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OCTOBER 2019
G.S PAPER II

1. POLITY

1.1 EC's Order on Reducing Sikkim CM's Disqualification Period

Why in news?

The Election Commission has reduced the period of disqualification from electoral contest of Sikkim Chief Minister Prem Singh Tamang to one-year-and-a-month.

What was the charge?

- Mr. Tamang was convicted under the Prevention of Corruption Act.
- The charge was misappropriation of Rs.9.50 lakh in the purchase of milch cows for distribution, in 1996-97.
- His one-year prison term was upheld by the High Court and the Supreme Court.
- He went to jail and was released in August 2018.
- He was (controversially) appointed as the Chief Minister by the Sikkim Governor earlier in 2019.
- Mr. Tamang did not contest, but was elected legislature party leader by the Sikkim Krantikari Morcha (SKM), which won the election.
- This was in deep disregard of the Supreme Court's 2001 ruling in the case of late Tamil Nadu CM Jayalalithaa.
- [SC nullified her appointment as the CM in 2001 due to her conviction in 2000 in TANSI (Tamil Nadu Small Industries Corporation) case]
- Tamang's appointment as Chief Minister was challenged in the Supreme Court.

What was Tamang's response?

- Tamang approached the Election Commission for removing his disqualification.
- Under an amendment in 2003, any conviction under the anti-corruption law would attract the six-year disqualification.
- Tamang argued that the law prevailing at the time of his offence entailed disqualification from contesting elections only if the sentence was for a term of 2 years or more.
- So, the amendment in 2003 should not be applied to him.

What is the EC's decision?

- Under Section 11 of the Representation of the People Act, 1951, the EC has the power to remove or reduce the disqualification attached to a conviction.
- With the EC's current order, Mr. Tamang is eligible to contest a byelection and retain his post.

Why is this a wrong precedent?

- EC's power under the Representation of the People Act has been used only rarely, and seldom in a case involving a conviction for corruption.
- Disqualification from contest is a civil disability created by electoral law to keep those convicted by criminal courts from entering elected offices.

- It is not a second punishment in a criminal sense.
- So, Tamang cannot argue that disqualification for a one-year term amounts to being given a punishment not prevalent at the time of the offence.
- The EC's decision also goes against a series of recent legislative and judicial measures to strengthen the legal framework against corruption.
- In all, the order is a morally wrong and a dangerous precedent that may end up reversing the trend towards decriminalising politics.
- Moreover, there is already a perception that the EC's actions are being partisan.
- Now, its order in favour of Mr. Tamang comes just a day after the ruling BJP struck an alliance with the SKM for bypolls to be held in October 2019.
- This is bound to further strain the Election Commission's credibility.

What is the way forward?

- The apex court has described corruption as a serious problem and one impinging on the economy.
- Legislators handle public funds, and there is good reason to keep out those guilty of misusing them.
- In 2013, the protection given to sitting legislators from immediate disqualification was removed.
- All these suggest that disqualification should be more strictly applied to those convicted for corruption.

1.2 SC Judgement on NGOs and RTI

What is the issue?

- The Supreme Court gave its judgment in the D.A.V. College Trust and Management Society Vs. Director of Public Instructions case.
- The ruling on non-governmental organisations (NGOs) throws light on the powers of an undiluted RTI (Right to Information).

What is the judgment?

- The Court held that NGOs which were substantially financed by the appropriate government fall within the ambit of 'public authority' under Section 2(h) of the RTI Act, 2005.
- Under the Act, 'public authority' means any authority or body or institution of self-government established or constituted by or under the Constitution.
- In the judgement, 'substantial' means a large portion which can be both, direct or indirect.
- It need not be a major portion or more than 50% as no straitjacket formula can be resorted to in this regard.
- E.g. if land in a city is given free of cost or at a heavily subsidised rate to hospitals/educational institutions/other bodies, it can qualify as substantial financing.

What is the significance of the judgement?

- The court resorted to 'purposive' interpretation of the provisions.
- It thus underscored the need to focus on the larger objective of percolation of benefits of the statute to the masses.
- Applying the purposive rule of interpretation, the ultimate aims are -
 - i. creation of an 'informed' citizenry

- ii. containment of corruption
- iii. holding of government and its instrumentalities accountable to the governed
- Besides this, the judgment can potentially have wider ramifications in terms of the ambit of the RTI regime on national political parties.

Why should national parties be brought under RTI Act?

- National political parties are 'substantially' financed by the Central government.
- The various concessions for them include -
 - i. land allocation
 - ii. accommodation
 - iii. bungalows in the national and State capitals
 - iv. tax exemption against income under Section 13A of the Income Tax Act
 - v. free air time on television and radio, etc
- These can easily satisfy the prerequisite of Section 2(h) of the RTI Act, to be called a 'public authority'.

What were the earlier developments in this regard?

- **ADR** - In 2010, the Association for Democratic Reforms (ADR) filed an application under the RTI to all national parties.
- It sought information about the "10 maximum voluntary contributions" received by them in the past 5 years.
- None of the national political parties volunteered to disclose the information.
- Consequently, ADR and RTI activist Subhash Agarwal filed a petition with the Central Information Commission (CIC).
- **CIC** - In 2013, a full bench of the CIC delivered a historic judgment.
- It declared that all national parties came under 'public authorities' and were within the purview of the RTI Act.
- Accordingly, they were directed to designate central public information officers (CPIOs) and the appellate authorities at their headquarters within 6 weeks.
- Notwithstanding the binding value of the CIC's order, none of the 6 national political parties complied with it.
- All the parties were absent from the hearing when the commission issued show-cause notices for non-compliance.
- **Bill** - In 2013, The Right to Information (Amendment) Bill was introduced in the Parliament; it lapsed after the dissolution of the 15th Lok Sabha.
- The Bill aimed at keeping the political parties explicitly outside the purview of RTI.
- **2019 PIL** - In 2019, a PIL was filed in the Supreme Court seeking a declaration of political parties as 'public authority', and the matter is under judicial consideration.

1.3 Supreme Court Hearing on Land Acquisition Case

Why in news?

A five-judge Constitution Bench of the Supreme Court is hearing a case to clarify the interpretation of the law on land acquisition.



What is the case on?

- Two three-judge Bench rulings delivered by the apex court in 2014 and 2018 on the same issue differed in their interpretations.
- This has prompted the court to refer the matter to a larger Bench.
- The hearing will decide the legality of several cases of land acquisition that took place across the country before 2009.
- The matter also raises significant questions on judicial discipline.
- It relates to how judgments of the court are applied while deciding subsequent cases on similar issues.

What is the provision in question?

- The case is specifically over the provision related to compensation awarded to land owners.
- The issue involves Section 24(2) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- The 2013 Act replaced the colonial 1894 land acquisition law.
- Section 24(2) says that in cases where acquisition proceedings were initiated under the 1894 law and compensation had been determined -
 - i. the proceedings would lapse if the state did not take possession of the land for 5 years (and)
 - ii. had not paid compensation to the landowner
- Once the proceedings lapse under the old law, the acquisition process would be initiated again under the new law.
- This would allow the owner to get a higher compensation.
- The term “paid” in the provision needed interpretation.
- Since it placed the responsibility on the government, cases were filed before the courts soon after the law was implemented.

What were the two conflicting judgments?

- **2014** - In 2014, the first such case involving the interpretation of the new law was the Pune Municipal Authority v Harakchand Misirimal Solanki.
- A three-judge Bench said that the state depositing the compensation in its own treasury cannot be equated with the landowners being “paid”.
- In exceptional circumstances, where the landowner refuses the compensation, the sum can be deposited with the court.
- But, a deposit in the state’s own treasury would not suffice.
- This ruling was followed as the precedent by High Courts in several cases, and was affirmed by the apex court itself in 2016.
- **2018** - In February 2018, a three-judge Bench ruled in Indore Developmental Authority v Shailendra on a similar issue.
- It held that in cases where the landowner had refused compensation, depositing it with the treasury was sufficient.
- So, the state was not obligated to deposit it with the court.

- In doing so, the court also invalidated the 2014 ruling and declared it “per incuriam” (as lacking in regard for the law and facts).

What does “per incuriam” mean?

- ‘Incuria’ is Latin for “carelessness”, and when a judgment is declared per incuriam, it means that the case was wrongly decided.
- This means that the judges were ill-informed about the applicable law.
- A judgment can also be declared per incuriam if it has materially deviated from earlier precedents.
- A judgment that is per incuriam has no legal force or validity and does not have to be counted as a precedent.

Why was a referral to a larger Bench made?

- Days after the 2018 verdict was pronounced, another three-judge Bench noticed the inconsistency in the two judgements.
- Thus, the bench stayed all cases relating to the concerned provision of the land acquisition Act in High Courts across the country.
- It also asked “other Benches of the Supreme Court” to not take up the issue until it was decided by a larger Bench.
- In oral observations, a Judge strongly criticised the 2018 ruling.
- It was said that the verdict had deviated from “virgin principles” of the judiciary in declaring a verdict of equal Bench strength as per incuriam.

Why is a ruling being invalidated contentious?

- The controversy arises not only as the 2014 ruling was declared per incuriam, but also because it was done so by a Bench of equal strength.
- In the judicial system that is followed in India, a judgment of the court is used as the basis or precedent for determining future cases.
- In the US, all justices of the Supreme Court sit together for hearing every case.
- Unlike this, the Supreme Court in India sits in Benches of two or three.
- So, the practice of following precedent ensures consistency and certainty in law.
- Also, a ruling of the Supreme Court is binding on all High Courts.
- Likewise, a ruling of the Supreme Court by Benches of larger or equal strength is binding on other Benches of the court.
- So, a three-judge Bench cannot hold a decision by another three-judge Bench to be per incuriam.
- Similarly, a Bench cannot ask other Benches to not follow a judgment.
- It can only ask for consideration by a larger Bench if it disagrees with the precedent.
- Larger Bench rulings are preferred to make sure that the law laid down by the court is predictable as far as possible.

1.4 Judgement on Ayodhya Dispute

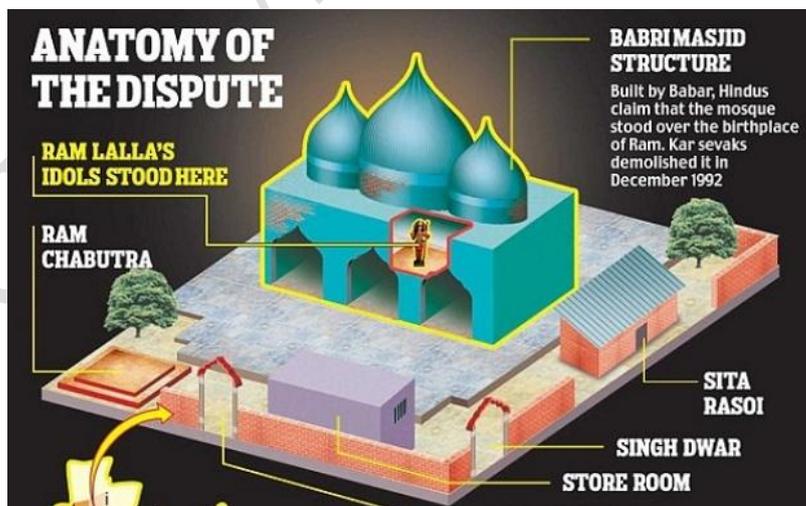
Why in news?

- The Constitution Bench of the Supreme Court reserved its judgment on the Ayodhya dispute.

- The appeals were against the Allahabad High Court's judgment on the title-suits filed by both Hindu and Muslim parties.

What is the case on?

- The Ayodhya dispute involving Hindus and Muslims dates back to 1800s.
- It relates to differences over rights to worship in Chabutra, an uncovered open platform adjoining the Babri Masjid, in Ayodhya, UP.
- The competing claims began with the surreptitious installation of Lord Ram's idol on the night of December 22/23, 1949 under the Ayodhya structure's central dome.
- Suits were filed over the years by both sides.
- From the 1980s, the Ayodhya dispute was used for political mobilisation by Hindu nationalist groups.
- After a court ordered the reopening of the structure's doors in 1986, the Bharatiya Janata Party saw the scope for a national movement in it.
- The VHP (Vishva Hindu Parishad) and Bajrang Dal launched a movement for the 'retrieval' of the site for the construction of a grand Ram Mandir.
- With this, a dispute over title and the right of worship transformed into an uncompromising litigation based on faith.
- The disputed structure was demolished in December 1992.
- The matter was ultimately disposed of by the Allahabad High Court Bench in 2010.
- The decision involved a three-way division of the disputed area among the deity, the Nirmohi Akhara and the Muslim side.
- But, this satisfied no one and the matter went up to the Supreme Court.
- [Nirmohi Akhara is a religious denomination established by Ramananda. It is one of the litigants in the Ayodhya case.]



*What are the challenges to the final judgment?

- Notably, the case's emotive nature and its potential for dividing society prevented its early disposal.
- The demolition was certainly a crime against the country's secular fabric and its constitutional ethos.
- The alleged evidence of a Hindu structure beneath the mosque came up only in excavations made after the structure was destroyed.
- Certainly, the evidence would not have been available to the court if the suits had been disposed of in earlier decades.
- So, any decision made on such evidence might amount to the judicial system legitimising the demolition.

2. GOVERNMENT ACTS & POLICIES

2.1 Amendment to SC's Earlier Verdict on SC/STs PoA Act

Why in news?

The Supreme Court recalled its [March 20, 2018 verdict](#), which diluted the original provisions of the SC/ST (Prevention of Atrocities) Act of 1989.

What was the 2018 verdict?

- The 2018 verdict provided for granting anticipatory bail to accused persons under the SC/ST (Prevention of Atrocities) Act of 1989.
- It also made mandatory a preliminary enquiry by the police on whether the complaint under the Act is “frivolous or motivated” before registering a case.
- Both these conditions were not part of the original legislation.
- The verdict was based on the view that members of the SC/ST used the 1989 law to lodge false complaints, leading to the arrest of innocent persons.

What led to the court's changed stance now?

- The 2018 judgment had triggered widespread protests and violence.
- This compelled the government to [amend the Act](#) to negate the effect of the Supreme Court ruling.
- The Centre also filed a review against the judgment.
- In its judgment on the government's review petition, a three-judge Bench of the Supreme Court condemned its own earlier judgment.

What is the Court's justification now?

- Caste of a person cannot be a cause for lodging a false report.
- The court has reasoned that human failing and not caste was the reason behind the lodging of false criminal complaints.
- It said it was against basic human dignity to treat all SC/ST community members as liars.
- The court observed that India had not been able to provide the modern methods of scavenging (where caste plays a role) due to lack of resources and proper planning and apathy.
- Untouchability though intended to be abolished, has not vanished in the last 70 years.
- The condition is still worse in the villages and remote areas where the fruits of development have not percolated down.

What is the significance?

- The apex court's decision recalling the earlier verdict may not appear very significant.
- However, the order by the three-judge Bench on the Centre's review petition is more than a mere academic exercise.
- The court's sound reasoning and reconsideration have strengthened the legislative measure to restore the law on atrocities committed on Dalits.
- The court's re-examination underscores that special laws for the protection of SC and ST communities flow from social realities and the discrimination they still face.



- The special laws empower them from circumstances that prevent them from gathering the courage to lodge a complaint in the first place.
- The guideline on mandatory preliminary enquiry for this class of cases alone is extra-statutory, and clearly amount to the judiciary engaging in legislation.
- In other words, the court has held that the additional “safeguards” against the alleged abuse of law by Dalits is another form of discrimination in itself.
- By this, the court rules out the assumption that SC/ST members are more likely to give false complaints than the general population.
- The review is also a timely reminder or a caution for judiciary against entering the legislative domain.

2.2 Corrigendum to the J&K Reorganisation Act

Why in news?

Recently, the Union Ministry of Law and Justice was forced to issue a corrigendum to the Jammu and Kashmir Reorganisation Act.

What is the J&K Reorganisation Act?

- The Act gave legal force to the de facto [revocation of Article 370](#).
- It had mandated a special relation between the Centre and the erstwhile state.
- The Act was introduced to divide Jammu and Kashmir into two Union Territories - Jammu and Kashmir, and Ladakh.
- Both of this is to come into existence on October 31 2019.

What was the corrigendum?

- The corrigendum had to correct as many as 52 errors in the Act, from simple spelling mistakes to incorrectly referenced laws.
- E.g. administrator has been spelt as "Adminstrator" while article became 'artcle', territories - "tterritories", Shariat - "Shariet", Safai Karamcharis - "Safaikaramcharis"
- Before corrections were notified, the Act even mentioned that there would be delimitation of the parliamentary constituencies of J&K.
- However, the corrigenda said the sentence has been omitted now.
- Some of the other key errors include "State of Jammu and Kashmir" for "Union territory of Jammu and Kashmir", "Institutes Act, 2005" for "Institutions Act, 2004", "1951" for "1909".

What are the other such cases?

- This was not an isolated incident.
- The ministry has had to issue such corrigenda frequently, particularly when it came to Ordinances, such as those amending the corporate income-tax law.
- They appear to have been drafted in haste and without due consultation.
- On other occasions, no official amendments or corrigenda are issued.
- In such cases, the concerned minister gives a verbal assurance to the Parliament that any deficiencies in the wording of the law would be corrected at the time of issuing the relevant rules.

What is the larger concern?

- It is a reflection of the lack of application of mind that appears to have crept into the law-making process within the executive.
- Another worrying cause is the constant relaxing of the due process in policy-making and legislation.
- Errors in drafting, if not caught, can have ramifications much later in the future.
- Mistakes in tax laws are particularly dangerous because they can leave loopholes, which private lawyers and accountants can exploit.
- On the other hand, closing them retroactively would have a strongly negative effect on public opinion and investor confidence.

What is the measure taken?

- The Cabinet Secretariat recently wrote to the various Union ministries and departments.
- It was pointed out that they are required to share drafts of Cabinet notes well in advance.
- Thereby, any deficiencies and inconsistencies may be spotted before the legislative process begins.
- At least 15 days should also be set aside for the Cabinet Secretariat and the Prime Minister's Office.
- This is to examine the notes in question as well as for standard inter-ministerial consultations.
- This is the recommended time for finalising notes in the Handbook, which governs the writing of Cabinet notes.

What is to be addressed?

- The Cabinet Secretariat is to be commended for acting to remind the line ministries and departments of this issue.
- However, besides this, the real problem lies in the nature of decision-making.
- Too many major policy changes with deep legal implications are being made in relative secrecy.
- Inadequate consultation within the government or with the Parliament is becoming the norm.
- Unrealistic and imprudent timelines for major changes are being forced on the bureaucracy for key decisions.

2.3 Web Content Regulation - Executive and Judiciary

Why in news?

- The Supreme Court transferred to itself all cases pending before HCs relating to web content regulation.
- The Centre informed the Court that the entire process of finalising the laws on regulating social media will be completed by January 2020.

What is the case on?

- The Centre's new draft of [Intermediary Guidelines](#), originally issued in 2011, was made public last year, and comments invited from all sections.
- The government will have to collate and analyse the suggestions and comments received.
- It will then have to notify "extant rules" for effective regulation of internet intermediaries.
- [Internet intermediary refers to a company that facilitates the use of the Internet - Internet service providers (ISPs), search engines, social media platforms.]

- The Centre informed the Court that it would take another 3 months for the above process and complete it by January 2020.
- This comes after Supreme Court's query on the status of the changes being contemplated in rules to ensure accountability of intermediaries.
- The Court posed the question when it was hearing a plea by Facebook. Click [here](#) to know more.
- The petition urged the Court to transfer to itself certain petitions filed in various High Courts for linking social media accounts to Aadhaar numbers.

What is the need for regulation?

- There is an enormous rise in the number of people using Internet and social media.
- There is also an exponential rise in hate speech, fake news, anti-national activities, defamatory postings, and other unlawful activities using Internet/social media platforms.
- Internet has emerged as a potent tool to cause unimaginable disruption to the democratic polity.
- The Centre took note of this growing threat by social media platforms to individual rights and nation's integrity, sovereignty, and security.
- Internet service providers also expressed concerns over unregulated functioning of Facebook Messenger and WhatsApp.

What are the challenges in the process?

- It is for the executive to frame policy on this sensitive matter.
- On the other hand, the question whether social media need weeding out of objectionable content will ultimately require adjudication by the court.
- The provisions on the mandatory disclosure of "originators" of offending messages are a source of worry to social media platforms that use end-to-end encryption.
- Whether it is technologically feasible for the platforms to provide back-door access to law enforcement is uncertain.
- Besides, balancing between requiring access to the originators of encrypted content and respecting individual privacy will be a huge challenge.
- It is also a unique opportunity to test the impact of the K.S. Puttaswamy verdict (2017) on the proposed legal framework.
- [The judgment had declared [privacy as a fundamental right](#).
- It also laid down a proportionality standard to test the validity of restrictions on that right.]
- Other requirements such as proactive removal of offending content through automated tools may have an impact on free speech and expression.

2.4 Proposal on Criminal Justice Reforms

Why in news?

The Home Ministry is set to amend various sections of the Indian Penal Code (IPC) and the Code of Criminal Procedure (CrPC).

What is the rationale?

- The IPC, introduced by the British in 1860, is primarily based on the spirit of "master and servant".

- In the British era, the police were raised to protect the British's interests.
- But now, the duty of the police is to "protect the people."
- Also, in the exiting codes, there is uneven punishment for crimes of grievous nature.
- E.g. snatching of chains or bags on road
- It could be life-threatening in some cases but the punishment is not commensurate with the gravity of the crime.
- Notably, after it was framed, the IPC has never been amended in totality, and only some additions and deletions have been made.
- Hence, it is necessary to make an overhaul now to standardise the punishment and align it to present needs.
- The key idea behind the overhaul is that the master-servant concept envisaged in IPC should change.

What is the proposal?

- The Home Minister recently said that the Bureau of Police Research and Development should work on the proposal to amend the codes.
- The Ministry wrote to all States and Union Territories seeking suggestions in this regard.
- Two committees comprising legal luminaries have also been constituted by the Ministry.

What is the need for caution?

- While the revision of the codes is essential in many ways, it should not be unprincipled or unguided amendments.
- In the process, it is suggested to first look into -
 1. the general principles of criminal law
 2. the language of the IPC
 3. the rules which should govern its interpretation
- Criminal law is considered to be the most apparent expression of the relationship between a state and its citizens.
- Any revision of the IPC, therefore, needs to be done while keeping several principles in mind.

What are the principles to be considered?

- **Victims** - Victimological underpinnings ought to be given a major thrust in reforming laws to identify the rights of crime victims.
- The following point towards the increased role of victims in the criminal justice system:
 - i. launch of victim and witness protection schemes
 - ii. use of victim impact statements
 - iii. advent of victim advocacy
 - iv. increased victim participation in criminal trials
 - v. enhanced access of victims to compensation and restitution
- **Offences** - Construction of new offences and reworking of the existing classification of offences is another priority.



- This process must be informed by the principles of criminal jurisprudence which have substantially been altered in the past four decades.
- For instance, liability questions in offences need a fresh look.
- Criminal liability could be graded better to assign the degree of punishments.
- New types of punishments like community service orders, restitution orders, and other aspects of restorative and reformative justice could also be brought in this fold.
- **Classification** - Chapters of the IPC are overloaded at several places.
- It is unnecessary to have hundreds of sections in the category of property offences.
- The scheme of chapters and classification of offences can be drastically reworked.
- Offences like criminal conspiracy, sedition, offences against coin and stamps, etc must be abolished or replaced.
- Even the chapters on offences against public servants, contempt of authority, public tranquility, and trespass can be redefined and narrowed.
- New offences under a fresh classification scheme, like those suggested by the [Malimath Committee](#) on criminal justice reforms, can be introduced.

What are the shortfalls to be addressed?

- Unprincipled criminalisation must be avoided to save the state from dealing with too many entrants into the criminal justice system.
- It also often leads to not only the creation of new offences on unscientific grounds, but also arbitrariness in the criminal justice system.
- Guiding principles need to be developed after sufficient debate before criminalising an act as a crime.
- On the procedural side, sentencing reforms are highly imperative.
- Principled sentencing is needed as judges at present have the discretion to decide the quantum and nature of sentence to be imposed.
- They often sentence convicts differently for crimes of the same nature and/or gravity.
- Another systemic error is that of non-adherence to a particular theory of punishment.
- The criminal justice system often swings between the three theories of deterrence, retribution and reformation depending on its convenience.

3. SOCIAL JUSTICE

3.1 Draft Social Security Code 2019

What is the issue?

- The third draft on the Social Security code of 2019 aimed to amalgamate, simplify and rationalise the relevant provisions of existing central labour laws.
- The code has fallen short of this stated aim.

What are the flaws?

- It merely clubs together existing schemes in the organised sector.



- It has avoided the ambiguities over the basic criteria for availing social security benefits such as the minimum number of employees in an organisation and length of service.
- The basic structural and conceptual flaws in the code are,
 1. No uniform definition of “social security”.
 2. No central fund. The corpus is proposed to be split into numerous small funds creating a multiplicity of authorities and confusion.
 3. It is unclear how the proposed dismantling of the existing and functional structures, such as the Employees’ Provident Fund Organisation (EPFO) – is a better alternative.
 4. No clear definition for the crucial categories such as workers, wages, principal-agent in a contractual situation; and “organised-unorganised” sectors.
 5. This will continue to impede the extension of key social security benefits such as PF, gratuity, maternity benefits, and healthcare to all sections of workers.
 6. There is no commitment from the government to contribute to the listed social security measures, even as the Code is clear about employee and employer contributions.

What is unclear?

- It is heartening to welcome aboard large sections of the workforce such as those working in taxi aggregate companies.
- But how exactly the government proposes to facilitate their **access to PF or medical care** is not clear.
- In these cases, the **nature of the relationship** between the company and the working staff, and hence the obligations, is not defined.
- If employers in the unorganised sectors are expected to foot the bill for EPFO contributions, it will substantially hike the cost of doing business.

What is a failed examples?

- Existing benefits for unorganised workers have failed to materialise for similar reasons.
- For instance, the 22 years-old Building and Construction Workers’ Cess Fund’s failed to register the construction workers.
- So, they haven’t been able to avail of the fund effectively.
- The Fund has less than 3 crore workers registered, with all the State welfare boards put together.
- Official estimates - Over 5 crore construction workers.
- Unions’ estimate - Over 10 crore construction workers.
- It is a similar situation for almost all other welfare schemes run for the unorganised workers by the Central or State governments.
- **Problem** - The draft Code merely clubs the relevant sections of the existing statute without specifying how these issues are to be addressed.
- **Solution** - The government should address the long-pending structural issues and should actually simplify the existing labour laws.



