
- It will consist of:
 1. A full-time Chairperson;
 2. Four full-time Members (including Member-Secretary)
 3. Secretary, Department of Legal Affairs as ex-officio Member;
 4. Secretary, Legislative Department as ex officio Member; and
 5. Not more than five part-time Members.
 6. The chairperson usually is a retired Supreme Court judge or a retired chief justice of a high court.
- The term of the previous commission had ended on August 31, 2018.

Uniform Civil Code

- It is a generic set of governing laws for every citizen without taking into consideration the religion.
- Article 44 of the Constitution says that there should be a Uniform Civil Code. According to this article, “The State shall endeavor to secure for the citizens a uniform civil code throughout the territory of India”.
- Since the Directive Principles are only guidelines, it is not mandatory to use them.
- Indian laws do follow a uniform code in most civil matters – Indian Contract Act, Civil Procedure Code, Sale of Goods Act, Transfer of Property Act, Partnership Act, Evidence Act etc.
- States, however, have made hundreds of amendments and therefore in certain matters, there is diversity even under these secular civil laws.
- As of now all Indian states do not follow a Uniform Civil Code, the Law Commission even concluded that a Uniform Civil Code is neither feasible nor desirable.

SC/ST Amendment Act, 2018

- The 2018 Supreme Court verdict had made a provision for anticipatory bail to offenders under Scheduled Castes & Scheduled Tribes (Prevention of Atrocities) Amendment Act.
- However, after strong protests against the dilution across the country, Union government removed this provision to bring the law back to its original form.
- Recently SC upheld the amendments, ruling that though the provision of anticipatory bail is not available under the law, courts can quash FIRs in exceptional circumstances.



- The court also ruled that preliminary enquiry is not a must in cases of atrocities against SCs/STs, and no prior approval of an appointing authority or senior police officers is required before filing FIRs.
- However, a caveat that anticipatory bail should be granted only in extraordinary situations where a denial of bail would mean miscarriage of justice.

Anticipatory Bail

- The provision of anticipatory bail under Section 438 was introduced when CrPC was amended in 1973.
- Section 438 is a procedural provision concerned with the personal liberty of each individual, who is entitled to the benefit of the presumption of innocence.
- As opposed to ordinary bail, which is granted to a person who is under arrest, in anticipatory bail, a person is directed to be released on bail even before arrest made.
- When any person has reason to believe that he may be arrested on an accusation of having committed a non-bailable offence, 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, he shall be released on bail.
- The provision empowers only the Sessions Court and High Court to grant anticipatory bail.
- The reason for enactment of Section 438 in the Code was parliamentary acceptance of the crucial underpinning of personal liberty in a free and democratic country.

Uniform Code of Pharmaceutical Marketing Practices (UCPMP)

- Department of Pharmaceuticals (DoP) has requested companies to abide by Uniform Code of Pharmaceutical Marketing Practices (UCPMP).
- It is a voluntary code issued by the Department Of Pharmaceuticals relating to marketing practices for Indian Pharmaceutical Companies and as well medical devices industry.
- At present, the UCPMP Code is applicable on Pharmaceutical Companies, Medical Representatives, Agents of Pharmaceutical Companies such as Distributors, Wholesalers, Retailers, and Pharmaceutical Manufacturer's Associations.
- No gifts, pecuniary advantages or benefits in kind may be supplied, offered or promised, to persons qualified to prescribe or supply drugs, by a pharmaceutical company or any of its agents.
- As regards travel facilities, the UCPMP Code prohibits extending travel facility inside the country or outside, including rail, air, ship, cruise tickets, paid vacations, etc., to HealthCare Professionals and their family members for vacation or for attending conference, seminars, workshops, CME programme etc. as a delegate.
- The Code also provides that free samples of drugs shall not be supplied to any person who is not qualified to prescribe such product.
- Meaning thereby that free samples can only be supplied to persons qualified to prescribe such product.
- It also prescribes additional conditions that are to be observed while providing samples.
- Further, as per the UCPMP Code, in order to appoint Medical Practitioners/HCPs as Affiliates there should be written contract, legitimate need for the services must be documented, and criteria for selecting affiliates must be directly related to the identified need.
- The UCPMP Code also provides that the number of affiliates retained must not be greater than the number reasonably necessary to achieve the identified need and that the compensation must be reasonable and reflect the fair market value of the services provided.

Public libraries Act

- The Public Library act is a legislation, which gives local administration powers to establish public libraries with the assistance from the state and the central governments.
- As of now, 19 states have enacted their own Public Libraries Act with Tamil Nadu (formerly Madras) being the first one to implement it way back in 1948.
- Kerala, Karnataka, Gujarat, Odisha and Haryana are among others that have enacted their own legislation.



- The Punjab Library Association is making efforts since 1948 to get a Punjab Public Library Act enacted.
- Public libraries Act mandates that 70 per cent financial assistance for opening a public library will come from Centre and the remaining is borne by the state government.
- This Act can thus help in opening more and more libraries, as has been done in South India where people have libraries even in their homes.
- It can inculcate reading habits among youngsters as well as adults.

18. GOVERNMENT INITIATIVES

Virtual Experience Museums

- The Ministry of Culture has developed three Virtual Experiential Museums.
- In 2016, the Ministry of Culture was given the task of establishing Virtual Museums in at least 50 locations.
- Subsequently, Ministry of Culture has developed three Virtual Experiential Museums
 1. Man Mahal at Varanasi,
 2. Ajanta Caves at National Museum, Delhi.
 3. Humayun Tomb in Delhi.
- The Ministry of Culture also proposes to set up a National Virtual Experiential Site Museum at Vadnagar, Gujarat.
- The Ministry of Tourism under its schemes of 'Swadesh Darshan' and 'Development of Iconic sites', has developed tourism infrastructure at various heritage destinations.
- Under both these schemes, the primary objective is to develop the identified destinations as benchmark tourist destinations in terms of comprehensive development of infrastructure & services.
- However, under both the above-mentioned schemes, interventions involving reconstruction of historic sites are not permissible.

Swachh Iconic Places (SIP)

- The 3rd Annual Review meeting on Swachh Iconic Places (SIP) was held today at Baidyanath Dham Deoghar, Jharkhand.
- The SIP is coordinated by the Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti under the Swachh Bharat Mission.
- Thirty Swachh Iconic Places have been selected across the country in three phases, and are implementing their action plans for improving the sanitation facilities and overall cleanliness, focusing on enhancing visitor's experience and convenience.
- Under SIP some of the key activities undertaken to improve swachhata in the temple are as follows
 1. Solid and Liquid Waste Management (SLWM),
 2. Beautification and Landscaping of premises and approach areas,
 3. Construction of sanitation,
 4. Safe drinking water facilities,
 5. Rooftop solar panels,
 6. Battery operated sweeping machines,
 7. Rejuvenation of water bodies,
 8. Ban on plastic use,
 9. Sewage Treatment Plants (STPs),
 10. Multi-level parking,

11. Illuminated boards,
12. Awareness campaigns

List of Swachh Iconic Places

Phase I Iconic sites	Phase II Iconic sites	Phase III Iconic sites
Ajmer Sharif Dargah	Gangotri	Sree Dharma Sastha Temple
CST Mumbai	Yamunotri	Mana Village, Uttarakhand
Golden Temple, Amritsar	Mahakaleshwar Temple, Ujjain	Vidur Kuti Temple, Uttar Pradesh
Kamakhya Temple, Assam	Char Minar, Hyderabad	Shri Sarveshwar Mahadev Temple
Maikarnika Ghat, Varanasi	Church and Convent of St. Francis of Assisi, Goa	Shri Nag Vasuki Temple
Meenakshi Temple, Madurai	Adi Shankaracharya's abode Kaladi in Ernakulam	Kanvashram, Uttar Pradesh
Shri Mata Vaishno Devi, Katra, J&K	Gomateshwar in Shravanbelgola	Ema Keithel, Manipur
Shree Jagannath Temple, Puri	Bajinath Dham, Devghar	Hazarduari Palace, West Bengal
The Taj Mahal, Agra	Gaya Tirth in Bihar	Pangong Tso
Tirupati Temple, Tirumala	Somnath Temple in Gujarat	Sri Raghvendra Swamy Mutt Mantralayam

Social and Infrastructure Development Fund

- Social and Infrastructure Development Fund (SIDF) was announced in 2008 to set apart a sum of Rs.500 crore (subsequently enhanced to Rs.586.20 crore in 2017) for North Eastern Region (NER).
- The fund will be especially used for Arunachal Pradesh and other border areas facing special problems that cannot be tackled through normal schemes.
- It is a one-time package that covers projects, prioritized by the State Governments as per their requirement, which, inter alia, include construction of new roads and bridges, re-establishment of new sub-stations/transmission lines, construction/upgradation of hospitals, establishment of schools, water supply projects etc.
- 37 projects have been approved against the funds available under SIDF.

Market Intelligence and Early Warning System

- Union Ministry of Food Processing has launched Market Intelligence and Early Warning System (MIEWS) Portal for Monitoring prices of TOP Crops (Tomato, Onion and Potato).
- MIEWS portal would help in planning and timely intervention for price stabilization and generating alerts
- The MIEWS Dashboard and Portal is a 'first-of-its-kind' platform for 'real time monitoring' of prices of tomato, onion and potato (TOP) and for simultaneously generating alerts for intervention under the terms of the Operation Greens (OG) scheme.



- The portal would disseminate all relevant information related to TOP crops such as Prices and Arrivals, Area, Yield and Production, Imports and Exports, Crop Calendars, Crop Agronomy, etc in an easy to use visual format.
- A dashboard that would indicate low price and high price alerts as well as price forecasts for 3 month forward.
- Prices and arrivals of TOP crops across the country including interactive charts and comparisons with previous seasons
- This portal is a novel initiative of MoFPI leveraging IT tools and furthering the goals of Digital India.

SPICE+

- Ministry of Corporate Affairs deployed a new Web Form christened 'SPICE+', replacing the existing SPICE form.
- The initiative is a part of India's effort to improve Ease of Doing Business (EODB).
- SPICE+ would offer 10 services by 3 Central Govt Ministries & Departments. (Ministry of Corporate Affairs, Ministry of Labour & Department of Revenue in the Ministry of Finance) and One State Govt.(Maharashtra), thereby saving as many procedures, time and cost for Starting a Business in India.
- It would be applicable for all new company incorporations.
- It features are as follows
 1. SPICE+ would be an integrated Web Form.
 2. SPICE+ would have two parts viz.: Part A-for Name reservation for new companies and Part B offering a bouquet of services.

Thirumathi kart App

- The National Institute of Technology (NIT), Trichy, Tamilnadu has developed Thirumathikart - a mobile app for SHG (Self Help Group) products.
- The application was developed in coordination with the Union Department of Science and Technology.
- The main objective of the app is to empower women and help them access market opportunities in a seamless manner.
- The platform will also enable Self Help Groups to showcase their products to a wider audience.

