



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

INSIGHTS into EDITORIAL

MAY 2020

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INSIGHTS into EDITORIAL

GENERAL STUDIES - I

1. A greater impact on women

Introduction:

- India reported double the usual number of **domestic abuse cases** in the first week of nationwide movement restrictions, according to the country's National Commission for Women.
- Early signs are that SARS-CoV-2 poses a **greater direct health risk** to men, and particularly older men.
- But the pandemic is exposing and exploiting **inequalities of all kinds**, including **gender inequality**.
- In the long term, its impact on **women's health, rights and freedoms** could harm us all.
- Women are already suffering the deadly impact of lockdowns and quarantines.
- These restrictions are essential, but they **increase the risk of violence** towards women trapped with abusive partners.



Increase in domestic violence all over the world:

- According to **UN Women**, globally **243 million women and girls aged 15-49** have been subjected to sexual and/or physical violence perpetrated by an intimate partner in the previous 12 month.
- The number is likely to increase as **security, health and money worries heighten tensions and strains** are accentuated by cramped and confined living conditions.

It says according to emerging data, violence against women and girls, particularly domestic violence, has 'intensified'.

1. Recent weeks have seen an **alarming global surge in domestic violence**; the largest support organisation in the U.K. reported a 700% increase in calls.
2. At the same time, support services for women at risk face cuts and closures.
3. This was the background to recent appeal for **peace in homes around the world**.
4. Since then, more than 143 governments have committed to supporting women and girls at risk of violence during the pandemic.
5. Every country can take action by moving services online, expanding **domestic violence shelters** and designating them as essential, and increasing support to front line organisations.

6. The United Nations' partnership with the European Union, **the Spotlight Initiative**, is working with governments in more than 25 countries on these and similar measures, and stands ready to expand its support.
7. But the threat to women's rights and freedoms posed by COVID-19 goes far beyond physical violence.
8. The deep economic downturn accompanying the pandemic is likely **to have a distinctly female face**.

The unfair and unequal treatment of working women:

There is evidence that in situations of crisis or calamity there is an **increase in violence against women**. There is a lot of anxiety in people's minds, uncertainty whether they will find a job, whether there will be pay cuts, there are hardships such as in accessing food. In a patriarchal society like ours, men find women easy targets for venting their anger.

1. This COVID-19 threatens to bring back difficult and clumsy conditions and worse, for many women around the world.
2. Women are **disproportionately represented** in poorly paid jobs without benefits, as domestic workers, casual labourers, street vendors, and in small-scale services like hairdressing.
3. The **International Labour Organization** estimates that **nearly 200 million jobs** will be lost in the next three months alone many of them in exactly these sectors.
4. And just as they are **losing their paid employment**, many women face a huge increase in care work due to school closures, overwhelmed health systems, and the increased needs of older people.
5. And let's not forget the girls who have had their education cut short. Many men, too, are **facing job losses and conflicting demands**.
6. But even at the best of times, **women do three times as much domestic work as men**. That means they are **more likely to be called on to look after children** if businesses open while schools remain closed, delaying their return to the paid labour force.
7. **Entrenched inequality** also means that while women make up **70% of healthcare workers**, they are vastly outnumbered by men in **healthcare management**, and comprise **just one in every 10 political leaders** worldwide – which harms us all.

Way Forward:

- ✓ **Helplines, psychosocial support and online counselling** should be boosted, using technology-based solutions such as SMS, online tools and networks to expand social support, and to reach women with no access to phones or Internet.
- ✓ **Police and justice services** must mobilise to ensure that incidents of violence against women and girls are **given high priority** with no impunity for perpetrators.
- ✓ **We need women at the table** when decisions are taken on this pandemic, to prevent worst-case scenarios like a second spike in infections, labour shortages, and even social unrest.
- ✓ Women in insecure jobs **urgently need basic social protections**, from health insurance to paid sick leave, childcare, income protection and unemployment benefits.
- ✓ Looking ahead, measures to stimulate the economy, like cash transfers, credits, loans and bailouts, **must be targeted at women** – whether they are working full-time in the formal economy, as part-time or seasonal workers in the informal economy, or as entrepreneurs and business owners.

Conclusion:

- ❖ The COVID-19 pandemic has made it clearer than ever that **women's unpaid domestic labour** is subsidising both public services and private profits.

- ❖ This work must be **included in economic metrics and decision-making**. We will all gain from working arrangements that recognise people's caring responsibilities, and **from inclusive economic models** that value work at home.
- ❖ This pandemic is not only challenging **global health systems**, but our **commitment to equality and human dignity**.
- ❖ With women's interests and rights front and centre, we can get through this pandemic faster, and build **more equal and resilient communities and societies that benefit everyone**.

2. How tropical cyclones are named

Introduction:

- The **India Meteorological Department (IMD)** recently released a **list of 169 names of future tropical cyclones** that would emerge in the Bay of Bengal and the Arabian Sea.
- Cyclones that **form in every ocean basin** across the world are named by the regional specialised meteorological centres (RSMCs) and Tropical Cyclone Warning Centres (TCWCs).
- There are six RSMCs in the world, including the India Meteorological Department (IMD), and five TCWCs.
- As an RSMC, the IMD names the cyclones developing over the north Indian Ocean, including the Bay of Bengal and Arabian Sea, after following a standard procedure. The IMD is also mandated to issue advisories to 12 other countries in the region on the development of cyclones and storms.
- **Rapid intensification of tropical cyclones** is generally associated with strong warming rate above eye-wall cloud top that extends into the stratosphere, suggesting that **stratospheric downdrafts** are involved in rapid intensification of tropical cyclones.

NORTHERN INDIAN OCEAN CYCLONE NAMES

Contributors	List 1	List 2	List 3	List 4	List 5	List 6	List 7	List 8
Bangladesh	Onil	Ogni	Nisha	Giri	Helen	Chapala	Ockhi	Fani
India	Agni	Akash	Bijli	Jal	Lehar	Megh	Sagar	Vayu
Maldives	Hibaru	Gonu	Aila	Keila	Madi	Roanu	Mekunu	Hikaa
Myanmar	Pyarr	Yemyin	Phyan	Thane	Nanauk	Kyant	Daye	Kyarr
Oman	Baaz	Sidr	Ward	Murjan	Hudhud	Nada	Luban	Maha
Pakistan	Fanoos	Nargis	Laila	Nilam	Nilofar	Vardah	Titli	Bulbul
Sri Lanka	Mala	Rashmi	Bandu	Viyaru	Ashobaa	Maarutha	Gaja	Pawan
Thailand	Mukda	Khai Muk	Phet	Phailin	Komen	Mora	Phethai	Amphan

Context:

- **Cyclone Amphan** (pronounced Um-Pun) will make landfall as a very **severe cyclone** between the Sagar islands of West Bengal and the Hatiya islands of Bangladesh on the evening of May 20, 2020, according to the latest information from India Meteorological Department (IMD).
- The storm formed **over south-east Bay of Bengal** on the evening of May 16, as had been forecasted by the IMD.
- IMD predicts that it will move north eastwards initially and **then curve towards a north westward direction**.

- Amphan is the second pre-monsoon cyclone to form in the Bay of Bengal in two years. The pre-monsoon period is generally considered to be unsupportive for the formation of tropical cyclones.