3.2 Making India Open Defecation-Free

What is the issue?

- Speaking in Gujarat on the 150th birth anniversary of Mahatma Gandhi, Prime Minister Narendra Modi declared India “open defecation-free”.
- It is time to reflect if rural India is truly open defecation-free and consider having a sanitation policy for those who continue to use the outdoors.

What is the claim?

- October 2, 2019, besides being Mahatma Gandhi’s 150th birth anniversary, is the fifth, and perhaps final, anniversary of the Swachh Bharat Mission.
- The Swachh Bharat Mission website claims with some documents that the country has achieved 100% coverage of latrine ownership.

What is the true state?

- Between 2014 and the end of 2018, latrine ownership in a survey area in Bihar, U.P., Rajasthan and M.P. had increased by 34 percentage points.
- Yet, even in States that had already been declared open defecation-free, the actual coverage was far below 100%.
- The percentage of people defecating in the open declined by 26 percentage points.
- However, close to half still reported to be open defecating.
- More worryingly, the programme barely managed to bring any change in the behaviour of latrine owners.
- Like in 2014, about a quarter of people who own a functional latrine continued to defecate in the open.
- Overall, the survey found that 44% of people in these 4 States defecated in the open.

What is the concern?

- In the past 5 years, the Indian government has built a 100 million toilets.
- With a country as large as India, this is a big achievement.
- However, the means adopted for achieving this reveal the darker side of the Swachh Bharat Mission achievements.
- Hard-working government officials convincing people to build and use a latrine might be half the story.
- The mission beneficiaries as well as government officials at every level faced immense pressure and threats.
- Many rural Indians were threatened with or even denied their legal rights, such as PDS ration, Kisan Credit Cards, for not building a latrine.
- Officials resorted to threats of fines and jail terms to intimidate people in some places.

3.3 Iran Women’s Entry into Stadiums

Why in news?

Iran’s women were allowed to buy tickets and attend a football match in their own country for the first time since 1981.

Why is it so significant?

- In the recent past, Iranian authorities had allowed select female audiences, such as relatives of team members, to attend matches.

- However, the current move is the most significant, given the country's four-decades-old legacy of not allowing women from entering sports stadiums.

How did the restrictions evolve?

- In the Iranian Revolution of 1979, Iran's last monarch, Mohammad Reza Pahlavi, was overthrown by forces led by the conservative Ayatollah Ruhollah Khomeini.
- After this, an orthodox set of policies were put into force in the country.
- Among these policies were the segregation of men and women in public spaces.
- In 1981, conservative elements introduced a ban on women entering stadiums to watch football, a highly popular sport there.
- This ban was later extended to include volleyball and basketball as their popularity increased.

What were the efforts at removing these?

- In the past two decades, resistance against keeping women out of stadiums began to build up.
- In 2005, a protest was organised outside Tehran's Azadi stadium, which carried the signs "let the other half of the society in".
- Women also entered the stadium disguised as men, concealing their hair under caps and wearing fake facial hair.
- The acclaimed 2006 film *Offside* by Iranian filmmaker Jaffar Panahi was based on the women's activism.
- In 2013, the activist group Open Stadiums was formed.
- It has pressured international sporting bodies such as FIFA as well as human rights organisations to help ease the restrictions on Iran's women.

What is the immediate trigger?

- Sahar Khodayari, a 29-year-old woman, had in March 2019 sneaked into the Azadi stadium dressed as a man.
- Upon detection by the police, she was taken to the court where she was looking at a sentence of 6 months to 2 years.
- In September 2019, Khodayari set herself on fire outside the court, and died in hospital a week later.
- The young woman's death caused a major outcry in Iran and around the world.
- The hashtag #bluegirl trended online, referring to the team colours of the Esteghlal club that Khodayari supported.

What are the recent changes?

- Famous figures, including a former captain of the Iranian football team, called for a boycott of football games as long as the ban on women in stadiums remained in place.
- FIFA also said that they would "stand firm" on women being allowed to enter.
- This pressurised the Iranian authorities, and there was a threat of Iran being banned from the qualifying matches for the 2022 World Cup in Qatar.
- The opening of access to women now is believed to have followed this international pressure.

3.4 National Crime Records Bureau Data

Why in news?

The National Crime Records Bureau (NCRB) released the much delayed crime data for 2017.

What are the categories of data?

- The NCRB has introduced more than three dozen new categories and sub-categories of crimes under various heads.
- At least four categories where significant diversification of data can be seen are -
 - i. crimes against women and children
 - ii. atrocities against Dalits
 - iii. cases of corruption
 - iv. time taken by police and courts to take cases to their conclusion
- For the first time, the NCRB has introduced categories of cyber crimes against women and children.
- In the case of Dalits, the NCRB has for the first time published data on offences registered solely under the SC/ST (Prevention of Atrocities) Act.
- The further categorisation under this includes insult, land grab and social ostracism.
- The NCRB has also recorded cases of disproportionate assets against public servants.
- The other heads include abetment, criminal intimidation, simple hurt, credit/debit card and online frauds, Internet crimes through online gaming and kidnapping for begging among others.
- Importantly, for the first time, the NCRB has dwelt on not just pendency of cases (with the police and courts) but also the period of such pendency.

What are the highlights?

- **Women and children** - In the case of women and children, the NCRB has this time recorded data for "murder with rape".
- In 2017, close to 33,885 women were reported to have been raped across the country.
- Of these, 227 were murdered after the rape.
- Close to 28,150 children were raped with cases registered under IPC and the POCSO Act.
- Of these, nearly 150 were killed after being raped.
- The NCRB has, however, removed the category of gangrape that was introduced to its database following the December 2012 gangrape case.
- In the category of cyber crimes against women, nearly 4,200 offences were recorded.
- It includes cases where women were stalked, blackmailed or their morphed pictures were uploaded on the internet.
- In a sub-category for SLL (special and local laws) cyber crimes against women, the number of women-centric crimes is given as 600.
- Of this, 271 relate to publishing or transmitting of sexually explicit material under the Information Technology Act.
- The report has also introduced the categories of sexual harassment at the workplace and in public transport.



- As many as 479 and 599 cases were reported in 2017 under these categories respectively.
- Also, nearly 33,600 cases were registered and close to 40,400 juveniles arrested during the year.
- Majority of juveniles in conflict with law apprehended under IPC and SLL crimes were in the age group of 16 to 18 years.
- These cases accounted for around 72% of cases during 2017.
- **Justice delayed** - In the latest report, the NCRB, besides the numbers, has also recorded the period of pendency.
- For IPC crimes, police are supposed to file a charge-sheet within 90 days.
- The data show that police delayed charge-sheets in 40% of cases.
- In certain cases such as rioting, which includes communal riots, police delayed filing of charge-sheets in 60% of the cases.
- There are more than 3 lakh cases pending investigations for more than one year.
- In more than 40% of cases, the fast-track courts have taken more than 3 years to finish the trial.
- In fact, in as many as 3,384 cases committed to fast-track courts, the trial was finished in more than 10 years.
- Of the 38,000-odd cases that fast-track courts completed in 2017, over 4,500 cases had been running for 5-10 years.
- In only around 11,500 cases was the trial completed within one year.
- In courts as a whole, more than 2,71,000 cases were pending trial at the end of 2017.
- **Other data** - Under the category of rioting, new subcategories have been added which include vigilante action, disputes over water, power and property and rioting during morchas.
- Some other new data include spreading of fake news where 257 offences have been recorded.
- As many as 952 election-related offences were also recorded in 2017 apart from offences relating to religion (1,808) and Obscene Acts and Songs at Public Places (29,557).

What are the key drawbacks in the report?

- **Hate crimes** - The report omits data on mob lynchings, khap killings, murder by influential people and killings for religious reasons.
- A few months ago, government officials had blamed the States of West Bengal and Bihar for lackadaisical responses in sending data in this regard.
- The Supreme Court, in 2018, in an order, called for a special law to deal with lynching.
- Data on such hate crimes would have been useful in both law enforcement and jurisprudence.
- But the Central government has time and again argued against the need for a separate law.
- It has affirmed that curbing lynching was a matter of “enforcement”.
- As of now, there exist only a few independent “hate crime trackers” based on media reports.
- Without a proper accounting of hate crimes, tackling them effectively is hard.
- **State-wise variations** - The NCRB data on crime hide significant variances in case registration of serious crimes such as rapes and violence against women across States.

- This makes it difficult to draw State-wise comparisons.
- The total number of crimes committed against women country-wide increased by 6% since 2016, while those against dalits went up by 13%.
- However, there is the possibility of some States reporting such crimes better.
- This is pertinent, particularly in rape cases.
- E.g. the UT of Delhi registered a rate of 12.5 per one lakh population, surpassed only by MP (14.7) and Chhattisgarh (14.6)
- But the filing of rape complaints in Delhi have significantly increased following public outcry over the December 2012 rape incident.
- This could partially explain the high rate of such cases.
- The higher record of IPC crimes in Delhi among metropolitan cities in 2017 is also likely due to the use of easier (online) means to register them.
- **Assessment methodology** - The report uses the census base year as 2001 to calculate crime rates for States and 2011 for metropolitan cities.
- This makes the assessments unwieldy.

4. INDIA & ITS NEIGHBORHOOD

4.1 Bangladesh Prime Minister's official visit to India

Why in News?

Bangladesh Prime Minister (PM) Sheikh Hasina will be visiting India from four days between October 3 and 6, 2019.

What is the visit for?

- This will be her first official visit to India, post the general elections in Bangladesh (December 2018) and India (May 2019).
- She will address the World Economic Forum's **India Economic Summit** followed by the **bilateral visit**.
- India and Bangladesh are likely to sign at least a dozen of bilateral agreements in different areas during Bangladesh PM's visit to India.
- India-Bangladesh relationship today enjoy one of its best periods, with positive development in the areas of diplomatic, political, economic and security relations.

What are the gains in this relationship?

- **Border** - The current Bangladesh government has uprooted security threats and acts of insurgency against India.
- Today, the India-Bangladesh border is one of India's most secured.
- The signing of the Land Boundary Agreement in 2015 was a milestone, where the two neighbours amicably resolved a long-outstanding issue.
- **Bilateral trade** - It was little over \$9 billion in FY 2017-18 and Bangladeshi exports increased by 42.91% in FY 2018-2019.
- Removal of non-tariff barriers will help Bangladeshi exports such as harmonising the standards for goods accepted by India.



- **Power** - In 2018, in addition to the 660 MW of power imported by Bangladesh, Indian export of electricity increased by another 500 MW.
- A 1,600 MW power station with a dedicated transmission system is being developed to boost power trade.
- **Travel** - Land routes have gained popularity over air travel, and are preferred by Bangladeshis visiting India.
- Train services on the Dhaka-Kolkata and Kolkata-Khulna are doing well, while a third, on the Agartala-Akhaura route, is under construction.
- In 2018, five additional bus services were introduced.
- In March 2019, the first ever Dhaka-Kolkata cruise ship was launched.
- **Tourism** - Bangladeshi tourists accounted for 21.6% of the total tourists who visited India in 2018 (83.7% tourists and 10.28% medical patients).
- Today, Bangladesh contributes 50% of India's health tourism revenue.
- **Defence** - During Sheikh Hasina's visit to Delhi in 2017, two defence pacts were signed.
- In 2018, India extended a credit line of \$500 million to purchase armaments.
- Two memoranda of understanding (MoUs) were also signed for cooperation between the naval forces.

What are the issues in this relationship?

- **Teesta Water Sharing Agreement** – This was agreed upon by PM in 2015.
- West Bengal's CM refused to endorse the water-sharing terms. This has resulted in the current standoff.
- **National Register of Citizens (NRC)** - This risks hurting relations.
- It has left out 1.9 million Assamese from the list, with a group labelled as "illegal immigrants from Bangladesh" living in Assam post-1971.
- Bangladesh's stance is that no migrants travelled to Assam illegally during the 1971 war of independence.
- **Border killings** – Decreased now. India's Border Security Force (BSF) claims that most of the firing is to self-defend it from cattle trafficking.
- However, since the ban by India on cattle export, cattle trade has fallen - which makes the argument unconvincing.
- International rules of engagement entail that military action must be "proportional to provocation".
- This makes such killings a serious violation of human rights.
- **Credit** - Since 2010, India has approved three lines of credit to Bangladesh of \$7.362 billion to finance development projects.
- Only \$442 million has been disbursed till December 2018.
- Bangladesh has been slow in implementation; India's requirement of the disbursement process to be approved by India's Exim Bank has not helped either.
- **Rohingya issue** – This issue and India's remarks in 2017 on the issue have been upsetting for Bangladesh.
- It has been facing the challenge of providing shelter to more than a million Rohingya refugees fleeing persecution by a military regime.
- India's External Affairs Minister S. Jaishankar said that safe return of Rohingyas is in the national interest of Bangladesh, Myanmar, and India.

- However, China is mediating, when it is India which is ideally positioned to play a positive role in regional leadership.

What does this relationship mean?

- India-Bangladesh relations have matured in the last decade with development in many areas of cooperation.
- In a neighbourhood where distrust and doubt prevail over friendship and hope, this relationship has given hope for optimism.
- But the sooner existing challenges are resolved, the better it is.
- India and Bangladesh have a shared colonial legacy, history and socio-cultural bonds.
- These bonds demand that the political leadership of the two countries inject momentum into their relations.
- Sheikh Hasina's trip to India will hopefully help relations graduate to the next level of strengthening the three Cs: **cooperation, coordination, and consolidation**.

4.2 Mamallapuram Summit - India and China

Why in news?

- The second informal summit between leaders of India and China is to take place in the coastal town of Mamallapuram, south of Chennai.
- In this context, here is an overview of the terms between India and China in the recent period and the significance of the current meet.

Why an informal meet now?

- Informal summits have their use as trust-building exercises.
- The last such meet was the [Wuhan Summit](#) held in 2018.
- Among the decisions taken there was to hold more such summits, aimed at ensuring "higher levels of strategic communications."
- But, it is largely uncertain if in the past months the two leaders had succeeded in enhancing strategic communications.

What is the significance with Mamallapuram?

- Mamallapuram, a World Heritage Site, is symbolic of India's 'soft power'.
- It is an important town of the erstwhile Pallava dynasty that ruled this part of south India from 275 CE to 897 CE.
- The site is renowned for its architecture, widely admired across the world.
- Mamallapuram and the Pallava dynasty are also historically relevant in regards with China.
- The earliest recorded security pact between China and India (in the early 8th century) involved a Pallava king (Rajasimhan, or Narasimha Varma II).
- It was from this Pallava king that the Chinese sought help to counter Tibet.
- Tibet had notably been emerging as a strong power posing a threat to China then.

How have India-China ties been since Wuhan summit?

- Little has changed as far as India-China relations are concerned since the Wuhan Summit.



- **Afghanistan** - Wuhan Summit raised hopes that the two countries would jointly work together on an economic project in Afghanistan.
- However, this has proved to be short-lived; the political situation in Afghanistan deteriorates.
- But even as this happens, China, along with countries like Pakistan, is keen more than ever on ensuring that India has no role to play in Afghanistan.
- **Circumstances** - After the Wuhan Summit, many things have changed, altering the circumstances surrounding India-China relations.
- Relations between China and the U.S. have sharply deteriorated.
- In 2018, the China-Russia axis appeared to be carving out an exclusive zone of influence in East Asia.
- But, by mid-2019, new alignments appear to be altering equations in the East Asian region.
- These include a further strengthening of India-Russia ties, and a new triangular relationship of Russia, India and Japan.
- China's Belt and Road Initiative (BRI) has also come under increasing attack, even from countries that earlier encouraged it.

How has China's domestic situation been?

- China is making a series of achievements, and did not think it needed to make concessions to anyone, least of all India.
- However, China also has met with certain setbacks geo-politically and economically.
- The economy is far more fragile than in early 2018.
- Internal security concerns include unrest in Tibet, inroads made by radical extremist groups in Xinjiang and the Hong Kong protests.
- The attack by the U.S. on China's economic practices has only aggravated the mood of pessimism on the leadership's ability to control the above situation.

What is the case with India in this regard?

- India was disturbed by a host of economic setbacks.
- Nevertheless, India seems better positioned today than in the spring of 2018 when Wuhan summit took place.
- India's relations with the U.S. have attained a new high.
- Relations with Russia have acquired a fresh dimension, incorporating economics alongside a longstanding military relationship.
- India's line of credit to develop Russia's Far East has fundamentally changed the nature of India-Russia relations.
- India's relations with Japan have also greatly strengthened.
- The Quadrilateral (the U.S., India, Japan and Australia) has gained a new lease of life.

What are the conflicting issues?

- China and India continue to compete and have a contradictory outlook on many strategic and civilisational issues.
- These include the nature of Asian security, regional stability and the role of the U.S. in the region.

- The China-Pakistan axis has been further cemented.
- Doklam and the disputed border between the two countries remains an issue of concern.
- India's efforts to 'dumb down' the Dalai Lama will have appeased China to an extent.
- However, India taking keen interest in Ladakh and Arunachal Pradesh will be seen by China as a provocation.
- The moves here include -
 - i. the *Changthang Prahar*
 - ii. the reopening of the Advance Landing Ground at Vijoynagar in Arunachal Pradesh for the use of military aircraft
 - iii. a proposed major combat exercise in Arunachal Pradesh, in which the new Integrated Battle Groups will be seen in operation

4.3 India - China - Nepal Triangular Relationship

What is the issue?

- Chinese President Xi Jinping's recent visit to Nepal has helped focus on the changing dynamics between India, China and Nepal.
- One of the central themes in the new discourse is the alleged loss of Indian primacy over Nepal.

How has Nepal's geopolitics evolved?

- The story of Nepal's geopolitics is a complicated one.
- Lying between Tibet and the Gangetic plain, Nepal has close civilisational ties with both China and India.
- Its geopolitics, too, were shaped by both the neighbours.
- Balancing between Tibet and the Qing empire in the north and British Raj in the south was very much part of modern Nepal's political evolution.
- The weakening of the Qing and the rise of the Raj from the mid-19th century set the stage for southern dominance over Nepal.
- However, the People's Republic of China gained control of Tibet in 1950.
- So, Nepal's monarchy that was frightened by the communist threat turned to Jawaharlal Nehru for protection.
- Delhi and Kathmandu revived the 19th century security arrangements of the British Raj in a 1950 Treaty of Friendship.
- China's premier Zhou Enlai was quick to assure Kathmandu that there would be no export of communist revolution from Tibet to Nepal.
- The Sino-Indian conflict, meanwhile, opened up space for Kathmandu to weaken the treaty arrangements with India and re-balance the relationship.

How has India's influence over Nepal evolved?

- India's hegemony or primacy in Nepal is somewhat over-stated.
- It was limited in time and space and always constrained by Nepal's domestic politics.
- The deepening domestic divisions in Nepal caused disturbances to the geopolitical strategies.

- Consequently, Delhi has struggled since the middle of the 20th century to sustain the primacy in Nepal it had inherited from the British Raj.
- The emergence of a strong state north of the Himalayas, China, tested India's claim for an exclusive sphere of influence in Nepal.
- China's dramatic rise in the 21st century makes it a far more compelling partner for Nepal.

What are the determining factors to this change?

- India's failure was not in an over-reliance on geopolitics, but the neglect of geo-economics.
- On the one hand, India's security establishment and the political classes operated as if Nepal was a protectorate of India.
- On the other, Delhi's economic bureaucracy treated Nepal as a separate entity.
- Delhi's emphasis on economic self-sufficiency made India to not attach any special value to the commercial interdependence with land-locked Nepal.
- Vested interests inevitably found space to take advantage of this wide gap in the economic policies of the two nations.
- Delhi also allowed the border infrastructure to weaken over the decades.
- India's attempts to revive connectivity with Nepal in recent years have faced India's traditional problems with project implementation.
- More importantly, there has been growing political resistance in Nepal to deeper economic relations with India.

How is China's stance changing?

- The change in the regional balance and the communist dominance over Nepal's domestic politics is changing the traditional nature of the triangular relationship.
- In the past, China sounded sensitive to India's concerns in China's engagement with Nepal.
- However, China is now the second most important power in the world and the foremost in Asia.
- With this, China perhaps is a lot less interested in what Delhi might think about China's Nepal policy.
- Above all, China today is driving regional change with its expansive Belt and Road Initiative.

What are Nepal's options now?

- On the face of it, Kathmandu has at least three possible options in crafting a new strategy for Nepal.
- One is to opt for neutrality and symmetry in its relations with India and China.
- This is not a new idea, and had been reflected in Kathmandu's past debates about "Nepal as a Zone of Peace".
- Second, Nepal could decide that a special relationship with China is more valuable than the one with India.
- Third, it could continue a policy of dynamic balancing and make the best of the possibilities with both China and India.
- **Challenges** - If Nepal opts for symmetry, it would have to turn its open border with India into a closed one similar to its northern border with China.
- On the other hand, a strategic tilt towards China would make Nepal discard the special privileges it has in the relationship with India.



- E.g. the freedom for Nepali citizens to live and work in India
- Nepal's sovereign choice would also involve an assessment of India's counter measures to Nepal's strong security partnership with China.
- The dynamic balancing option would involve modernisation of the India relationship and expansion of the China ties with sufficient regard to the concerns of both the powers.

What lies ahead for India?

- For India, it is time to stop being worried about China's growing presence in Nepal or loss of its primacy in Nepal.
- The protectorate relationship that India inherited from the British Raj was never sustainable.
- Delhi's claim as to be knowing what is good for Nepal certainly intimidates the Nepali elite.
- Instead, Delhi should let Nepalese decide what is good for them and align India's own responses accordingly.
- The best India can offer now is a new deal with Nepal that can build on the natural geographic and cultural interdependence between the two nations.
- This time around, it must be based on sovereign equality and mutual benefit.
- It is up to Kathmandu in the end to accept, reject or negotiate on such an offer.

5. INTERNATIONAL ISSUES

5.1 UK Supreme Court Ruling on Parliament Prorogation

What is the issue?

- The UK Supreme Court has ruled that the UK PM Boris Johnson's decision to suspend Parliament for 5 weeks was unlawful.
- The ruling holds larger significance for the judicial review process in Parliamentary democracies.

What is the contention?

- UK PM insisted he wanted to outline his government's policies in a [Queen's Speech on 14 October](#).
- To do that, Parliament must be prorogued and a new session started.
- But, it is widely perceived as a calculated move by the government to conclude the Brexit process with minimal parliamentary scrutiny.
- There is a view that the suspension was far longer than necessary.
- Notably, the Boris Johnson-led government had promised to make Britain leave the European Union by October 31 2019, even if that meant an exit without a deal.
- The PM, who has faced calls to resign, said he "profoundly disagreed" with the Supreme Court ruling but would "respect" it.
- There is also an opinion that the action by the court had amounted to a "constitutional coup".

What is the judiciary's rationale?

- The verdict had the effect of quashing the Queen's order to prorogue Parliament on the advice of the Prime Minister.



- U.K.'s Supreme Court found that the actions of Prime Minister Boris Johnson to prorogue Parliament were unlawful.
- Judges said it was wrong to stop MPs carrying out duties in the run-up to the Brexit deadline.
- It had the effect of preventing the ability of Parliament to carry out its constitutional functions without reasonable justification.

Why is it a significant ruling?

- The prorogation triggered a legal challenge culminating with the Scottish Court of Session finding that the PM had misled the Queen.
- Simultaneously, the matter was heard by the High Court of England and Wales, which ruled that the prerogative powers of the government were non-justiciable.
- These conflicting decisions and the appeals emanating from these two courts were heard by the Supreme Court.
- The matter had come to be heard before a panel of 11 Justices, the permitted maximum quota of serving Justices, of the Supreme Court.
- The entire judicial approach, in dealing with a matter concerning the “fundamentals of democracy”, underlines the effectiveness of the judicial review process when conducted in a timely manner.
- The Court's ruling is an exemplar on how the judiciary views executive actions.
- By doing so, the U.K. Supreme Court asserted its majesty in the constitutional framework.
- Following this, other countries, that follow the Westminster system of government, should make increased introspection of executive actions and provide a boost to due parliamentary processes.

What does this hold for India?

- There have been at least two key executive actions this year that have undermined parliamentary processes:
 1. Reservation for Economically Weaker Sections (EWS)
 2. the Bills passed around Jammu and Kashmir (J&K)
- The Constitution 103rd Amendment Act 2019 on reservation for EWS was brought for Parliament's consideration in less than 48 hours from Centre's decision to do so.
- By doing so, the government ensured that there was insufficient time for Parliament scrutiny.
- The Bills around J&K also suffered from a similar defect.
- The conventional practice is that legislative documents are provided at least a few days before they are tabled.
- This is done for the MPs to understand the contents of the legislation, seek views and formulate their positions better.
- But, the J&K Reservation (Second Amendment) Bill, 2019 was suddenly introduced to the 'Parliamentary List of Business'.
- Copies of the Bill and the Resolution were provided to MPs only after tabling it.
- **Concerns** - Clearly, the above legislations were introduced in Parliament in direct violation of the Rules of Procedure and Conduct of Business.
- In Rajya Sabha, specifically, Rule 69 talks about 'Motions after Introduction of Bills' and 'Scope of Debate'.
- According to Rule 69, there is discretion given to the Chairman in exceptional situations.



- But, there has been no detailed explanation given by the presiding officers as to why the government has been allowed to breach parliamentary rules and convention on more than one occasion.
- **Way forward** - It is now for the Indian courts to assess whether executive actions have undermined parliamentary processes.
- This would largely determine the majesty of the judicial review process in India.

5.2 Need for IAF's Strategic Thinking

What is the issue?

- The first Rafale fighter aircraft for the Indian Air Force (IAF) was recently handed over to Defence Minister Rajnath Singh in France.
- Even as the Indian Air Force gets ready to welcome its new acquisitions, ad hocism should give way to strategic thinking.

What is the significance?