1000 Spring Initiatives

- Union Tribal Affairs Ministry launched an online portal 1000 Spring Initiatives.
- It is a GIS-based Spring Atlas with hydrological and chemical properties of the springs.
- Presently, data of more than 170 springs have been uploaded on the Spring Atlas.
- It aims at improving access to safe and adequate water for the tribal communities living in difficult and inaccessible part of rural areas in the country.
- It is an integrated solution around natural springs, It includes the following
 1. Provision of infrastructure for piped water supply for drinking.
 2. Provision of water for irrigation.
 3. Community-led total sanitation initiatives.
 4. Provision for water for backyard nutrition gardens, generating sustainable livelihood opportunities for the tribal people.
- Springs are natural sources of groundwater discharge and have been used extensively in the mountainous regions across the world, including India.
- However, in the central and eastern Indian belt with more than 75% tribal population, it remains largely unrecognized and under-utilized.



- The initiative will help in harnessing the potential of perennial springs' water to address natural scarcity of water in tribal areas.
- Under this initiative, more than 70 young tribal youths from the rural belt of three districts of Odisha namely, Kalahandi, Khandamal and Gajapati have been trained as barefoot hydro geologists by combining traditional and scientific knowledge for identification and mapping of springs, and undertaking rejuvenation and protection measures in their habitations.

Bharatiya Adim Jati Sevak Sangh

- Union Ministry of Tribal Affairs inaugurated All India Tribal Workers Meet organised by Bharatiya Adim Jati Sevak Sangh (BAJSS).
- Bharatiya Adim Jati Sevak Sangh works for the communities, primarily tribals and nomadic, semi-nomadic, and Vimukta Jati communities of India and weaker sections of the society.
- It promotes their social, cultural, educational, and economic development, and also to safeguard their Constitutional rights with a view to enable them to their legitimate share in the national life of the country as equal citizens.
- BAJSS is also maintaining a comprehensive national level Tribal Museum exhibiting tribal articles and tribal culture.

Unified Vehicle Registration Card

- Ministry of Road Transport and Highways (MoRTH) had issued the guidelines to bring uniformity in driving licenses and vehicle registration cards across the country in 2019.
- These cards are being issued in compliance with these guidelines.
- The new cards will have more exhaustive information printed on both the sides of the cards.
- It will also bear a unique number recognized across the country.
- The unified smart cards for driving license and vehicle registration will each have a QR code that will help in verifying authenticity of the data printed on the cards.
- The unified driving license card will also have information about the ability of the driver to drive in hilly and dangerous areas and an emergency contact number.
- Recently Madhya Pradesh became first state to launch unified vehicle registration card and second state to launch the unified driving license after Uttar Pradesh.

Apiary on Wheels

- The Ministry of Micro, Small and Medium Enterprises has flagged off 'Apiary on Wheels'.
- 'Apiary on Wheels' is a unique concept designed by the Khadi and Village Industries Commission (KVIC) for the easy upkeep and migration of Bee Boxes having live Bee colonies.
- It is a holistic approach to address the challenges faced by the beekeepers.
- It is designed so as to reduce the labour and cost of maintaining and up keeping Bee Boxes and live bee colonies across India.
- Apiary on Wheels is a platform, which can carry 20 Bee Boxes from one place to another without any difficulty.
- It is like an attachment, which can be easily connected with a Tractor or a Trolley and may be pulled to any suitable destination.
- The KVIC launched Honey Mission in 2017 and has been training beekeepers, distributing Bee Boxes and helping rural, educated but unemployed youth to earn extra income through beekeeping activities, at their doorstep.



SUTRA PIC

- Scientific Utilisation Through Research Augmentation - Prime Products from Indigenous Cows (SUTRA PIC) is led by Department of Science and Technology.
- It is a programme to research on 'indigenous' cows, funded by multiple scientific ministries.
- It has the Department of Biotechnology, the Council of Scientific and Industrial Research, the Ministry for AYUSH (Ayurveda, Unani, Siddha, Homoeopathy) among others and the Indian Council of Medical Research as partners.
- It has five themes such as
 1. Uniqueness of Indigenous Cows,
 2. Prime-products from Indigenous Cows for Medicine and Health,
 3. Prime-products from Indigenous Cows for Agricultural Applications,
 4. Prime-products from Indigenous Cows for Food and Nutrition,
 5. Prime-products from indigenous cows-based utility items.

National Scholarship Portal

- The National Scholarship Portal (NSP) has been developed by Department of Electronics and Information Technology (DeitY) .
- It streamlines and fast track the release of Scholarships across Ministries / Departments with efficiency, transparency and reliability.
- The eligible students from different States/UTs register themselves on NSP.

SATHI

- Department of Science and Technology has launched Sophisticated Analytical & Technical Help Institutes (SATHI).
- It is an Initiative for building shared, professionally managed strong S&T infrastructure.
- It will facilitate seamless application and capture IPRs.
- It can be readily accessible to academia, start-ups, manufacturing, industry and R&D labs
- These Centers are expected to house major analytical instruments to provide common services of high-end analytical testing, thus avoiding duplication and reduced dependency on foreign sources.
- These would be operated with a transparent, open access policy.
- DST has already set up three such centres in the country, one each at IIT Kharagpur, IIT Delhi and BHU.

Santusht Portal

- 'Santusht' Implementation Monitoring Cell (IMC) has been constituted in the Office of Minister of State (Independent Charge) for Labour and Employment.
- The objective of 'Santusht' is to promote transparency, accountability, effective delivery of public services and implementation of policies, schemes of Ministry of Labour and Employment at grass root level through constant monitoring.
- For public grievances, the Centralized Public Grievance Redressal and Monitoring System (CPGRAM) portal is already functional.
- Besides, written grievances as received from stakeholders are also disposed of by the Ministry.
- Further, online portal under 'Santusht' for public grievances has not been started so far.



National Infrastructure Pipeline

- Recently, the Government has released a report of the task force on the National Infrastructure Pipeline for 2019-2025.
- Task Force was constituted to draw up the National Infrastructure Pipeline (NIP) for each of the years from financial years 2019-20 to 2024-25.
- NIP will enable a forward outlook on infrastructure projects, which will create jobs, improve ease of living, and provide equitable access to infrastructure for all, thereby making growth more inclusive.
- NIP includes economic and social infrastructure projects.
- During the fiscals 2020 to 2025, sectors such as Energy (24%), Roads (19%), Urban (16%), and Railways (13%) amount to around 70% of the projected capital expenditure in infrastructure in India.
- It has outlined plans to invest more than ₹102 lakh crore on infrastructure projects by 2024-25, with the Centre, States and the private sector to share the capital expenditure in a 39:39:22 formula.

Mission Purvodaya

- Mission Purvodaya in steel sector envisions to create an integrated steel hub in Eastern India.
- With abundance of raw materials, strategic geographical location and strong and developing connectivity, Odisha is well poised to be the heart of this eastern steel hub.
- The Mission is rolled out by Union Petroleum and Natural Gas & Steel Ministry.
- More than 75% of India's envisioned incremental steel capacity will come from eastern India, with Odisha alone crossing 100 MTPA.
- In Odisha, Kalinganagar will be developed as the epicenter of Mission Purvodaya.
- There is immense scope for growth in high grade steel, downstream sector, ancillaries, capital goods and cluster development.
- Government of India is keen to have Japan to be partner country in Mission Purvodaya.
- Japanese technological expertise, investments will further strengthen the steel sector in Odisha and drive socio-economic growth.

RAISE 2020

- Union government recently announced it will hold RAISE 2020- 'Responsible AI for Social Empowerment 2020' summit in New Delhi.
- The summit will be aimed at bringing together people to exchange ideas on the use of Artificial Intelligence for "social empowerment, inclusion and transformation" in industries such as education, smart mobility, agriculture, and healthcare among others.
- **Startup Pitch fest** – It is planned to host along the RAISE 2020 summit.
- During the summit, startups will have the opportunity to showcase their AI solutions aimed at the social transformation, inclusion and empowerment.
- Interested startups around the world can participate in the Pitch fest.
- The finalists will showcase their solutions at the summit and even get live feedback.

19. GOVERNMENT SCHEMES

Himachal Grihini Suvidha Yojana

- Union home minister declared that Himachal Pradesh had become the first state in the country to have "100% LPG gas coverage".
- But according to state residents and officials, these claims may not be entirely true, but they are not too far off the mark either.



- Following the implementation of the Pradhan Mantri Ujjwala Yojana, the state government launched its own Himachal Grihini Suvidha Yojana in May 2018 to cover the remaining households.
- Except families having a pensioner, income taxpayer or any member employed with the government, board, corporation etc, all households of the state without an LPG connection were eligible.
- Unless there was no female member in the family, the connections were issued only to women.
- In many cases, officials issued kits to a cluster of villages from a focal point.
- Till December 27, 2019, the department issued around 2.64 lakh such kits around the state which has a total population of 68.64 lakh (Census 2011).
- Some families were still left out, as is evident by a few thousand applications received after the deadline was extended.

National Means-cum-Merit Scholarship Scheme (NMMSS)

- National Means-cum-Merit Scholarship Scheme (NMMSS) is a central sector scheme being implemented since 2008.
- It aims to award scholarships to meritorious students of economically weaker sections to arrest their drop out at class VIII and encourage them to continue the study at secondary stage.
- Under the Scheme one lakh fresh scholarships @ of Rs.12000/- per annum per student are awarded to selected students of class IX every year and their continuation/renewal in classes X to XII for study in a State Government, Government-aided and Local body schools.
- There is a separate quota of scholarships for each State/UT.
- The selection of students for award of scholarships under the scheme is made through an examination conducted by the States/UTs Governments.
- The scheme is boarded on National Scholarship Portal (NSP) since 2015-16.
- According to recent findings of National Institute of Planning and Administration (NIEPA), it has helped to reduce the dropout rate at the secondary and senior secondary classes- HRD Minister.

NPS-Traders 2019

- National Pension Scheme for Self-Employed Persons (Vyaparis) is meant for old age protection and social security of retail traders/ shopkeepers and self-employed persons whose annual turnover is not exceeding Rs. 1.5 crore.
- These retail traders/ shopkeepers and self-employed persons are mostly working as shop owners, retail traders, rice mill owners, oil mill owners, workshop owners, commission agents, brokers of real estate, owners of small hotels, restaurants and other Laghu Vyaparis.
- Traders aged between 18 and 40 years, with Annual turnover is Rs. 1.5 crore or below is eligible for the scheme.
- They should not be engaged in Organized Sector (membership of EPF/NPS/ESIC) a beneficiary of PM-SYM, an income tax payer.
- The eligible persons should possess Aadhar card, Jan Dhan account number with IFSC.
- It is a voluntary and contributory pension scheme, under which the subscriber would receive a minimum assured pension of Rs 3000/- per month after attaining the age of 60 years and if the subscriber dies, the spouse of the beneficiary shall be entitled to receive 50% of the pension as family pension.
- Family pension is applicable only to spouse.