Cyclone formation:

- **Cyclone is the formation of very low-pressure system with very high-speed winds** revolving around it.
- Factors like wind speed, wind direction, temperature and humidity contribute to the development of cyclones.
- Before cloud formation, water takes up heat from the atmosphere to change into vapour. When water vapour changes back to liquid form as raindrops, this heat is released to the atmosphere.
- The **heat released to the atmosphere warms the air around**. The air tends to rise and causes a drop in pressure. More air rushes to the centre of the storm. This cycle is repeated.
- Since Hurricanes derive their energy from heated seawater which can be **prevented by presence of upper-level-winds** that disrupt the storm circulation forcing it to lose its strength.

How naming of cyclones came into existence:

- Cyclones were usually not named. The tradition started with hurricanes in the Atlantic Ocean, where tropical storms that reach sustained wind speeds of 39 miles per hour were given names.
- The practice of naming storms started in order **to help in the quick identification of storms in warning messages** because names are presumed to be far easier to remember than numbers and technical terms.
- Experience shows that the **use of short, distinctive given names** in written as well as spoken communications is **quicker and less subject to error** than the older more cumbersome latitude-longitude identification methods.

Difference between Hurricanes, Cyclones and Typhoons:

- Hurricanes, cyclones and typhoons are all tropical storms. They are all the same thing but are given different names depending on where they appear.
- When they reach populated areas they usually bring **very strong wind and rain which can cause a lot of damage**.
- Hurricanes are tropical storms that form over the North Atlantic Ocean and Northeast Pacific. Cyclones are formed over the South Pacific and Indian Ocean. Typhoons are formed over the Northwest Pacific Ocean.

Advantages of naming a Tropical Cyclone:

1. The practice of naming a storm/tropical cyclone would **help identify each individual tropical cyclone**.
2. The purpose of the move was also to make it easier for people to easily understand and remember the tropical cyclone/hurricane in a region, thus to **facilitate disaster risk awareness, preparedness, management and reduction**.
3. It does not confuse the public when there is more than one tropical cyclone in the same area.
4. Many agree that appending names to storms makes it easier for the media to report on tropical cyclones, heightens interest in warnings and increases community preparedness.
5. It's easier and less confusing to say "Cyclone Titli" than remember the storm's number or its longitude and latitude.
6. These advantages are especially important in **exchanging detailed storm information** between hundreds of widely scattered stations, coastal bases, and ships at sea. The warning of the cyclone can reach a much wider audience in a short span of time.

What cyclone names has India suggested?

- The **13 names** in the recent list that have been suggested by India include: Gati, Tej, Murasu, Aag, Vyom, Jhar (pronounced Jhor), Probaho, Neer, Prabhanjan, Ghurni, Ambud, Jaladhi and Vega.
- Some of the names picked by India were suggested by the general public. An IMD committee is formed to finalise the names before sending it to the PTC.
- Next, India's choice, Gati, will be chosen, and so on. Subsequent cyclones are being named sequentially, column-wise, with each cyclone given the name immediately below that of the previous cyclone.
- **Once the bottom of the column is reached, the sequence moves to the top of the next column.**

Why eastern coast of India is more vulnerable?

- In addition to the storms that **originate in the southeast Bay of Bengal** and the adjoining Andaman Sea, breakaway typhoons over the Northwest Pacific move across the South China Sea into the Bay of Bengal, intensifying into cyclones.
- In contrast, Arabian Sea cyclones are mostly their own formations and they also generally move north-west, away from India's west coast.
- Besides, the **Arabian Sea is colder than the Bay of Bengal**, which inhibits the formation and intensification of the cyclonic system in the former. **Warm sea surface temperature is an ideal platform for cyclones.**

Indian Ocean region:

- World Meteorological Weather Organization and United Nations Economic and Social Commission for Asia Pacific began to name cyclonic storms since 2000.
- Cyclonic storms rising in the North Indian Ocean are named by the Indian Meteorological Department.
- In the **Indian Ocean region 8 countries** (India, Pakistan, Sri Lanka, Bangladesh, Maldives, Myanmar, Oman and Thailand) started the process of giving name to cyclonic storms since 2004 on the initiative of India.
- All countries contributed a set of names which are assigned sequentially on the basis of the first Alphabet of the member country.
- As soon as the cyclone reaches into area of these 8 countries, predefined name is given to this cyclone. These 8 countries have suggested 8 names each.
- The naming culture of the cyclones not only recognizes the threat but compels the countries to take **necessary precautionary measures to mitigate the damage.**
- Cyclone "Okhi", which came in November 2017, was named by Bangladesh, which means "eye" in Bengali language. Recent cyclone Fani or Foni was also named by the Bangladesh. Fani means "hood of a snake".

Conclusion:

- ❖ There are some obvious reasons for knowing about cyclones, these include:
- ❖ Environmentally cyclones can be **important to local ecosystems**. eg reefs and the distribution of plants and have adapted to them.
- ❖ Cyclones can have an **economic and emotional effect on people** and property directly affected. Thousands of people have died or been displaced by them. Hundreds of homes could be destroyed causing millions of dollars' worth of damage.
- ❖ Having a better understanding of cyclones can help you better prepare and perhaps minimise or prevent cyclone damage.

GENERAL STUDIES - II

1. Making access to justice a virtual reality

Context:

- Imagine you didn't need to go to the Supreme Court. Imagine the Supreme Court came to you. Imagine you could access justice from any corner of the country. Yes, that is the future.
- And the wheels of that future have already been set in motion by the Supreme Court.
- The Supreme Court strongly defended its “**virtual courts system**”, saying the institutional requirement was to **ensure the “administration of justice” does not crumble in the face of a pandemic.**



Increase in number of pending cases:

- Matters pertaining to **life and liberty of an individual** cannot be denied hearing at this juncture.
- Although the courts are technically closed since the beginning of the lockdown, **new cases continue to be filed, electronically** – implying that new cases continue to be added to India's already overwhelmed judicial system during the on-going lockdown, further **burdening the judges** and **increasing the number of pending cases.**
- Over 60,000 cases are pending in the Supreme Court alone, India Today had reported last month.
- Technology is just a tool and what is important is the institutional requirement to ensure that “**administration of justice**” does not crumble in the face of this unprecedented scenario.
- The top court drew comparison between the open court and virtual courts system and said that in both, only lawyers and litigants concerned are allowed in the court room.

Working of Judiciary during Lockdown period:

1. As soon as the lockdown was announced, the **judiciary, very quickly organised itself to continue to hear urgent matters** through video conferencing.
2. **Urgent e-filing protocols** were swiftly drafted and implemented. Despite the initial glitches, to the judiciary's credit, the **system improved and evolved**, quite literally with each passing day.
3. The **judiciary continued its primary work of hearing matters** and, undertook the prodigious task of digitising the court system which included **virtual court hearings.**
4. **Practice directions and guidelines** were drafted, amended and uploaded, the *process of bringing trial courts into the fray* was initiated, the number and types of matters to be heard began to be identified on the **basis of urgency** and expanded these, though impressive on their own, are but a few of the many unprecedented measures undertaken in a short period of time.

System of electronic filing by the Supreme Court:

- Furthermore, less than two months since the implementation of the lockdown, the **Supreme Court rolled out a system of electronic filing**.
- Importantly, the demonstration of the electronic filing system was ***made live on YouTube for every lawyer in the country to access***.
- With the new electronic filing system, a **case can be filed from any part of the country and at any time**. Court fees can be paid and defects to the petitions can be pointed out and cured online.
- The CJI announced that virtual courts are here to stay and “there is no looking back”. The **future will be a combination of physical and virtual courts**.