- The receiving of Rafale fighter aircraft is the latest in a series of much-needed yet delayed steps to bolster the IAF's combat capabilities.
- The IAF has historically been one of the best-equipped forces in the region.
- However, it has seen its advantage, particularly quantitative, against China and Pakistan narrow dramatically over the past two decades.
- The IAF is today faced with the twin tasks -
 - i. of having to acquire technological superiority over its two adversaries
 - ii. of gathering enough aircraft to start off any collusive misadventures
- On the technological front, the Rafale jet offers an unprecedented air-to-air capability in the form of the MBDA Meteor missile.
- [MBDA is a European developer and manufacturer of missiles]
- Rafale also offers a new long-range precision strike capability with the MBDA's SCALP air-launched cruise missile.
- [The Storm Shadow / SCALP is a long-range, air-launched, stand-off attack missile]
- Rafale also provides the IAF with a combat platform that is more completely and tightly integrated by the original equipment manufacturer.
- This offers an advantage over any number of modified and upgraded aircraft presently in service.
- The Indian government is paying to Dassault (for Rafale) to not only modify and certify the aircraft to an exacting specification but also to stand by its reliability in service.
- This is something that has never been done with a fighter aircraft in Indian service to date.

What are the challenges to IAF's air power?

- Air power is an expensive business.
- Moreover, there is a scenario where manpower and running costs consume a huge share of the budget.
- Given this, the principal impediment to a comprehensive renewal of the IAF is a financial one.
- As such, lower capital costs and lower sustainment costs have to go hand in hand.

- In the indigenous option, the HAL's Tejas Light Combat Aircraft is domestically produced and paid for mostly in rupees.
- It is both fiscally attractive and certainly good enough to replace the IAF's ageing MiG-21 and MiG-27 fleet as it stands.
- However, non-compliance with a 1980s Air Staff Requirement (specifications for design and development of aircraft) and low production rates continue to raise questions about MIG's future.

What are the other challenges?

- **Defence budgets** have remained effectively flat for a long time, and with a slowing economy, an increase in capital outlay is not likely.
- **Procurement funding** will also necessarily have to compete with funding for research and development for upcoming domestic projects.
- These include the redesigned LCA Mk.2 and fifth-generation Advanced Medium Combat Aircraft (AMCA).
- Finally, even if all near-term procurements proceed to plan, there is still much to be desired.
- These include training of air and ground crew, and building of infrastructure.
- Besides, actually operationalising new types will pose their own challenges that will slow the effective rate of force accretion.
- **Neighbourhood** - The Pakistan Air Force (PAF) and China's People's Liberation Army Air Force (PLAAF) are not standing still.
- The PAF is over-burdened with a number of legacy issues that are similar to the IAF.
- Pakistan is however well placed to recapitalise a significant proportion of its air force with a relatively modern aircraft.
- E.g. the availability of the Sino-Pak JF-17 cheaply and in numbers, along with access to a wide range of Chinese weaponry developed for the type
- As China ramps up its fifth-generation aircraft programmes and unit costs drop, there is little doubt these platforms will also find their way into Pakistan.

5.3 Nobel Prize in Literature - Controversy

Why in news?

The Swedish Academy recently announced the Nobel Prize in Literature for 2018 and 2019 to Olga Tokarczuk and Peter Handke respectively.

Who is Olga Tokarczuk?

- Tokarczuk, 57 is one of Poland's most successful authors.
- She has found a wider English-reading audience in recent years.
- She has won the Man Booker Prize in 2018 for *Flights*, a translation of her 2007 novel *Bieguni*.
- Much of her work is marked by historical/mythical settings with realistic details, and themes of conflicting cultures and perspectives.
- She constructs her novels in a tension between cultural opposites; nature vs. culture, reason vs. madness, male vs. female, home vs. alienation.
- **Works** - She made her fiction debut in 1993 with *Podróż ludzi Księgi* ('The Journey of the Book-People').

- The plot is set in 17th century France and Spain where the characters search for a mysterious book in the Pyrenees (Mountain range in Europe).
- Her breakthrough novel *Prawiek i inne czasy*, 1996 (Primeval and Other Times, 2010) is again set in a mythical place, yet full of realistic details.
- Tokarczuk has claimed that the narrative was a personal attempt to come to terms with the national image of the past.
- The novel is an excellent example of the new Polish literature after 1989, resisting moral judgement and unwilling to represent the conscience of the nation.

Why is 2018 prize awarded in 2019?

- The 2018 award had been postponed for a year on account of a scandal involving the Academy's close ties with a man convicted of rape and jailed that year.
- The scandal followed the imprisonment for rape of Frenchman Jean-Claude Arnault, with whom the Academy has close ties.
- He is married to then Academy member Katarina Frostenson, who resigned.
- The couple ran a cultural club in Stockholm that received funding from the Academy.
- The scandal caused a rift among members over how to manage their ties with him and seven of them resigned, causing conflicts of interest.
- It led to the first postponement of the Literature Nobel in 70 years.

Who is Peter Handke?

- Handke, 76, published his debut novel *Die Hornissen* in 1966, dropped out of his law course at the University of Graz.
- He then went on to write novels, essays, dramatic works and screenplays in a vast body of work spanning more than 50 years.
- The Swedish Academy described him as one of the most influential writers in Europe after the Second World War.
- Handke is the son of a Slovenian-minority woman in Austria and a German soldier whom he would meet only as an adult.
- Handke chose to “revolt against his paternal heritage that in his case was perverted by the Nazi regime”, and “chose the maternal line of heritage”.
- He has found much of his own literary inspiration within the New Novel-movement in French literature.

What is the controversy over Handke's prize?

- Handke was awarded “for an influential work that with linguistic ingenuity has explored the periphery and the specificity of human experience”.
- There is concern over the ‘Eurocentric’ choice for 2018 and 2019 prizes.
- Apart from this, picking Handke have left many writers and critics dissatisfied.
- This is because Handke has disregarded the Serb atrocities against Bosnian Muslims in the Balkan war (1912, 1913) and has taken a Serbia-as-victim stance.
- Handke's prize has attracted criticism, including from survivors of the 1995 Srebrenica massacre (genocide of more than 8,000 Bosniaks, mainly men and boys, in and around the town of Srebrenica during the Bosnian War).



- They have called for the academy to revoke the 9 million Swedish crown (\$930,000) award.
- Handke, now based in France, is widely seen as sympathetic of the Serbian far right.
- His attending of the funeral of former Serbian President Slobodan Milosevic in 2006 is also questioned.
- [Under Milosevic's regime, thousands of ethnic Albanians were killed and at least a million had to flee.
- The Serbian president was indicted for war crimes in 1999 but died in 2006 before a ruling was reached.]

What is the Swedish Academy's response?

- The Swedish Academy has defended its decision to award the 2019 Nobel Prize for Literature to Austrian writer Peter Handke.
- It says that he had made provocative comments but had not supported bloodshed.
- The Academy has not found anything in his writing that constitutes an attack on civil society or on the respect for the equality of all people.

G.S PAPER III

6. ECONOMY

6.1 Link between Jobs, Farming and Climate

What is the issue?

- In September 2019, a teenager Greta Thunberg addressed the United Nations climate change summit, which had an impact.
- But, Indian government is all-absorbed by the news of slowing economy.

What should we be worried about?

- It is true that India's economic growth has slowed for the past few quarters — the past 2½ years, if we go by annual growth rates.
- Indian government's desire is to give a boost to the economy.
- Those who heard Greta Thunberg's address may not be as worried about economic growth as the government is.
- Globally, industrial growth driven by mindless consumption is the cause of climate change.
- But India does need some growth as income levels here are still very low.
- However, the problem of low incomes can be tackled even with less growth so long as it is of the appropriate type.
- So, the slowing of growth in India cannot reasonably be termed a crisis.

Why is there rural unemployment?

- Unemployment is the only feature of the economy that answers positively to the query of whether it is in crisis today.
- **Periodic Labour Force Survey report 2017-18** – Points a dramatic rise in the unemployment rate since 2011-12.



1. Apart from the category of 'Urban Females', the unemployment estimate shows that it is the highest in the 45 years since 1972-73.
 2. Even for 'Urban Females', it is double what it was in 2011-12.
 3. For 'Rural Males', it is four times the average for the 40 years up to 2011-12.
- These figures should convince us of the existence of a grave situation with respect to employment in the country.
 - **Government's responses to the slowing growth** - Announced a range of measures, the most prominent of them being the reduction in the corporate tax rate.
 - The tax cut is meant to be a remedy for stagnant corporate investment.
 - But if the level of corporate investment reflects some underlying reality, it is only by tackling the latter that we can get to the root of the problem.
 - A large part of corporate sales is driven by rural demand.
 - The government does not hear their voices, as they are less organised than some other sections of the corporate world.
 - The rural picture matters not only because the largest numbers are located there but also because of their low incomes.
 - This means that the future growth of demand for much of industrial production is likely to come from there.

Why is there is a production decline?

- The recent history of crop agriculture is one reason why rural incomes are growing so slowly. Since 2008-2009, it has shown no growth.
- Households incurring consumption debt in bad crop years would be repaying it in the good years.
- This implies that the consumption doesn't grow appreciably even in good years.
- The other factors range from low export growth to the state of the banking sector.
- Poor agricultural performance is a significant explanation of slack domestic demand.
- Unstable agricultural production first lowers the demand for agricultural labour, and subsequently, its supply, showing up in greater unemployment.
- It has been pointed out that the investment rate has declined.
- This is indeed correct but this may well be a reflection of the poor agricultural performance.
- Private investment both follows output growth and leads it.

What could be the long-term solution?

- Any long-term solution to the problem of unemployment to which the slowing growth of the economy is related must start with agricultural production.
- **Observing** the performance of crop agriculture since 2008-09, India might be witnessing something wholly new.
- India has long been recognised that there is a crop-yield cycle related to annual variations in rainfall but we are now witnessing stagnation.
- Now, unlike in the case of a cycle, recovery cannot simply be assumed.
- The expertise of agricultural scientists is needed to confirm what factors are responsible for this state.

- **Factors** - The role of ecological factors in causing agricultural stagnation could be considered.
- Land degradation leading to scarcity which raises the cost of cultivation.
- Most of these factors are directly man-made, related as it is to over-exploitation of the earth's resources.
- **Solution** - A deeper adaptation is required to deal with these factors.
- Intelligent governance, resource deployment and change in farmer behaviour would all need to combine for this.
- The reality of an unstable agricultural sector rendering economy-wide growth fragile has not elicited an adequate economic policy response.
- Policy focus is disproportionately on the tax rate, the ease of doing business in the non-agricultural sector and a fussy adherence to a dubious fiscal-balance target.
- It is time to draw in the public agricultural institutes and farmer bodies for their views on how to save the sector.

6.2 RBI's Role - Economic Slowdown, Inflation, Growth

What is the issue?

- The RBI's reputation as a regulator has been affected by the unusually large number of instances of fraud in the financial sector.
- Besides, the slowing of the economy suggests that the central bank's stance on inflation may have impacted growth.
- In this backdrop, here is an analysis of the central banks' role in terms of inflation-targeting, regulation and financial stability.

What is the role of the central banks in the West?

- Central banks command an important position in the market economies of the West today.
- Given this, it is debatable how in a democracy so much power could be ceded to an unelected body.
- In essence, it reflects two things:
 - i. the political power of financial interests in the U.S. economy
 - ii. the global intellectual influence of the American economic model
- The idea behind this model is the maximum creation of wealth by private individuals unimpeded by societal objectives.
- So, the goals of distribution of income and ensuring economic stability are not allowed to interrupt private individuals pursuing wealth enhancement.
- Public regulation, which sets limits to private activity, is rejected as an unnecessary interference in beneficial activity that maximises social gain.
- When applied to finance, this model requires only one action from the government, which is the control of inflation.

How does inflation work in the economy?

- It is unanticipated inflation that is the problem for producers, as it has the potential to derail their profit calculations.



- However, inflation, even when fully anticipated, can harm holders of financial assets yielding fixed incomes by eroding their wealth.
- Borrowers on the other hand are better off with inflation as the real value of their outstanding loans are now less.
- While the problem of inflation can in principle be tackled through inflation-indexation, the practice is not widespread.
- This leaves owners of financial wealth averse to inflation.

How did inflation control policy come about?

- Inflation targeting by the central bank involves use of the interest rate to keep inflation under control.
- As the volume of financial wealth in an economy increases, the power of its owners over government increases.
- With this, inflation control tends to take centre-stage in economic policy formulation.
- When inflation control is implemented via monetary policy, it results in higher interest rates.
- Managers of financial wealth lobby for such a policy on behalf of their clients.
- This lobbying is the origin of the policy of inflation targeting.

What is the effect of this?

- As the central bank targets inflation, it must let go of the employment objective.
- Inflation is retained as the target and the central bank is not accountable for unemployment.
- So, where growth, employment and inflation are jointly determined, inflation-targeting via the interest rate can lower inflation only by suppressing growth.
- As has been demonstrated for India, the other means of keeping inflation low would take the form of checking food-price inflation.

How does inflation and regulation interplay?

- If inflation-targeting is essentially a response to the financial sector's concerns, the view that the sector needs no particular regulation gets stronger.
- This view was ascendant in the U.S. and the U.K. before the 'North Atlantic Financial Crisis' of 2008.
- Following this crisis, however, there has been substantial re-thinking on inflation-targeting and the role of central banks.
- Essentially, it was recognised that satisfied by the low inflation, the U.S. central bank had ignored the possibility of financial instability.
- Consequently, instability had progressed due to complete violation of the norms of prudence by U.S. investment banks and housing societies, with lax regulation.

What is the case with India in this regard?

- **Inflation policy** - India's policymakers adopted inflation-targeting as the defining function of the RBI, even as the rest of the world was reassessing central banks' credibility.
- Though the shift was made by legislation in 2015, a hawkish inflation stance had emerged at the RBI some 2 years prior to that.
- **Interest rate** - Consequently, the real interest rate swung upward by over 5 percentage points.

- Inflation did come down, but it continued to decline even as the real interest did not do so commensurately.
- This, thus, rules out the possibility that inflation-targeting alone was responsible for the decreasing inflation.
- [Commodity prices, both of oil and domestic agricultural goods, have grown slower since.
- Oil prices have actually been declining in certain phases, and would surely have had a direct impact on inflation.]
- **Growth** - But, the slowing of the economy after 2016, which is still being experienced, suggests that inflation-targeting may have had an impact on growth.
- **Financial sector** - After the adoption of inflation-targeting in India, besides the slowing growth, there is a repetition of a pattern observed in the U.S.
- Evidently, India is witnessing stress in the financial sector.
- Following the rising non-performing assets (NPAs) of public sector banks, there is now the emergence of instability in the private segment of the financial sector.
- The most prominent case of the above was that of non-banking financial company, [IL&FS](#).
- Some part of the burden this company faced may have been due to a slowing economy.
- However, there was evidence of financial irregularities.
- Such cases went undetected also in the cases of [Punjab National Bank](#) and the [Punjab and Maharashtra Co-operative Bank](#) (PMC Bank).

6.3 Redirecting Money from the Gulf

What is the issue?

- There was a social media advisory sent out by a Gulf-based organisation recently targeting the families of non-resident Keralite workers based in the Gulf countries.
- It was against the backdrop of the creeping economic slowdown in India.

What was the advisory?

- The highlights of advisory - Drop the plan to buy a new car. Avoid eating out. Only buy things you absolutely need. Make do with public transport. Go to government hospitals.
- Another advice on the list was that those who were employed in the Gulf should never give up their jobs, even if they didn't get paid on time.
- This advice was given stating that there are not many jobs to go around back home because of the economic slowdown.
- The advisory was interesting for two reasons:
 1. A fact that the diaspora community had sensed, ahead of most people in India, that a slowdown in the Indian economy was imminent.
 2. The delayed realisation that non-resident Keralite families must curb certain consumerist habits that were a result of the massive amounts of remittance money they were receiving.

How Kerala is a Consumerist economy?

- Roughly a tenth of Kerala's population works abroad — a huge majority of them in the Gulf countries.
- For decades, Kerala's economy is a consumerist one that has been propped up by the massive remittances from non-resident Keralites.

- An estimate says that non-resident Keralites pump close to ₹200 crore daily into the State.
- Kerala gets roughly a fifth of all NRI remittances to India.

What is the impact of remittance money?

- For all its natural resources, impressive literacy and highly evolved State welfare system, Kerala produces very little of its daily needs.
- Manufacturing and Agriculture contributes less than 10% and a little above 10% to the State's GDP.
- The unemployment rate is very high.
- Yet, Kerala's per capita income is above the national average.
- Modern mansions can be seen dotting both sides of the road across many parts of Kerala.
- High-end cars and boutique jewellers' shops are also common. These are because of remittance money.
- Ever since the labour migration to the Gulf started in the 1960s, enormous sums of money have flowed into Kerala.
- **Estimate** - Since the beginning of the 21st century, some ₹10 trillion has arrived in the State, including from the UAE, Saudi Arabia, Kuwait, Qatar, and Oman.
- But almost all this money has gone into consumption and unproductive investments in land, real estate and gold.
- There are many reasons for this, including systemic rigidities, trade union overkill, lack of imaginative investment avenues, and the absence of a visionary policy framework.

Is the advisory right?

- The social media advisory might have appeared counterintuitive.
- Macroeconomists say that curtailing consumption will accelerate the slowdown.
- However, Kerala has enough mansions, cars and jewellery to last another generation.
- It lacks jobs for residents of the State who are unemployed and for non-resident ones who cyclically lose their Gulf jobs and are forced to return home.
- The non-resident Keralites should put their hard-earned money into productive ventures.
- If they had invested 1% of the massive amount they pumped into Kerala over the past two decades in job-generating ventures, the next generation would have been spared the need to hunt for jobs in the Gulf.

6.4 RBI Repo Rate Cut - October 2019

Why in news?

The six-member Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) slashed the short-term lending rate, repo rate, by 25 basis points to 5.15%.

How is the rate cut trend?

- There was an unconventional 35 basis points cut in interest rates by the RBI in [August 2019](#).
- The RBI has now returned to a normal 25 basis points cut.
- With this, the central bank has pruned rates by 135 basis points in just 7 months since the rate cut cycle started in February 2019.

- Of this, until August, banks had passed on just 29 basis points to borrowers.
- But, major banks recently shifted to an [external benchmark](#) mostly linked to the repo rate.
- So, the transmission of benefits to borrowers could be quicker from here onwards.

What is the change in growth projections?

- The RBI has sharply marked down the GDP growth projections for the current fiscal to 6.1%.
- This is down from the 6.9% that it had projected in the August policy.
- The downgrade was inevitable after the shocking 5% growth reported in the first quarter.
- However, even the revised estimate is a bit too optimistic.
- If the projection of 6.1% for 2019-20 is to be met, the economy has to grow by about 7% in the second half, which does not look very likely.
- Given this, the basis for RBI's optimism appears unclear at this moment.

How does the future look?

- The central bank has been taking a liberal stance in making repo rate cuts in the last few months.
- Given this, monetary policy may well be nearing its limits in so far as its ability to influence growth prospects is concerned.
- Inflation is well within the target giving space to the RBI to focus on growth.
- Crude oil prices are back in the comfort zone, retreating from the spike in mid-September 2019.
- Food prices are projected to remain soft on the back of a good monsoon.
- The monetary policy statement is unambiguous that the RBI will continue with its accommodative stance "as long as it is necessary to revive growth".

Why is fiscal policy measure crucial now?

- The problem is that the central bank can only facilitate lower rates and push banks to lend.
- It cannot force borrowers to borrow and this is evident from the soft trends in credit offtake in the last few months.
- As per latest available data, bank credit is growing at just 10.3%.
- The onus, therefore, is on fiscal policy which alone can boost borrowing and investment.

6.5 OECD BEPS Initiative Meeting

What is the issue?

- The Organisation for Economic Co-operation and Development's (OECD) BEPS Initiative is going to meet on October 19, 2019.
- The Indian government should be desperate to raise more tax revenues.

What is happening?

- India missed its tax targets in the fiscal year 2018-2019, largely because of poor Goods and Services Tax (GST) collections.
- Its declared budgetary target for 2019 requires tax receipts to increase by around 25%

- But, the increase in the first quarter of 2019 was only 6% over 2018's.
- There is a belief that what is required now to address the current slowdown is more tax relief to corporate.
- So, it has offered tax rate reductions to 25% of profits to companies that do not avail of other concessions, and further rebates to new companies.
- Very significant tax shortfalls are likely even in 2019, unless the government takes proactive measures.

What could be understood by looking at MNCs?

- But such measures should not take the form of the tax terrorism that this government has been prone to, or increasing GST rates, which would be regressive and counterproductive in the slowdown.
- Fortunately, there are other measures that could provide significantly more tax revenues to the government.
- One obvious low-hanging fruit is a strategy to ensure that multinational companies (MNCs) actually pay their fair share of taxes.
- MNCs manage to avoid taxation in most countries, by shifting their declared costs and revenues through transfer pricing across subsidiaries, practices described as Base Erosion and Profit Shifting (BEPS).
- Some of the largest digital companies which make billions of dollar profits across the globe barely pay any taxes anywhere.
- The International Monetary Fund (IMF) has estimated that countries lose \$500 billion a year because of this.
- Also, it creates an uneven playing field, since domestic companies have to pay taxes that MNCs can avoid.

How the idea works?

- The OECD has now recognised this through its BEPS Initiative.
- It has attempted a belated attempt to include developing countries through what it calls its inclusive process.
- So far, this process has delivered a few benefits, but these are limited.
- This is so as it has continued to operate on the basis of the arm's-length principle of treating the subsidiaries as separate entities.
- But this can change if there is **political will**.
- The basic idea is simple, since an MNC actually functions as one entity, it should be treated that way for tax purposes.
- So the total global profits of an MNC should be calculated and then apportioned across countries according to some **formula based on sales, employment and users** (for digital companies).
- This is actually already used in the U.S. where state governments have the power to set direct and indirect tax rates.
- A minimum corporate tax should be internationally agreed upon for this to prevent companies shifting to low tax jurisdictions.
- Then, each country can simply impose taxes on the MNCs operating in their jurisdictions, in terms of their own shares based on the formula.
- If the U.S. and the European Union together decided to tax according to this proposed principle, there would be little incentive for many MNCs to try and shift reported profits to other places.
- Indeed, the Indian government has already proposed in a white paper that it could take such a unilateral initiative for digital companies.



- The OECD BEPS Initiative will be meeting on October 19, 2019 to set out its own proposal and it is willing to consider the possibility of unitary taxation.
- But there are some stings in the tail that may well render the proposed measures practically impotent.

What are the key concerns?

- In the proposal, there is only an **arbitrary separation** between what OECD calls routine and residual profits.
- The residual profits only will be subject to unitary taxation.
- This has no economic justification, since profits are anyway net of various costs and interest.
- The proposal specifies that the “arm’s-length principle” criteria will be used for determining routine profits, which defeats the entire purpose.
- As it happens, there is no system of corporate taxation anywhere in the world that makes such a distinction.
- So this raise a question of why should an international system rely on this.
- The **formula to be used to distribute taxable profits** is another concern.
- OECD’s suggestion – To use only sales revenues as the criterion.
- But developing countries would lose out from this because they are often the producers of commodities that are consumed in the advanced economies.
- G24 group’s suggestion - a combination of sales/users and employment should be used, which makes much more sense.
- It is important for the Indian government to take a clear position at the OECD meeting, because the outcome will be very important for its own ability to raise tax revenues.

6.6 GMR Airports Stake Sale

What is the issue?

- The Competition Commission of India (CCI) approved the deal on acquisition of a 55.2% in GMR’s airports business.
- While the CCI has approved the deal, the Airports Authority of India (AAI) has sought the solicitor general’s opinion.

What is the deal?

- The GMR Group is an infrastructural company.
- The GMR Airports Ltd (GAL) presently owns and operates Delhi International Airport Ltd (DIAL) and Hyderabad International Airports.
- The approval for the stake sale was given to -
 - i. TUTPL which is a subsidiary of Tata Realty and Infra which in-turn is a wholly-owned subsidiary of Tata Sons
 - ii. Valkyrie, an affiliate of GIC Private Limited
 - iii. Solis, an investment vehicle of the SSG group
- The deal will bring Rs 8,500 crore to the GAL.
- The stake sale will give Tatas a stake of about 20% in GAL.

- On the other hand, the GIC and SSG will hold about 15% and 10%, respectively.
- GMR Infra's stake will come down to about 54% while an employee welfare trust will hold about 2%.
- The new investors led by Tatas will find representation on the board, but the management will continue to be run by GMR.

What is the concern in terms of the stakes?

- The principal problem is that the Tata group has majority stakes in two domestic airlines - Vistara and Air Asia India.
- If the deal between the Tata group and GAL goes through, the Tata group will have a 20% stake in GAL, and, by extension, a 12.8% stake in DIAL.
- This conflicts with a 2006 agreement between the AAI and GAL, which capped an airline's shareholding to 10% in DIAL.
- Placing a limit on an airline's shareholding in an airport is valid from the point of view of competition law.
- This is because it is possible for an airline-owned airport to accord unfavourable slots in terms of timing and placement to competing airlines.
- So, the argument for minimising airline stakes in airports, especially major ones, is to avoid a conflict of interest with other user-airlines.
- But the 2006 agreement appears excessively restrictive.
- This is especially true when it constrains the airport operator's ability to attract funds for expanding and modernising the country's busiest airport.

What is the concern with AAI's referral?

- The AAI's referral may be a case of abundant caution on the state-owned airport operator's part.
- Both GAL and the Tata group have given assurances that they would not breach conflict-of-interest issues.
- But, these pledges should not be considered a sufficient condition to pass the deal.
- A review of the rule as a matter of principle would be a better idea for India's rapidly expanding airports business.

6.7 Payment Facilitation Fund - Shortfalls in Payment Ecosystem

What is the issue?

- A critical factor impeding growth is the absence of liquidity where it is needed; delayed payments are hurting MSMEs.
- Addressing the payment ecosystem to infuse fresh funds to clear dues is essential to boost investors' sentiment and stimulate growth.

How is the liquidity scenario?

- Absence of liquidity where it is needed is a critical factor that is limiting growth in the recent period in India.
- This is combined with the uncertainty about realisable returns from new economic opportunities.
- Paradoxically, businesses with excess liquidity prefer to park capital in high-yielding deposits.
- They are wary of investing in long-gestation projects where the risks are much higher and the realisable returns are uncertain.



- This is compounded by the uncertainty of payment collections, which affects cash flows and debt repayment obligations.