Pradhan Mantri Shram Yogi Maan-dhan Yojna, (PM-SYM)

- It is a pension scheme for the Unorganised Workers, issued under Unorganized Workers Social Security Act, 2008 to provide old age protection to them.
- PM-SYM is meant for old age protection and social security of Unorganised Workers (UW) who are mostly engaged as rickshaw pullers, street vendor, mid-day meal workers, head loaders, brick kiln workers,



cobblers, rag pickers, domestic workers, washermen, home-based, agricultural workers, construction workers, beedi workers, handloom workers, leather workers, audio-visual workers or in similar other occupations.

- There are estimated 42 crore such unorganised workers in the country.
- The entry age for the beneficiary is 18-40 years and he/she should not be a member of ESIC/EPFO or an income tax payer.
- The schemes are being implemented through Life Insurance Corporation (LIC) of India and Common Service Centres.
- LIC is the Fund Manager and responsible for pension pay-out.

Phase II of SBM

- Recently union government approved the Phase II of the Swachh Bharat Mission (Grameen till 2024-25, which will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and Solid and Liquid Waste Management (SLWM).
- The program will also work towards ensuring that no one is left behind and everyone uses a toilet.
- Under the program, provision for incentive of Rs.12,000/- for construction of Individual Household Toilet (IHHL) to the newly emerging eligible households as per the existing norms will continue.
- The fund sharing pattern between Centre and States will be 90:10 for North-Eastern States and Himalayan States and UT of J&K; 60:40 for other States; and 100:0 for other Union Territories, for all the components.
- The SLWM component of ODF Plus will be monitored on the basis of output-outcome indicators for four key areas:
 1. Plastic waste management,
 2. Bio-degradable solid waste management (including animal waste management),
 3. Greywater management.
 4. Fecal sludge management

20. BILATERAL ISSUES

Blue Dot Network

- The Blue Dot network is “a multi-stakeholder initiative to bring together governments, the private sector and civil society to promote high-quality, trusted standards for global infrastructure development”.
- India and the US will discuss the Blue Dot network, a new proposal to cover infrastructure and development projects across the region and other countries.
- The US, which is leading the proposal, has already got Japan and Australia as partners in this idea.
- The proposal, which is part of the US’s Indo-Pacific strategy, is aimed at countering Chinese President Xi Jinping’s ambitious One Belt One Road initiative.
- The initiative will evaluate projects on various parameters, including level of public consultation, transparency in funding, debt traps and basic environment norms.
- Projects that meet the norms will get a “blue dot”, which will enable them to attract private funding and not have to depend on state-funding alone.
- Under BRI, China’s government and state-owned enterprises finance international projects by providing logistical support from concrete and steel to workers and cash. This approach, however, has been labelled by some experts as “debt-trap diplomacy”.
- Blue Dot will be about “supporting alternatives to predatory lending” by facilitating foreign investment in projects that come under this network.



Lucknow Declaration

- Lucknow Declaration is a joint declaration adopted at the first India- Africa Defence Ministers conclave at Lucknow, Defexpo 2020.
- Lucknow Declaration emphasized the need for stronger international partnership in countering terrorism and violent extremism, including through increased sharing of information and intelligence.
- The Declaration also called for strengthening the UN Counter-Terrorism mechanisms and to ensure strict compliance with the UN Security Council sanctions regime on terrorism.
- It aims to increase cooperation in securing sea lines of communication, preventing maritime crimes, disaster, piracy, illegal, unregulated and unreported fishing through sharing of information and surveillance.

UKIERI-UGC Program

- Union HRD Ministry has launched UKIERI-UGC Higher Education Leadership Development Programme for Administrators.
- It is a joint initiative of UGC and British Council under the auspices of UK India Education and Research Initiative (UKIERI), which aims to deliver a leadership development programme for middle and senior level administrative functionaries in Indian Universities.
- The programme will lead to developing a more global outlook and promote learning for inclusive and internationally connected higher education systems that support the economic and social growth in UK and India.
- The Minister also said that the programme will serve as a stimulant for the functionaries to improve their performance and capabilities which consequently shall enhance institutional profile and reputation of Universities in India.
- The University Grants Commission (UGC) will conduct this programme in collaboration with Advance HE as the training partner with globally recognized institutional expertise and leadership excellence from the UK, which is being enabled by the British Council in India.

21. INTERNATIONAL ORGANISATIONS, ISSUES & EVENTS

International Search & Rescue Advisory Group (INSARAG)

- The International Search and Rescue Advisory Group (INSARAG) is a network of disaster-prone and disaster-responding countries and organizations dedicated to urban search and rescue (USAR) and operational field coordination.
- It aims to establish standards and classification for international USAR teams as well as methodology for international response coordination in the aftermath of earthquakes and collapsed structure disasters.
- The INSARAG Secretariat is located in the United Nations Office for the Coordination of Humanitarian Affairs (OCHA).

Court of Arbitration for Sport

- The Court of Arbitration for Sport (CAS) is an institution independent of any sports organization.
- It is located in Lausanne, Switzerland.
- It has the task of resolving legal disputes in the field of sport through arbitration.
- The CAS was created in 1984 and is placed under the administrative and financial authority of the International Council of Arbitration for Sport (ICAS).
- It does this pronouncing arbitral awards that have the same enforceability as judgements of ordinary -courts.
- It can also help parties solve their disputes on an amicable basis through mediation when this procedure is allowed.



- The CAS sets up non-permanent tribunals, which it does for the Olympic Games, the Commonwealth Games or other similar major events.
- Any disputes directly or indirectly linked to sport may be submitted to the CAS.
- These may be disputes of a commercial nature (e.g. a sponsorship contract), or of a disciplinary nature following a decision by a sports organisation (e.g. a doping case).

Urban Climate Change Resilience Trust Fund

- The Urban Climate Change Resilience Trust Fund is a \$150 million multi-donor trust fund (2013-2021) administered by ADB under the Urban Financing Partnership Facility.
- It aims to support fast-growing cities in Asia to reduce the risks poor and vulnerable people face from floods, storms or droughts, by helping to better plan and design infrastructure to invest against these impacts.
- The fund supports cities by improving urban planning, designing climate resilient infrastructure and investing in projects and people.
- The eligible countries to receive support from the fund are Bangladesh, India, Indonesia, Myanmar, Nepal, Pakistan, the Philippines, and Viet Nam.

International Platform on Sustainable Finance

- The European Union is launching the International Platform on Sustainable Finance (IPSF) together with relevant authorities from Argentina, Canada, Chile, China, India, Kenya, and Morocco
- It will be introduced at the IMF and World Bank Group Annual Meetings, in Washington D.C.
- To reach the Paris targets, trillions of investments in sustainable infrastructure will be needed over the next decades.
- The launch of this Platform is essential to stimulate investment and redirect capital flows towards our climate objectives at the scale required for the most important economic transition.
- It will act as a forum for facilitating exchanges and, where relevant, coordinating efforts on initiatives and approaches to environmentally sustainable finance, while respecting national and regional contexts.
- It will focus on environmentally sustainable initiatives in particular in the areas of taxonomies, disclosures, standards and labels, which are fundamental for investors to identify and seize green investment opportunities worldwide.

Solar Risk Mitigation Initiative

- The World Bank– Energy Sector Management Assistance Program (WB-ESMAP), in partnership with, Agence Française de Développement (AFD), International Renewable Energy Agency (IRENA) and International Solar Alliance (ISA) developed the Solar Risk Mitigation Initiative (SRMI).
- This unique approach offers technical assistance to help countries develop evidence-based solar targets, implement a sustainable solar program, and maintain robust procurement processes with transaction advisors.
- SRMI aims to support countries in developing sustainable solar programs that will attract private investments and so reduce reliance on public finances.
- It has three components to mitigate the risk of solar deployment:
 1. Sustainable Solar Targets
 2. Transparent Procurement
 3. Viable Risk Mitigation Coverage

Project (NatCap)

- Its stated mission is “pioneer the science, technology and partnerships that enable informed decisions for people and nature to thrive.”

- Daily's NatCap is a leading global organization providing policy makers with information on the services provided by natural ecosystems.
- The organization enables governments to make the right policies directed towards conservation of nature and its value to human civilizations.
- The innovative software 'InVEST' created by NatCap assesses risks and costs associated with loss of biodiversity and estimates the return-on-investment in nature, under future scenarios.

Beijing +25

- The 1995 Fourth World Conference on Women, held in Beijing, was one of the largest ever gatherings of the United Nations, and a critical turning point in the world's focus on gender equality and the empowerment of women.
- The Beijing Declaration and Platform for Action of 1995 is the most ambitious road map for the empowerment of women and girls everywhere.
- In 2020, it will be 25 years since the Beijing Platform for Action set strategic objectives and actions for the achievement of gender equality in 12 critical areas of concern.
- The Beijing+25 Regional Review Meeting provided a forum for United Nations Economic Commission for Europe (UNECE) member States to review progress and identify challenges in the implementation of the Beijing Platform for Action.

National Consultation on the review of Beijing +25

- To mark of 25 years of the adoption of Beijing Platform for Action, Ministry of Women & Child Development (MWCD), the National Commission for Women (NCW) and UN Women organized a National Consultation on the Review of Beijing+25.
- It aims to galvanize all stakeholders to implement actions that remove the most conspicuous barriers to gender equality.
- The consultation will bring together civil society and the women and youth of India, gender equality advocates from all walks of life, in a national public conversation on the urgent actions that need to be taken for the realization of gender equality.

Conference on 'Combating Drug Trafficking'

- Recently, India hosted the first-ever BIMSTEC Conference on Combating Drug Trafficking in New Delhi.
- It was organized by the Narcotics Control Bureau (NCB), India's federal agency for drug law enforcement.
- The BIMSTEC conference sought to provide an opportunity to all the member nations to deliberate on the increased threats posed by drug trafficking and the collective steps that were required to negate such threats.
- India is in the middle of two major illicit opium production regions in the world:
 - The Golden Crescent (Iran-Afghanistan-Pakistan) in the West.
 - The Golden Triangle (South-East Asia) in the East.
- Manipur and Mizoram having borders with Myanmar and other coastal States are sensitive and may become a gateway for illicit drugs entering India.
- To protect itself from the menace of drug trafficking, India has adopted a Zero Tolerance Policy towards all kinds of narcotics and psychotropic substances to realize its vision of a Drug-free India.
- India has also started an e-portal for digitalization of drug data to assist various drug enforcement agencies.

BIMSTEC Disaster Management Exercise

- Second edition of BIMSTEC Disaster Management Exercise on flood rescue inaugurated recently at, Puri (Odisha).
- Delegates & rescue teams of five member nations namely- India, Bangladesh, Nepal, Sri Lanka & Myanmar, of BIMSTEC group participated in the exercise.



- Highlighting the historicity and diversity cultural heritage sites in the BIMSTEC region, this exercise will provide a platform to conduct risk assessment in the context of cultural heritage sites at the time of disaster.