“Geographical proximity to justice is an important component of access to justice”, says NL Rajah, Senior Advocate, Madras High Court:

1. Such a system will allow litigants and lawyers to access the Supreme Court from the vicinity of their homes, and ***even from the remotest parts of India***.
2. As the system becomes **more robust and artificial intelligence more proficient**, justice will become more accessible to the poorest and those living in remote areas.
3. An **omnipresent Supreme Court** could secure and promote justice on the “**basis of equal opportunity**”, and in a manner where the “opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities”.
4. The Supreme Court has set itself on an irreversible path of turning these requirements of **Article 39A of the Constitution into reality** and, that too, without splitting the apex court or the high courts into separate benches.

Splitting of Supreme Court on grounds of geographic access:

- The splitting of the Supreme Court has been an unresolved debate, **with several Law Commissions advocating it**.
- In 2019, the Vice President of India also weighed in. The desire to split the Supreme Court has been justified on the grounds of geographic access to justice.
- **Article 130** of the Constitution has been cited as the source of its power which states that the **Supreme Court “shall sit in Delhi or in such other place(s)”**.
- But creating benches in other locations is easier said than done. It is not only monetarily exorbitant but an ***infrastructural nightmare***.
- Now, if the same monies (as would have been required for setting up these benches), is deployed for the **technological advancement and sophistication of the courts’ electronic system**, including developing a system of real-time transcription, access to justice for all, will **become a “virtual” reality**.

There will also be other hidden and indirect benefits :

- For instance, the creation of efficiencies, less stress on physical infrastructure, lesser crowding in courts, lesser waiting time in the court corridor, more productive use of time, lesser cars on the road, and improved work-life balance.
- And then, there is the hope for a healthier environment, perhaps the only silver lining in these dark days.
- This is a change that the Supreme Court can lead for the country by example, like it once did through the power of judicial review in the 1980s by developing the entirety of India’s environmental jurisprudence.

Way Forward:

- ✓ The focus is on **how to make the virtual courts user friendly**. Once it is achieved, more cases in addition to urgent matters can be listed for adjudication.
- ✓ So, it is prudent that more virtual courts are set up so that timely delivery justice is not adversely impacted on account of the pandemic.

Conclusion:

- ❖ Like every path-breaking idea in history, this too will have its detractors.
- ❖ Fears of job-redundancies are not unfounded. But on the flipside, the size of the pie will grow, which in turn will **create other job opportunities and a fertile environment for innovative businesses** and professions to develop and thrive appurtenant to the legal field.
- ❖ Contrary to belief, **automation will assist the legal profession** become more equitable to lawyers across the country and **create an equitable environment for litigants**.
- ❖ It will break barriers, make the country smaller, ensure access to justice, traversing every geographical and monetary boundary. The future of justice looks bright.

2. Failing to perform as a constitutional court

Context:

- As India, along with the rest of the world, **grapples with the public health crisis caused by COVID-19**, it faces many unique challenges.

The most acute problem is faced by migrant labourers:

- They have no work, no source of income, no access to basic necessities, no quality testing facilities, no protective gear, and no means to reach home. Every day, we hear of migrant labourers walking hundreds of miles, many dying in the process. The saddest is the apathy shown by the institutions meant to look out for their interests.
- But what about those people who neither had a home nor a place to stay safe? Lakhs of migrant workers were rendered jobless as urban areas were shut due to lockdown. Night shelters run by local authorities began overflowing, and supplies started dwindling. **These migrants were left with no choice but to head towards their hometowns.**

Failing of constitutional bodies to guarantee the Fundamental Rights:

- While all forms of public transport were stopped, several workers began their arduous journey by foot.
- With **inter-state borders blocked**, they were stranded in between. For those who made it, it wasn't a pleasant welcome. They were **asked to be quarantined for at least two weeks**.
- The scene of migrants walking along the national highways, police excesses on them, thousands of them swarming the bus stations when State governments operated special buses to ferry them, and barricades starring at them at their home States, narrate the ordeals they have gone through.
- Referring to the institution, Supreme Court, which has failed to satisfactorily **acknowledge that the fundamental rights of migrant labourers have been violated, and ignored these workers** when they most needed protection.
- Undeniably, the state must ensure that **adverse consequences** of this pandemic are minimised.
- But any duty performed by the arms of the state, even during emergency, must always be **bounded by constitutional propriety, and respect fundamental rights**. The judiciary becomes the all-important watchdog in this situation.

No relief for workers: Failed to adequately perform as a constitutional court:

1. In this lockdown, enough and more evidence points to fundamental rights of citizens having been **grossly violated**, and especially those of **vulnerable populations** like migrant labourers.
2. But instead of **taking on petitions questioning the situation**, the Supreme Court has remained ensconced in its ivory tower, **refusing to admit these petitions** or adjourning them.
3. By effectively not granting any relief, the Court is **denying citizens of the most fundamental right of access to justice**, ensured under the Constitution.
4. In doing so, it has let down millions of migrant workers, and failed to adequately perform as a constitutional court.
5. In one of the strictest lockdowns in modern India, the Centre issued many directives, but **designated the States as the implementing authorities**.
6. But the issue of migrant labourers is inherently an **inter-State issue**, and States have had to tackle it both internally as well as inter-se.



Supreme Court has made several questionable remarks:

1. The condition of migrant labourers is a **matter of policy** and thus, **does not behove judicial interference**; or, governments already provide labourers with two square meals a day, so what more can they possibly need (surely, 'not wages'); or, incidents like the **horrific accident** where migrant labourers sleeping on railway tracks were killed cannot be avoided because 'how can such things be stopped'.
2. Equally, lawyers have been castigated for approaching the Court 'merely' on the basis of reports.
3. But the Court has rarely insisted on such formality: its **epistolary jurisdiction** (where petitions were entertained via mere letters) is the stuff of legend, so its reaction here, during an emergency, seems anomalous.

4. Many of the so-called ***excuses of the Court have been tackled by previous judgments***, notably the question of policy and non-judicial interference.
5. There are **numerous judgments** where it has **laid out matters of policy**: for instance, the **Vishaka guidelines on sexual harassment** in the workplace; the right to food; and various environmental protection policies.
6. In these cases, the **Court formulated policies and asked the States to implement them**.
7. Today, there is an unfortunate presumption discernible in the Court's response that the government is the best judge of the situation.
8. In believing thus, the Court seems to have forgotten that the Constitution does not fall silent in times of crises.
9. Similarly, nothing prevents the Court from monitoring the situation itself directly, especially regarding the state's obligations: it could ***easily direct bureaucrats to collect empirical data on the ground, as it has done before***.

Lack of compassion from courts or judicial sensitivity:

1. First, the Court is not merely rejecting or adjourning these petitions; it is actively dissuading petitioners from approaching the courts for redress because the Court determines that it is the executive's responsibility.
2. Ordinarily, the Court would have **at least nudged petitioners** towards the High Courts, but here, even that choice is not available the Court is practically slamming the door shut.
3. Second, there is the matter of **how the Court is treating such public interest litigations**.
4. PILs are a **specific instrument** designed to ***ensure the protection of the rights of the poor, downtrodden and vulnerable***, and "any member of the public" can seek appropriate directions on their behalf. This lies at the heart of the PIL.
5. The **concept of a PIL** is to be **non-adversarial**, but the Court is treating these as adversarial matters against the government.
6. PILs, in fact, ought to be a **collaborative effort** between the court and all the parties, where everyone comes together in seeking a resolution to the problem.