What are the concerns with payments?

- India suffers from a poor payments culture and has the worst record in the Asia-Pacific.
- Government payments are generally delayed, and consequently downstream payments to sub-suppliers are affected too.
- In the private sector too, payment delays remain a biggest cause of worry for most entrepreneurs.
- The government has amended the laws where payments to MSMEs cannot be delayed beyond 45 days.
- A redress mechanism has also been set up.
- However, this suffers from the critical flaw where the balance of power is tilted in favour of the government or private buyer.
- MSMEs are hesitant to take the redress route as they fear denial of future orders once a complaint is made.
- This cycle of delayed payments results in higher purchase prices as the penal interest costs are factored in.
- Due to their sheer size, MSMEs are the worst affected by delayed payments.
- They have a very small window and sometimes none to cover up the financial shortfall, considering the high cost of borrowing and less robust credit rating.
- Globally, India's reputation for poor adherence to payment terms is affecting the 'ease of doing business' ratings.

What is a possible measure?

- The government needs to usher in big bang reforms to change this culture of poor payments.
- The RBI today has enough reserves, and foreign funds are also available at very low rates.
- The government should thus create a payment facilitation fund.
- Equal shares have to be given to the Central government, State governments and public sector units.
- The government can then use the *TReDS* platform to clear all overdue payments of the Central/State governments and PSUs with limits for each.
- The release of this fund into the economy would bring about a big change in investor sentiment and stimulate growth.

What would the fund's benefits be?

- The global economy is flooded with liquidity.
- So, the borrowing cost for the government for the measure will be insignificant compared to the benefits.
- With the fund, many more companies will be interested to work with the government, resulting in lower prices.
- Such a large infusion into the economy will have an immediate and lasting impact on both consumption and investment.
- The move could transform sentiments, improve 'ease of doing business' and bring in a culture where the payment terms are respected.

- A significant cause for non-performing assets in the banking sector is timing mismatches in payments, which can be addressed with the fund.
- Companies that have become sick over the past few years because of delayed payments from their customers can still be revived if they receive their dues in time.

6.8 Financial Sector Scams - RBI's Supervisory Role

What is the issue?

- Major financial sector scams ([PNB](#), [IL&FS](#), [PMC](#) bank) came to light in the recent period.
- Apart from poor governance and fraudulent practices, a common thread in all these has been supervisory failure.

What is the challenge to financial regulation?

- The country's leading financial sector regulator, the RBI, is seen to be responding only after the event of a fraud.
- Like in IL&FS, in the PMC case too, there appears to be shortfalls on the part of the management and the board of the bank.
- This was evident as the bank's loan exposure to a single firm, HDIL, alone constituted 73% of its assets.
- Moreover, several dummy accounts were created to conceal this.
- But these escaped the regulator's monitoring as the issue of dual control by the RBI and state governments remains a concern.
- It has been cited as a hurdle by the RBI for its inability to effectively supervise cooperative banks.
- This poses limitations in superseding the board of directors or removing directors of these banks, unlike in commercial banks.

What are the larger concerns?

- India remains an economy where the large banks continue to focus on bigger cities and towns.
- Given this, the role of co-operative banks in ensuring credit delivery to the unorganised sector and last mile access remains a point of concern.
- This is especially true in terms of poor credit delivery to the small businesses.
- A recent RBI report shows that fund flows to the commercial sector had declined by close to 88% in the first 6 months of the 2019-20 fiscal.
- This would have surely hurt small businessmen, traders and the farm sector.

What is the way forward?

- A remarkable feature since 1991 liberalisation has been the resilience of India's financial sector.
- This may also have to do with the dominance of government-owned institutions or lenders and a strong central bank.
- If this record is to be continued, the RBI will have to play a better supervisory role.
- The RBI has already started building an internal cadre for supervision of banks and other entities aimed at enhancing its oversight capabilities.
- This will have to be complemented by legislative changes which could lead to greater regulatory control and powers for the RBI over cooperative banks.

- Besides the banks and lenders with national or regional presence, India needs efficient other players - cooperative banks, small finance and payment banks.

6.9 Global Competitiveness Index - India's Performance

Why in news?

The Global Competitiveness Index was recently released by the World Economic Forum (WEF).

What is the GCI?

- The Global Competitiveness Index (GCI) was launched in 1979.
- It maps the competitiveness landscape of 141 economies through 103 indicators organised into 12 pillars.
- The 141 countries mapped by this year's GCI account for 99% of the world's GDP.
- The 2019 index is the fourth version of the global competitiveness index; hence referred to as GCI 4.0.
- The GCI 4.0 tracks data and/or responses on 12 factors divided into 4 broad categories.
- The first category is the "Enabling Environment."
- This includes factors such as the state of infrastructure, institutions, macroeconomic stability and the ability to adopt new technology.
- The second category is "Human Capital" and includes health and level of skills in the economy.
- The third is the state of "Markets" such as those for labour, product, financial and the overall market size.
- The last category is "Innovation Ecosystem" which includes business dynamism and innovation capability.

What are the highlights of GCI 4.0?

- Singapore has become the world's most competitive economy in 2019, pushing the US to the second place.
- Hong Kong SAR is ranked 3rd, Netherlands 4th and Switzerland 5th.
- China is ranked 28th (the highest ranked among the BRICS).
- The presence of many competitive countries in Asia-Pacific makes this region the most competitive in the world.
- This is followed closely by Europe and North America.
- **India** has moved down 10 places to rank 68th among 141 countries on the global competitiveness index.
- It is among the worst-performing BRICS nations along with Brazil (ranked even lower than India at 71st this year).
- In the overall ranking, India is followed by some of its neighbours including Sri Lanka at 84th place, Bangladesh at 105th, Nepal at 108th and Pakistan at 110th place.
- A number of similarly-placed economies including Colombia, South Africa and Turkey improved over the past year and hence have overtaken India.
- The study highlighted that the global economy is unprepared for a major slowdown.

What are the factors behind India's performance?

- The drop in India's position is largely due to improvements witnessed by several other economies.
- Notably, the decline in India's competitiveness score is relatively small.

- India's 2019 overall score (61.4) fell by merely 0.7 when compared to its 2018 score.
- **Positives** - India ranks high in terms of macroeconomic stability and market size.
- It is also ranked high at 15th place in terms of corporate governance.
- India is ranked second globally for shareholder governance.
- In terms of the market size, India is ranked third, while it has got the same rank for renewable energy regulation.
- India has also performed well in terms of innovation.
- In this, it is well ahead of most emerging economies and on par with many advanced economies.
- **Shortcomings** - There is limited ICT (information, communications and technology) adoption, poor health conditions and low healthy life expectancy.
- India has been ranked 109th out of total 141 countries in the healthy life expectancy.
- It was one of the shortest outside Africa and significantly below the South Asian average.
- India's product market efficiency is undermined by a lack of trade openness.
- The labour market is characterised by -
 - i. a lack of worker rights' protections
 - ii. insufficiently developed active labour market policies
 - iii. critically low participation of women
- With a ratio of female workers to male workers of 0.26, India has been ranked very low at 128th place.
- India is also ranked low at 118th in terms of meritocracy and incentivisation and at 107th place for skills.

6.10 Dealing with BSNL and MTNL

What is the issue?

- The state-owned telecommunications firms, BSNL and MTNL, are under considerable financial strain.
- In this context, here is a look at the causes and the possible measures out.

What is the status of the two firms?

- Only Rs 100 crore was set aside as direct budgetary support for these two major firms in the last Union Budget.
- But, they were supposed to raise over Rs 15,000 crore through internal and extra-budgetary resources.
- E.g. BSNL, in 2018-19, made a loss of almost Rs 14,000 crore, taking its accumulated losses to over Rs 90,000 crore
- The company has almost 170,000 employees whose wages consume 77% of its revenues.
- Both BSNL and MTNL have long been a drain on the public exchequer and on the state's borrowing capacities.

What has caused this?

- Many factors can be blamed for this situation, including government policy decisions of the past.
- The entry of Reliance Jio has in addition made things difficult for all legacy players.

- But, above all, the decline of the public-sector telecom majors is due to structural changes in the business itself.
- The telecom sector is increasingly a service-based business.
- This means that private-sector companies have an inherent advantage over even public-sector ones with the softest of budget constraints.
- Given all, there is little reason to imagine retaining BSNL or MTNL in their current state.

Is revival a feasible option?

- The companies and their associate Union departmental bureaucrats have argued that it is cheaper to revive them than to shut them down.
- In BSNL's case, getting the 170,000 workers off the payroll through voluntary retirement schemes and the like would cost Rs 95,000 crore.
- In contrast, a revival package would cost lesser.
- However, it is also argued that not all the public-sector workers need to be treated the same way.
- Some can be re-absorbed in other public-sector enterprises or the government, which is short of manpower in many key areas.
- Also, many others would be close to retirement anyway.
- On the other hand, the revival plan is not very feasible as losses would sharply narrow beginning 2 years from now.
- Consequently, BSNL would be in a poorer state by 2024.

What is to be done now?

- As with the Indian PSUs, the extensive network infrastructure that has been developed has to be given the due importance.
- This is to be seen in distinction from the tarnished brand name or the burden of employee rolls.
- The former (infrastructure) can, certainly, not be ignored.
- E.g. the Bharat Fibre network has more than 800,000 km covered
- This is more than Vodafone-Idea, Bharti Airtel, and Jio put together.
- Worryingly, it is severely under-utilised and undervalued at this point.
- Significant national savings would be involved in ensuring that this network is not duplicated by private-sector investment.
- Thus, the emphasis on the PSU telecom majors must be on how their assets can be sold.
- This is to ensure higher productivity, and see how their manpower can be absorbed elsewhere where necessary.

6.11 IMF's and WB's Growth Projections for India

What is the issue?

- The IMF and the World Bank have significantly slashed the growth projections for India for the year 2019.
- Sharp cuts in growth forecast underline the economic slowdown's severity.

What are the observations made?

- **IMF** - The IMF in its latest World Economic Outlook has slashed India's GDP growth projection for 2019 to 6.1% (Oct 2019).
- This is 1.2% down from its April 2019 projections of 7.3%.
- Corporate and environmental regulatory uncertainty, and concerns on the health of the nonbank financial sector, affected the demand scenario.
- Consequently, in India, growth weakened in 2019.
- Asia's third-largest economy, India, grew at its slowest pace in 6 years in the June quarter at 5%.
- The IMF now joins a range of multilateral institutions, rating firms and brokerages in cutting economic growth estimates for India.
- **World Bank** - The World Bank in its latest edition of the South Asia Economic Focus said India's growth rate is projected to fall to 6% in 2019 from 6.9% of 2018.
- The World Bank slashed its economic growth forecast for India to 6%.
- It cited a broad-based and severe cyclical slowdown as the reason.

What is the point of contention here?

- A significant issue of debate is over the cause of the malaise.
- The World Bank largely echoes what India's Centre has been saying.
- It says that the current one is a cyclical slowdown, exacerbated by global influences.
- However, many of the Indian experts surveyed and some rating agencies do not agree with this view.
- E.g. Moody's Investors Service lowered its 2019-20 growth forecast for India to 5.8% from 6.2% earlier
- It ascribed the slowdown partly to "long-lasting factors", suggesting the structural factors behind the slowdown.

What are the suggestions made?

- **World Bank** has warned that non-banking financial companies' significant share in total credit and their linkages with banks pose broad-based risks.
- It suggests that financial sector reforms would help India both resolve the sectoral infirmities and put the country back on a rapid growth path.
- The WB also observed that a sharper-than-expected slowdown in major economies such as the U.S. and Eurozone could have severe spillover impacts.
- It thus noted that India was vulnerable to being affected immediately and over a longer duration by real GDP shocks in these advanced economies.
- In the case of a Chinese GDP shock, the onset of the impact on India would likely be delayed but substantially more pronounced.
- **IMF** has urged structural reforms in labour and land laws to boost job and infrastructure creation.

What is to be done?

- Besides the above, there is a widespread view that the dull domestic consumption demand is the biggest drag on the growth momentum.

- It is, therefore, wise to put more money in the hands of consumers, especially those in the rural hinterland, to reinvigorate demand.
- Appropriate policy interventions to address the slowdown are crucial at this juncture.

6.12 Economic Sciences' Nobel Prize

Why in News?

Economists Abhijit Banerjee, Esther Duflo and Michael Kremer were awarded with Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

What is their work?

- **Development economics** just got a boost with the award of the Nobel Prize to the three economists.
- Mr. Banerjee and Ms. Duflo are from Massachusetts Institute of Technology (MIT), and Mr. Michael Kremer is from Harvard University.
- This is only the second time a woman has bagged the prestigious award, popularly called the Economics Nobel.
- It is the first time for a husband-wife duo to win the Economics Nobel - Mr. Banerjee is married to Ms. Duflo.
- They have worked and are still working **to understand and alleviate poverty**.
- The **experiment-based approach** of these laureates has transformed development economics and turned it into a flourishing field of research.
- The three adopted an **evidence-based approach** to apply theory to real-life situations using randomised trials and assessing the outcomes.
- The effort was to understand the impact of interventions to achieve desirable outcomes.
- The approach is derived from the concept of clinical trials in the pharmaceuticals industry.

What experiments were done?

- **Rajasthan experiment** - Despite immunisation being free, women were not bringing in their children for the vaccination shot.
- The two MIT economists decided to give a bag of pulses free to women who brought their babies for vaccination.
- Word soon spread and the rate of immunisation shot up in the region.
- **Mumbai and Vadodara experiment** - With this, they wanted to understand the learning outcomes in the field of education.
- They wanted to know whether it is the lack of access to textbooks or hunger that caused poor learning outcomes.
- Through field studies, Mr. Banerjee and Ms. Duflo established that the problem is that teaching is not adapted to the needs of the students.
- Learning outcomes improved in schools that were provided with teaching assistants to support students with special needs.
- One of their studies resulted in benefiting 5 million children in India through programmes of remedial tutoring in schools.



What could be done by the Governments?

- Governments across the world spend big money on social schemes without the vaguest of ideas on whether their objectives have been met.
- The field-work based approach that these economists have perfected has revolutionised the field of development economics and made it more relevant in policy making.
- The government would do well to borrow from the research of these laureates to understand the impact of its several schemes and where necessary.
- It will tweak them to derive maximum benefit for the thousands of crores of rupees that it spends.

6.13 Relevance of Gandhi's Economic Wisdom

What is the issue?

With India facing new age economic challenges, Gandhi's economic wisdom might prove to be of help.

What is Gandhi's economic wisdom?

- J C Kumarappa called it "economy of permanence". [J C Kumarappa is a Gandhian thinker and economist]
- Gandhi proposed bringing together the best in city people and the best in village people.
- He was telling the young people of those days, be it Subhash Chandra Bose or Nehru or hundreds of other highly educated city people, to go to villages.
- He was also asking the village people to go to the city for inspiration.
- His economic model provided for saving nature by actually shifting to production systems that use less of automation.
- By this way, the nature is treated as less of a raw material.

How different is India's economy from Gandhi's idea?

- For Gandhiji, economy meant construction of jobs, more than production, more than profits.
- In contrast, in the last 70 years, India has been increasing production only because it meant a lot of profit for a few people.
- It was genuinely believed that those few people would transfer the profit to the masses.
- Jawaharlal Nehru tried seriously to achieve that, as did others, and the present PM Modi too is trying to achieve that.
- But unfortunately, this has not happened.

What is the consequence?

- The economy of over-production and excess profit and growth is collapsing.
- There is much hope for economic revival but the possibilities are too less or are highly challenging.
- In the recent [Climate Action Summit](#), activist [Greta Thunberg](#) expressed concerns for the global economic growth pattern.
- She said to the leaders, "You people are destroying my world".
- She was so concerned because many developed countries have converted so completely to homogenised economic systems that they may be unable to go back.

- However, India's economy, which was dear to Gandhiji, is still alive in India.
- So, there is a possibility of going back to nature, unlike the many other countries that have homogenised economic systems.

How can that be achieved?

- A hundred years after Gandhiji, India cannot draw the line between the handmade and the machine-made.
- Nevertheless, the country should start the scale from the complete handmade, as the most sacred; a little less handmade is a little less sacred and so on.
- This alternative needs time as well as hundreds and thousands of what Gandhiji called constructive workers, who will go to the villages and arm them with systems.

6.14 Changes to Definition of MSMEs

Why in news?

The government, reportedly, will soon change the way it defines the micro, small and medium enterprises (MSMEs).

How did the proposal take shape?

- Earlier, Finance Minister Nirmala Sitharaman had said that the government would consider shifting to a "single definition" of MSMEs.
- The change in definition would require an amendment to the MSME Development Act.
- In 2018, the Union Cabinet had approved amendments to the [MSMED Act](#).
- It had decided to shift from a criterion of classifying MSMEs based on 'investment in plant and machinery' to a criterion based on 'annual turnover'.

How significant is the MSME sector?

- According to an RBI report, the MSMEs are amongst the strongest drivers of economic development, innovation and employment.
- Since 2000-01, MSME sector growth has almost every year outstripped overall industrial growth in the country.
- The sector contributes in a significant way to the growth of the Indian economy with a vast network of about 63.38 million enterprises.
- It contributes about 45% to manufacturing output, more than 40% to exports, over 28% to the GDP.
- Importantly, it creates employment for about 111 million people.
- In terms of volume, this stands next to the agricultural sector.
- One of the key attractions of this sector is the huge employment generation potential at relatively lower capital investment.

How are MSMEs defined at present?

- The RBI, in its report, had noted that at present the sector is exceedingly heterogeneous.
- This is in terms of size of the enterprises and variety of products and services, and levels of technology employed.
- As is known, there has been no uniformity over the years about the definition of what exactly one means by "small scale industries" in India.

- E.g. under the Industrial Development and Regulation (IDR) Act, 1951, small industries were conceived in terms of “number of employees”
- But it was found that obtaining reliable data on the number of employees was difficult.
- The alternative was to look at the investments in plant and machinery.
- It was relatively easier to reliably ascertain and verify this data.
- So, at present, the classification of MSMEs is done based on investment in accordance with the provision of Section 7 of the MSMED Act, 2006.

Classification	Manufacturing Enterprise (Investment in plant and machinery)	Service Enterprise (Investment in Equipment)
Micro	Upto Rs 25 lakh	Upto Rs 10 lakh
Small	Rs 25 lakh to Rs 5 crore	Rs 10 lakh to Rs 2 crore
Medium	Rs 5 crore to Rs 10 crore	Rs 2 crore to Rs 5 crore

Source: RBI

How is it done elsewhere?

- According to the World Bank, a business is classified as an MSME when it meets two of the three following criteria:
 1. employee strength
 2. assets size
 3. annual sales
- According to a 2014 report, as many as 267 definitions were used by different institutions in 155 economies.
- But the most widely used variable for defining an MSME was the number of employees; 92% of the institutions use this.
- Other definitions were based on turnover as well as the value of assets (49% and 36%, respectively).
- Around 11% used other variables like loan size, formality, years of experience, type of technology, size of the manufacturing space, and initial investment amount etc.
- However, notably, most of the countries used only one variable to define MSMEs.

How does a change in definition help?

- Definitions based on investment limits in plant and machinery/ equipment were decided when the Act was formulated in 2006.
- But that does not reflect the current increase in price index of plant and machinery/equipment.



- Moreover, given their small scale of operations and informal organisation, MSMEs do not always maintain proper books of accounts
- This essentially results in their not being classified as MSMEs.
- The change of definition is likely to address the above drawbacks and improve the ease of doing business for MSMEs.
- In the process, it would make it easier for them to pay taxes, attract investments and create more jobs.

7. INFRASTRUCTURE

7.1 Overview on India's Power Generation Capacity

What is the issue?

With increasing demand for power and lower marginal cost of installation, here is an overview of India's generation capacity and the advantages to be exploited.

What is the present power generation capacity?

- India has been aggressively expanding its power generation capacity.
- Current installed capacity of 358 GW is about four times of what it was in 1997-98.
- This shows a doubling of capacity in each of the past two decades or about 75 MW per day.
- **Renewables** - In recent years, the major growth drivers have been renewable energy sources such as solar and wind power.
- Investments from the private sector have made significant contribution to this.
- The private sector accounts for almost half the installed power generation capacity.
- For the last 3 years, growth in generation from renewables has been close to 25%.
- India aims to have a renewables capacity of 175 GW by 2022 and 500 GW by 2030.
- Solar and wind power plants would account for much of the targeted capacity from renewables.

Why do thermal plants still persist?

- Today, thermal generation capacity accounts for about two-thirds the installed generation capacity in the country.
- So, despite the increasing awareness about the environmental impact of fossil fuels, the reliance on thermal plants is unlikely to end any time soon.
- Thermal plant capacities are large and therefore targeted capacity additions can be achieved by constructing fewer such plants.
- In contrast, on average, it would take 18 solar or wind projects to generate the same quantity of power as one thermal plant.

What are the challenges to renewables installation?

- Given the above, switching from fossil fuel to renewables will remain challenging.
- The administrative overheads that would have to be incurred in setting up the multiple projects could significantly add to the cost.



- Also, infrastructure projects have an inverse relationship between size and unit cost, indicating economies of scale.
- As the capacity of power plants increases, the average cost of power per MW reduces.
- Notably, the average cost per MW for a thermal plant is about 25% lower than that of a solar plant.
- So, this cost advantages that large thermal plants enjoy today should be overcome.
- This calls for developing larger solar and wind power plants that can also exploit similar economies of scale.

What has the private investments' role been?

- Over the last two decades, 63% of the total planned generation capacity has come from the private sector.
- Private investment has been even more pronounced in renewables.
- They account for almost 90% of investment in wind and solar projects.
- Private sector plants have an average cost per MW that is 12-34% lower for all categories except solar.
- Lower capacity cost has a direct impact on electricity tariffs.
- Electricity tariffs broadly consist of two components - fixed capacity costs and operation and maintenance costs, which include fuel expenses.
- In general, capacity costs account for more than 90% of the levelised cost of electricity, irrespective of the fuel type.
- [Levelised Cost of Electricity (LCOE) is a means of comparing generation technologies, by considering the cost of the electricity that comes out over its lifetime.]
- So, creating additional capacity at lower cost will play a big role in keeping electricity tariffs low.
- In all, private investment in the power sector has helped in augmenting capacity as well as helped in lowering cost.

What has brought down the installation cost?

- Even as total capacity in generation has been growing, the cost of installing additional capacity has fallen.
- The reasons for the decline could be as follows:
- **Advances in technology** have resulted in the construction of larger power plants.
- Compared to the 15-year period before 2013, power plants installed in the past 6 years have on average been significantly bigger.
- The economies of scale in power generation appear to have been dramatic.
- **Private sector investment's** increasing share is another reason.
- The share of private sector in capacity creation has been 70% in the last decade as compared to 46% in the decade before that.
- As discussed above, private sector capacity has lower costs.



8. AGRICULTURE

8.1 Addressing Issues in Edible Oil Industry

Why in news?

Agriculture Ministry has recently outlined ambitious plans to boost oilseed output from 32 million tons to over 45 million tons by FY22.

What is the status of edible oil industry in India?

- Indian economy is seized of the stagnating output of oilseeds and a rising edible oil import bill.
- Oil seeds are one among few food crops where India has made scant progress in attaining self-sufficiency with a 65-70 per cent import dependence.
- India has shelled out \$10-11 billion a year on imports, making this one of the largest import items after crude oil and gold.
- Despite persisting shortages of edible oil, both India's oilseed growers and its solvent extraction industry continue to be in deep distress.

What are issues faced by oil seed cultivators?

- Growers in India find oilseed cultivation patently uneconomical relative to cash crops such as maize and cotton, as the hefty hikes in Minimum Support Prices (MSPs) have remained on paper.
- In the 2018-19 crop year, despite 'record' procurement of oilseeds by NAFED and FCI under the PM Aasha scheme, these agencies mopped up less than half of their Central target, and oilseed prices at mandis ruled well below MSPs.
- The lack of any clear policy on how procurement agencies are expected to liquidate their acquired oilseed stock has impeded these operations.
- While oilseed growers are disincentivized by poor prices, solvent extractors have been squeezed by indiscriminate imports of cheaper palm and soya oil, due to irrational tariff structures that pay no heed to domestic production costs.

What are the issues with government initiative in this regard?

- The lack of a holistic policy for the edible oil sector that balances the interests of domestic consumers with processors and growers, and ad-hoc trade interventions have hamstrung the sector.
- Agriculture Ministry has recently outlined ambitious plans to boost oilseed output from 32 million tons to over 45 million tons by FY22.
- Though the Agriculture Ministry has predicated its new production targets on technology support, geographical diversification of the oilseed crop and increasing rain-fed cultivation, identical efforts have fallen flat in the past.
- In the current year, for instance, the Centre's move in January to slash the import duty on crude palm oil from 44 to 40% and to shrink the duty differential between crude and refined oil to just 5 per cent led to a flood of Malaysian refined oil imports, before a recent rethink.
- Apart from price-sensitive consumers, lax regulation of the packaged foods and hotels industry in India also opens the doors to low-quality imports.

What measures are needed to address the existing issues?

- For domestic growers and solvent extractors to have the economic incentive to ramp up output, policymakers need to rethink on several counts.



- Including cooking oils in the PDS may provide a fillip to procurement operations while ensuring affordable supplies.
- To revive distressed processing capacity, import tariffs need to be dovetailed with domestic MSPs and refining costs, with no ad-hoc tinkering with the tariffs.
- Consumer awareness efforts may be needed to showcase the benefits of indigenous varieties.

8.2 Payment Delays to Cane Farmers

What is the issue?

- About 20 to 30 mills have dues between 10 and 60% of their cane procurement amount pending till date.
- This has become a major survival challenge for the farmers.

What is the current challenge?

- At the start of a new crushing season, cane growers, both in Uttar Pradesh and Maharashtra, are faced with a peculiar situation.
- Their cost of production has gone up but their returns have actually dropped.
- The government, for its part, has refused to raise the minimum Fair and Remunerative Price (FRP) at which mills are expected to buy cane from growers.
- The government has failed to look at the rising cost of production in terms of fertilizer and other input prices.
- More worryingly, there is the issue of delayed payments to the farmers by the mill.
- In Maharashtra, 100-plus mills have paid all their sugarcane dues in time.
- But, about 20 to 30 mills have dues between 10 and 60% of their cane procurement amount pending till date.
- About 20% of the sugar mills in the country are responsible for 90% of the cane arrears.