Stockholm Declaration 2020

- Stockholm Declaration was adapted in 3rd Global Ministerial Conference on Road Safety held recently.
- The global character of the road safety challenge calls for international cooperation and partnerships across many sectors of society.
- The Stockholm Declaration was prepared in close collaboration with the conference's steering group.
- Building on the Moscow Declaration of 2009 (first global conference on road safety) and the Brasilia Declaration of 2015 (2nd Global conference on road safety) , UN General Assembly and World Health Assembly resolutions, the Stockholm Declaration is ambitious and forward-looking and connects road safety to the implementation of the 2030 Agenda for Sustainable Development.

Vision Zero

- The Global Ministerial Conference on Road Safety 2020 embraced Vision Zero approach.
- The basic standpoint for Vision Zero is that no one should be killed or suffer lifelong injury in road traffic.
- The concept of Vision Zero was decided by the Swedish Parliament in 1997, it turned the traditional view of road safety work upside down.
- In short, creating a comprehensive and safe environment to ensure road safety is the essence of Vision Zero.
- The Vision Zero elaborates that the main problem is not that accidents occur – it is instead whether the accidents lead to death or lifelong injury.
- Vision Zero stresses that the road transport system is an entity, in which different components such as roads, vehicles and road users must be made to interact with each other so that safety can be guaranteed.

UN Road Safety Fund

- United Nations Road Safety Fund (UNRSF) was established in 2018 as a UN Multi-Partner Trust Fund.
- The Fund was officially launched in UNHQ New York.
- The vision of the UN Road Safety Fund is to build a world where roads are safe for every road user, everywhere.
- Its mission is to finance - and leverage further funding for - high-impact projects based on established and internationally recognized best practices that increase road safety and minimize and eventually eliminate road crash trauma for all road users.
- The Fund was created to finance actions in low- and middle-income countries to
- Substantially reduce death and injuries from road crashes, and
- Reduce economic losses resulting from these crashes.
- As a unique and multi-stakeholder financing instrument, the Fund gathers concerned UN organizations, governments, private sector, academia and civil society under one umbrella and for common purpose.

Northern European Enclosure Dam (NEED)

- A research paper accepted by American Meteorological Society has proposed an extraordinary measure to protect 25 million people and important economic regions of 15 Northern European countries from rising seas as a result of climate change.
- It proposes for a mammoth construction of Northern European Enclosure Dam (NEED) enclosing all of the North Sea.
- The concept of constructing NEED showcases the extent of protection efforts that are required if mitigation efforts fail to limit sea level rise.

- The proposed structure comprises of two dams of a combined length of 637 km, the first between northern Scotland and western Norway, measuring 476 km and with an average depth of 121 m and maximum depth of 321 m.
- The second between France and southwestern England, of length 161 km, and average depth of 85 m and maximum depth of 102 m.
- They have also identified other regions in the world where such mega-enclosures could potentially be considered, including the Persian Gulf, the Mediterranean Sea, the Baltic Sea, the Irish Sea, and the Red Sea.

Alternative Investment Fund Managers Directive

- The Alternative Investment Fund Managers Directive (AIFM) is an EU law on the financial regulation of hedge funds, private equity, real estate funds, and other "Alternative Investment Fund Managers" (AIFMs) in the European Union.
- The Directive requires all covered AIFMs to obtain authorisation, and make various disclosures as a condition of operation, It followed the global financial crisis.
- Before, the alternative investment industry had not been regulated at EU level.
- The Union Cabinet recently has approved the proposal of Securities & Exchange Board of India (SEBI) to sign an updated Alternative Investment Fund Managers Directive (AIFMD).
- This is done following the UK's exit from the European Union on 31st January 2020.



Sustainable Development Goals Conclave 2020

- Sustainable Development Goals Conclave 2020: Partnerships, Cooperation and Development of North Eastern states, is being organized by NITI Aayog, in Guwahati, Assam.
- It is a three-day event, will see representations from the North Eastern states, Central Ministries, academia, civil society and international development organizations.
- NITI Aayog has the mandate of overseeing the adoption and monitoring of SDGs at the national and sub-national level. Progress in the northeast region is crucial in this decade of action for the country to achieve the SDGs by 2030.
- This conclave is part of the NITI Aayog's continuous efforts towards fostering partnerships at the sub-national level.

22. ECONOMY

Change of Accounting Year

- After nearly eight decades, the Reserve Bank of India (RBI) has decided to change its accounting year from July-June to April- May.
- Accordingly, the next accounting year will be a nine-month period, which starts from July 2020 and ends on March 31, 2021.
- Thereafter, all the financial years will start from April every year, the RBI.
- The Bimal Jalan Committee on Economic Capital Framework (ECF) of the RBI had proposed a more transparent presentation of the RBI's annual accounts and change in its accounting year from July to June to April to March from the financial year 2020-21.

- The RBI would be able to provide better estimates of the projected surplus transfers to the government for the financial year for budgeting purposes.
- Through this move, RBI accounts will now be aligned with the central government accounts.
- This move is likely to obviate the RBI's need to transfer an interim dividend to the central government, a practice that has been adopted in the past few years.

Amendments to Banking Regulation Act

- In the wake of the recent Punjab & Maharashtra Cooperative (PMC) Bank crisis, the Union Cabinet approved amendments to the Banking Regulation Act.
- It aims to bring 1,540 cooperative banks under the Reserve Bank of India (RBI) regulation.
- Cooperative banks would be regulated under the RBI's banking guidelines and their auditing would also be done as per its norms.
- Qualifications would be laid down for appointments, including that of Chief Executive Officers.
- Prior permission from the RBI would be required for the appointment of key positions.
- The regulator would deal with issues such as loan waivers.
- The RBI would also have powers to supersede the board of any cooperative bank in financial distress.
- The proposed amendments, along with the government's decision to increase the insurance cover on bank deposits from ₹1 lakh to ₹5 lakh, have been brought to strengthen the financial stability of cooperative banks and boost public confidence in the banking system.

Countervailing duty

- Countervailing duty (CVD) is an import tax imposed on certain goods in order to prevent dumping or counter export subsidies.
- The preferential treatment with respect to CVDs investigations falls under the US' Generalized System of Preferences (GSP) scheme.
- Generalized System of Preferences (GSP) is an umbrella that comprises the bulk of preferential schemes granted by industrialized nations to developing countries.
- The office of the United States Trade Representative (USTR) has taken off India from the list of developing and least-developed countries that are eligible to claim benefits for preferential treatment with respect to countervailing duties (CVDs) investigations.
- Along with India, USTR has also eliminated other countries including Brazil, Indonesia, Hong Kong, South Africa, Malaysia, Thailand, Vietnam and Argentina from getting preferential treatment.
- The new lists consist of 36 developing countries and 44 least developed countries.
- The USA had come up with lists of countries classified as per their level of development to harmonize the USA preferential treatment laws with the World Trade Organization's (WTO) Subsidies and Countervailing Measures (SCM) Agreement in 1998.
- Thus, the country with per capita GNI above \$12,375 or Rs 8.82 lakh, the share of more than 0.5% to the world trade and membership to the above-mentioned organizations is considered as a developed country by USTR.

India's Steel Production

- India becomes second largest steel producer of Crude Steel
- As per World Steel Association data, India became the second largest steel producer of crude steel after China in 2018 and 2019, by replacing Japan. The details of five leading crude steel producers in the world during 2018 and 2019 are listed below
 1. China
 2. India



3. Japan
 4. USA
 5. Russia
- India's crude steel production in 2018 was at 109.3 MT, an increase of 7.7 per cent from 101.5 MT in 2017.
 - Steel being a deregulated sector, the Government does not set any annual targets for steel production.
 - Individual companies based on commercial considerations and market requirements take decision on quantity of steel production.

Vizag-Chennai Industrial Corridor

- Asian Development Bank (ADB) had prepared Conceptual Development Plan (CDP) for Vizag-Chennai Industrial Corridor (VCIC).
- Four nodes were identified for development namely
 1. Visakhapatnam,
 2. Machilipatnam,
 3. Donakonda and
 4. Chittoor.
- Amongst these nodes, the Government of Andhra Pradesh (GoAP) has prioritized Visakhapatnam and Chittoor.
- National Industrial Corridor Development and Implementation Trust (NICDIT) approved the development of Vishakhapatnam and Chittoor as priority nodes in phase-1 of VCIC.
- The loan has been agreed between State Government and Asian Development Bank (ADB).
- Grant of USD 5 million from the multi-donor Urban Climate Change Resilience Trust Fund (UCCRTF) to build climate change resilient infrastructure in Visakhapatnam.

23. ENVIRONMENT

Thermal Coal

- Thermal coal, also known as steam coal, is used for power and heat generation.
- In electricity generation, thermal coal is ground to a powder and fired into a boiler to produce heat, which in turn converts water into steam, the steam is used to move turbines to generate electricity.
- They usually have high ash content ranging from as low as 20% to as high as high as 50%.
- In Indian coal industry the Non-Coking coal grades have been categorized into 17 bands according to their Gross Calorific Value.
- As per ranks of the coal the Peat, Lignite and Sub-Bituminous ranges of coal are usually used as Thermal Coal.
- Metallurgical coal/Coking Coal on the other hand is used in metallurgical process such as in smelting of Iron to make steel.
- They are usually used both as fuel and reducing agent in the form of coke.
- Coke is a porous, hard black rock of concentrated carbon that is created by heating bituminous coal without air to extremely high temperatures.
- The coal is baked in a coke oven which forces out impurities to produce coke, which is almost pure carbon.
- These kinds of coal are usually low in ash, Sulfur and Phosphorous Content.
- Although ash content can be regulated by washing process, low contents of sulfur and phosphorous are necessary as they tend to migrate to metals.

- Union Coal and Mines Ministry announced it will stop importing thermal coal from Financial Year 2023-24.
- The move is taken after government's plan to achieve 1 billion tons (BT) coal production target by Coal India Limited (CIL) by Financial Year 2023-24.
- The Ministry of Coal will coordinate with Indian Railways and Shipping Ministry and enable CIL, Captive and Commercial Miners evacuate more coal by 2030.

World Air Quality Report 2019

- World Air Quality Report is released by the pollution tracker IQAir and Greenpeace.
- The ranking is based on a comparison of PM 2.5 levels.
- According to the recent report Bangladesh emerged as the most polluted country for PM 2.5.
- Pakistan, Mongolia, Afghanistan and India followed behind respectively.
- PM 2.5 includes pollutants such as sulfate, nitrates and black carbon. Exposure to such particles has been linked to lung and heart disorders and can impair cognitive and immune functions.