Role of High Courts:

- At this stage, the stellar role being played by some High Courts, even though governments have tried to discourage them on grounds that since the Supreme Court is not interfering, High Courts need not do so either.
- At least four High Courts (Karnataka, Madras, Andhra Pradesh and Gujarat) have started ***asking questions about migrant rights***.
- This is almost a replay of what happened during Emergency, where High Courts **boldly stood up and recognised violations**, but were overruled eventually by the Supreme Court.
- The Madras High Court, for example, has ***quashed criminal defamation cases against media houses***, stating that democracy cannot be throttled this way.
- Contrast this with the Supreme Court's reaction to the bizarre claim of the Solicitor-General who argued that the exodus of workers was due to fake news: The Court seemed to have accepted this, and media houses were advised to report more responsibly.

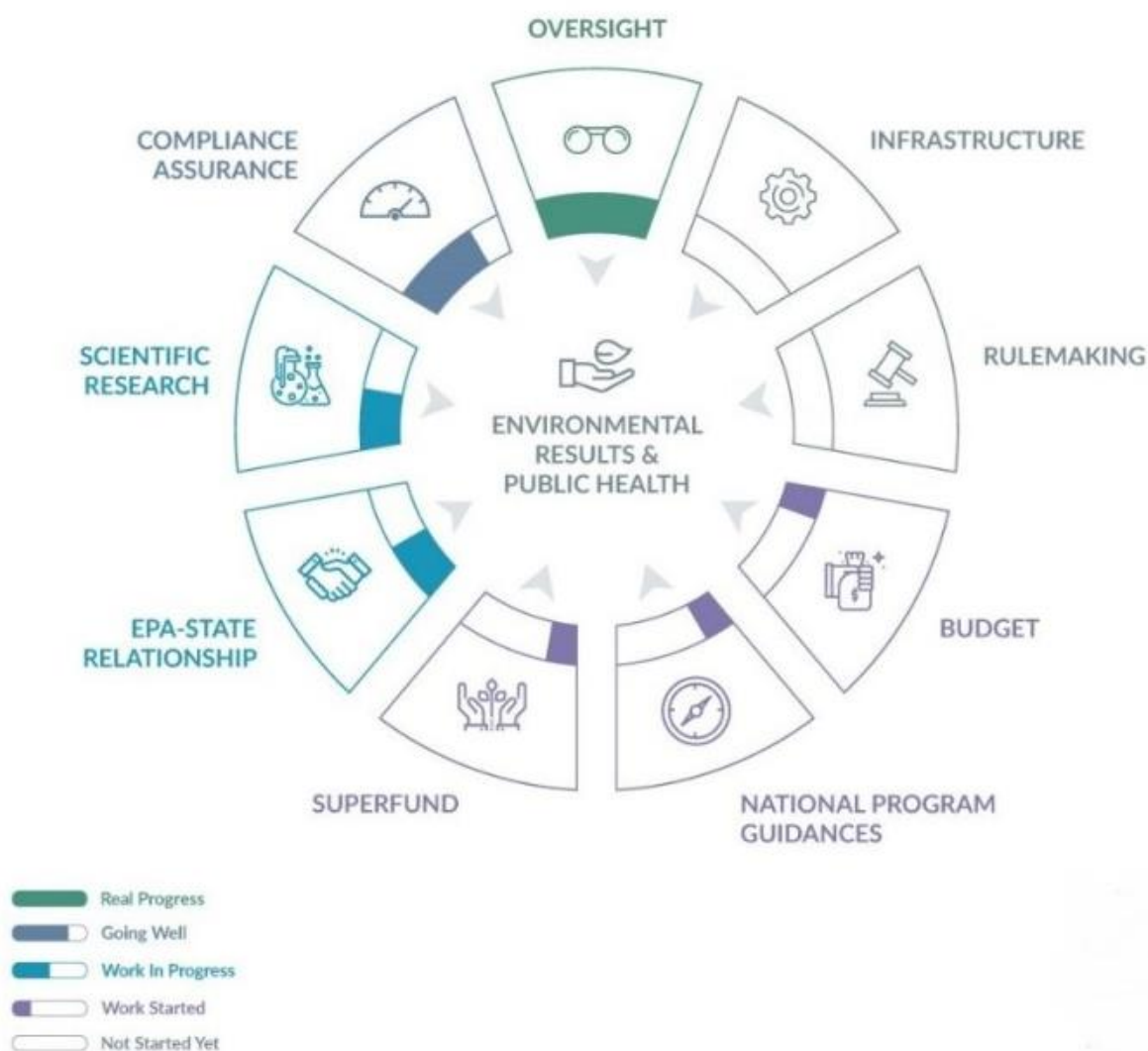
Conclusion:

- ❖ Who will guarantee **safe transport for the return of migrant workers**? When in quarantine, who will **grant them a sustenance allowance**, or look after their health issues, or look after **needs besides food**?
- ❖ Who will ensure job loss compensation? Who will conduct regular and frequent testing?
- ❖ **Only the Supreme Court can enforce accountability of the Centre in these matters.**
- ❖ In such times, High Courts come across as **islands of rationality, courage and compassion**.

- ❖ However, in truth, the ***subject matter of migration is inherently an inter-State issue, not an intra-State one.***
- ❖ This is a time when the apex court must intervene and monitor the calamitous situation, instead of taking the government's word as gospel.
- ❖ Experience should teach us to be most on our guard **to protect liberty** when the Government's purposes are beneficent the greatest danger to liberty lies in insidious encroachment by men of zeal, well-meaning but lacking in due deference for the rule of law.

3. Reaffirm cooperative federalism

COOPERATIVE FEDERALISM 2.0



Introduction:

- Many exigencies have tested the **foundations of our federal democracy**, but none as harshly as this pandemic.
- And when India's success in defeating COVID-19 actively rests upon **Centre-State collaboration**, it is indeed its **commitment to federalism** that is under the most strain.
- Federalism traditionally signifies the independence of the Union and State governments of a country, in their respective spheres. However, due to the centralising tendency of Indian federalism, K C Wheare referred to it as **"Quasi federal"**.

Indian form of Cooperative Federalism:

- Federalism, K.C. Wheare notes, traditionally signifies the **independence of the Union and State governments** of a country, in **their own spheres**.
- However, there was nothing traditional about the circumstances in which India's Constituent Assembly met.
- Accordingly, even when its members carefully studied the Constitutions of other great federations like the U.S., Canada, Australia and Switzerland, they **adopted a 'pick and choose' policy** to formulate a system suited **uniquely to the Republic's need**.
- As a result, **India's Constituent Assembly** became the first-ever constituent body in the world to embrace what A.H. Birch and others have referred to as **'cooperative federalism'** — essentially defined by **administrative cooperation** between the Centre and the States, and a **partial dependence** of the States upon payments from the Centre.
- Accordingly, Indian constitutional law expert Granville Austin remarks that despite a strong Centre, cooperative federalism doesn't necessarily result in weaker States; rather, the progress of the Republic rests upon active cooperation between the two.