Why are payment delays a huge concern?

- More than 90% of the cane returns are spent by farmers as cultivation cost and for repayment of crop loans.
- So, surviving for a year or more without receiving their entire produce amount by a sugar mill is indeed a huge challenge.
- In the current season, cane procurement arrears were Rs 15,222 crores.
- Out of this, almost Rs 9746 crores are dues just from the state of Uttar Pradesh and Maharashtra.
- Karnataka has arrears of another Rs 598 crores.

What are the legal mandates?

- The law mandates the payment of sugarcane price within 15 days of supply of sugarcane to the mills.
- It also mandates interest on dues of 15% per annum for any delay.
- These arrears can be recovered like arrears of land revenue by attaching property of the company.
- A Supreme Court ruling has said that farmers' dues must have priority over even secured financial creditors like banks.

What causes the payment delays?

- It is partly the result of some mill-owners mismanaging their factories.



- They are diverting cash-flow to other uses and their private companies.
- The state sugarcane commissioners have not been properly monitoring the level of sugar inventory, sugar sales, and revenue of these mills.
- They, thereby, fail to ensure that farmers get their returns.
- The country's largest sugar company alone owes over Rs 2900 crores to farmers as per latest records of government of UP.

What does this call for?

- **Sugar companies** - The sugar inventory in the country at the end of this season is going to touch a new record.
- It would be nearly 145 lakh tons or enough for 7 months consumption.
- Sugar companies need more working capital loans to fund these stocks while paying farmers on time.
- **Payment system** - The government has to implement a foolproof payment system.
- This should ensure that the money received from selling sugar is first used to pay farmers and not diverted for any other purpose.
- Government should act to address the problem of payment delays with high priority.

8.3 Livestock Census Data 2019

Why in news?

The 20th livestock census (2019) data was released recently by the Ministry of Agriculture & Farmers Welfare.

What does the data reveal?

- **Indigenous breeds** - The population of exotic and cross-bred cows has surged by nearly 27% since the last livestock census in 2012.
- However, the population of the indigenous and non-descript cattle has dipped by 6% per cent.
- The data thus makes it evident the futility of the government's controversial cow protection policies.
- The government has set up the Gokul Mission for the preservation and promotion of indigenous cattle breeds.
- Also, curbs were made on the movement and trade of cows, besides the controversial vigilantism by self-appointed cow protectors.
- Despite all these, cattle-keepers continue to prefer cross-bred cows and buffaloes over desi (indigenous) cows.
- **Domesticated animals** - The census shows that the population of several useful but low milk- or non-milk-yielding domesticated animals is dwindling rapidly.
- These include equines and bovines like horses, ponies, mules, donkeys, camels, and yak.
- These animals cumulatively constitute only about 0.23% of the country's vast livestock wealth.
- Nevertheless, these are useful in their own respect, with each one having its own unique qualities.
- The most dramatic fall is in the number of donkeys (61%) and mules (57%).
- If not protected, these animals may vanish in near future.



What is the case with the state of U.P.?

- The above trend is evident in Uttar Pradesh that has recorded the largest number of cases of vigilantism and lynching.
- The state government is directly involved in the cow conservation campaign.
- All district authorities have been asked to build goshalas (cow shelters) to keep and feed cattle at government expense.
- A one-rupee cess has been imposed on every liquor bottle to raise funds for this purpose.
- Yet, the state's cattle population has declined by nearly 4%, while the buffalo count has risen by about 8%.
- The closing down of many old slaughter houses and preventing opening of new ones have resulted in a decline in the number of goats and sheep as well.
- This bodes ill for the export of mutton from the country's leading meat-exporting state.

What are the implications of cow protection measures?

- Stray cattle are not enumerated in the livestock census.
- But anecdotal evidence suggests a sharp increase in their numbers as a result of the ban on the movement and trade of cows.
- Earlier the old and unproductive cows used to be disposed of in the cattle bazaars.
- These are now let loose to roam about in the countryside, damaging crop fields and forests and competing with other livestock for fodder and feed resources.
- Farm organisations from all over the country are demanding an urgent solution to this menace.

9. ENVIRONMENT

9.1 Monsoon in Bihar

Why in News?

Bihar is struggling to stay afloat in the ongoing monsoon; this distress can be traced to poor infrastructure and a lack of administrative preparedness.

What is happening in Bihar?

- Bihar has been paralysed without communications and power.
- The State government tries to drain its streets of water and critical rations are distributed by boat and helicopter.
- Many people are struggling worse in underdeveloped areas.
- The rain has not spared the more affluent residents either. Those living in upscale localities have been rescued.
- Across Bihar, there has been a significant loss of life and property.
- The monsoon is expected to withdraw after October 10, 2019 which is more than a month behind normal.

What does this overhang mean?

- This overhang is consistent with the prevalent scientific view on the effects of a changing climate: extreme rainfall and drought occurring at an increased frequency.

- **Normal patterns will become less common** in coming years, according to the current consensus.
- This alarming outlook calls for a far-sighted national response.
- The Union Ministry of Environment, Forest and Climate Change, was given the responsibility of coordinating the efforts of other Ministries in charge of housing, urban and rural development, water management, and agriculture, as well as State governments.
- Indian cities are attracting heavy investments in several spheres.
- But the state and municipal administrations haven't matched their ambitions for development with capacity building and infrastructure creation.
- They must focus on ensuring the safety of citizens and durability of economic assets.
- Ignoring urban planning and adaptation is proving costly, and losses are sapping the vitality of the economy.
- **Cities and Climate Change report** – In this, the UN Framework Convention on Climate Change (UNFCCC) pointed to flooding as a key danger, apart from drought and heat islands.
- This is particularly true of urban centres through which rivers flow and are often located on the coast, facing the additional threat of cyclones.

What could be the solution?

- India's cities should work towards solutions that use engineering and ecology to **contain the excess water** from rain and put it to good use.
- This could be in the form of new lakes and bioswales (Vegetated channels to manage rainwater).
- There is no better time to create such green infrastructure than now, as water management is a priority programme of the central government.
- States should be able to find **financial and technical linkages** to put up flood-handling structures.
- In Bihar's case, **coordination with Nepal** to track monsoon flows is also vital, since big Gangetic Rivers originate in the Himalayan region.

9.2 Addressing Changing Trend in Monsoon

What is the issue?

The drastic change in the monsoon pattern in recent years calls for a holistic and quick policy response.

What is the change of trend in Indian monsoon?

- The monsoon, which, since the Indian Meteorological Department started recording it, has been arriving in India by June 1 and departing by September 30 like clockwork, is no longer behaving.
- While the pattern itself has been changing for the past several years, this year perhaps saw the most severe deviations from "normal."
- After the hottest summer on record (each month of the Indian summer was the hottest ever recorded for that month), the monsoons were delayed.
- Although they hit the Kerala coast with a delay of just three days, the monsoon didn't progress much after that, leading rise to fears of drought.
- While the season total now is in excess of normal and monsoon it is set to retreat only by mid-October (the most delayed withdrawal on record).
- Large swathes of the country, particularly in the North, are in deficit, while there has been late and massively excessive rainfall in other areas, triggering floods.



What are havocs caused by changing monsoons?

- As late as the beginning of August, several parts of India were running a deficit of over 30 per cent from the long season average.
- Kerala wiped out its deficit in just one week (from August 1-8), triggering massive floods for the second year in succession and landslides killed dozens.
- Neighboring Karnataka was worse hit, in the same week (August 1-8), Karnataka as a whole received 128 per cent of normal rainfall but it was highly concentrated.
- On August 8, Mysuru received 3000 per cent of its long-term average rain for that day.
- Kodagu (Coorg) received 700 per cent excess, wiping out large chunks of its plantation economy.

How change in monsoon affects policy making holistically?

- Official machinery is yet to wake up to the altered reality of Indian Monsoons, The IMD has been talking about changing the dates for the official monsoon for five years, but is yet to do it.
- This means the Agriculture Ministry's advisory (as well as those from its State counterparts) hasn't changed.
- Due to this farmers are not planting shorter duration crops, so delayed onset is killing early sowings, while late floods are destroying harvested or harvest-ready produce.
- Banks are still releasing (or not, depending on whom you ask) credit as per the timetable set in 1941.
- The Food Corporation of India's procurement machinery kicks into action when crops have either not arrived or long since been sold at distress prices to traders.
- Policy continues to focus on the kharif crop while the reality is that the rabi or the winter crop is now accounting for half the food grain output for the year and almost all of the oilseeds and pulses.

9.3 UPPCB Order on Kanpur Tanneries - Pollution in Ganga

Why in news?

The Uttar Pradesh Pollution Control Board (UPPCB) has ordered tanneries in Kanpur to shut down.

What is the order?

- In August 2019, UPPCB had permitted 126 tanneries to run at 50% capacity, provided they fulfilled the pollution norms.
- But, a report of the Ganga monitoring wing of the National Green Tribunal found the shortcomings in this.
- It said that effluents from tanneries, located in Kanpur's Jajmau industrial area, were being released into the river.
- As a result, tanneries have now been ordered to remain closed.

What are the concerns with the order?

- The estimated size of Kanpur's leather industry is Rs 12,000 crore, 50% of which is exported.
- It provides direct and indirect employment to about a million people.
- Notably, it is the state agency Jal Nigam, which is mandated to run the effluent treatment plant, not the tanneries.
- The Jal Nigam has not fulfilled its commitment and has asked for more time to set things right.
- But, it is the tanneries that are left to suffer.

**What are the larger issues to be addressed?**

- The issue highlights the several economic and governance challenges in India's attempt to deal with rapidly increasing urbanisation.
- However, the issue of externality is not new and, in the Kanpur tanneries case, pollution of the Ganga has wider consequences.
- Despite all the efforts made by the government, a large amount of sewage water is still being released into the Ganga in Uttar Pradesh.

What should be done?

- India needs to tackle negative externalities of industrial development and rapid urbanisation at various levels.
- Imposing taxes may not always work in containing pollution and damage to the environment.
- India needs to build the state capacity to deal with such issues.
- Notably, tanneries in Kanpur have been closed because a state agency could not handle the project properly.
- Engagement of local institutions is necessary, as the one-size-fits-all solutions may not work in a country like India.
- Dealing with pollution thus requires empowering the institutions of local governance.
- Besides this, it increasingly requires better coordination among different agencies.
- Essentially, the state should be in a position to make the necessary investment.
- It should also monitor the adherence to environment regulations at the local level.
- Attracting private investment in waste management in a big way will help bring innovation and minimise costs over time.
- In all, the government will have to work at multiple levels to ensure that growth and development are sustainable.

9.4 Protests in Kerala against NH 766 ban**What is the issue?**

- Kerala's Wayanad district has witnessed a series of protests recently against a ban on night traffic on the forest stretch of NH 766.
- NH 766 is a key highway between Karnataka and Kerala that passes through the Bandipur Tiger Reserve in Karnataka.

Why are there protests?

- The night ban was first enforced a decade ago.
- But the immediate trigger for the current agitation was a recent Supreme Court (SC) direction to the Ministry of Environment, Forest & Climate Change and the National Highway Authority of India (NHAI).
- SC had asked for a suggestion for the alternative routes so that NH 766 could be shut down permanently.
- Since then, Wayanad has witnessed an ongoing indefinite hunger strike and several protest marches.

Who are behind the present protest?

- On 8th August 2019, the SC upheld the night traffic ban, which was supported by Karnataka and Tamil Nadu while Kerala wanted it lifted.



- The court asked the NHAI to upgrade the alternative road and sought the Centre's opinion on closing down NH 766 permanently.
- The protest in Wayanad is backed by all political parties in Kerala, religious organisations, traders and youth organisations.
- People fear that a blanket ban on traffic would impact the Wayanad's economic development.

In what circumstances was night traffic on the highway banned?

- **August 2009** - The district administration of Chamarajanagar district, Karnataka, banned night traffic on the 19-km forest stretch of NH 766.
- This was after the project officer of Bandipur Tiger Reserve had prepared a report on the number of animals being hit by vehicles at night.
- **Report** - 44 vehicles were on this 19-km stretch in a span of 30 minutes.
- It said that night traffic would affect behaviour biology, disrupt their life cycle and make them stray to human habitats.
- Using the central Motor Vehicle Act and the Karnataka Motor Vehicle Rules, the district administration banned traffic from 9 pm to 6 am.
- Vehicles were stopped on both sides of the stretch and allowed to resume the journey in the morning.

Were there no protests then?

- After the ban, the representatives of people in Kerala and transport operators in both states petitioned the Chamarajanagar Deputy Commissioner, who lifted the ban.
- **High Court (HC)** - Then conservationists moved the Karnataka High Court, which reinstated the ban by an interim order.
- At one point, it observed that the interest of protecting wildlife is important, and no less important is the need to protect the interest of the public, who are commuters and traders.
- In 2010, the court upheld the night traffic ban.
- **Alternative route** - It is 35 km away, which would cost time and money besides raising prices of commodities.
- The HC directed the Karnataka government to upgrade this road running from Mananthavady (Kerala) to Mysuru via Gonikuppal (Karnataka).
- The Kerala government moved a special leave petition in the Supreme Court; conservationists too were impleaded.
- Kerala's suggestion for an elevated highway through the forest reserve was turned down by the ministry.

Has the night ban met its objective?

- According to Bandipur Tiger Reserve project director, animal fatalities have come down significantly (nearly tenfold).
- If the highway is opened, fatalities would increase manifold.
- Spread over 990.51 sq km, Bandipur Tiger Reserve is part of interconnected forests that include,
 1. Mudumalai Wildlife Sanctuary (Tamil Nadu),
 2. Wayanad Wildlife Sanctuary (Kerala) and
 3. Nagarhole National Park (Karnataka).



- Variety of wildlife moves from one stretch to another, cutting the states.
- Bandipur has 140 tigers, 1,600 elephants and 25,000 spotted deer, as per the forest department sources.

Is there no way to avoid the highway?

- The Kollegal-Mysuru-Kozhikode road has existed for 200 years.
- It was declared a national highway in 1989, then named NH 212 and later renamed NH 766.
- The opening of the Pune-Bengaluru Hyderabad-Bengaluru highways, and the development of the Bengaluru-Mysuru Expressway, made NH 766 a major link between Kerala and the rest of the country.
- NH 766 is also used by transporters of essentials from Karnataka to Kerala, and by commuters from Kerala to Bengaluru for want of good rail connectivity.
- **Two other roads** exist between Wayanad and Karnataka.
 1. A road between Mysuru and Mananthavady (Wayanad), part of which passes through the Nagarhole National Park, has been closed for night traffic from 6 pm to 6 am since 2008, on the recommendation of a committee appointed by the SC.
 2. Another road, the only alternative that remains available for night traffic, is the one that the High Court referred to in 2010.
- Also between Mananthavady and Mysuru, it runs via Kutta, Gonikuppall and Hunsur in Karnataka. This too cuts through forest.

9.5 Graded Response Action Plan - Delhi

What is the issue?

- Some stricter measures to fight air pollution will come into force in Delhi's neighbourhood starting October 15 2019, as part of the Graded Response Action Plan (GRAP).
- In this backdrop, here is an overview of the Graded Response Action Plan (GRAP).

What are the recent pollution control measures?

- In 2018, the ban on using diesel generator sets was implemented only in Delhi. In the current year (2019), it is being extended to a few NCR towns.
- Notably, many areas here see regular power cuts.
- Rural areas are, however, being left out of this stringent measure because of unreliable power supply.
- The measures that are coming into force will be incremental.
- As pollution rises, and it is expected to rise as winter approaches, more measures will come into play depending on the air quality.
- All these measures are part of the Graded Response Action Plan (GRAP) that has been in effect for 2 years in Delhi and the National Capital Region (NCR).

What is GRAP?

- The GRAP was formulated in 2016 and approved by the Supreme Court in the same year.
- It was notified in 2017 by the Centre, and draws its authority from this notification.
- It was planned after several meetings of EPCA (Environment Pollution (Prevention and Control) Authority) with state government officials and experts.

- GRAP institutionalised the measures to be taken when air quality deteriorates.
- It aims to roll out progressively tougher actions as pollution levels rise, without waiting for an emergency to impose strict measures.

How does GRAP work?

- The plan is incremental in nature.
- So, it does not include action by various state governments to be taken throughout the year to tackle emissions.
- Rather, when the air quality shifts from poor to very poor, the measures listed have to be followed.
- If air quality reaches the severe stage, GRAP talks about shutting down schools and implementing the odd-even road-space rationing scheme.
- The plan requires action and coordination among 13 different agencies in Delhi, Uttar Pradesh, Haryana and Rajasthan (NCR areas).
- At the top is the EPCA, mandated by the Supreme Court.
- Before the imposition of any measure, EPCA holds a meeting with representatives from all NCR states.
- A call is taken on which actions have to be made applicable in which town.

How effective has GRAP been?

- GRAP has been successful in doing two things that had not been done before -
 - creating a step-by-step plan for the entire Delhi-NCR region
 - getting on board several agencies: all pollution control boards, industrial area authorities, municipal corporations, regional officials of IMD and others
- The biggest success of GRAP has been in fixing accountability and deadlines.
- For each action to be taken under a particular air quality category, executing agencies are clearly marked.
- In a territory like Delhi, where a multiplicity of authorities has been a long-standing impediment to effective governance, this step made a crucial difference.
- Clear demarcation of responsibilities has made easier the coordination among as many as 13 agencies from 4 states.
- Three major policy decisions that can be credited to EPCA and GRAP are-
 - the closure of the thermal power plant at Badarpur
 - bringing BS-VI fuel to Delhi before the deadline set initially
 - the ban on Pet coke as a fuel in Delhi NCR

HOW THE GOVT WILL WORK TO CURB BAD AIR	
Graded Response Action Plan (GRAP) will be put in place from today and will be in force until February-end, 2018. People would be made aware about this through mass media	
CATEGORY	ACTION PLAN
 Moderate to Poor PM2.5—61-120 µg/m3 PM10—101-350 µg/m3	<ul style="list-style-type: none"> ▶ Stop garbage burning, impose heavy fines ▶ Enforce pollution regulations in all industries ▶ Do periodic mechanised road sweeping ▶ Stop plying of visibly polluting vehicles ▶ Enforce SC order on diversion, ban on crackers ▶ Ensure fly ash ponds are watered every alternate day from Mar - May ▶ Use apps to inform people and register complaints 
 Very Poor PM2.5—121-250µg/m3 PM10—351-430 µg/m3	<ul style="list-style-type: none"> ▶ Stop use of diesel gensets ▶ Enhance parking fee by 3-4 times ▶ Increase bus and Metro services ▶ Stop use of coal/firewood in hotels and restaurants ▶ RWAs to provide electric heaters to security staff to stop bonfires ▶ Issue media alerts and advisories 
 Severe PM2.5—250 µg/m3 PM10—430µg/m3	<ul style="list-style-type: none"> ▶ Close hot mix plants, stone crushers ▶ Shut down Badarpur power plant and maximise generation from natural gas-based plants ▶ Intensify public transport ▶ Mechanised cleaning of road and sprinkling of water 
 Emergency PM2.5—300µg/m3 PM10—500 µg/m3 <i>(persist for 48 hours or more)</i>	<ul style="list-style-type: none"> ▶ Stop entry of trucks except those carrying essential commodities ▶ Stop construction ▶ Introduce odd-even scheme without exemptions ▶ Task Force to decide on additional steps  

What are the shortfalls?

- A major concern with the EPCA and the GRAP has been the focus on Delhi.
- Delhi has always been the first one to have stringent measures enforced.
- Other states have managed to delay several measures, citing lack of resources.
- For GRAP as well as EPCA, the next challenge is to extend the measures to other states effectively.

9.6 NITI Aayog's water resources strategy

What is the issue?

- In December 2018, NITI Aayog released its 'Strategy for New India @75' which defined clear objectives for 2022-23.
- In this document, the strategy for 'water resources' are unrealistic as it was in the successive National Water Policies (NWP).

What are the essentials needed for a plan to be effective?

- Effective strategic planning must satisfy three essential requirements.
 1. Acknowledge and analyse past failures.
 2. Suggest realistic and implementable goals.
 3. Stipulate who will do what, and within what time frame.
- The NITI Aayog's 'strategy' for water fails on all three counts.

Is there any new vision?

- The document reiterates two failed ideas:
 1. Adopting an integrated river basin management approach,
 2. Setting up of River Basin Organisations (RBOs) for major basins.
- The integrated management concept has been around for 70 years, but not even one moderate size basin has been managed thus, in the world.
- 32 years after the NWP of 1987 recommended RBOs, not a single one has been established for any major basin.
- The water resources regulatory authority is another failed idea.
- Without analysing why the WRA already established has failed, it has recommended to establish Water Resources regulatory authorities.
- The strategy document notes that there is a huge gap between irrigation potential created and utilised.
- It recommends that the Water Ministry draw up an action plan to complete Command Area Development (CAD) works to reduce the gap.
- Again, a recommendation is made without analysing why CAD works remain incomplete.

What are the goals mentioned in the document?

- Providing adequate and safe piped water supply.
- Providing water to all farms and industries.



- Ensuring continuous and clean flow in all the Indian rivers.
- Assuring long-term sustainability of groundwater.
- Safeguarding proper operation and maintenance of water infrastructure.
- Utilising surface water resources to the full potential of 690 billion cu.m.
- Improving on-farm water-use efficiency.
- Ensuring zero discharge of untreated effluents from industrial units.
- These are over ambitious and absurdly unrealistic for a 5-year window.
- Not even one of these goals has been achieved in any State.
- A strategy document must specify who will be responsible and accountable for achieving the specific goals, and in what time-frame.
- Otherwise, no one will accept the responsibility to carry out various tasks, and nothing will get done.

What are the constraints it has listed?

- Irrigation potential created but not being used.
- Poor efficiency of irrigation systems and indiscriminate use of water in agriculture.
- Poor implementation and maintenance of projects.
- Cropping patterns not aligned to agro-climatic zones.
- Subsidised pricing of water.
- Citizens not getting piped water supply.
- Contamination of groundwater.
- The Easement Act, 1882 which grants groundwater ownership rights to landowners has resulted in uncontrolled extractions of groundwater.
- Of these issues listed under 'constraints', only the Easement Act is actually a constraint.
- Ideas listed under 'way forward' and 'suggested reforms' do not say how any of these will come about.
- These are problems, caused by 72 years of mis-governance in the water sector, and remain challenges for the future.

What did the document failed to do?

- The document fails to identify real constraints.
- It notes that the Ken-Betwa River inter-linking project, the India-Nepal Pancheshwar project, and the Siang project in Northeast India need to be completed.
- A major roadblock in completion of these projects is public interest litigations (PIL) filed in the National Green Tribunal, the Supreme Court, or in various High Courts.
- Unless the government checks the misuse of PIL for environmental posturing, the projects will remain bogged down in court rooms.
- The document takes no cognisance of some real and effective reforms that were once put into motion but later got stalled.

9.7 Climate Action Summit 2019 - Mitigation and Adaptation

What is the issue?

- The Climate Action Summit took place at New York recently.
- Given the historical emphasis on mitigation, it is time to reflect on the benefits of ‘adaptation’ to ‘mitigation’.

What is Climate Action Summit?

- The UN Secretary-General, Antonio Guterres, hosted the 2019 Climate Action Summit.
- The Summit was held to boost ambition and accelerate actions to implement the 2015 Paris Agreement on Climate Change.
- It took place amidst one of the largest environmental protests ever and a heart-wrenching speech from [Greta Thunberg](#).

What is the point of concern?

- The summit seems to be based on the age-old assumption that adaptation to climate change has its limits, and mitigation deserves more emphasis.
- But, large parts of the underdeveloped and the developing world might not have the wherewithal for mitigation.
- Worryingly, there is scant acknowledgement of this fact by the UN.
- So given the reality, the true need is more focus on adaptation than mitigation.

How has the Green Climate Fund worked?

- Historically, mitigation projects have always been preferred for funding over adaptation projects.
- But, the Green Climate Fund (GCF) remained a rare exception.
- It offered funding for both mitigation and adaptation, while being guided by the UNFCCC principles and provisions.
- At present, the share of funds allocated by GCF to adaptation projects is 24% and mitigation 42%.
- The balance 34% is classified as “cross-cutting”, but with a larger mitigation component.
- The low level of funding to adaptation can be attributed to two factors:
 - i. adaptation is a new endeavour without much “expertise” available
 - ii. adaptation primarily provides local benefits

What are the implications of this shortfall?

- It is felt that the GCF has failed to channel funding to the most vulnerable communities in the most vulnerable countries.
- [These include the communities in the least developed countries (LDCs) and small island developing states (SIDS).]
- This is largely due to GCF’s mandate to act as a “bank”, seeking returns on its investments.
- The GCF focusses on fund management capacities of both recipient country governments and implementing entities.
- This has made the access to large-scale funding difficult.

- In absence of revenue streams, adaptation projects have mostly remained micro and small, and thus incremental rather than transformative.
- The GCF also insists on genuine adaptation projects, not development proposals dressed up as adaptation.
- Due to this approach, adaptation projects from Bangladesh and Ethiopia have been rejected lately.

What is a possible solution?

- A solution for this may be found in the Generic Adaptation Decision Framework (GADF).
- The GADF was proposed in an article in the Journal of Indian Ocean Region.
- The GADF has been proposed to help rationalise between choices of -
 1. in-situ adaptation (adaptation in the vulnerable region)
 2. managed retreat (movement to safer regions)
- The GADF suggests that managed retreat should be thought of if three conditions are satisfied:
 1. the socio-economic well-being under the business-as-usual (or status quo) is diminishing
 2. the cost of in-situ adaptation is higher than the business-as-usual scenario
 3. net current value of ex-situ adaptation (or strategic and managed retreat) is highest of all the adaptation scenarios
- On managed retreat being the best option, development of the host location could be designed to generate a revenue stream for private investors as well as the GCF.
- Even the source location could generate revenue through forest regeneration and tourism concession.

How does Sundarbans delta offer an example?