MOST POLLUTED CITIES IN 2019

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

Renewable Energy Management Centers

- Union Power Ministry has inaugurated eleven new 'Renewable Energy Management Centers' (REMC).
- These REMCs will make it possible for the country to have more of renewable energy, particularly wind.
- REMC is a "hub for all information regarding renewable energy power generation", which would have a "dedicated team for managing forecast RE generation, dispatch and real-time monitoring to ensure safe, secure and optimal operation of the grid".
- Public sector major Power Grid Corporation of India is overseeing the setting up of these REMCs on behalf of the Ministry of Power.
- One REMC will come up in the National Load Dispatch Centre, three in as many Regional Load Dispatch Centers and seven in the State Load Dispatch Centers of Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Madhya Pradesh, Gujarat and Rajasthan.
- Load dispatch centers are like the control room that oversees how much and where the electricity is coming from and whom it should go to.
- REMCs are a unit of load dispatch centers that keep an eye on renewable energy plants.
- These centers will essentially perform three functions:
 1. Forecasting of renewable energy from each plant.
 2. Scheduling of renewable energy to customers.
 3. Tracking of generation from the RE plants.

Biojet Fuel

- IAF's An-32 aircraft using a 10% blend of Indian biojet fuel took off from Leh's Kushok Bakula Rimpoche airport recently.
- This was the first time that this mix was used in both engines of an aircraft.
- Biojet fuel is prepared from "non-edible tree borne oil", and is procured from various tribal areas of India.
- This fuel is made from Jatropha oil sourced from Chattisgarh Biodiesel Development Authority (CBDA) and then processed at CSIR-IIP, Dehradun.
- The technology to produce this fuel was developed by CSIR-IIP in 2013, but it could not be tested and certified for commercial use immediately.



- According to official sources the aircraft was flight tested and its performance was validated at Chandigarh Air Base prior to undertaking the operational flight to Leh.
- Leh is at an altitude of 10,682 ft above mean sea level, and is among the world's highest and most difficult operational airfields.
- Even during clear weather, operating an aircraft at Leh is a challenge, given the reduced power output of the engines in the rarefied atmosphere, turbulent winds, and proximity of the mountains.
- Evaluating the performance of biojet fuel under conditions prevalent in Leh was considered extremely important from an operational perspective.
- The use of biofuel in an Indian Air Force transport aircraft, saying such innovations would bring down carbon emissions and lower the nation's oil import bill.

Swell Surge Forecast System

- Swell surge forecast system is an innovative system designed for the prediction of Kallakkadal/Swell Surge that occurs along the Indian coast, particularly the west coast.
- Kallakkadal/Swell surge are flash-flood events that take place without any noticeable advance change in local winds or any other apparent signature in the coastal environment.
- Hence the local population remains totally unaware of these flooding events until they actually occur.
- Such events are intermittent throughout the year. Kallakkadal is a colloquial term used by Kerala fishermen to refer to the freaky flooding episodes and in 2012 UNESCO formally accepted this term for scientific use.
- During Kallakkadal events, the sea surges into the land and inundates vast areas.
- These events have attracted attention especially after the 2004 Tsunami in the Indian Ocean, since most people mistake Kallakkadal to be Tsunamis.
- Tsunami and Kallakkadal/Swell surge are two different types of waves with entirely separate causes or mechanisms.
- Kallakkadal are caused by meteorological conditions in the Southern Ocean, south of 30°S.
- A study by INCOIS scientists has revealed that specific meteorological conditions in the Southern Indian Ocean support the generation of long period swells.
- These swells once generated, travel northward and reach the Indian coasts in 3-5 days time, creating havoc in the coastal areas.
- The system will now predict Kallakkadal and warnings will be given to concerned authorities at least 2-3 days in advance, which will help the local authorities for contingency plans and to reduce damage.

Arth Ganga Project

- National Ganga Council planned to evolve the 'Namami Gange' project to 'Arth Ganga'.
- In simple terms, 'Arth Ganga' implies a sustainable development model with a focus on economic activities related to Ganga.
- As part of this process, farmers will be encouraged to engage in sustainable agriculture practices, including zero budget farming, planting of fruit trees and building plant nurseries on the banks of Ganga.
- Above practices, along with creation of infrastructure for water sports and development of campsites, cycling and walking tracks etc., would help to tap the 'hybrid' tourism potential of the river basin area- for purposes of religious as well as adventure tourism.
- Almost half of the Indian population lives around the Ganges River belt. Moreover, of India's total freight, about 1/5th originates and 1/3rd terminates in the states around Ganges Belt.
- Thus, inland waterway is one of the most important pillars of "Arth Ganga" project.
- National Waterway-1 is an inland water transport route between Haldia in West Bengal and Prayagraj in Uttar Pradesh.



- Ministry of Shipping is also developing Varanasi (Uttar Pradesh) Freight Village and Sahibganj (Jharkhand) Industrial Cluster-cum-Logistics Park with an objective of creating synergy with Inland Waterways.
- The income generated from encouraging ecotourism and Ganga wildlife conservation and cruise tourism etc. would help to generate sustainable income streams for cleaning of Ganga.

Algal Bloom Information Service (ABIS)

- The increasing frequency of algal blooms is a major concern due to its ill effects on fishery, marine life and water quality. INCOIS has developed a service for "Detection and Monitoring of Bloom in the Indian Seas".
- The target users are fishermen, marine fishery resource managers, researchers, ecologists and environmentalists.
- The service also complements INCOIS' marine fishing advisories i.e. Potential Fishing Zone advisories.
- INCOIS-ABIS will provide near-real time information on spatio-temporal occurrence and spread of phytoplankton blooms over the North Indian Ocean.
- Accordingly, relevant data retrieved from satellites i.e. Sea Surface Temperature, chlorophyll-a, Algal Bloom Index - chlorophyll, rolling chlorophyll anomaly, rolling sea surface temperature anomaly, phytoplankton class/species, phytoplankton size class and a composite image delineating bloom and non-bloom regions will be disseminated daily through ABIS.
- In addition, four regions have been identified as bloom hotspots viz.
 1. North Eastern Arabian Sea
 2. coastal waters off Kerala
 3. Gulf of Mannar and
 4. Coastal waters of Gopalpur.

Ban on CFL Lamps

- Kerala state announced it will impose a ban on the sale of compact fluorescent lamps (CFL) and incandescent (filament) bulbs starting November this year as part of sustainable energy policy.
- The state administration in its budget also added that streetlights and bulbs in government offices across the state will be converted to light-emitting diode (LED) bulbs.
- The announcement is in line with the government project of 'Filament-free Kerala' envisaged in 2018 as part of the state's Urja Kerala mission.
- LED bulbs are energy-efficient than filament or CFL bulbs and will, therefore, generate less waste.
- Also, filament bulbs contain the mercury element which, when broken, is polluting in nature.
- The filament-free Kerala project will be implemented by the Kerala State Electricity Board (KSEB) and the Energy Management Centre, Kerala.
- Consumers in the state can place orders for LED bulbs on the KSEB website in exchange for existing filament bulbs.

Draft on Reverse Osmosis (RO) Systems

- Reverse osmosis is a water purification process that uses a partially permeable membrane to remove ions, unwanted molecules and larger particles from drinking water.
- Environment ministry issued a draft notification to prohibit use of reverse osmosis (RO) purifiers where total dissolved solids (TDS) in water are below 500 milligrams per liter.
- The draft is based on NGT's to ban RO purifiers in areas, which get potable drinking water.
- It also said water from RO purification system for domestic use would be "used only for drinking purpose".
- Once the rules are finalized, RO machine manufacturers will have to tweak their designs to meet the new parameters so that the system does not discharge water beyond the prescribed limit during the purification process.



- BIS will develop a system to monitor, assess and certify in consultation with the Central Pollution Control Board (CPCB) within six months of final notification.
- Enforcement will largely be the responsibility of CPCB and State Pollution Control Boards (SPCBs).
- Final notification on banning RO purifiers and parameters on design of such machines will be issued after examining the views of all stakeholders, including manufacturers.

Paraquat Poisoning

- The VIMSAR, a major public healthcare center for western Odisha and parts of Chhattisgarh and Jharkhand, has many deaths cases of farmers, since September 2017.
- The reason behind these deaths is the consumption of Paraquat – a herbicide used in agricultural fields.
- Paraquat is a toxic chemical that is widely used as an herbicide (plant killer), primarily for weed and grass control.
- “Paraquat consumption leads to pulmonary fibrosis and patients find difficulty in respiration, similarly kidney failures occur.
- Even if a person survives, he will not be fully fit as pulmonary fibrosis worsens with the passage of time and Paraquat does not have antidote.
- The vast majority of the population in western Odisha and its bordering districts in Chhattisgarh are dependent on agriculture. Crop failures and family disturbances often drive people to look for poison to commit suicide and Paraquat, which is easily available at homes as well as in neighbourhood shops, becomes an “obvious” choice.
- There have also been cases of people becoming accidental victims when they absorb Paraquat while sprinkling it in agricultural fields.

Yellow Rust Disease

- Indian Institute of Wheat and Barley Research (IIWBR) issued an advisory about Yellow Rust detected in wheat crops in parts of Punjab and Haryana.
- Yellow Rust disease appears as yellow stripes of powder or dust on leaves and leaf sheaths of the wheat crop.
- This yellow powder comes out on clothing or fingers when touched.
- The disease can spread rapidly under congenial conditions and affects crop development, and eventually the yield.
- This occurs when the rust colonies in the leaves drain the carbohydrates from the plant and reduce the green leaf area.
- According to the IIWBR advisory, fungicides will help to contain this disease.
- In India, it is a major disease in the Northern Hill Zone and the North-Western Plain Zone and spreads easily during the onset of cool weather and when wind conditions are favourable.
- Rain, dew and fog favour the disease’s development.
- A new variety of wheat called HD-3226 or Pusa Yashasvi released by the Indian Agricultural Research Institute, has higher levels of resistance against major rust fungi such as the yellow/stripe, brown/leaf and black/stem.

Biological Safety Level

- A biosafety level (BSL) is a set of biocontainment precautions required to isolate dangerous biological agents in an enclosed laboratory facility.
- The levels of containment range from the lowest biosafety level 1 (BSL-1) to the highest at level 4 (BSL-4).
- In the United States, the Centers for Disease Control and Prevention (CDC) have specified these levels.
- At the lowest level of biosafety, precautions may consist of regular hand-washing and minimal protective equipment.



- At higher biosafety levels, precautions may include airflow systems, multiple containment rooms, sealed containers, positive pressure personnel suits, established protocols for all procedures, extensive personnel training, and high levels of security to control access to the facility.
- In India high risk pathogens can be tested only in BSL4 lab with highest level of biological safety, a BSL4 lab consists of work with highly dangerous and exotic microbes.
- Infections caused by microbes, including Ebola, Nipha and Marburg viruses, are frequently fatal, and come without treatment or vaccines are tested in BSL4 lab.