Spirit of Cooperative Federalism:

- In Cooperative federalism the Centre and states share a horizontal relationship, where **they "cooperate" in the larger public interest**.
- It is an important tool to enable states' participation in the formulation and implementation of national policies.
- Union and the states are constitutionally obliged to cooperate with each other on the matters specified in **Schedule VII of the constitution**.

Fissures in cooperation between centre and states:

- Nevertheless, some recent developments have revealed **fissures in Centre-State cooperation**.
- For instance, the zone classifications into 'red' and 'orange' has evoked sharp criticisms from several States.
- The States have demanded more autonomy in making such classifications. This is despite the fact that State consultation is a legislative mandate cast upon the Centre under the **Disaster Management Act of 2005** (under which binding COVID-19 guidelines are being issued by the Centre to the States).
- The **influx of migrant workers** into their home states like Uttar Pradesh, Bihar, Jharkhand and Chhattisgarh, which already face severe financial and medical deficits, would **worsen matters for the states**.
- The sustenance of agricultural, industrial and construction activities would be difficult in the **absence of a majority of the workforce** in the backdrop of the lifting of restrictions, given these workers are going back to their hometowns.

Creation of National Plan could have yielded better results:

- The Act envisages the **creation of a 'National Plan' under Section 11**, as well as issuance of binding guidelines by the Centre to States under Section 6(2), in furtherance of the 'National Plan'.
- The **'National Plan' then is a broader vision document** while the binding guidelines are its enforcement mechanism.
- Now, **Section 11(2) of the Act** mandates State consultations before **formulating a 'National Plan'**, and to that extent, when the binding guidelines are ultimately issued under it, they are expected to represent the views of the States.

- However, the Centre has not formulated the 'National Plan', and has chosen instead to respond to COVID-19 through **ad hoc binding guidelines** issued to States, thereby circumventing the legislative mandate of State consultations.
- In fact, the Home Ministry order ushering in lockdown 3.0 prohibited States from lowering the Centre's classifications. This **selective application of the Act** serves *to concentrate all decision-making powers with the Centre.*

Lack of funds for the states to respond to the pandemic:

- The Centre has also declared that **corporations donating to PM-CARES** can avail **CSR exemptions**, but those donating towards any Chief Minister's Relief Fund cannot.
- This directly disincentivises donations to any Chief Minister's Relief Fund; diverts crores in potential State revenues to PM-CARES; and makes the **States largely dependent upon the Centre.**
- Furthermore, the **suspension of MPLADS and diversion of the funds** to the **Consolidated Fund of India** may not be in concurrence of cooperative federalism, as it discourages locally tailored solutions by the MPs.
- In this scenario, states in India have fully become dependent on the Union government for finances.
- Further, the **revenue streams of several States have dried up** because of the liquor sale ban; negligible sale of petrol/diesel; no land dealings and registration of agreements.
- **States' GST collections** have also been **severely affected** with their dues still not disbursed by the Centre.
- Majority of states' revenue comes from liquor sales, stamp duty from property transactions and the sales tax on petroleum products.
- However, their expenditure such as on interest payments, social sector schemes and staff salaries remain unchanged.
- Moreover, states are now called upon to spend more on **beefing up their health infrastructure** and on Covid-19 measures, **including testing, treatment and quarantining.**
- All this has made it difficult for States to defray expenses of salaries, pensions and welfare schemes.

Conclusion:

- ❖ As it is the **States which act as first responders to the pandemic**, supplying them with adequate funds becomes a pre-requisite in effectively tackling the crisis.
- ❖ India adopted '**cooperative federalism**' — essentially defined by **administrative cooperation** between the centre & states and among states.
- ❖ Therefore, both union and states should work together to tackle the Covid-19 pandemic and **strengthen the spirit of cooperative federalism.**
- ❖ This requires the **Centre to view the States as equals**, and strengthen their capabilities, instead of increasing their dependence upon itself.

4. India's disease surveillance system needs a reboot

SURVEILLANCE SYSTEMS IN INDIA

System	Description / Salient features	Remarks
IDSP (Integrated Disease Surveillance Project)	Nationwide outbreak surveillance system. Including Measles, Diphtheria, Pertussis, AFP, Hepatitis and AES.	Sustainable system but variable state ownership. Data does not capture age and immunization status. Lab component weak. In transition.
CBHI/SBHI (Central and State Bureaus of Health Intelligence)	Nation-wide passive reporting system of suspected cases	All VPDs under traditional EPI are reportable. Extremely variable completeness, data quality and reliability. Annual updates.

Context:

- In a recent press briefing, the Ministry of Health and Family Welfare reported **noticeable trends** with respect to COVID-19 cases in India.
- Its data shows that **75.3% of deaths** have been concentrated in the **age group of 60 years and above**, and in **83% of deaths**, the deceased were battling pre-existing identified health conditions.

Presently, there is an situation of comorbidity:

- Evidently, we have reason to fear the novel coronavirus for which we have no established cure.
- However, there is even more reason to **fear a combination of COVID-19 with existing illnesses and medical complications**.
- The disease is lethal for those with compromised immunity brought on by age, existing respiratory infections, or essentially, malnutrition.
- In technical medical terms, this is a **situation of comorbidity**, which in ways makes it **difficult to differentiate between dying of COVID-19, or, dying with COVID-19**.

Issue of disease watch:

- In comparison to many western countries combating the disease, India appears to have the **advantage of a relatively young population**.
- This is, of course, negated by the **poor health conditions** of the vast majority of Indians. It is then imperative that we do not ignore already prevalent diseases and illnesses.
- Unfortunately, the recent experiences of the **public health-care system in India** indicate the side-stepping of precisely this issue.

Limited access to other health-care services:

- There are many among the poor who are battling various diseases but now have **little access to major public hospitals** in the wake of the lockdown.
- Routine functioning, particularly of **out-patient department services** in public hospitals, has been **severely affected**, and largely, emergency cases are being entertained.
- Patients now complain of even greater **high-handedness of hospital staff** in the still functioning emergency intensive care unit, labour rooms, tuberculosis (TB) wards, etc.
- Ironically, cardiology and neurology departments that cater to elderly sick patients are turning away many in the bid to **streamline “critical” cases**.
- In such circumstances we can expect an **aggravation in the poor health conditions** already affecting large sections of people who have **limited access to health-care services**.

Integrated Disease Surveillance Program (IDSP) must be revamped:

- The Integrated Disease Surveillance Program (IDSP) was initiated in assistance with World bank, in the year 2004.
- The scheme **aimed to strengthen disease surveillance for infectious diseases to detect and respond to outbreaks immediately**.
- The Programme continues during 12th Plan (2012–17) under National Health Mission with a budget of Rs. 64.04 Crore from domestic budget only.
- The surveillance data is collected on three specified reporting formats, namely “S” (suspected cases), “P” (presumptive cases) and “L” (laboratory confirmed cases) filled by Health Workers, Clinicians and Laboratory staff respectively. State/District Surveillance Units analyses this data weekly, to interpret the disease trends and seasonality of diseases.