- The Sundarbans delta has been encountering a relative-mean-sea-level rise of the Bay of Bengal at the rate of 8 mm/year over the last decade.
- It is also subject to regular instances of land-loss and disappearance of islands.
- The proportion of high intensity events (cyclones) appears to be increasing, possibly as a result of rising sea surface temperatures.
- Given these, the GADF has an application in the Sundarbans delta.
- A long-term strategy for adaptation and mitigation for the delta is proposed by the WWF (World Wide Fund for Nature) India Vision 2050.
- This comes in the form of a managed retreat of population by 2050, and regeneration of mangrove forests in the vacated vulnerable zone.
- The scenario of a “managed retreat” by 2050 will yield a net economic benefit of 12.8 times as that of the status quo or “business-as-usual”.

10. INTERNAL SECURITY

10.1 Suspension of Cross-LoC Trade - Need for Revival

What is the issue?

- In April 2019, cross-LoC (Line of Control) trade was suspended by India. Click [here](#) to know more.

- With the increasingly strained relations with Pakistan now, it is wise that India makes a revised strategy on restarting cross-LoC trade.

When was connectivity established?

- It was in 1972 that the LoC between India and Pakistan was thought of, as a part of the Shimla Agreement.
- Though the LoC was mostly an issue of contention, it was 33 years later that the two governments decided to take a significant step.
- On April 7, 2005, then Indian PM Manmohan Singh flagged the first cross-LoC bus, called 'Karwaan-e-Aman'.
- It was operated from the Sher-i-Kashmir stadium in Srinagar towards Muzaffarabad.
- This Confidence Building Measure (CBM) came as a humanitarian reform reuniting divided families and friends.

How did trade come up?

- In 2008, the two governments decided to take forward the existing transport potential to trade.
- The Foreign Ministers of India and Pakistan decided to finalise the modalities of intra-Kashmir trade and truck service.
- Cross-LoC trade, following barter system, thus began in October 2008.
- It took place across Uri-Muzaffarabad and Poonch-Rawalakot for a list of 21 mutually agreed tradable items.



How significant was this?

- The trade measure was aimed at converting social interconnectedness into commercial interdependence of the two similar yet separate sides of the LoC.
- It was rightfully presumed that trade would flourish on the basis of the emotional capital of the people living on either side.
- In all, the LoC gave rise to hope in the virtuous cycle between trade, trust and people-to-people connect, building bridges and reconnecting communities
- The Cross-LoC trade was much more than a mere commodity exchange as the sentiments of the people attached to it kept it successful.
- Importantly, cross-LoC trade did manage to connect the two divided sides of Jammu and Kashmir.
- It, thereby, created a constituency of peace in an otherwise tense region.
- Between 2008-2018, trade worth Rs.7,500 crore was transacted across the LoC.
- This has generated more than 1.7 lakh job days and an approximate freight revenue of Rs.66.4 crore for transporters in J&K and Rs. 90.2 crore was paid to labourers.
- A sizeable community of traders, businesses, transporters and labourers have benefited from this trade.

What are the trade facilitation measures to be taken?

- Given the present situation in J&K, it is imperative that India plans an outreach connecting all stakeholders including the ecosystem of cross-LoC trade.
- Besides, there is a need for a revised strategy towards re-initiation of cross-LoC trade.



- Concerns around transparency have negatively impacted this trade over the last decade.
- So, the lack of transparency needs to be addressed in the complete ecosystem.
- The measures could include standard operating procedure, invoicing, GST norms, and trader registration.
- Other steps to address the long-standing concerns around cross-LoC trade include -
 - i. clarifications on harmonised system codes to avoid misrepresentation of commodities
 - ii. rules of origin to avoid third country goods
 - iii. GST rates and inter-State taxation rules to avoid tax evasions
 - iv. a trader registration policy to ensure that credible traders are involved in the trade
- Digitisation of systems and procedures at the trade facilitation centres at Uri and Poonch is another important step to help take LoC trade to the next level.
- Globally too, digitisation of procedures and lower human intervention are the two major pillars that drive trade across borders.
- Digital platforms to monitor invoicing, traders' records, balancing and truck details will ensure real time checks by the authorities, leaving lesser room for misuse.

What is the way forward?

- Until the trade suspension, both bus links and trade had survived for more than a decade despite intermittent suspensions and ceasefire violations.
- The current suspension of LoC trade could be seen as a window of opportunity to address the concerns hitherto unaddressed.
- The cross-LOC trade should be revived in a stronger and more organised manner.
- In its new avatar, Cross-LoC trade could continue to prove the value of a peace-through-trade policy, and one that has stood the test of time globally.

PRELIM BITS

11. HISTORY AND ART & CULTURE

Vishwa Shanti Stupa

- The 50th anniversary of establishment of Vishwa Shanti Stupa (World Peace Pagoda) at Rajgir in Bihar was observed recently.
- A pagoda is a type of stupa which provides equality for worship and gathering at one place for common cause.
- It is one of the peace pagodas established around the world by Japanese Buddhist Monk NichidatsuFujii.
- It is made of white marble and is the tallest peace Pagoda in the world standing tall at 400 meters.
- It houses four statues of Lord Buddha on the four side-corners of the stupa depicting the 4 phases of life of Lord Buddha - birth, enlightenment, Teaching and Death.

Mamallapuram

- Mamallapuram, or Mahabalipuram is in focus as the venue for the informal summit between Indian PM and Chinese President.
- It is the ancient Pallava port city which has its origins in the word Mamallan (great wrestler), title of a Pallava King Narasimharvarman II (3rd – 9th century).



- The king's story was immortalised by Tamil writer Kalki in the novel *Sivagamiyin Sapatham*.
- The heroine, Sivakami, is portrayed as the daughter of the chief sculptor, Ayanar. She is the lover of Narasimhavarman.
- The town was originally called Mamallai or Kadalmallai and Mallai means prosperity.
- The town got the name because it was enriched by the wealth brought through sea trade.
- Vaishnavite literature refers to the town and temple of Sthalasayana Perumal situated in the town is one among the 108 Vaishnavite shrines.
- The earliest literary reference could be attributed to Poothathazhwar, the second in the lineage of Azhwars, who was born in Mamallapuram.
- The temple would have predated the period of the Pallavas, who expanded the town and made it a cultural capital.
- The name of the town was changed to Jananthapuram by Chola king Raja Rajan.
- Mamallapuram became Mahabalipuram in modern times, and the latter is not the Sanskrit equivalent.

Ajanta Cave Paintings

- Ajanta Cave Paintings is a classic masterpiece of Buddhist Art in the State of Maharashtra.
- It is a UNESCO world heritage site and a protected monument of the Archaeological Survey of India.
- The first Buddhist cave monuments at Ajanta date from the 2nd and 1st centuries B.C.
- During the Gupta period (5th and 6th centuries A.D.), many more richly decorated caves were added to the original group.
- But the cave paintings have started deteriorating in the past few decades due to insects and other climatic stressors.
- The basal layer of the murals was made of mud plaster and organic matter such as paddy husks, grass, vegetable fibres, thus making it a good breeding place for microbes and insects.
- The most common insects were silverfish, beetles and common bugs.
- Another main problem was the entry of rainwater and water from the Waghura River.
- This leads to dampness in the cave atmosphere causing an increase in algae, fungi, insects, and microbes.
- All these together were changing the original colour of the paintings white is turning to yellow and blue is becoming green.
- **Solution** - The researchers have suggested using certain lights and colour to tackle the problem of insects.
- For instance, they suggest using ultraviolet light traps as nocturnal insects are known to get attracted to ultraviolet radiation.

12. POLITY

LG of New UT

- The State of Jammu and Kashmir ceased to exist in line with "The Jammu and Kashmir Reorganisation Act, 2019".
- The two Union Territories – Jammu & Kashmir and Ladakh came into existence following the August 5th decision of Parliament to bifurcate Jammu and Kashmir.
- R K Mathur was sworn-in as the first Lieutenant Governor of UT of Ladakh and administered oath by Chief Justice of Jammu and Kashmir High Court.
- The powers a Governor has in the state they administer is equivalent to that of the President.



- They can appoint Chief Ministers, Ministers, the State Election Commissioner and judges of the District Courts.
- A Lieutenant Governor also has the same powers to ensure checks and balances for the state government and its functioning.
- Union Territories - Andaman and Nicobar, Delhi and Puducherry, Ladakh have Lieutenant Governors.
- In the case of Delhi, since portfolios like land, police and public order fall under the domain of the Centre, Lt. Governor holds more powers than a Governor.

U.K. Verdict on Nizam's Fund

- U.K. court has recently given verdict over 71 years old case involving India, Pakistan.
- The case dates to days during Operation Polo in 1948.
- During the operation, India deployed armed forces in Princely State of Hyderabad to concede it into India.
- Osmal Ali Khan, Nizam of Hyderabad sought weapons from Pakistan and transferred the money (now worth £35 million) to the account of High Commissioner of Pakistan in London.
- However, Hyderabad's armed forces had already surrendered during the military operation.
- Within days of surrender, the Nizam, sent a message to the National Westminster Bank demanding that the money be transferred back to his account.
- Pakistan also claimed the money as a gift or as payment for a shipment of arms.
- In 1965, the Nizam assigned to the President of India, his claim to the fund, and joined forces with India to fight for his claim on the money.
- After many twists and turns, the U.K. court has rejected Pakistan's claim and ruled in favour of India and the Nizam's descendants based in Turkey and the U.K.
- It granted them access to a £35 million fund.

Acting Chief Justice

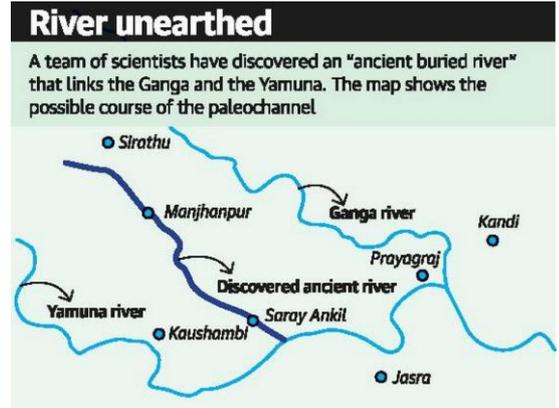
- The Supreme Court has recently ruled that a judge who retired as an Acting Chief Justice of a High Court cannot claim the pension of a regular Chief Justice (CJ).
- SC held that an Acting CJ needs to be given the pension of a CJ only for the period for which he served as a CJ and not more.
- Only for the limited purpose of salary, such an Acting Chief Justice is treated on a par with the Chief Justice and not for any other purpose, more particularly pension.
- K.Sreedhar Rao, served in Gauhati High Court for 14 months as its Acting CJ.
- He appealed to SC demanding pension equivalent to CJ of a high court.
- But SC said he needs to be given a Chief Justice's pension only for the 14 months he was Acting CJ.

13. GEOGRAPHY

Paleochannel

- A Paleochannel is an old or ancient channel, which are filled with younger sediments.
- It can store and transmit groundwater and therefore developed as a source of water.
- A paleochannel in Prayagraj (formerly Allahabad) that linked the Ganga and Yamuna rivers was recently excavated.

- The aim is to develop it as a potential groundwater recharge source.
- It is around 4km wide, 45km long and consisted of a 15-metre-thick layer buried under soil.
- These paleochannels reveal the course of rivers that have ceased to exist.
- It will play a very crucial role in planning of Ganga cleaning and protecting safe groundwater resource.
- The discovery was made by a team of scientists from the CSIR-NGRI (National Geophysical Research Institute) and the Central Groundwater Board.
- The genesis of the palaeochannel's discovery followed a 2016 report of a committee headed by K.S. Valdiya commissioned by the Water Resources Ministry.
- This report concluded that evidence from palaeochannels suggested that the mythological Saraswati river did indeed exist.



Monsoon Model

- IMD deploys various dynamical model to predict monsoon rains in the country.
- Traditionally, IMD has relied on its statistical database of over 100 years to estimate the chances of a good monsoon or a drought.
- It is based on correlations between certain weather parameters such as temperatures in the Indian ocean, or the warm water volume in the Pacific.
- Over the years, IMD came with a new dynamical model which relies on capturing interactions between the land, ocean and atmosphere and tracking how the changes in each affect the other.
- The conditions are mathematically simulated on supercomputers and extrapolated into the monsoon months.
- The dynamical model is also called the Climate Forecast Model (CFS), implemented on the Prithvi High Performance Computers (HPC) at Indian Institute of Tropical Meteorology (IITM), Pune.
- It was developed as part of "National Monsoon Mission" by the Ministry of Earth Sciences, to develop both short and long-term forecasting.
- It failed to forecast August-September surge in monsoon rainfall.
- This year, India have recorded its highest monsoon rain in 25 years.
- India ended up with 10% more monsoon rain (or 110% of the long period average LPA of 887 mm) than usual.
- However, none of the agency's models tuned to capture long term forecast trends warned of this.
- The statistical models said that All India Monsoon Rainfall (June-September) would be 96% of the LPA.
- The CFS model said the monsoon would be 94% of the normal and updated to 99% in August.

Marawah Island

- The World's oldest known natural pearl discovered at a Neolithic site on Marawah Island, off the coast of Abu Dhabi.
- It is dubbed the 'Abu Dhabi Pearl' that have been radio dated to 5,800-5,600 BCE.
- The discovery proves that pearls and oysters were being used in the UAE nearly 8,000 years ago.
- Prior to this discovery, the earliest pearl was found in another Neolithic site off the coast of Abu Dhabi.

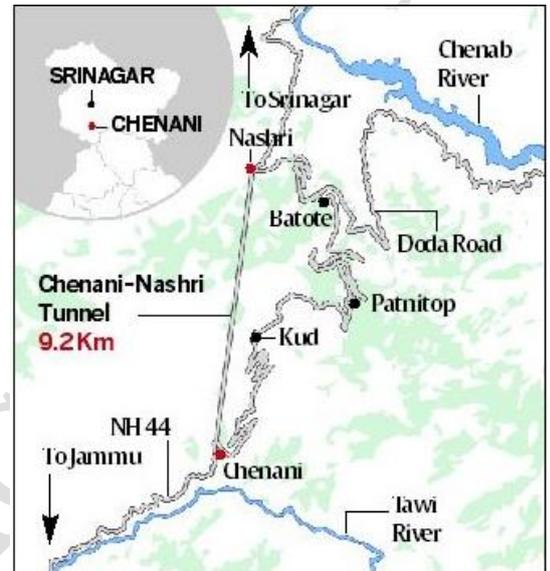


Typhoon Hagibis

- A **hurricane** is a storm that occurs in the Atlantic Ocean and north eastern Pacific Ocean, a **typhoon** occurs in the north western Pacific Ocean, a **cyclone** occurs in the south Pacific or Indian Ocean, a **willy-willy** in south-west Australia.
- Hagibis, which means "speed" in the Philippine language, is a super typhoon swirling around Japan.
- It made landfall in Izu Peninsula, south-west of Tokyo and moved up the east coast.
- It led to **Chikuma river** breaching their banks inundating residential neighbourhoods and the torrential rain triggered landslides.
- After it made its landfall, a magnitude 5.7 earthquake shook Tokyo shortly after.

ChenaniNashri tunnel

- Union Ministry of Road Transport & Highways has recently approved renaming of ChenaniNashri Tunnel on NH 44 in Jammu & Kashmir as Dr Syama Prasad Mookerjee Tunnel.
- It is a 9 km tunnel and the longest such state of art tunnel in the country, connecting Udhampur to Ramban in Jammu.
- The tunnel incorporates India's first fully integrated mechanism to externally control everything from the movement of vehicles to the inflow and outflow of air, and even the evacuation of passengers or vehicles in distress.
- It is located at an altitude of 1,200 metres (nearly 4,000 feet) in difficult Himalayan terrain.
- It will reduce the travel time on NH 44 between Jammu and Srinagar by about 2 hours by shortening the distance between the cities by 30 km.



14. SOCIAL ISSUES

GOAL

- Going Online as Leaders (GOAL) is a Facebook program launched for underprivileged young tribal women.
- It aimed at inspiring, guiding and encouraging tribal girls from across India to become village-level digital young leaders for their communities.
- It connects tribal women with senior expert mentors in the areas of business, fashion and arts to learn digital and life skills.
- Ministry of Tribal Affairs associated with Facebook have recently launched the 2nd phase of this program.
- In the second phase of the program, will digitally mentor 5000 young women in India's tribal dominated districts.
- It will give provide the tools and guidance they need to succeed, using technology they may otherwise have not had access to.

15. GOVERNMENT INITIATIVES

VayoshreshthaSamman

- It is a Scheme of awards instituted by the Ministry of Social Justice & Empowerment and it upgraded to the status of National Awards.



- It is conferred on the eminent senior citizens and institutions in recognition of their services towards the cause of the elderly persons.
- It is given annually by the President of India to mark 'International Day of older Persons', celebrated every year on 1st October since the year 2005.
- It is awarded in two categories – Institutions and Individuals from any part of the country.
- Nominations are invited from Governmental and Non-Governmental Agencies.
- The following 3 notable institutions are among those honoured this year,
 - i. Madhya Pradesh Municipality – Runs a day care centre for senior citizens
 - ii. NGO in Kerala – Sensitised people to the need for taking care of elders
 - iii. State of Tamil Nadu – Established Maintenance tribunals in each sub-division.

Paryatan Parv 2019

- Ministry of Tourism is organising Paryatan Parv 2019 dedicated to 150th Birth Anniversary of Mahatma Gandhi.
- Its objective is to encourage Indians to visit various tourist destinations of the country and also to spread the message of 'Tourism for All'.
- The three components of Paryatan Parv, are:
 1. Dekho Apna Desh: To encourage Indians to visit their own country
 2. Tourism for All: Tourism Events at sites across all States in the country are being organised
 3. Tourism & Governance: Interactive Sessions & Workshops with Stakeholders on varied themes will be organised across the Country

Audio Odigos

- It is an Audio Guide facility App launched by the Ministry of Tourism for 12 iconic sites.
- It is launched during Paryatan Parv programme, which aims to develop responsible tourism.
- It offers verified content, with visuals & voice over support and an inbuilt map of the site for a smooth navigation during the tour.
- The audio can be chosen in their preferred language & version of the history.
- The 12 sites include Amer Fort, Rajasthan, Chandni Chowk, Red Fort, Purana Quila, Humayun's tomb, Delhi, Fatehpur Sikri, Taj Mahal, Uttar Pradesh, Somnath and Dholavira, Gujarat, Khajuraho, Madhya pradesh, Mahabalipuram, Tamilnadu and Mahabodhi Temple.

Prakash portal

- Power Rail Koyla Availability through Supply Harmony (PRAKASH) portal was launched by the Ministry of Coal & Power.
- It is for better coordination among the ministries of power, coal and Indian Railways for coal supply to power plants.
- It will enable all stakeholders to map and monitor coal right from mines to transportation.
- Through the portal, coal company will be able to track stocks and the coal requirement at power stations for effective production planning.
- It is developed by NTPC and sources data from Central Electricity Authority (CEA), Centre for Railway Information System (CRIS) and coal companies.
- However, the portal, unlike the power ministry's other recently launched websites, is not accessible to general public.
- The present mechanism to review coal supply situation consists of an inter-ministerial group with officials from ministries of Power, Coal, Railways, CEA, power utilities and coal companies.



- This has faced several issues such as scattered information, correctness of data from different organizations, timely availability of data etc.

e-Waste Clinic

- India's first e-waste clinic is going to be setup in Bhopal.
- The clinic would ensure scientific handling and disposal of electronic waste generate from both households and commercial establishments.
- The Bhopal Municipal Corporation (BMC) and the Central Pollution Control Board (CPCB) have signed an MoU to this effect.
- The project would be taken up as a pilot project in Bhopal for three months and will be subsequently replicated across India.
- It has been conceived as per the Solid Waste Management Policy, 2016.

Army Battle Casualties Welfare Fund

- The fund was instituted in 2017 by the Ministry of Defence and implemented retrospectively from April 2016.
- It was set up in addition to the various existing schemes for the welfare of next of kin of battle casualties and their children.
- Recently, Defence Minister has given in-principle approval to enhance monetary assistance to next of kin of battle casualties from existing Rs 2 lakh to Rs 8 lakh.
- The assistance under this fund is given in addition to liberalised family pension, financial assistance from Army group insurance, Army Welfare Fund and ex-gratia amount.
- **Bharat Ke Veer** – It is a fund-raising initiative by the Ministry of Home affairs to aid the families of Paramilitary forces killed or injured in action.

DHRUV Programme

- Pradhan Mantri Innovation Learning Programme – DHRUV is a 14-day learning programme launched by Ministry of HRD in ISRO HQ in Bengaluru.
- 60 brightest and talented students from Science, Mathematics and Performing Arts have been chosen for the programme.
- It aims to further sharpen innovative imagination, skills and knowledge of the students to bring solutions to socio-economic, political and environmental issues in the country.
- Every student to be called 'DHRUV TARA' will be mentored by renowned experts.

SUMAN

- Ministry of Health and Family Welfare launched SurakshitMatritvaAashwasan (SUMAN) initiative.
- It was launched during the 13th Conference of Central Council of Health and Family Welfare along with State Health Ministries.
- It aims to end all preventable maternal and newborn deaths by assuring dignified, respectful & quality health care at no cost.
- It focuses on zero tolerance for denial of services for every woman and newborn visiting the public health facility.
- It also provides a positive birth experience to both mother and infant.

SARAS Aajeevika Mela

- It is an initiative by the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM).



- It is organised by Council for Advancement of People's Action and Rural Technology (CAPART), marketing arm of Ministry of Rural Development.
- Its objective is to bring the rural women SHGs formed with support of DAY-NRLM, under one platform to show-case their skills, sell their products and help them build linkages with bulk buyers.
- Through this mela, rural SHG women get vital national level exposure to understand the demand and taste of urban customers.

International Cooperatives Trade Fair

- The first ever International Cooperatives Trade Fair (IICTF) was organised in New Delhi.
- It was organised by the National Cooperative Development Corporation (NCDC), APEDA and NAFED with the support of Agriculture and Commerce ministries.
- About 35 countries and 150 cooperatives participated in the fair.
- It is conceived as the major platform to promote export of Indian cooperative produce.
- It is a part of its effort to boost farm exports and double the income of farmers by 2022.

LOTUS-HR

- The project Local Treatment of Urban Sewage streams for Healthy Reuse (LOTUS-HR) is an Indo-Netherlands joint program.
- It is supported by Department of Biotechnology.
- It was initiated in 2017 and the 2nd phase was launched recently.
- The project aims to demonstrate a novel holistic (waste) water management approach that will produce clean water for reuse purposes.
- The pilot scale plant upon commissioning will treat 10,000 L sewage water per day.
- Special attention is paid to pathogen removal and removing conventional and emerging pollutants.
- The project was launched in India-Netherlands water laboratory at the Barapullahdrainin Delhi.
- **Wetlab** – A design challenge competition for Indian and Dutch young professionals to provide innovative ideas to solve India's urban water challenges.
- It is jointly supported by Department of Biotechnology and Netherlands Enterprise Agency.

Food Safety Mitra

- Ministry of Health and Family Welfare launched Food Safety Mitra Scheme on the occasion of World Food Day, 2019.
- It is to strengthen food safety administration and scale up the 'Eat Right India' movement.
- The scheme will support small and medium scale food businesses to comply with the food safety laws and facilitate licensing and registration, hygiene ratings and training.
- The Food Safety Mitras would undergo training and certification by FSSAI and get paid by food businesses for their services.
- It would also create new employment opportunities for youth, particularly with food and nutrition background.

RashtriyaSanskriti Mahotsav

- The 10th edition of RashtriyaSanskriti Mahotsav was recently organised by the Ministry of Culture in the State of Madhya Pradesh.
- It was conceived in 2015 to showcase the rich cultural heritage of the country in varied dimensions in one place - Handicrafts, Cuisine, Painting, Sculpture and Performing Arts-Folk, Tribal, Classical and Contemporary.



- It will cover a profusion of folk-artforms from 22 States.
- It was launched under EkBharat Shrestha Bharat initiative under Ministry of Human Resource and Development.
- **Ek Bharat Shrestha Bharat** - It was launched in 2016 to promote bonding amongst the people of different States/UTs and diverse cultures, thereby securing unity and integrity of India.
- Each year, every State/UT would be paired with another State/UT in India for reciprocal interaction between the people.

Digital Bharat Digital Sanskriti

- It is the e-portal of Centre for Cultural Resources and Training (CCRT) launched by the Ministry of Culture.
- CCRT is an autonomous organization under the aegis of Ministry of Culture.
- It was pioneered by Smt. Kamaladevi Chattopadhyay and Dr. Kapila Vatsyayan and established in 1979.
- It is one of the premier institutions working in the field of linking education with culture.
- **Main Functions of CCRT –**
 - i. It organizes theoretical and theme based academic programmes on Indian art and culture for teachers and students.
 - ii. It Conducts Workshops to provide practical training and knowledge in crafts to be incorporated in school curriculum.
 - iii. It organizes various educational activities for school students, teachers and children belonging to governmental and NGO.
 - iv. It collects and develops a library of resources in the form of scripts, digital photographs, audio and video recordings and films.
 - v. It prepares publications and other audio-visual material to provide an understanding and appreciation of the different aspects of Indian art and culture.
 - vi. It implements Cultural Talent Search Scholarship Scheme for providing facilities to young talented children in the 10-14 age group to study one or the other art form.

First MeityStartup Summit

- Ministry of Electronics & Information (MeitY) organised the first MeitY Start-up Summit at New Delhi.
- The discussion on importance of JAM Trinity and startups were held.
- Some of the achievements of the ministry were also highlighted –
 - i. Reaching of BPOs to tier 2,3,4 and mofussil towns of India
 - ii. Connecting 1.25 Lakh Gram Panchayats by optical fibres
 - iii. Promotion of startups through Technology Incubation and Development of Entrepreneurs (TIDE) scheme.

mHariyali App

- The mobile app was launched by the Ministry of Housing and Urban Affairs.
- It is aimed to encourage Public engagement in planting trees and other such Green drives.
- The App provides for automatic geo-tagging of plants and will also enable nodal officers to periodically monitor the plantation.



16. GOVERNMENT SCHEMES

National Pension Scheme

- Pension Fund Regulatory and Development Authority (PFRDA) has now permitted Overseas Citizen of India (OCI) to enrol in National Pension Scheme (NPS) at par with Non-Resident Indians.
- Now, any Indian citizen, resident or non-resident and OCIs are eligible to join NPS till the age of 65 years.
- NPS was initially notified for central government employees joining service on or after 1st Jan 2004, adopted by State Governments.
- It was extended to all citizens of Indian on voluntary basis from 2009 and to corporates in 2011 and to Non-Resident Indians in 2015.
- PFRDA is the statutory Authority established by an enactment of the Parliament, to regulate, promote and ensure orderly growth of the National Pension System (NPS) and pension schemes.