SPECIES IN NEWS

Red Snow

- “Red snow” or “watermelon” is a phenomenon that has been known since ancient times, now it raises concerns about climate change.
- *Chlamydomonas Chlamydomonas nivalis*, exists in snow in the polar and glacial regions, and carries a red pigment to keep itself warm.
- It is the algae that give the snow its red tinge, it causes the surrounding ice to melt faster.
- The more the algae packed together, the redder the snow and the darker the tinge, the more the heat absorbed by the snow. Subsequently, the ice melts faster.
- While the melt is good for the microbes that need the liquid water to survive and thrive, it’s bad for glaciers that are already melting from a myriad of other causes, the study said.
- These algae change the snow’s albedo which refers to the amount of light or radiation the snow surface is able to reflect back, Changes in albedo lead to more melting.
- In the melting of snow in the Arctic, the key drivers have been snow and ice albedo, according to a 2016 study in the journal Nature.
- Aristotle is believed to be one of the first to give a written account of red snow, over 2,000 years ago.

Henneguya salminicola

- Researchers have discovered a non-oxygen breathing animal, which significantly changes one of science’s assumptions about the animal world that all animals use aerobic respiration and therefore, oxygen.
- It also challenges what may be generally thought of as evolution in organisms that they become more complex as they evolve.
- In the case of this non-oxygen breathing organism, evolution turned it into a simpler organism that shed “unnecessary genes” responsible for aerobic respiration.
- The organism *Henneguya salminicola*, a fewer-than-10-celled microscopic parasite that lives in salmon muscle.
- According to the researchers, as the organism evolved, it gave up breathing and stopped the consumption of oxygen for the production of energy which means it relies on anaerobic respiration (through which cells extract energy without using oxygen).
- Other organisms such as fungi and amoebas that are found in anaerobic environments lost the ability to breathe over time.
- The new study shows that the same can happen in the case of animals, too.
- *Henneguya salminicola* did not have a mitochondrial genome.
- Mitochondria is the “powerhouse” of the cell, which captures oxygen to make energy its absence in the *H. salminicola* genome indicates that the parasite does not breathe oxygen.

Bent toed gecko

- The new species of lizard, zoologically named *Cyrtodactylus urbanus*, is discovered in Guwahati.

- It is markedly different in molecular structure, blotch and color from the *Cyrtodactylus guwahatiensis*, or the Guwahati bent-toed gecko, that was discovered two years ago.
- The bent-toed gecko, named *Cyrtodactylus urbanus*, was earlier thought to be same as the Khasi Hills lizard.
- All bent-toed geckos in Northeast India were thought to be a single species, the *Cyrtodactylus khasiensis* found primarily in the Khasi Hills of Meghalaya.
- The study on the urban bent-toed gecko provided additional information on the Guwahati bent-toed gecko, the first of the two *Cyrtodactylus* endemic to the areas covered by the city and the fourth from Assam.
- It was also the 12th recorded gecko from the Northeast.

Cave Fish

- Scientists have discovered a new cave fish in Meghalaya which is similar in anatomy to an endangered masher species.
- It is "by far the largest known subterranean fish in the world.
- The biggest specimen they found was longer than 40 cm.
- All previous discoveries of cave fish from India have been of small fish, and this is the largest of the cave fish discovered in the country, and probably from anywhere in the world.
- Widely consumed in India, mahseer live mostly in "fast-flowing streams and rivers and also large reservoirs.
- The new species is similar to the golden mahseer, its unusual underground home in Meghalaya's Jaintia Hills.

24. DISASTER MANAGEMENT

Conference on Coastal Disaster Risk Reduction and Resilience (CDRR&R)

- The first 'National Conference on Coastal Disaster Risk Reduction and Resilience (CDRR&R) – 2020' was held in New Delhi.
- It was organized by the National Institute of Disaster Management (NIDM).
- Implementation of the Prime Minister's 10-point agenda and Sendai Framework for Disaster Risk Reduction are the key takeaways of the conference.

The Prime Minister's 10-point Agenda

- The Prime Minister had listed the agenda during his inaugural speech at the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) 2016, held in New Delhi.
- It includes the following elements namely.
- All development sectors must imbibe the principles of disaster risk management.
- Work towards risk coverage for all-starting from poor households to SMEs to multinational corporations to nation-states.
- Encourage greater involvement and leadership of women in disaster risk management.
- Invest in risk mapping globally. For mapping risks related to hazards like earthquakes, we have accepted standards and parameters.
- Leverage technology to enhance the efficiency of our disaster risk management efforts.
- Develop a network of universities to work on disaster issues.
- Utilise the opportunities provided by social media and mobile technologies.
- Build on local capacity and initiative.
- Opportunity to learn from a disaster must not be wasted. After every disaster there are papers on lessons that are rarely applied.



- Bring about greater cohesion in the international response to disasters.

Sendai Framework for Disaster Reduction 2015-30

- It was adopted at the Third United Nations World Conference on Disaster Risk Reduction, held from March 14 to 18, 2015 in Sendai, Miyagi, Japan.
- It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors.
- It is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters.

25. SCIENCE AND TECHNOLOGY

SPACE

Mini-Moon

- Astronomers have observed a small object orbiting Earth, which they have dubbed a “mini-moon” or the planet’s “second moon”.
- It is actually an asteroid, about the size of a car, with a diameter of about 1.9-3.5 m.
- Unlike our permanent Moon, the mini-moon is temporary, it will eventually break free of Earth’s orbit and go off on its own way.
- Dubbed 2020 CD3, the mini-moon was discovered by NASA-funded Catalina Sky Survey (CSS).
- CSS previously discovered 2006 RH120, which orbited Earth for some time that year, before it escaped in 2007.
- The Minor Planet Center of the International Astronomical Union acknowledged the discovery.
- When an asteroid’s orbit crosses Earth’s orbit, it can sometimes be captured into the latter orbit, this is what happened with 2020 CD3.
- It is now orbiting at a distance farther from Earth, Such an asteroid is called a Temporarily Captured Object (TCO).
- The orbit of such objects is unstable and they have to contend with the gravitational influence of our permanent Moon as well as that of the Sun.
- Once caught in Earth’s orbit, such objects usually remain for a few years before they break free and go into independent orbit around the Sun.

NASA New Missions

- NASA announced has selected four Discovery Program investigations to develop concept studies for possible new missions, which are as follows
- **DAVINCI+** - Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging Plus.
 - This will analyse Venus’s atmosphere to understand how it was formed and evolved, and if it ever had an ocean.
 - This will advance understanding of the formation of terrestrial planets.
- **IVO** - Io Volcano Observer is a proposal to explore Jupiter’s moon Io, which is extremely volcanically active.
 - This will try to find out how tidal forces shape planetary bodies.
 - The findings could further knowledge about the formation and evolution of rocky, terrestrial bodies and icy ocean worlds in the Solar System.
- **TRIDENT** - This aims to explore Neptune’s icy moon, Triton, so that scientists can understand the development of habitable worlds in the Solar System.



- **VERITAS** - Venus Emissivity, Radio Science, InSAR, Topography, and Spectroscopy will aim to map Venus's surface to find out why Venus developed so differently from Earth.

Solar Orbiter

- Solar Orbiter is a collaborative mission between the European Space Agency and NASA to study the Sun, took off from Cape Canaveral in Florida.
- The mission, which will take the first pictures of the top and bottom of the sun, was launched on an Atlas V rocket.
- It carries four in situ instruments to measure the space environment immediately around the spacecraft like the sense of touch and Six remote-sensing imagers, which see the sun from afar.
- The Solar Orbiter (called SolO) will face the sun at approximately 42 million kilometers from its surface.
- The new spacecraft will use the gravity of Venus and Earth to swing itself out of the ecliptic plane, passing inside the orbit of Mercury, and will be able to get a bird's eye view of the sun's poles for the first time.
- In 1990, NASA and ESA had sent the Ulysses mission, which also passed over the sun's poles but at much farther distances, and did not carry a camera.
- Orbiter will take pictures using telescopes through a heat shield that is partly made of baked animal bones, to help it withstand temperatures of up to 600 degree Celsius.
- The Orbiter will help scientists understand the sun's dynamic behavior, and solve mysteries such as the sunspot cycle, or why the star spews out high velocity charged particles through the solar system.
- With more data on the global magnetic field of the star, scientists would be able to forecast space weather events.

Super Cam

- NASA will sending a new laser-toting robot as one of seven instruments aboard the Mars 2020 rover.
- SuperCam, the robot is used for studying mineralogy and chemistry from up to about 7 meters away.
- It might help scientists find signs of fossilized microbial life on Mars.
- It fires a pulsed laser beam out of the rover's mast to vaporize small portions of rock from a distance, providing information that will be essential to the mission's success.
- From more than 7 m away, SuperCam can fire a laser to study rock targets smaller than a pencil point, that lets the rover study spots it can't reach with its arm.
- SuperCam looks at rock textures and chemicals to find those that formed or changed in water on Mars long ago.
- SuperCam looks at different rock and "soil" types to find ones that could preserve signs of past microbial life on Mars – if any ever existed.
- For the benefit of future explorers, SuperCam identifies which elements in the Martian dust may be harmful to humans.
- Scientists can learn about how atmospheric molecules, water ice, and dust absorb or reflect solar radiation, this helps predict Martian weather better.

Terminator Tape

- To tackle the problem of space debris, a company called Tethers Unlimited has demonstrated an easy solution to get rid of satellites once they are of no use.
- The Terminator Tape is a small module about the size of a notebook.
- It weighs less than two pounds that will be attached to the exterior of a satellite that deploys the 230-foot long conductive tape through an electric signal from either the satellite or an independent timer unit.
- This tape interacts with the space environment to create a drag force on the satellite that lowers its orbit.



- The company calls the Terminator Tape “an affordable, lightweight solution for removing space debris from an orbit”.
- Tethers Unlimited is currently collaborating with Millennium Space Systems, TriSept, and RocketLab to prepare a scientific method-based low-Earth orbit flight experiment called “DRAGRACER”.
- It will compare deorbit of two identical satellites– one with a Terminator Tape and another without one.
- The experiment will compare the falling speed of the two satellites to analyze the tape’s performance.

CHEPOS

- European Space Agency (ESA) had launched the CHaracterizing ExOPlanet Satellite (CHEOPS) in 2019 that focuses on exoplanets, in particular, to search for habitable planets
- Ever since its launch CHEOPS satellite has been orbiting the Earth at an altitude of 700 kilometers (435 miles).

DEFENCE

Offshore Patrol Vessel-6 “VAJRA”

- Offshore Patrol Vessel (OPV-6) 'VAJRA' is launched at Chennai.
- It is the sixth Offshore Patrol Vessel (OPV) getting launched in the sea.
- OPV-6 is truly state of the art platform which will enhance the capabilities of Indian Coast Guard in terms of Operation, Surveillance, and Search & Rescue.
- Indian Coast Guard has increased its fleet strength and now it is one of the largest coast guards in the world.
- The ship would be utilized for day and night patrol/surveillance along with anti-terrorist/ anti-smuggling operations in the Exclusive Economic Zone (EEZ) as well as Coastal Security.
- The OPV will have two Navigation Radars with ultra-modern technology, sophisticated navigational and latest communication systems.