Present failure of disease surveillance requires explanation:

- Many of the adverse medical conditions prevalent among the vast majority of our country are not even identified due to the **lax disease surveillance system**.
- For one, a significant number of the infected (poor and marginalised people) do **not have access to health-care facilities** and so fail to report their condition to certified medical practitioners.
- Even when an infected person has access to such facilities, their clinical case does **not always culminate in the required testing** (blood/serum, throat swab, sputum, stool, urine).
- Third, there is a widespread practice among pathological laboratories to **categorise diseases on the basis of the pre-existing classificatory system**, which results in **failure to identify the definitive cause** (aetiology) for an illness by differentiating and separating pathogens (disease-causing microorganisms) on the basis of variations in groups, subgroups, strains, etc.

Silent epidemics: pervasive non-identification of a definitive cause behind a number of illnesses:

1. Many ailments are simply clubbed together and referred to by generic names such as ‘Respiratory Tract Infection’ (RTI), ‘Urinary Tract Infection’, ‘Acute Febrile Illness (AFI)’, ‘Acute Undifferentiated Fever’, ‘Fever of Unknown Origin’ (FUO).
2. Certain of **these undifferentiated illnesses** are known to affect lakhs of people every year worldwide.
3. They claim many lives, especially of the poor who are **victims of low immunity** and have **limited access to health care**.
4. Sources claim that **RTI kills over 900 people in India every day**.
5. Likewise, Acute Lower Respiratory Tract Infection (**ALRTI**), which affects mostly children below the age of five years, has been known to infect approximately 3.40 crore people every year worldwide.
6. In recent years it has led to roughly 66,000 to 199,000 deaths. Shockingly, **99% of these deaths** are reported from developing countries, and India has a larger share in it.

7. The large number of hospitalisations, enormous deaths and suffering caused by **contagious undifferentiated diseases** indicate the prevalence of persistent but undeclared silent epidemics.
8. Even if the definitive cause of an illness is identified, it does not necessarily gain the **focused attention of scientific research**.
9. As the disease evolves but “interest” in it remains fleeting, the differences developing in the sub-groups, strains in genotype of the pathogen concerned fail to be consistently tracked. Knowledge of the pathogen, and, consequently, the **required disease control soon lag behind**.
10. This overall process is due to the **selective, biased approach of mainstream scientific research** that is driven by the **profits of private pharmaceutical companies**, and is the fallout of the **lack of priority** that governments assign to general health care and diseases of the poor.

Other contagious diseases are ignored as “ordinary”:

- Even when the identity of a contagious disease and its treatment are well known it does not mean that the disease’s prevalence will generate the necessary reaction. TB is a suitable example.
- According to public health experts, one person in every 10 seconds contracts TB, and up to 1,400 people in India die every day of the disease.
- This indicates that TB has a R0 value (basic reproduction number) and fatality rate that is way higher than those attributed to COVID-19 so far.
- However, it is important to note that TB and many other contagious diseases are ignored as “ordinary”, and elicit very low attention. In contrast, some diseases are quickly identified as epidemics of greater public concern.

Conclusion:

- ❖ Importantly, pre-existing diseases have the potential to combine with COVID-19, and with devastating consequences.
- ❖ Diseases are being **selectively discovered** and have the propensity to be identified as an **epidemic** when they have a signalling effect for the scientific community.
- ❖ In a majority of instances, it is only when there is a **threat of transmission** to the well-to-do sections of society or wealthier regions that the disease actually has such a signalling effect.
- ❖ It is not a coincidence that a relatively downplayed disease such as **TB is largely a poor man’s disease**.
- ❖ Clearly, we are confronted by a skewed relationship between our ways of **knowing (social epistemology) and epidemiology**.
- ❖ It is precisely in this context that COVID-19 has gained **singular prominence** over several other lethal diseases.
- ❖ It becomes imperative to identify the **comparative fatality rates** of many of the silent epidemics, which in their own right require urgent attention.

5. Getting India back to the Afghan high table

Context:

- US government is pushing India to reconsider its long-held **policy towards Taliban** and also **encouraging direct engagement with Taliban**.
- For the first time, a US official has openly suggested that India should engage directly to Taliban and discuss its terror concerns.
- The rapidly changing political landscape in Afghanistan has put India in a spot. Despite being a key player in Afghanistan's development and peace process, India was not the part of the US-Taliban agreement.
- The leader of the Taliban said that militants were committed to a **landmark deal with the U.S.**, despite being accused of carrying out thousands of attacks in Afghanistan since it was signed.

Charting U.S. withdrawal

March 10: Release of 5,000 Taliban and 1,000 non-Taliban prisoners

May 29: Removal of UN Security Council sanctions against Taliban fighters; release of all remaining prisoners

June 15: U.S. Coalition Forces reduce to 8,600,

withdraw from five military bases

August 27: Removal of U.S. sanctions against Taliban

April 29, 2021: Expected completion of the U.S.-Taliban agreement, full withdrawal of U.S. troops in five military bases



The United States and Afghanistan's Taliban have signed an historic agreement:

With the potential to end the war in Afghanistan, the long-awaited agreement includes:

- a timeline of 14 months for all US and NATO troops to withdraw
- a Taliban guarantee that Afghan soil will not be used to threaten US security
- and negotiations with the Afghan government by March 10; leading to a permanent and comprehensive ceasefire.

Years of shuttle diplomacy were behind the signing and Qatar played a central role in the negotiations. It hosted the months-long discussions between representatives of the Taliban and US officials in its capital, Doha.

India's position on Taliban:

- India refused to recognise the Taliban regime of 1996-2001 and rather supported the 'Norther Alliance' in fighting the Taliban in Afghanistan
- India has long held the position of dealing only with the elected government in Kabul, and has always considered the Taliban a terrorist organisation backed by Pakistan
- India supports an Afghan-led, Afghan-owned and Afghan-controlled peace process.
- Kandahar Hijack of 1999 and Taliban's proximity to Pakistan's deep state has also embittered the Indo-Taliban relations.
- However, India's refusal to engage with Taliban will give Pakistan a free hand to use it as a proxy in India's internal matters.

- Given India's regional and global positions, it is appropriate for India to engage with all the key players in Afghanistan, not only in terms of the government but also in terms of political forces, society and the Afghan body politic
- India's position **on non-engagement with Taliban** has reduced its role in international diplomatic efforts. **US wants India to have more active role**, other than economic and humanitarian, in the peace process.

The following critical points are essential for India:

1. First, **Afghanistan's unity and territorial integrity** is considered vital to India since the British period. Any disintegration prospect or falling a part of it into Pakistan or fragmentation within would severely undermine Indian state.
2. Second, history guides that there are **no winners in the Afghan end-game**. Those fallen into the Afghan trap only ended up draining their resources.
3. Third, a core principle underpins India's policy is **to avoid any Af-Pak proximity from a zero-sum calculation**. Pakistan by virtue of culture, tribal and spatial reasons will always enjoy an edge over India.
4. Fourth, politics suggests that Afghanistan's irredentist claim over the Pushtun areas of Pakistan versus Pakistan's revanchist ambitions in Afghanistan create mutual suspicion if not inherent animosity between the two.
5. Fifth, the Afghans always loathed being run by a puppet master, detested Pakistanis. Irrespective of frequent power-shifts, Kabul looked towards Delhi for the requisite political legitimacy and for quintessential protection against Pakistani hegemonic threat.
6. Sixth, whether they are Sufis, Wahabis, Deobandis or secular scholars, the Afghan craving for tracing roots and ancestry or even the severe pangs of nostalgia for Hindustan, eventually turned them to Delhi. This hurt the Pakistanis the most.
 - The fear of Afghan protégés escaping from their cage still causes nightmares in Rawalpindi.
7. Seventh, the **law of attraction in the case of India always worked in a reverse way**. The people, societies and nations across the world always found their own ways to connect with India. India can again become the centre, instead of it constantly chasing for an influence outside.