PM-JAY Scheme

- PM-JAY is one of the two components under Ayushman Bharat scheme/National Health Protection Scheme.
- It aims to reduce out of pocket hospitalisation expenses by providing health insurance coverage up to Rs.5 lakh/family/year for **secondary and tertiary care hospitalization**.
- The scheme will integrate two ongoing centrally sponsored schemes RashtriyaSwasthyaBima Yojana (RSBY) and Senior Citizen Health Insurance Scheme (SCHIS).
- The NHPS remains disconnected from primary health care services.
- Also, a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.
- **Coverage** - The scheme will aim to target over 10 crore families based on SECC (Socio-Economic Caste Census) database.
- To ensure that nobody from the vulnerable group is left out of the benefit cover, there will be no cap on family size and age in the scheme.
- The insurance scheme will cover pre and post-hospitalisation expenses.
- All pre-existing diseases are also covered.
- It will also pay defined transport allowance per hospitalization to the beneficiary.
- **Funding** - The expenditure incurred in premium payment will be shared between central and state governments in a specified ratio
 1. 60:40 for all states and UTs with their own legislature.
 2. 90:10 in NE states and the 3 Himalayan states of J&K, HP and Uttarakhand.
 3. 100% central funding for UTs without legislature.
- The State governments have the main responsibility of health service delivery.
- States will be allowed to expand the scheme both horizontally and vertically.

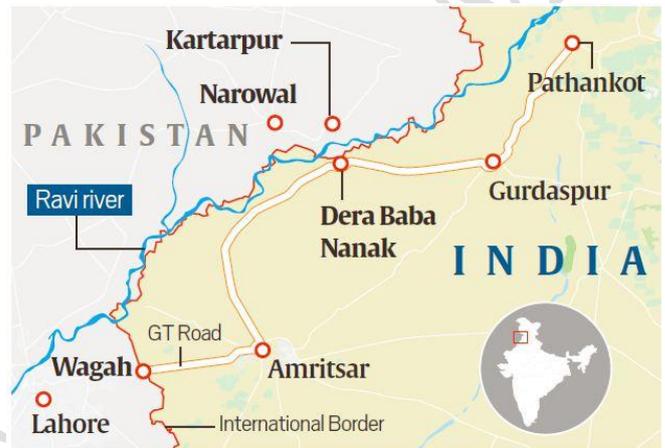
Top Performers

- Gujarat, Tamil Nadu, Chhattisgarh, Kerala and Andhra Pradesh have emerged as the top performing States under PM-Jan Arogya Yojana Scheme.
- The States have provided free secondary and tertiary treatment worth nearly ₹7,901 crore in one year.
- More than 60% of the amount spent on tertiary care such as Cardiology, Orthopaedics, Radiation Oncology and Urology etc.

17. BILATERAL ISSUES

Kartarpur Sahib Corridor Agreement

- India has signed the Agreement with Pakistan recently for operationalisation of the Kartarpur Sahib Corridor at Zero Point, International Boundary, Dera Baba Nanak.
- In November 2018, Union cabinet approved the building and development of the Kartarpur Sahib Corridor from Dera Baba Nanak to the International Boundary.
- It is to facilitate pilgrims from India to visit Gurdwara Darbar Sahib Kartarpur, round the year, in a smooth and easy manner.
- Kartarpur Sahib is revered as Guru Nanak's final resting place.
- It was here that Guru Nanak assembled a Sikh community and lived for 18 years until his death in 1539.
- **Corridor** - It is a long-standing demand from the Sikh community for easy access to the revered shrine across the border.
- The Kartarpur corridor was first proposed in 1999 when PM Atal Bihari Vajpayee took a bus ride to Lahore.
- It is now conceived as a visa-free corridor for Sikhs from India to Pakistan's Kartarpur Sahib.
- It will be developed from Dera Baba Nanak village in Gurdaspur, Punjab to Gurdwara Darbar Sahib, Kartarpur.
- The length of the corridor is about 4 km, 2 km on either side of the International Border.
- The government also asked Pakistan to develop a corridor with suitable facilities in its territory.
- It comes at the time of the start of 550th birth anniversary year of Guru Nanak.
- The Pakistan government responded that it has already decided to open the corridor for the anniversary.



18. INTERNATIONAL ORGANISATIONS

India Economic Summit

- World Economic Forum's 33rd edition of the India Economic Summit is going to be organised in New Delhi.
- It is jointly organised by the Ministry of Commerce and Industry and industry body CII.
- The theme of the summit is 'Innovating for India: Strengthening South Asia, Impacting the World'.
- It will host world leaders to discuss issues like Inclusive growth, the environment and innovation.

World Cotton Day

- WTO is organizing World Cotton Day event in collaboration with FAO, UNCTAD, International Trade Centre (ITC) and International Cotton Advisory Committee (ICAC).
- WTO is hosting it at the request of the Cotton – 4 countries - Benin, Burkina Faso, Chad and Mali.
- It is to celebrate their official application for the recognition of 7th October as World Cotton Day by the United Nations.
- It is an opportunity for members, the private sector and the international development community to share knowledge and showcase cotton related activities and products.

UNICEF Cryptocurrency Fund

- UNICEF becomes first UN organisation to hold and make transactions in cryptocurrencies ether and bitcoin.
- UNICEF will use cryptocurrencies to fund open source technology benefiting children and young people around the world.
- Under the structure of the fund, contributions will be held in their cryptocurrency of contribution, and granted out in the same cryptocurrency.
- The first contributions to the Fund will benefit UNICEF Innovation Fund and **GIGA initiative** to connect schools across the world to the internet.

UN Human Rights Council

- Venezuela has won a seat on the United Nations Human Rights Council, despite widespread criticism of its poor human rights record.
- It obtained one of the two seats allocated for Latin American countries and the other seat was won by Brazil.
- Brazil's far-right leader, Jair Bolsonaro has frequently expressed contempt for the concept of human rights.
- **UNHRC** – It was established in 2006 as part of the UN's reform process.
- It replaced the United Nations Commission on Human Rights.
- UNHRC is an inter-governmental body within the United Nations system, made up of 47 States.
- Members are elected by the UN General Assembly with 3-year terms, with a maximum of 2 consecutive terms.
- They are responsible for promotion and protection of human rights.
- It meets 3 times a year to examine human rights violations worldwide.
- Its resolutions are not legally binding but carry moral authority.
- Last year, US has withdrawn from the council during its half-way of a 3-year term. It was the first such member to withdraw from the council.
- Recently, Venezuela and Brazil were elected among 14 members to the council for 3 years term.

International Coffee Organisation

- It is a London based body set up under the auspices of the United Nations in 1963 under the International Coffee agreement of 1962.
- It was formed to highlight the economic importance of coffee.
- It has 50 members which includes Exporting (44) and Importing (6) countries.
- India is in major exporting countries and European Union in importing countries.
- It represents 98% of world coffee production and 67% of world consumption.
- It organises "The World Coffee Conference" in which its 5th edition was held in India.
- The earlier conferences were held in London, Guatemala, Brazil and Ethiopia.
- In its recent report, it highlighted that the next wave of growth in international coffee industry will come from Asia, and India is expected to play a lead role in driving this growth.

Developments in IMF

- The members of IMF has recently agreed a new deal that would allow to maintain its funding at \$ 1 trillion but postponed changes to its voting structure.
- **Source of funding in IMF** - Quotas are the IMF's main source of financing. Each member of the IMF is assigned a quota, based broadly on its relative position in the world economy.
- Through New Arrangement to Borrow (NAB), a number of member countries and institutions stand ready to lend additional resources to the IMF.

- The NAB constitutes a second line of defense to supplement IMF resources.
- Bilateral Borrowing Agreements serve as a third line of defense after quotas and the NAB.
- Concessional lending and debt relief for low-income countries are financed through separate contribution-based trust funds.
- NAB is a renewable funding mechanism that has existed since 1998 and bilateral borrowings from countries after the 2008 financial crisis.
- **Recent Developments** - In its new deal, IMF members have decided to extend the bilateral borrowing facility by a year to the end of 2020 and a potential doubling of the NAB.
- But the new deal will leave IMF quotas (the primary source of IMF funds), which determine voting shares, unchanged. Instead, these will be reviewed before the end of 2023.
- This is mainly due to veto power of US which has objected to changing IMF quota.
- IMF quotas are distributed according to a four pronged formula that considers a member country's GDP, its economic openness, its "economic variability" and international reserves.
- India's quota is 2.76% and China's is 6.41%, while the U.S.'s quota is 17.46 % (translates to a vote share of 16.52%).
- Many of the crucial decision in IMF requires 85% supermajority and US vote share give it unique veto power.

G20 Meeting

- G20 Health Ministers Meeting was recently held under the Presidency of Japan in Okayama City.
- Four major global health issues were focussed –
 - i. Achievement of Universal Health Coverage
 - ii. Response to population aging
 - iii. Management of health risks and
 - iv. Anti-Microbial Resistance (AMR) and its containment
- India's Health Minister shared 2 best practices
 - i. Successful pulse polio campaign in Delhi in 1994 threatened by a major outbreak of Plague during the same period and
 - ii. The risk communication management to bring down the mass hysteria created by Social media during Nipah outbreak in Kerala in 2018.

Click [here](#) to know more about G20.

NAM Summit

- The 18th Summit of Heads of State and Government of the Non-Aligned Movement (NAM) is going to be held at **Baku, Azerbaijan**.
- The theme is "Upholding the Bandung Principles to ensure concerted and adequate response to the challenges of contemporary world".
- NAM was established in 1961 with 29 members. India is one of the founding members.
- It has since grown to 120 members to become one of the largest groupings of nation-states.
- It was envisioned as a platform for those who didn't want to be dictated by the then two superpowers - USSR and USA.
- It held its first ministerial in Belgrade (erstwhile Yugoslavia) in 1961 and complete independence of members in their foreign policy was ingrained.
- **NAM 2.0** - There were calls for rejigging the non-alignment concept in 2012 to suit the emerging current realities of an emerging and assertive China.
- The Vice-President of India will lead the Indian delegations to the 18th summit.



BASIC Ministerial Meet

- The 29th ministerial meeting of the BASIC (Brazil, South Africa, India, China) countries on Climate Change was organised at Beijing, China recently.
- The meeting has called for "comprehensive" implementation of the Paris climate deal amid threats by US President Donald Trump to withdraw from it.
- The meeting worked out priorities and issues as a group to be highlighted at the UN Climate Change Conference to be held in Chile in December 2019.
- The Chile meeting will discuss the implementation of the Paris deal to cut the greenhouse gas emissions as well as mitigation, adaption and climate finance.
- UN Conference will discuss the implementation of the Paris deal to cut the greenhouse gas emissions as well as mitigation, adaption and climate finance.

19. INTERNATIONAL ISSUES AND EVENTS

Operation Peace Spring

- It is a military operation launched by Turkey against the Syrian Democratic Forces in Northeast Syria.
- The Turkish Armed Forces together with the Syrian National Army launched this after U.S. troops pulled back from the border area last week.
- It is to prevent the creation of a terror corridor across border, and to bring peace to the area.
- It is to create a safe zone to ensure that Syrian refugees return to their home countries.

FATF's direction to Pakistan

- The Financial Action Task Force (FATF) gave a stern warning that it will be in the blacklist if it does not fulfil the global standards criteria on combating terrorist financing by February 2020.
- It retained Pakistan on the "grey list", which is accorded to it in 2018.
- It was previously placed on the grey list in 2012 and had been removed from the list in 2015 after it passed a National Action Plan (NAP) to deal with terrorism after the Peshawar School massacre in 2014.
- It was placed under severe restrictions in the years 2008-2012.
- Currently, Iran and North Korea are on the blacklist.
- **Implication** - Since it continues to be in the Grey List, it would be difficult for the country to get financial aid from the IMF, the World Bank, ADB and the European Union.
- The FATF is Paris based inter-governmental body established in 1989 to combat money laundering, terrorist financing and other related threats to the integrity of the international financial system.

Relocation of Rohingyas

- Thousands of Rohingya living in Bangladesh refugee camps have agreed to move to an island named "Bhashan Char" in the Bay of Bengal.
- However, there is a warning that the island emerged from the sea only about two decades ago, might not be able to withstand violent storms during the annual monsoon season.

20. ECONOMY

Bharat-22

- The Further Fund Offer 2 (FFO 2) of Bharat 22 Exchange-Traded Fund (ETF) will be opened as a part of government's disinvestment programme.



- Bharat-22 will comprise stocks of 22 blue-chip public sector units, State-owned banks and three private companies where Specified Undertakings of the Unit Trust of India (SUUTI) has stakes.
- It is managed through ICICI Prudential Fund and it is in pursuance of government's disinvestment policy targeting an initial amount of Rs.6,000 crore.
- Earlier the government has launched Central Public Sector Undertakings (CPSE) ETF, which had stocks of many energy companies.
- Bharat 22 is a well diversified ETF spanning six sectors such as basic materials, energy, finance, FMCG, industrials and utilities.
- While CPSE ETF has only state-run companies as its constituents, Bharat-22 will give the government a shot at selling stakes in some of the private sector blue-chip companies as well.

Exchange Traded Fund

- An ETF is a type of fund that tracks the underlying assets and divides ownership of those assets into shares.
- The underlying assets can be shares of stock, bonds, oil futures, gold bars, foreign currency, etc.
- Shareholders do not directly own or have any direct claim to the underlying investments in the fund, rather they indirectly own these assets.
- The ETFs trading value is based on the net asset value of the underlying stocks that it represents.
- ETF shareholders are entitled to a proportion of the profits, such as earned interest or dividends paid, and they may get a residual value in case the fund is liquidated.
- ETF Vs Mutual Fund - The transaction of stocks and bonds under the Mutual Fund is with the company that manages the fund.
- Whereas in ETF, the ownership of the fund can easily be bought, sold or transferred in the same way as shares of stock, since ETF shares are traded on public stock exchanges.

New Strategic Disinvestment Process

- **Strategic Disinvestment** - The sale of substantial portion (50% or more) of the Government shareholding of a central public sector enterprise (CPSE) as the competent authority may determine, along with transfer of management control.
- The Cabinet has approved a new process of strategic disinvestment with a view to expediting privatisation of select PSUs.
- Presently PSUs for strategic sale are identified by NITI Aayog.
- The new process has made Department of Investment and Public Asset Management (DIPAM) under the Ministry of Finance, the nodal department for the strategic stake sale.
- Now, NITI Aayog and DIPAM will jointly identify PSUs for strategic disinvestment.
- Also, DIPAM secretary will be a part of Inter-ministerial group on disinvestments.

Derivatives Trade in IFSC

- Based on the recommendations by the Usha Thorat committee on offshore rupee markets, RBI has brought in changes.
- In its monetary policy review, RBI has
 - i. allowed banks to freely offer foreign exchange prices to non-resident Indians ,
 - ii. allowed trading on rupee derivatives and settled in foreign currencies in International Financial Services Centres (IFSCs)
- These two were the major recommendations of the committee which aimed at bringing the offshore markets to India.
- Gujarat International Finance Tec-City (GIFT) is India's IFSC much like an offshore market in Singapore, Hong Kong, London, Dubai and New York.

Merchant Discount Rate

- MDR is the fee a merchant pays to Bank for providing debit and credit card services.
- It compensates the bank issuing the card, the bank which puts up the swiping machine (Point-of-Sale or PoS terminal) and network providers such as Mastercard or Visa for their services.
- The charges are usually shared in a pre-agreed proportion between them.
- RBI specifies the maximum MDR charges that can be levied on every card transaction.
- As per RBI rules, the merchant must pay the MDR out of his earnings and cannot pass it on to the customer.
- As per the recent RBI notification, with effect from January 2018, small merchants (Rs.20 lakh turnover) will pay a maximum MDR of 0.40 per cent of the bill value and others will pay 0.90 per cent.
- **Recent Developments** - The government has recently announced that MDR will not be imposed on customers as well as merchants on digital payments made to establishments having turnover in excess of Rs 50 crore.
- The order is directed to banks and other system providers and will be effective from November 1.
- In line with this rule, amendments have been made in the income tax act as well as in the Payment and Settlement Systems Act 2007.

Microfinance Institutions

- The Reserve Bank of India has raised the lending cap for microfinance institutions to ₹1.25 lakh, against the earlier limit of ₹1 lakh.
- This is mainly to improve credit availability in rural and semi-urban areas.
- RBI has also decided to increase the household income limit for borrowers of non-banking financial companies-micro finance institutions (NBFC-MFIs).
- It has set the limit as ₹1.25 lakh and ₹2 lakh for rural and urban/semi urban areas.
- **NBFC-MFI** – Based on the recommendation of **Y.H. Malegam committee** recommendation, a separate category of NBFC-MFI was created in 2011.
- The committee was setup to study issues and concerns in the micro finance sector in the wake of the Andhra Pradesh micro finance crisis in 2010.

Acceptance Development Fund

- RBI has proposed to set up an 'Acceptance Development Fund' to develop debit and credit card acceptance infrastructure in the country.
- The fund will be used to ensure growth of card acceptance infrastructure such as swipe machines particularly in Tier III and Tier IV cities.
- Once infrastructure becomes widely available even in smaller towns, it will become easier to adopt digital payments.
- The framework will be operationalised by December 2019.

Amitabh Kant Panel

- Ministry of Railways has constituted Amitabh Kant Panel to oversee the entry of private operators for 150 trains and development of 50 railway stations as per global standards.
- Other members of the panel are,
 - i. Railway board Chairman,
 - ii. Economic Affairs secretary,
 - iii. Housing and urban affairs secretary and
 - iv. Railways financial commissioner



- The tenure of the Panel is 1 year.
- The panel will approve and monitor the bidding process and also take decisions to ensure the projects are awarded in a time-bound manner.

Kerala Bank

- RBI has given its final nod to the Kerala Government for the formation of the Kerala Bank which will be the largest banking network in the State.
- It would be formed amalgamating the District Co-operative Banks (DCBs) with Kerala State Co-operative Bank.
- The objective is to strengthen the cooperative sector but there is opposition that it would destroy the traditional cooperative sector.

UK Sinha Committee

- Former SEBI chairman UK Sinha led committee recommended comprehensive framework for Insolvency resolution and liquidation of companies.
- Its recommendations are,
 - i. Single insolvency professional and single adjudicating authority
 - ii. Creation of a group creditors committee
 - iii. Implementation of group insolvency framework should be in a phased manner
 - iv. Cross-border group insolvency to be taken up at a later stage
 - v. Single application to commence insolvency proceedings against multiple companies of a group.

PMEAC

- Prime Minister's Economic Advisory Council is a non-constitutional, non-permanent and independent body constituted to give economic advice to the Government of India, specifically the Prime Minister.
- The council serves to highlight key economic issues facing the country to the government of India from a neutral viewpoint.
- It is chaired by a Chairperson and consists of eminent economists as members.
- There is no fixed definition on the exact number of members and staff of the EAC-PM.
- **Recent developments** - It was recently reconstituted for the period of two years.
- In the council's earlier terms, there were 5 full time and part time members in total. After the reconstitution, the strength of the council gone upto 7 with 2 full time and 5 part time members.
- Bibek Debroy remains the chairman of the PMEAC and Ratan Watal its Member-Secretary.

Appointments in RBI

- As per the RBI Act, the central bank should have one governor and four deputy governors -Two from within the ranks and one commercial banker and another an economist to head the monetary policy department.
- Any vacancy in the list will be filled by the government after getting recommendations from the Financial Sector Regulatory Appointment Search Committee (FSRASC).
- FSRASC is headed by Cabinet Secretary and includes additional Principal Secretary to the Prime Minister who is a permanent government nominee and 3 other experts.
- As per the process, the panel will invite applications from eligible candidates and based on interactions with them will select the candidate.
- The appointment would be made by the central government on the recommendation of the FSRASC.
- It is noted that the FSRASC is free to identify and recommend any other person also, on the basis of merit, who has not applied for the post.

- The same process is being followed in the selection of Chairman of SEBI and IRDAI.
- Currently, Deputy governor post in RBI is being vacant after the resignation of Viral Acharya.
- The tenure of the office is three years and the person is eligible for reappointment.

NCDC, APEDA and NAFED

- NCDC, with mandate under the NCDC Act, 1963 has been focusing on agri-exports also, in line with the recommendations of the **Ashok Dalwai** Committee on Doubling the Farmers Income.
- National Agricultural Cooperative Marketing Federation of India (NAFED) is registered under the Multi State Co-operative Societies Act and was established in 1958.
- Its objective to promote co-operative marketing of agricultural produce to benefit farmers.
- Agricultural and Processed Food Products Export Development Authority (APEDA) is an export promotion body under the Ministry of Commerce and Industry.
- It is mandated with the responsibility of development of the scheduled products and monitor the import of sugar.
- “Scheduled products” means any of the agricultural or processed food products included in the First Schedule of APEDA Act.
- It includes products of fruits, vegetables, meat, poultry, dairy, honey, jaggery and sugar, cocoa, alcoholic and non-alcoholic beverages, cereal, groundnuts, peanuts and walnuts, floriculture, guar gum, herbal and medicinal plants.

Livestock Census

- The 20th livestock census has been released by the Ministry of Fisheries, Animal Husbandry and Dairying.
- The Livestock Census has been conducted in the country periodically since 1919-20.
- It covers all domesticated animals and its headcounts in both rural and urban areas.
- It has been conducted in participation with State Governments and UT Administrations.
- It considers the following animals/poultry birds possessed by the households, household enterprises/non-household enterprises and institutions,
- Animals - Cattle, Buffalo, Mithun, Yak, Sheep, Goat, Pig, Horse, Pony, Mule, Donkey Camel, Dog, Rabbit and Elephant
- Poultry birds - Fowl, Duck, Emu, Turkeys, Quail and other poultry birds
- The three key highlights of the 2019 census are,
 - i. The total Livestock population is **535.78** million, an increase of **4.6%** over the previous census 2012,
 - ii. Total Bovine population (Cattle, Buffalo, Mithun and Yak) is **302.79 Million**, an increase of about **1%** over the previous census,
 - iii. The total number of cattle is **192.49 million**, an increase of **0.8 %** over previous Census.
- The major thrust given to 20th Livestock Census is the collection of data through tablets computers, coordinated by National Informatics Centre.

21. ENVIRONMENT

Asia's Oldest Bamboo

- A new fossil record has shown that India is the birthplace of Asian bamboo.
- The fossils were formed about 25 million years ago in the north-eastern part of the country.
- Bamboo fossils are not very common in India as they are known only from the Siwalik sediments.



- The new fossils were found in Makum coalfield in Assam, belonged to the late Oligocene period of about 25 million years ago.
- Yunnan Province in China now has the highest diversity of bamboo, but the oldest fossil in that region is less than 20 million years old.
- It clearly indicates that Asian bamboo was born in India and then migrated there.
- This finding further strengthens the theory that bamboo came to Asia from India and not from Europe.
- The collision of Indian Plate with the Eurasian Plate was not completed until 23 million years, restricting migration of plants and animals.
- Bamboo braved the climatic and geographical changes making it the fittest in the survival race.

Ganges River Dolphin Census

- The annual Ganges River Dolphin census is being undertaken by World Wide Fund for Nature-India in collaboration with the Uttar Pradesh Forest Department.
- The census started in 2015, is taken along about 250-km-long riverine stretch of Upper Ganga between Hastinapur Wildlife Sanctuary and Narora Ramsar site.
- Unlike previous years, when direct counting method was used, this year the tandem boat survey method is being used.
- The survey method uses inflated boats which move in tandem with dolphins and provides a more accurate count of the endangered species.
- The animal is known to make strange sounds when it breathes, earning it the sobriquet 'Susu'.
- Being a mammal, it has to come to the surface to breathe.
- It is also called a blind dolphin because it doesn't have a crystalline eye lens and uses echolocation to navigate and hunt.
- Like bats, they produce high-frequency sounds which helps them 'see' objects when the sound waves bounce off them.

Snow Leopard Population Assessment

- Union Environment Ministry launched the First National Protocol on Snow Leopard Population Assessment in India.
- It was launched in the Global Snow Leopard & Ecosystem Protection (GSLEP) Program on International Snow Leopard Day.
- It is the first of its kind, developed in association with the Snow Leopard States/UTs - Ladakh, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.
- Snow Leopard is found in 12 countries - India, Nepal, Bhutan, China, Mongolia, Russia, Pakistan, Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan.
- It is listed as a 'vulnerable' category in the Red List of IUCN.

GSLEP

- It is the world's first initiative that aims to conserve high mountain ecosystems by protecting snow leopard in the region.
- It unites all 12 range country governments, nongovernmental and inter-governmental organisations, local communities, private sector.
- Arunachal Pradesh is one of the 22 priority landscapes of the GSLEP.
- In 2004, WWF-India introduced the concept of Community Conserved Area (CCA) in the State to empower local communities to become active decision-makers and implement conservation initiatives.
- This year, GSLEP Program is being organised by Union Environment Ministry at New Delhi.



- The Steering Committee meeting of GSLEP chaired by Nepal and Co-Chaired by Kyrgyzstan.

Anthrax

- Two Asiatic water buffaloes in central Assam's Pobitora Wildlife Sanctuary was died due to Anthrax.
- Anthrax is caused by the bacterium *Bacillus anthracis*.
- It is primarily a disease of herbivorous mammals, although other mammals and some birds have been known to contract it.
- It can be fatal for humans who come in contact with infected animals.
- It is characterised by blisters around swellings on the skin, chest pain, vomiting, diarrhoea and fever.
- The disease is generally regarded as being non-contagious. Records of person-to-person spread exist but are rare.
- **Pobitora Sanctuary** – It is often called 'Mini Kaziranga' due to similar landscape and vegetation.
- It has the highest concentration of one-horned rhinos in the world.
- Rhinos is also vulnerable to the anthrax attacks whose population in the sanctuary is estimated to be 102.