Small Vessel Advisory and Forecast Services System (SVAS)

- The Small Vessel Advisory and Forecast Services System (SVA) is an innovative impact-based advisory and forecast service system for small vessels operating in Indian coastal waters.
- The SVA system warns users about potential zones where vessel overturning can take place, ten days in advance.
- The advisories are valid for small vessels of beam width up to 7 m.
- This limit covers the entire range of beam widths of the fishing vessels used in all the 9 coastal states and union territories of India.
- The warning system is based on the ‘Boat Safety Index’ (BSI) derived from wave model forecast outputs such as significant wave height, wave steepness, directional spread and the rapid development of wind at sea which is boat-specific.

Indradhanush - V 2020

- The Indian Air Force (IAF) and Royal Air Force (RAF) jointly commenced the fifth edition of Ex Indradhanush at Air Force Station Hindan.
- The focus of this edition of the exercise is 'Base Defence and Force Protection'.
- This theme is of significance considering the recent threats to military establishments from terror elements.
- Ex Indradhanush provides a platform for the IAF and RAF to share and jointly validate strategies and tactics to counter terror threats to their installations.



Bay of Bengal Offshore Sailing Expedition (BBSE)

- Indian Naval Sailing Vessels Mhadei and Tarini set sail for the Bay of Bengal Offshore Sailing Expedition from the Indian Naval Ocean Sailing Node at Goa.
- It will cover a total distance of 6,100 Nautical miles each and will be at sea for 55 days.
- This would be the maiden major mixed crew sailing expedition of the Indian Navy with crew composition of five naval officers including two women officers in each boat.
- The voyage would showcase harnessing of renewable energy namely wind energy to propel the boats.
- The expedition is also in pursuance of the GOI mission of 'Nari Shakti' providing opportunity to women officers at par with men.
- The Bay of Bengal Offshore Sailing Expedition will generate goodwill amongst the visiting nations and inspire participation in the forthcoming BIMSTEC Sailing Expedition being planned with mixed crew of member nations onboard Indian Naval Sailing Vessels.

INS Mhadei & INS Tarini

- Mhadei and Tarini inducted in the Indian Navy in 2009 and in 2017 respectively have been the vessels of choice for the naval expeditioners in various sailing expeditions, including three circumnavigations and thus have thousands of miles tucked under their belt.
- Mhadei has successfully completed two circumnavigations, three Cape to Rio trans-Atlantic races and several other expeditions around various continents.
- The vessel has covered in excess of 1,36,000 nautical miles.
- Tarini created history in 2017-18 when six Indian Naval women officers sailed the vessel on maiden circumnavigation voyage titled Navika Sagar Parikrama.
- She thereafter also participated in mixed crew Kochi to Seychelles sail training expedition during 10th anniversary celebration of the IONS.

INS Jamuna

- INS Jamuna is Indian Navy Hydrographic Survey Ship.
- It is on a deployment to carry out Joint Hydrographic Survey off the South – West coast of Sri Lanka.
- The ship has undertaken several survey activities as part of the Foreign Cooperation Survey along with the Sri Lanka Navy hydrographers.

INS Shivaji

- INS Shivaji is an Indian Naval station located in Lonavala, Maharashtra, India.
- It houses the Naval College of Engineering, which trains officers of the Indian Navy and the Indian Coast Guard.
- It was commissioned in 1945 as HMIS Shivaji, It is located close to the Bhushi Dam.
- Indian Navy operates the first damage control simulator Akshat at INS Shivaji to train its officers and sailors on damage control on a warship at sea.
- Indian Navy's Nuclear, Biological and Chemical Defence (NBCD) School and Center for Marine Engineering Technology are also based here.

Sharang Artillery Gun

- Sharang is first 130mm M-46 Artillery gun upgraded to 155mm by Ordnance Factory Board.
- It was formally handed over by OFB to Indian Army at the Lucknow Defence Expo.
- The gun's range has now gone from 27km to over 36km with the upgrade.
- It also has more explosive capability and hence and more damage potential.

- After close to three decades, the Army inducted its first modern artillery guns system in November 2018, these gun capabilities of Indian army includes
 1. M-777 Ultra Light Howitzers (ULH) from the U.S.
 2. K9 Vajra-T self-propelled artillery guns from South Korea.
 3. The 155mm Dhanush towed gun system, developed based on the Bofors guns by OFB, is under induction.
 4. Advanced Towed Artillery Gun System (ATAGS), a 155mm, 52 calibre gun, being jointly developed by the DRDO in partnership with Bharat Forge of Kalyani Group and Tata Power SED.
 5. 155mm Excalibur precision-guided ammunition from the U.S.

INS Karanj

- INS Karanj (2018) is the third submarine of the first batch of six Kalvari-class submarines for the Indian Navy, it is currently in advanced stages of sea trials.
- It is a diesel-electric attack submarine based on the Scorpène class, designed by French naval defence and energy group DCNS and manufactured by Mazagon Dock Limited, an Indian shipyard in Mumbai.
- The first Scorpene, Kulvari, was commissioned in 2018 and Second Scorpene Khanderi was inducted in September 2019.
- The Scorpene submarine has the ability to be equipped with an Air Independent Propulsion (AIP) system.
- An indigenous fuel cell-based AIP module is currently under development by the DRDO.
- An AIP module gives stealth and extended endurance to diesel-electric submarines by allowing them to stay submerged longer.

Project-75I

- Naval Group is among the five Original Equipment Manufacturers (OEM) shortlisted for the Navy's project for advanced submarines under Project-75I.
- It is being processed through the Strategic Partnership (SP) model of defence procurement.
- MDL and Larsen & Turbo are the two Indian companies shortlisted under it and the Request For Proposal (RFP) would be issued to them.

HEALTH

Covid-19

- The World Health Organization (WHO) has named the new coronavirus disease as 'Covid-19'.
- The new name is taken from the words "corona", "virus" and "disease", with 2019 representing the year when it emerged.
- The WHO wanted to avoid stigmatizing a country or particular group, so it chose a name that did not refer to a geographical location, an animal, an individual or a group of people.
- The WHO, in consultation with the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO), has identified best practices for naming new human diseases.
- These best practices apply to a new disease:
 - That is an infection, syndrome, or disease of humans;
 - That has never been recognised before in humans;
 - That has potential public health impact; and
 - Where no disease name is yet established in common usage
- Names that are assigned by the WHO may or may not be approved by the International Classification of Diseases (ICD) at a later stage.



- The ICD, which is also managed by the WHO, provides a final standard name for each human disease according to standard guidelines that are aimed at reducing the negative impact from names while balancing science, communication and policy.

Public Health Emergency of International Concern

- A Public Health Emergency of International Concern (PHEIC) is a formal declaration by the World Health Organization (WHO).
- It is declared during 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.
- It is formulated when a situation arises that is "serious, sudden, unusual or unexpected", which "carries implications for public health beyond the affected State's national border" and "may require immediate international action".
- Under the 2005 International Health Regulations (IHR), states have a legal duty to respond promptly to a PHEIC.
- Since 2009, there have been six PHEIC declarations:
 1. In 2009 H1N1 (or swine flu) pandemic,
 2. In 2014 polio declaration,
 3. In 2014 outbreak of Ebola in Western Africa,
 4. In 2015–16 Zika virus epidemic,
 5. In 2015-16 Kivu Ebola epidemic,
 6. In 2020 novel coronavirus outbreak.
- The recommendations are temporary and require reviews every three months.
- SARS, smallpox, wild type poliomyelitis, and any new subtype of human influenza are automatically PHEICs and therefore do not require an IHR decision to declare them as such.
- PHEIC is not only confined to infectious diseases, and may cover an emergency caused by a chemical agent or a radio nuclear material.
- It is a "call to action" and "last resort" measure.
- Most epidemics and emergencies do not gain public attention or fulfil the criteria to be a PHEIC.

SARS vs CORONA

- SARS was also caused by a type of coronavirus (SARS-CoV) and is believed to be an animal virus, possibly transmitted from bats to civet cats to human beings.
- This virus first infected human beings in the Guangdong province of Southern China in 2002 and the region is still considered a potential zone of the re-emergence of the SARS CoV.
- The epidemic affected 26 countries and resulted in more than 8,000 cases in 2003.
- SARS is transmitted from person to person, and the symptoms include fever, malaise, headache, myalgia, diarrhea and shivering.
- According to the WHO, fever is the most frequently reported symptom, and cough, shortness of breath and diarrhea follow in the first or second week of illness.
- Other countries where the SARS CoV spread during the epidemic include Hong Kong, Canada, Chinese Taipei, Singapore and Vietnam.

Yara Virus

- Researchers have discovered an unusually small virus in a lake in Brazil.
- The virus has been named Yaravirus after 'Yara', a water-queen figure in Brazilian mythology.



- The Yaravirus infects amoeba and has genes that have not been described before, something that could challenge how Deoxyribonucleic Acid (DNA) viruses are classified.
- DNA viruses are classified based on the protein that makes up their shell, or capsid. The Yaravirus' capsid doesn't resemble any previously known protein.
- The Yaravirus does not infect human cells.

Intestinal parasitic worms

- Intestinal parasitic worms are large multicellular organisms, which when mature can generally be seen with the naked eye.
- They are also known as Helminths.
- They are often referred to as intestinal worms even though not all helminths reside in the intestines.
- Parasitic worms in children interfere with nutrient uptake, and can contribute to anemia, malnourishment, and impaired mental and physical development.
- Parasitic worms have also debilitating consequences on the health and education of children, and on their long-term earning potential.

Lorcaserin

- Lorcaserin (brandname Belviq or Belviq XR) is a weight-loss drug.
- Lorcaserin has been withdrawn from the U.S. market after caution by the U.S. Food and Drug Administration because of cancer risk.
- The agency also said that health care professionals should stop prescribing and dispensing the drug to patients.
- Following this Indian doctors have also cautioned against the use of the drug.

Classical Swine Fever (CSF) Vaccine

- ICAR-Indian Veterinary Research Institute (IVRI), Izatnagar, develops classical Swine Fever Cell culture Vaccine.
- CSF is one of the most important diseases of pigs causing high mortality.
- A lapinized CSF vaccine (Weybridge strain, UK) is being used in India since 1964 for controlling the disease.
- IVRI recently developed a new CSF Cell Culture Vaccine by attenuating an indigenous virulent CSF virus in cell culture.
- The vaccine virus has a very high titre, lakhs of doses can be produced very easily in cell culture, and the country's requirement can be easily fulfilled using this new vaccine.
- The new vaccine is ready for release and commercial production will be completed in less than a year.
- The vaccine would be the best choice for use in the CSF Control Programme (CSF-CP) already launched by Department of Animal Husbandry and Dairying (DAHD)

OTHERS

Genome Mapping of Basmati Rice

- Gene mapping describes the methods used to identify the locus of a gene and the distances between genes.
- Genome mapping is used to identify and record the location of genes and the distances between genes on a chromosome.
- The essence of all genome mapping is to place a collection of molecular markers onto their respective positions on the genome.