India need to review its policy from time to time:

- India should now **upgrade its channels of communication** with the Taliban.
- Try to persuade Iran that cooperation between both countries is still possible.
- India will probably have to reassess its strategic convergence with the US because the US's foreign policy is acting against India's strategic interest.
- India's support to Taliban will be a betrayal for people of Afghanistan if Taliban goes **back to the medieval practices** and establishes an Islamic republic based on Sharia thus denying the hard-earned rights of the Afghan peoples.
- India's engagement should be **conditional on Taliban joining the mainstream politics**.
- India should not give legitimacy to a government in exile (Taliban's political office is based in Doha) in its own neighbourhood.
- It is imperative that Taliban should deal with India as an **independent entity**, as a nationalist Afghan entity, and not a proxy for other countries.

Conclusion:

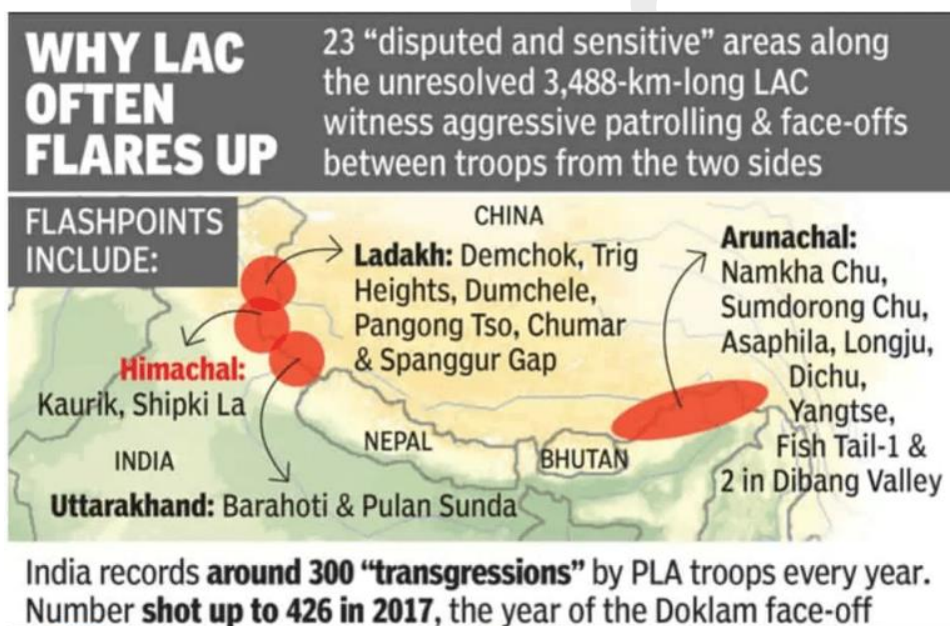
- ❖ It is sad that despite all that India has done in Afghanistan over the past 18 years since the Taliban were ousted from Kabul in 2001, it finds itself on the margins of international diplomacy on Afghanistan.

- ❖ With the signing of US-Taliban peace deal, **Afghanistan has entered a critical stage** and must become an Indian diplomatic priority.
- ❖ Also, the recent developments (combined with the weakening position of elected government and the simultaneous rise in Taliban's foothold) points that it is only a matter of time before **Taliban gains international legitimacy**. So, it is important for India to recalibrate its position w.r.t Taliban in view of the ongoing changes.
- ❖ India needs to take **corrective diplomatic action** even at this late stage, and even in the time of COVID-19. It must begin openly talking to the Taliban and with all political groups in the country. It must **realise that its Afghan policy needs changes**.

6. What explains the India-China border flare-up?

Context:

- The **India-China border** has been witnessing tensions over the past month, with incidents reported in **at least four different locations** along the **Line of Actual Control (LAC)**.
- Stand-offs at two other spots in Ladakh, in the Galwan valley and in Demchok, have reportedly escalated with a build-up of troops by both sides.
- Incidents (army clashes) happened: The Pangong lake in Ladakh, Naku La in Sikkim, Galwan valley and Demchok in Ladakh



Why do face-offs occur?

- Face-off and stand-off situations occur along the LAC in areas where India and China have overlapping claim lines.
- **The LAC has never been demarcated.** Differing perceptions are particularly acute in around two dozen spots across the Western (Ladakh), Middle (Himachal Pradesh and Uttarakhand), Sikkim, and Eastern (Arunachal Pradesh) sectors of the India-China border.
- The boundary in the Sikkim sector is broadly agreed, but has **not been delineated**. Face-offs occur when patrols encounter each other in the contested zones between overlapping claim lines.
- Protocols agreed to in 2005 and 2013 detail rules of engagement to prevent such incidents, but have not always been adhered to.

What is behind the latest tensions?

1. The **stand-off in Galwan valley**, according to reports, was **triggered by China** moving in troops and equipment **to stop construction activity by India**.
2. Delhi says this was well **within India's side of the LAC**. The LAC was thought to be settled in this area which has not seen many incidents in the past, but China now appears to think otherwise.

3. The **northern bank of Pangong lake** has, however, been a point of contention where there are differing perceptions of the LAC.
4. The incident in Sikkim is somewhat unexpected as the contours of the LAC are broadly agreed to in this sector.
5. The broader context for the tensions appears to be a changing dynamic along the LAC, as **India plays catch-up in improving infrastructure there.**
6. China has enjoyed an advantage in **infrastructure** as well as **terrain** that is more favourable to mobilisation.
7. Previous agreements between the two countries have recognised both sides' **need for "mutual and equal security"**, implicitly taking into consideration the different and more difficult terrain on India's side that hinders mobilisation from depth.

Why has not the LAC been clarified?

- India has long proposed an exercise **to clarify differing perceptions of the LAC** to prevent such incidents.
- **Maps were exchanged** in the Middle Sector, but the exercise fell through in the Western Sector where divergence is the greatest.
- China has since rejected this exercise, viewing it as adding another complication to the on-going boundary negotiations.
- India's argument is rather than agree on one LAC, the exercise could help both sides understand the claims of the other, paving the way to regulate activities in contested areas until a final settlement of the boundary dispute.

What is the state of boundary negotiations?

1. The 22nd round of talks between the Special Representatives, National Security Adviser and China's State Councillor was held in Delhi in December 2019.
2. Both "agreed that an **early settlement of the boundary question** serves the **fundamental interests of both countries**" and "resolved to intensify their efforts to achieve a **fair, reasonable and mutually acceptable solution**".
3. In 2005, an agreement on political parameters and guiding principles completed the first of three stages of the talks.
4. The current, and most difficult, stage involves agreeing a **framework to resolve the dispute in all sectors.**
5. The final step will involve **delineating and demarcating the boundary in maps and on the ground.**

India committed to peace and tranquillity along border with China: MEA:

- India said it remained committed to **maintaining peace and tranquillity** along the border with China noting that such incidents could have been avoided if there was a common perception about the frontier.
- India and China attach utmost importance to ensuring peace and tranquillity in all areas of Sino-India border regions and referred to affirmation about it by Prime Minister Narendra Modi and Chinese President Xi Jinping in their two informal summits.
- In the summit, the two leaders decided to **issue "strategic guidance"** to their militaries to strengthen communications so that they can **build trust and understanding.**

What are the prospects of a settlement?