MOSAIC expedition

- The MOSAiC mission, stands for Multidisciplinary drifting Observatory for the Study of Arctic Climate is spearheaded by the Alfred Wegener Institute in Germany.
- It is the largest ever Arctic expedition in history.
- It will be the first to conduct a study of this scale at the North Pole for an entire year.
- **Objectives** - To parameterise the atmospheric, geophysical, oceanographic and all other possible variables in the Arctic, and use it to more accurately forecast the changes in our weather systems.
- It will help the researchers better understand the impact of climate change and aid in improved weather projections.
- Hundreds of researchers from 19 countries take part in this exceptional endeavour.
- The 32-year-old polar researcher from Kerala will be the only Indian aboard the mission.
- **First mission** – In 1893-1896, Norwegian explorer Fridtj first managed to seal his wooden expedition ship, Fram, into the North Pole.

Microbial Fuel Cells

- Microbial fuel cells are devices that use bacteria as the catalysts to oxidise organic and inorganic matter and generate current.
- The electrons produced by the bacteria are transferred to the negative terminal and flow to the positive terminal.
- Plants naturally deposit biomatter as they grow, which in turn feeds the natural bacteria present in the soil, creating energy that can be harnessed by fuel cells.
- It is used to power a wide range of vital conservation tools remotely, including sensors, monitoring platforms and camera traps.
- Among conventional power sources, batteries must be replaced while solar panels rely on a source of sunlight.
- On the other hand, plants can survive in the shade, naturally moving into position to maximise the potential of absorbing sunlight.
- Zoological Survey of London has deployed microbial fuel cells in fern to power camera traps and sensors in the wild.



Clean Air Cities Declaration

- The declaration was signed in at the C40 World Mayors Summit in Copenhagen.
- It commits cities to set ambitious pollution reduction targets and implement substantive clean air policies by 2025.
- Totally 35 cities signed this declaration in which Delhi is also a part.
- Through the declaration, mayors commit to using their power and influence to reduce air pollution and work towards meeting the WHO guidelines.
- C40 cities is a network of the world's megacities committed to addressing climate change.
- It connects 94 of the world's greatest cities to take bold climate action, leading the way towards a healthier and more sustainable future.

Definition of land as forest

- The conundrum of defining forest has been around since the 1980s.
- In 1996, the Supreme Court in its Godavarman Judgement expanded the definition of Forest that includes lands,
 1. That was already notified by the Centre as forests,
 2. That appears in government records as forests
 3. That fell in the "dictionary definition" of forest.
- Under the third category, it is the prerogative of the States to define their own criteria and define tracts of land as a forest which is known as 'deemed forests'.
- This is because, a tract of grassland in one State might qualify in one region as forest, but not in another.
- However, not all States have submitted such criteria and once a State applied criteria, it couldn't be reversed.
- Forests defined under these criteria constituted about 1% of the country's forests.
- The discussion on this deemed forests came up because the Uttarakhand government had put forth a set of criteria defining forest land and asked the Environment ministry for its opinion.
- The Forest Advisory Committee (FAC) have clarified that the States need not take the Centre's approval to define what constitutes unclassified land as forest.

Electric Vehicles Guidelines

- Ministry of Power has recently approved amendments in Electric Vehicles charging guidelines and specifications.
- Under it, Bureau of Energy Efficiency (BEE) nominated as the Central Nodal Agency to facilitate installation of charging infrastructure.
- It envisages at least 1 charging station should be available in a grid of 3 Km X 3 Km in the cities and 1 charging station at every 25 Km on both sides of highways/roads.
- Fast Charging Station for long range and/or heavy duty EVs like buses/trucks etc., shall be installed at every 100 Kms.
- **Phases of Development** – It covers cities in two phases for distributed and demonstrated effect.
- Phase I (1-3 years) - All Mega Cities with population of 4 million plus as per census 2011, all existing expressways and highways connecting it.
- Phase II (3-5 years) - State Capitals, UT headquarters
- Further, setting up of Public Charging Stations shall be a de-licensed activity and any individual/entity is free to set up public charging stations.
- The tariff to be charged has also been mentioned in the guidelines.



22. SCIENCE AND TECHNOLOGY

SPACE

GEMINI system

- GEMINI (GAGAN Enabled Mariner's Instrument for Navigation and Information) is a new marine information dissemination system.
- It is to provide disaster warnings to fishermen by utilizing GAGAN (GPS Aided Geo Augmented Navigation) satellite systems of the AAI and ISRO.
- It is a portable device which receives data from the GAGAN satellites and sends it to the user's cellphone App, which decode the alerts.
- It is developed by INCOIS under Ministry of Earth Sciences and Airport Authority of India.
- INCOIS regularly provides information, advisories, ocean data, weather forecasts, potential fishing zones data to beneficiaries like fishermen, Indian Navy, marine industries, shipping etc.
- But due to the limited range of mobile networks, the disaster warning couldn't reach beyond 10-12km of the coastline which was acutely felt during 2017 Ockhi cyclone.
- The data coverage of GEMINI covers the entire India Ocean full-time, which will help in information transmission to the fishermen far away from coastal areas.

Hygiea

- Space scientists have discovered a new celestial body Hygiea using Very Large Telescope in Chile.
- It might be the smallest such planet to exist in our solar system, sized at 430 kilometres (267 miles) in diameter.
- According to the criteria which defines celestial bodies as dwarf planets instead of asteroids, is that it needs to have sufficient mass for the gravity to pull it into a shape of a sphere.

Planet Saturn

- Scientists at International Astronomical Union's Minor Planet Centre have identified 20 new moons around Saturn.
- With this discovery, Saturn has become the planet with the highest number of moons (82) surpassing Jupiter with 79 moons.
- 17 of the new moons orbit the planet in the opposite, or retrograde, direction and 3 moons have prograde orbits, circling in the same direction.

ICON Satellite

- NASA has recently launched Ionospheric Connection Explorer (ICON) spacecraft from Cape Canaveral Air Force Station.
- It is designed to probe Earth's upper atmosphere (Ionosphere), a massive layer that overlaps with the boundary of space.
- Its measurements will help scientists better understand the link between space weather and terrestrial weather, and how the two interact in the ionosphere.
- It is the region where strange and unique phenomena, such as the auroras and geomagnetic storms are created.

Black Hole System

- Indian, British astronomers have recently discovered new details of black hole 10,000 light years away.
- The black hole system 'MAXI J1820+070' was first discovered in 2018.

- Its mass is the equivalent of seven Suns compressed into a region smaller than the city of London.
- The effect of the black hole's strong gravity and the material's own magnetic field can cause rapidly changing levels of radiation, which are emitted from the system as a whole.
- This radiation was detected in visible light by the HiPERCAM instrument on the Gran Telescopio Canarias, Spain and in NASA's NICER observatory aboard the International Space Station.
- This kind of observations are not possible even by the Event Horizon Telescope (EHT) as the distance make them too faint and too small.

Homeward Bound

- It is a global initiative by the French's National Centre for Space Studies, that conducts leadership expeditions for women in science to Antarctica.
- In its 5th edition, Priyanka Das Rajkakati, a 27-year-old woman, originally from Assam, has been selected.
- It is a one-year long programme where women with STEMM (Science, Technology, Engineering, Mathematics and Medicine) backgrounds will be trained.

Van Allen Probes mission

- NASA recently decommissioned its 7-year-old Van Allen Probes mission.
- It consists of 2 satellites in Van Allen belts to study space weather and the radiation belts around the Earth.
- Van Allen radiation belts are giant swaths of magnetically trapped, highly energetic charged particles that surround earth.
- The mission studied how these radiation rings acquire and lose electromagnetic particles.
- James Van Allen, a physicist at the University of Iowa, discovered these radiation belts in 1958.

Geotail and its impact on Chandrayaan-2

- Recently, **ISRO** tweeted that an instrument on Chandrayaan-2, **CLASS**, had detected charged particles during the mission.
- This happened during the orbiter's passage through the 'Geotail'.
- The Geotail is a region in space that allows the best observations.
- The region exists as a result of the interactions between the Sun and Earth.
- The Sun emits the solar wind, which is a continuous stream of charged particles.
- These particles are embedded in the extended magnetic field of the Sun.
- Since the Earth has a magnetic field, it obstructs the solar wind plasma.
- This interaction results in the formation of a magnetic envelope around Earth.
- On the Earth side facing the Sun, the envelope is compressed into a region that is approximately 3 to 4 times the Earth radius.
- On the opposite side, the envelope is stretched into a long tail, which extends beyond the orbit of the Moon.
- It is this tail that is called the **Geotail**.
- Once every 29 days, the Moon traverses the geotail for about six days.
- When Chandrayaan-2, which is orbiting the Moon, crosses the geotail, its instruments can study the properties of the geotail.
- It can help to detect the presence of key elements like Na, Ca, Al, Si, Ti and Fe in the lunar soil.



DEFENCE

INS Nilgiri

- It is the first ship of the Project-17A frigates, designed indigenously by the Indian Navy.
- It has a launch weight of 2,650 tonnes with enhanced stealth features, weapons and sensors.
- It was launched at the dockyard of the Mazagon Dock Shipbuilders Limited (MDL) in Mumbai for sea trails.
- Launching is a process when a dockyard releases a warship into the sea for the first time and it undergoes various tests.
- Project-17A is a deviation from the existing Shivalik class of frigates and it incorporate new design concepts for improved survivability, sea keeping, stealth and ship manoeuvrability.

Military Exercises

- **Ekuverin** – It is a joint military exercise between Indian and Maldives.
- Its 10th edition will be organised in Maharashtra.
- **Nomadic Elephant** – It is Indo – Mongolian joint military training.
- Its 14th edition will be conducted in Bakloh, Himachal Pradesh.
- **Kazind** – It is an annual military exercise between India and Kazakhstan.
- Its 4th edition commenced in Pithoragarh, Uttarakhand.
- **Maitree – 2019** - It is the joint military exercise between India and Thailand.
- It was recently conducted in Meghalaya.
- Its scope encompassed joint training in various facets of counter terrorism operations in urban and jungle environments.
- **Dharma Guardian – 2019** - It is a joint military exercise between India and Japan.
- It covers joint training on counter terrorism operations in jungle and urban scenario.
- **IMNEX-2019** - It is India Myanmar Naval Exercise going to be held in Visakhapatnam.
- INS Ranvijay, a guided-missile destroyer and INS Kuthar, a missile corvette will participate in the exercise.
- **Shakti-2019** - Exercise Shakti is a series of joint military exercise between India and France.
- It was commenced in the year 2011 and it is a biennial exercise.
- It is conducted alternately in India and France.
- This year exercise is going to be organised in the State of Rajasthan.
- It will focus on Counter Terrorism operations in backdrop of semi-desert terrain under United Nations Mandate.

HEALTH

Lymphatic Filariasis

- National Symposium on the theme 'United to Eliminate Lymphatic Filariasis' was organised recently by the Ministry of Health and Family Welfare.
- Call to Action to eliminate Lymphatic Filariasis by 2021 was signed.
- Lymphatic filariasis, commonly known as elephantiasis, is a painful and profoundly disfiguring disease.
- It is caused by three species of thread-like nematode (roundworms) of the family Filarioididea. *Wuchereriabancrofti* is responsible for 90% of the cases.
- Infection occurs when filarial parasites are transmitted to humans through mosquitoes.

- It is one of the Neglected Tropical Diseases.
- It impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability and social stigma.
- It can be eliminated by stopping the spread of infection through preventive chemotherapy with safe medicine combinations repeated annually.
- Global Program to Eliminate Lymphatic Filariasis (GPELF) was organised by the WHO in 2000.

EEHV

- Elephant Endotheliotropic Herpesvirus (EEHV) is a rare viral disease that causes fatal disease in young Asian Elephants.
- When it is triggered, the elephant dies of massive internal bleeding and symptoms which are hardly visible.
- Some elephants show symptoms such as reduced appetite, nasal discharge and swollen glands.
- The disease is usually fatal, with a short course of 28-35 hours.
- It is lethal for young elephants between the ages of 1 and 12.
- There is no true cure for herpesviruses in animals or in humans.
- If a young elephant dies before reproducing, it affects the population of the species in the concerned geography.
- It has killed five elephants in Nandan Kanan Zoo & Chandaka forest in Odisha.

World Vision Report

- The first-ever world vision report was released by WHO.
- It highlighted that, more than a quarter of the world's population (2.2 billion people), suffer from vision impairment out of which 1 billion cases could have been prevented or have been left unaddressed.
- It warned that population ageing would lead to a dramatic increase in the number of people with vision impairment and blindness.
- **Presbyopia**, a condition in which it is difficult to see nearby objects, affects 1.8 billion people. This condition occurs with advancing age.
- **Myopia**, a condition in which it is difficult to see objects at a distance affects 2.6 billion, with 312 million being under the age of 19 years.
- Cataract, age-related macular degeneration, glaucoma, corneal opacities, diabetic retinopathy, trachoma are other common vision impairments listed in the report.
- Trachoma is caused due to bacterial infection in the eye. Many countries have eliminated it, including India.
- **Region wise** - The prevalence of vision impairment in low- and middle-income regions is to be four times higher than in high-income regions.
- South Asia, East Asia and South-East Asia with 51% of the total population of the world, accounted for 62% of the total vision impairment.
- Myopia is the highest in high-income countries of the Asia-Pacific region.
- Glaucoma has hit Africa the most, followed by Latin America and the Caribbean.
- Incidence of a rural-urban divide does exist.
- The report said that accessibility to eye care services and high costs involved in accessing them, particularly for rural populations were major drivers of vision impairment.
- There was praise for India in the report for its National Programme for Control of Blindness (NPCB).
- NPCB provided cataract surgery to a total 6.5 million people in India, achieving a cataract surgical rate of over 6,000 per million population.



Bluetongue

- It is a non-contagious, viral disease affecting domestic and wild ruminants primarily sheep and including cattle, goats, buffalo, antelope, deer, elk and camels.
- It is transmitted by insects, particularly biting midges of the Culicoides species.
- The virus which causes this disease belongs to the member of the Reoviridae family.
- It is a disease listed under the OIE Terrestrial Animal Health Code and it must be reported to the World Organisation for Animal Health.
- It has significant distribution in Africa, Asia, Australia, Europe, North America and several islands in the tropics and subtropics, where culicoides species is present.
- Without the insect vector, the disease cannot spread from animal to animal.
- Indian Council of Agricultural Research (ICAR) has released diagnostic kits Bluetongue sandwich ELISA (sELISA) and the Japanese Encephalitis IgM ELISA for the control of Swine and Detection of Antigen.

Milk Adulteration

- National Milk Safety and Quality Survey 2018 was conducted by a third party across all States and UTs and recently released by FSSAI.
- According to the survey, Telangana, Madhya Pradesh and Kerala accounted for the highest number of cases of adulteration.
- 37% of the total samples tested failed to meet the prescribed quality and 10% of the processed milk samples were non-complaint.
- The adulterants like aflatoxin-M1, antibiotics and pesticides such as urea, hydrogen peroxide, detergent were found in the milk.
- The adulteration was mainly on account of low fat or low SNF (Solid Non-Fat) or both.
- Aflatoxin-M1 is more dominant in processed milk than raw milk, which is life threatening, usually through damage to liver.
- It comes in the milk through feed and fodder that are currently not regulated in the country
- Tamil Nadu, Delhi and Kerala were top three States where Aflatoxin residue was found the most.
- India is the world's largest producer of milk with the total estimated milk production in the country was 176.35 million tonnes during 2017-18.

OTHERS

Elastocaloric Effect

- When rubbers bands are twisted and untwisted, it produces a cooling effect which is called the “elastocaloric” effect.
- When a rubber band is stretched, it absorbs heat from its environment, and when it is released, it gradually cools down.
- Researchers have suggested that if it is harnessed, the need of fluid refrigerants used in fridges and air-conditioners can be done away.
- These fluids are susceptible to leakages and can contribute to global warming.
- In the elastocaloric effect, the transfer of heat works much the same way as when fluid refrigerants are compressed and expanded.
- In order to figure out how the twisting mechanism might be able to enable a fridge, the researchers compared the cooling power of rubber fibres, nylon and polyethylene fishing lines and nickel-titanium wires.
- They observed high cooling from twist changes in twisted, coiled and supercoiled fibres.



Synthesis of New Ink

- A novel security ink has been synthesised by researchers from the Delhi-based National Physical Laboratory (CSIR-NPL).
- The ink emits that emits intense red colour when exposed to 254 nm wavelength UV due to fluorescence.
- It emits green colour soon after the UV source is turned off due to phosphorescence phenomenon.
- Both red and green can be clearly seen with the naked eye under ambient conditions.
- This is the first report that the ink emit different colours at different wavelengths when exposed to UV light of a particular wavelength.
- The ink has the potential to be used as a security feature on currency notes and passports.

Fluorescence and Phosphorescence

- Phosphorescence is an emission of light from a substance exposed to radiation and persisting as an afterglow after the exciting radiation has been removed.
- In Fluorescence, the absorbed light is spontaneously emitted about 10^{-8} second after excitation,
- Phosphorescence requires additional excitation to produce radiation and may last from about 10^{-3} second to days or years, depending on the circumstances.

TechSagar

- TechSagar is a dynamic national repository of India's cyber tech capabilities.
- It is launched by National Cyber Security Coordinator's office in partnership with Data Security Council (DSCI) of India.
- It will list business and research entities from the IT industry, startups, academia, and individual researchers.
- It provides actionable insights about capabilities of the Indian Industry, academia and research across technology areas.
- It covers 25 areas like internet of things (IoT), Artificial Intelligence (AI), Machine Learning (ML), blockchain, cloud & virtualisation, robotics & automation, Augmented/Virtual reality, wireless & networking, and more.
- DSCI is a not-for-profit, industry body on data protection in India, setup by NASSCOM.

IndiGen

- It is a programme managed by the CSIR for a free mapping of whole genomes of a person.
- CSIR-Institute of Genomics and Integrative Biology (IGIB) and the CSIR-Centre for Cellular and Molecular Biology (CCMB) are part of this.
- The objectives of this programme are,
 - i. To test if it's possible to rapidly and reliably scan several genomes and advise people on health risks that are manifest in their gene and,
 - ii. Understand the variation and frequency of certain genes that are known to be linked to disease.
- A genetic test usually involves analysing only a portion of the genome that's known to contain aberrant genes linked to disease.
- A whole genome sequencing is more involved, expensive and generally attempted only for research purposes.
- The human genome has about 3.2 billion base pairs.

Global Bio-India 2019

- The Global Bio-India 2019 is one of the largest biotechnology stakeholders conglomerate will be held for the first time in India at New Delhi.

- Ministry of Science & Technology along with its Public Sector Undertaking, Biotechnology Industry Research Assistance Council (BIRAC) is organizing this event.
- It is to bring together stakeholders to strengthen the indigenous research capabilities, bio-entrepreneurship, investments and last-mile-delivery of technology across rural India and tier-2, 3 cities.

23. INDEX AND REPORT

School Education Quality Index

- The index is jointly released by the NITI Aayog, the Ministry of Human Resource Development, and the World Bank.
- It is to evaluate the performance of States and UTs in the school education sector.
- It assesses States based on learning outcomes, access, equity and infrastructure and facilities, using survey data, self-reported data from States and third-party verification.
- The ranking is based on 30 indicators in 2 broad categories,
 - Outcomes that consisted of learning, access, infrastructure & facilities, and equity outcomes
 - Governance processes aiding outcomes
- Some of the parameters are,
 - The number of schools with the largest number of toilets for girl children
 - The average score of students in mathematics and language in classes III, V, and VIII,
 - The transition rate of students from primary to upper primary levels and also from upper primary levels to secondary level
- It used 2016-17 as the reference year and 2015-16 as the base year.
- **Performance of States** - Among 20 large States, Kerala was the best performer with a score of 76.6%, while Uttar Pradesh came in last with a score of 36.4%.
- Among smaller States, Manipur emerged as the best performer, while Chandigarh topped the list of UTs
- **Top performers** –
 - Tamil Nadu was the top performer in access and equity outcomes
 - Karnataka led in learning outcomes
 - Haryana had the best infrastructure and facilities.
- Haryana, Assam and Uttar Pradesh showed the most improvement in their performance.
- Karnataka, along with Uttarakhand, saw the biggest drop.
- West Bengal refused to participate in the evaluation process and has not been included in the rankings.

States/UT	Overall Performance Ranking	
	Top 3	Bottom 3
Large States (20)	Kerala	Punjab
	Rajasthan	J & K
	Karnataka	UP
Small States (8)	Manipur	Sikkim
	Tripura	Meghalaya
	Goa	Arunachal Pradesh
UT	Chandigarh	Daman & Diu
	Dadra & Nagar Haveli	Andaman & Nicobar
	Delhi	Lakshadweep

Global Ease of Doing Business

- World Bank has released Ease of Doing Business ranking for the year 2019.

- India ranks at 63rd among 190 countries, moved 14 places from the previous year (77th rank in 2018).
- The report assess improvement in ease of doing business environment in Delhi and Mumbai.
- In the last 5 years, India's ranking has improved 79 places - to 63 in 2019 from 142 in 2014.
- Status in individual parameter ranking –
 1. Biggest jump in “resolving insolvency” category (to 52nd rank from 108th)
 2. Improved substantially in Dealing with Construction Permits (to 27th from 52nd) and “Trading across Borders” (to 68th from 80th).
 3. Improved in “Registering Property” to 154th rank from 166th despite a drop-in score
 4. Deteriorated in “protecting minority investors” (from 7th to 13th position) and “getting electricity” (from 22nd to 25th).
 5. Ranking remained unchanged in “enforcing contracts” at 163rd

QS Indian University Rankings

- The second edition of QS Indian University Rankings for India's higher education institutions was released recently.
- QS, the global higher education think tank, releases India specific university rankings.
- The rankings include Public Universities, Private Universities and deemed universities.
- The ranking looks into the Indian university system with an international lens.
- The Indian Institutes of Technology (IITs) dominate the list, with seven IITs figuring in the top ten rankings.
- Like last year, IIT-Bombay leads followed by the Indian Institute of Science (IISc).
- **8 indicators** were used to determine rankings –
 - i. Academic reputation
 - ii. Employer reputation
 - iii. Faculty-student ratio
 - iv. The proportion of staff with a PhD
 - v. Papers per faculty from Scopus database
 - vi. Citations per paper from Scopus database
 - vii. The proportion of international students and
 - viii. The proportion of international faculty (2.5%).
- These India rankings do not necessarily match the QS World University Rankings since it uses different criteria.
- In world university ranking, IIT-Bombay has been ranked the best Indian institution and IIT-Delhi the second best.

QS INDIA RANKINGS: THE TOP 10

INSTITUTIONNAME	2019	2020
Indian Institute of Technology, Bombay	1	1
Indian Institute of Science (IISc), Bangalore	2	2
Indian Institute of Technology, Delhi	4	3
Indian Institute of Technology, Madras	3	4
Indian Institute of Technology, Kharagpur	5	5
Indian Institute of Technology, Kanpur	6	6
University of Delhi	8	7
University of Hyderabad	7	8
Indian Institute of Technology, Roorkee	9	9
Indian Institute of Technology, Guwahati	10	10

Global Wealth Report

- The 10th edition of annual Global Wealth Report was released by the Credit Suisse Group, a Switzerland-based multinational investment bank.
- It tracks both the growth and distribution of wealth both in terms of the numbers of millionaires and billionaires and the status of inequality around the world.



- Wealth is defined in terms of “net worth” of an individual which is calculated by adding up the value of financial assets (such as money) and real assets (such as houses) and then subtracting any debts an individual may have.
- **Key findings** - China has overtaken the US to become the country with most people in the top 10% of global wealth distribution.
- Just 47 million people, accounting for merely 0.9% of the world’s adult population owned \$158.3 trillion, which is almost 44% of the world’s total wealth.
- In inequality, the richest 10% own 82% of global wealth and the top 1% alone own 45%.

24. NOBEL PRIZES

The science behind Physics Nobel Prize

- This year’s Nobel Prize for Physics recognises research that helps us understand our place in the universe.
- It was awarded to Canadian-American cosmologist **James Peebles**.
- He won one-half of the Prize for his theoretical work to understand how the universe evolved after the Big Bang.
- His work is focused largely on ‘Cosmic Microwave Background’ (**CMB**) radiation.
- The other half went to Swiss astronomers **Michel Mayor** and **Didier Queloz** for their discovery of an exoplanet that challenged preconceived ideas about planets.
- The two scientists detected the first planet orbiting an alien star in 50 light years away in 1995.
- It is orbiting the star ‘**51 Pegasus**’ that is similar to our Sun.
- **ELODIE** a spectrograph, built by **Mayor**, predicted the planet.
- It was, by observing the “Doppler effect” when the star wobbles as an effect of a planet’s gravity on its observed light.
- It is a gas giant comparable to Jupiter, yet it is very hot, unlike icy cold Jupiter;
- **51 Pegasus b** is even closer to its star than Mercury to our Sun.
- Until then, gas giants were presumed to be cold, formed a great distance from their stars.
- Today, it is accepted that these hot gas giants represent what Jupiter would look like if it were suddenly transported closer to the Sun.
- The discovery of the planet started a revolution in astronomy and since then many exoplanets have been found in our galaxy.

Chemistry Nobel Prize

- John B Goodenough, M Stanley Whittingham and Akira Yoshino share the Chemistry Nobel Prize for their work on rechargeable devices, which are used for portable electronics.
- The foundation of the lithium-ion battery was laid during the oil crisis of the 1970s.
- The crisis led to development of energy technologies that did not rely on fossil fuels.
- M Stanley Whittingham discovered an energy-rich material called **titanium disulphide** as a cathode and metallic lithium as an anode in a lithium battery.
- The first commercial lithium-ion battery was released in 1991.

Click [here](#) to know more about Lithium-ion Battery.



Nobel Prize in Economic Sciences

- The SverigesRiksbank Prize in Economic Sciences in Memory of Alfred Nobel is the biggest prize in economics.
- Although not an official Nobel prize, the Economics Sciences award is massive recognition for academic achievement and comes with 9 million Swedish krona.
- This year, it hasAhas been handed to Abhijit Banerjee&EstherDuflo of Massachusetts Institute of Technology, and Michael Kremer of Harvard.
- It is for their work into the causes of poverty and their experimental approach to alleviating global poverty.
- They were also recognised for using randomised control trials to discover which educational outcomes or child health initiatives actually work.
- Indian American economist Abhijit Banerjee, is firmly rooted in Indian economic policies and research, especially in the fields of microfinance and financial inclusion.
- He was also one of the advisors to Congress on its ambitious NYAY scheme, proposed ahead of 2019 general elections.