- Molecular markers come in all forms.
- Recently Scientists have mapped the complete genome of two basmati rice varieties, including one that is drought-tolerant and resistant to bacterial disease.
- Basmati 334 from Pakistan, known to be drought tolerant and resistant to rice-killing bacterial blight, and Dom Sufid from Iran, an aromatic long-grain rice that is one of the most expensive on the market are two basmati rice varieties used by scientists.

Muktoshri Rice

- Researchers from West Bengal's have developed a rice variety called Muktoshri (IET 21845), that is resistant to arsenic.
- The variety yields 5.5 metric tons per hectare in the Boro (Winter) season and 4.5 to 5 metric tons per hectare in the Kharif season, respectively.
- The rice was long and thin, and aromatic.
- Notification for the commercial use of Muktoshri was made by West Bengal last year.

MicroRNAs

- Researchers from National Centre for Biological Sciences, Bengaluru, have discovered how small molecules called microRNAs are made in plants.
- This finding makes it much easier for studying processes in plants.
- MicroRNAs are small molecules, about 21 nucleotides long, and help in controlling the levels of proteins in the cell.
- All growth and development in plants are regulated at various levels in the cell, and mediated by proteins
- In order to decrease the level of a particular protein in specific cells, the microRNAs destroy the messenger RNA molecules that help with the production of that specific protein in the cell.
- The microRNA molecules do this by cutting down that particular messenger RNA thereby destroying it.
- This process is called the silencing of the messenger RNA.
- The microRNA that achieve this silencing are evolutionarily conserved – that is, they are found in all flowering plants, whether they are mosses or roses.
- Similarly, the best way to study the effect of a gene in the DNA is to silence or “knockout” the gene.
- Knocking out a gene does not mean removing the entire gene.
- In knocking out processes, those RNA that induce the gene to produce proteins are destroyed or their levels are reduced by the microRNA as described earlier.

Dark fiber

- Dark Fiber also known as unlit Fiber is an unused optical fiber that has been laid but is not currently being used in fiber-optic communications.
- Since fibre-optic cable transmits information in the form of light pulses, a "dark" cable refers to one through which light pulses are not being transmitted.
- Companies lay extra optical fibres in order to avoid cost repetition when more bandwidth is needed.
- Recently major telecom service providers in India, have approached the state-run Bharat Broadband Network Limited (BBNL) to use its dark fiber.
- It will help the telecom service providers to cut down on their capital expenditure.

Purifies Terephthalic Acid (PTA)

- Union government recently removed the antidumping duty on Purified Terephthalic Acid.



- Purified Terephthalic Acid (PTA) is a crucial raw material used to make various products, including polyester fabrics.
- PTA makes up for around 70-80% of a polyester product and is, therefore, important to those involved in the manufacture of man-made fabrics or their components, according to industry executives.
- This includes products like polyester staple fiber and spun yarn.
- The duty had meant importers were paying an extra \$27-\$160 for every 1,000 kg of PTA that they wanted to import from countries like China, Taiwan, Malaysia, Indonesia, Iran, Korea and Thailand.
- Removing the duty will allow PTA users to source from international markets and may make it as much as \$30 per 1,000 kg cheaper than now, according to industry executives.
- Mono Ethylene Glycol (MEG), another raw material used in the manufacturing of polyester, is currently the subject of another anti-dumping duty investigation initiated by Director General Of Trade Remedies (DGTR) recently.

26. INDEX AND REPORT

Multidimensional Poverty Index

- In 2011, Oxford University researchers devised the multidimensional poverty index (MPI) to capture poverty using 10 indicators: nutrition, child mortality, years of schooling, school attendance, ownership of assets, and access to proper house, electricity, drinking water, sanitation, and clean cooking fuel.
- Poverty is measured in terms of deprivation in at least a third of these indicators.
- The MPI is a more comprehensive measure of poverty because it includes components that capture the standard of living more effectively.

Global Health Security Index

- The Global Health Security Index is the first comprehensive assessment of health security and related capabilities in 195 countries.
- It assesses 195 countries across six categories — prevention, early detection, rapid response, health system quality, standards, and the risk environment.
- It is a project of the Nuclear Threat Initiative (NTI) and the Johns Hopkins University Center for Health Security (CHS), with research by the Economist Intelligence Unit (EIU).
- In this Index, India was ranked 57th out of 195 countries with a score of 46.5 out of 100.
- The United States (US) topped the list globally, overall with a score of 83.5, followed by United Kingdom (77.9) and Netherlands (75.6).
- Global Health Security Index finds that no country is adequately prepared to deal with the new strain of coronavirus (SARS-CoV-2) that is causing worldwide panic.

Multiple Indicator Cluster Survey (MICS)

- The Global MICS Programme was developed by UNICEF in the 1990s.
- It collects internationally comparable data on a wide range of indicators on the situation of children and women for use in policies, programmes, and national development plans.
- MICS is designed to collect statistically sound, internationally comparable estimates of about 130 indicators to assess the situation of children, women and men in the areas of health, education, and child protection.
- MICS is a rich source of data on the Sustainable Development Goals (SDGs), collecting about 33 SDG indicators.
- MICS covers topics and indicators related to children's well-being, women, and households, ranging from health and education to child protection and water and sanitation.

- In the most recent rounds of MICS, additional data are also collected on men.
- Data can be disaggregated for young people age 15-24 and by gender.
- Multiple Indicator Cluster Survey (MICS) 2019 is jointly conducted by the Bangladesh Bureau of Statistics (BBS) and UNICEF.
- According to the report Bangladesh records sharp decline in Child malnutrition over the last six years.
- The survey also records improvement in access to and use of toilets, birth registration, ante-natal care coverage, institutional deliveries and similar other parameters indicating an overall improvement in child and mother health in the country.

International Intellectual Property Index

- International Intellectual Property Index is released by Global Innovation Policy Center or GIPC of the US Chambers of Commerce.
- India has been ranked 40th out of 53 countries on a global intellectual property index 2020.
- India was placed at 36th position among 50 countries in 2019.
- India's score, however, increased from 36.04 per cent (16.22 out of 45) in 2019 to 38.46 per cent (19.23 out of 50) in 2020, a 2.42 per cent jump in absolute score.
- However, India's relative score increased by 6.71 per cent.
- Since the release of the 2016 National IPR Policy, India has improved the speed of processing for patent and trademark applications, increased awareness of IP rights among Indian innovators and creators, and facilitated the registration and enforcement of those rights, it added.
- The Index specifically highlights a number of reforms over the last year that strengthen India's overall IP ecosystem.
- According to GIPC's report India also continues to score well in the Systemic Efficiency indicator, scoring ahead of 28 other economies in these indicators.
- To continue this upward trajectory, much work remains to be done to introduce transformative changes to India's overall IP framework and take serious steps to consistently implement strong IP standards," the report said.
- GIPC has identified several challenges for India, prominent among them being
 1. Patentability requirements,
 2. Patent enforcement,
 3. Compulsory licensing,
 4. Patent opposition,
 5. Regulatory data protection,
 6. transparency in reporting seizures by customs,
 7. Singapore Treaty of Law of TMs
 8. Patent Law Treaty.

Sustainability Index and Flourishing Index

- Sustainability index and Flourishing Index report is commissioned by the WHO, UNICEF and the Lancet assess the capacity of 180 countries on the issue.
- India ranked 77th on a sustainability index that takes into account per capita carbon emissions and ability of children in a nation to live healthy lives.
- Under the Sustainability Index, the authors noted that promoting today's national conditions for children to survive and thrive must not come at the cost of eroding future global conditions for children's ability to flourish.
- The Sustainability Index ranks countries on excess carbon emissions compared with the 2030 target.

- This provides a convenient and available proxy for a country's contribution to sustainability in future.
- It secures 131st spot on a Flourishing Index that measures the best chance at survival and well-being for children.
- Flourishing is the geometric mean of Surviving and Thriving.
- For Surviving, the authors selected maternal survival, survival in children younger than 5 years old, suicide, access to maternal and child health services, basic hygiene and sanitation, and lack of extreme poverty.
- For Thriving, the domains were educational achievement, growth and nutrition, reproductive freedom, and protection from violence.
- According to the report world's survival depended on children being able to flourish, but no country is doing enough to give them a sustainable future.
- Norway leads the table for survival, health, education and nutrition rates - followed by South Korea and the Netherlands. Central African Republic, Chad and Somalia come at the bottom.

Gender Gap in Science Education

- February 11 was the International Day of Women and Girls in Science, established by the United Nations to promote equal access to and participation in science for women and girls.
- According to a 2018 fact sheet prepared by UNESCO on women in science, just 28.8% of researchers are women.
- UNESCO data from 2014-16 show that only around 30% of female students select STEM (science, technology, engineering and mathematics)-related fields in higher education.
- Female enrolment is particularly low in information technology (3%), natural science, mathematics and statistics (5%) and engineering and allied streams (8%).
- Various studies have found that girls excel at mathematics and science-oriented subjects in school, but boys often believe they can do better, which shapes their choices in higher studies.
- In 2015, an analysis of PISA scores by OECD found that the difference in maths scores between high-achieving boys and girls was the equivalent of about half a year at school.
- But when comparing boys and girls who reported similar levels of self-confidence and anxiety about mathematics, the gender gap in performance disappeared, when girls were more anxious, they tended to perform poorly.
- The NITI Aayog report said, "The problem of entry of women in science is not uniform across disciplines."

Ease of Living Index

- Ease of Living Index (EoLI) and Municipal Performance Index (MPI) 2019 have been launched by the Ministry of Housing & Urban Affairs.
- Ease of Living Index is aimed at providing a holistic view of Indian cities based on
 1. The services provided by local bodies,
 2. The effectiveness of the administration,
 3. The outcomes generated through these services in terms of the liveability within cities
 4. The citizen perception of these outcomes.
- The key objectives of the Ease of Living Index are four-folds, viz.
 - a) Generate information to guide evidence-based policy-making;
 - b) Catalyse action to achieve broader developmental outcomes including the SDG;
 - c) Assess and compare the outcomes achieved from various urban policies and schemes.
 - d) Obtain the perception of citizens about their view of the services provided by the city administration.



- EoLI 2019 will facilitate the assessment of ease of living of citizens across three pillars: Quality of Life, Economic Ability and Sustainability which are further divided into 14 categories across 50 indicators.
- It aims to assess the progress made in cities through various initiatives and empower them to use evidence to plan, implement & monitor their performance.
- These indices are designed to assess the quality of life of citizens in 100 Smart Cities and 14 other Million Plus Cities.

Municipal Performance Index 2019

- Municipal Performance Index 2019, aims to assess the performance of municipalities based on five enablers namely Service, Finance, Planning, Technology and Governance which have been further divided into 20 sectors which will be evaluated across 100 indicators.
- This will help Municipalities in better planning and management, filling the gaps in city administration, and improving the liveability of cities for its citizens.
- All participating cities have appointed nodal officers whose responsibility is to collect and collate the relevant data points from various departments both within and outside of the ULB and upload the same along with supporting documents in the exclusive web portal designed for this purpose.