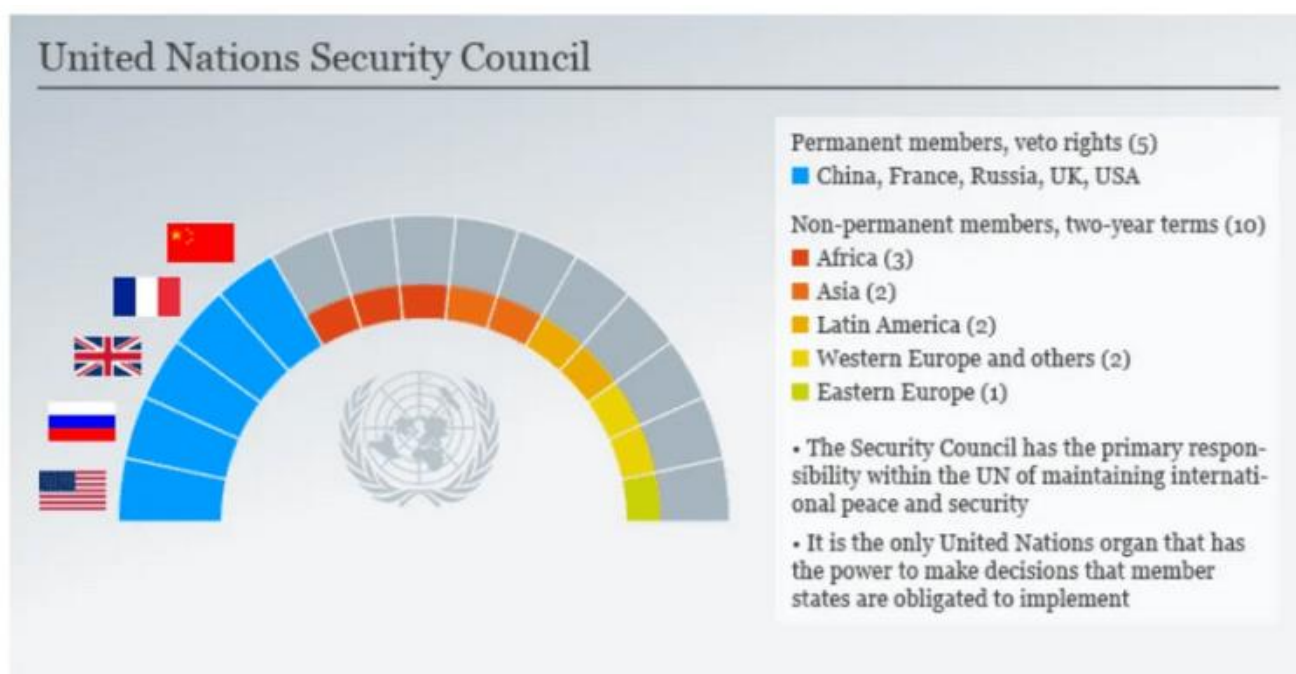
- The likelihood appears remote. The **main differences** are in the **Western and Eastern sectors.**
- India sees China as occupying 38,000 sq km in **Aksai Chin**. In the east, China claims as much as 90,000 sq km, extending **all across Arunachal Pradesh.**

- A swap was hinted at by China in 1960 and in the early 1980s, which would have essentially formalised the status quo. Both sides have now ruled out the status quo as a settlement, agreeing to meaningful and mutual adjustments.

Conclusion:

- ❖ At the same time, the **most realistic solution will involve only minor adjustments along the LAC**, considering neither side will be willing to part with territory already held.
- ❖ The 2005 agreement said both sides “shall safeguard due interests of their settled populations in border areas”.
- ❖ One particular sticking point appears to involve China’s claims to Tawang in Arunachal Pradesh, which has been increasingly referenced in public statements in recent years.
- ❖ The Tawang demand is, however, more a symptom than the root of the problem. In truth, China knows ceding Tawang will be impossible for any Indian government to consider. The broader issue appears to be a fundamental difference in how both sides view the boundary question.
- ❖ China’s experience indicates that resolving border disputes is ***usually the result, rather than the cause***, of improvement in relations.
- ❖ But India insists that its relations with China ***won’t improve fundamentally until the border dispute is resolved***.
- ❖ Therein lies the crux of the problem. In some sense, Beijing appears to view an unsettled border as holding some leverage with India, one of the many pressure points it could use to keep India off-guard.
- ❖ Until that strategic calculus and **China’s broader view of its relations with India changes**, the stalemate will likely endure.

7. UNGA president discusses options to conduct Security Council elections in June



Context:

- UN General Assembly President has discussed options, including online voting, to **conduct elections for five non-permanent members of the Security Council** in June, as large in-person meetings at the world body stand postponed till at least end of June due to the coronavirus outbreak.

- The **193-member General Assembly** is scheduled to hold elections in June for **five non-permanent members of the Security Council**, members of the Economic and Social Council, the president of the 75th session of the General Assembly and the vice presidents of the 75th session.
- **India is a candidate for a non-permanent seat in the UNSC elections** this year and its victory is almost certain following the unanimous endorsement of its candidature by the 55-member Asia-Pacific grouping, including China and Pakistan.
- Moreover, India for long has been of the view that the **UNSC** sought to be **reformed by expansion in the membership of the Security Council** in both the permanent and non – permanent categories.

General Assembly elects Five non-permanent members:

- Elections for the five non-permanent members of the 15-nation Council for the 2021-22 term were scheduled for June 17.
- Canada, Ireland and Norway are vying for two seats in the Western Europe and Other countries category, Mexico is the only candidate for the one Latin America and Caribbean seat and Kenya and Djibouti will contest the seat available for the African group.
- Each year the General Assembly elects five non-permanent members (out of 10 in total) for a two-year term.
- The **10 non-permanent seats** are distributed on a **regional basis five for African and Asian States**; one for Eastern European States; two for the Latin American and Caribbean States; and two for Western European and other States. The election is held by secret ballot.
- The General Assembly is not holding meetings in person as UN staff and diplomats telecommute due to the pandemic.

Permanent Membership of India in UNSC:

India deserves to be in the **list of permanent members** not only because of the **one-sixth world's population** that resides in India but because of the following reasons:

1. Being a **founding member of the UN**, India has always respected, participated and supported the United Nations.
2. India is not only funding the UN substantially, but it is also leading the **peace-keeping operations of the UN**; upholding the principles & credentials of the UN.
3. India is a **major emerging economic power** & follows an **independent foreign policy**, which signifies India's stand on any issue on multinational forum.
4. For example, India opposed the bombing in Libya at the first stance & later abstained from voting in the UN.

Permanent seat in the UNSC, would provide India with the much-needed leverage to **expand its geo-political and geo-economic clout globally**.

What do think will be the priorities for India to work on?

India in many ways is a sui generis country. It's a country of a billion-plus, it's a country which is a democracy, perhaps the only example in history of a billion-plus people working together in a democratic framework.

1. India will bring to it those values and strengths of being able to work cohesively among disparate entities.
2. One of the biggest issues that will confront all multilateral organisations and certainly the security council will be issues which are **beyond borders**.
3. Issues of the global commons, whether it is in cases of public health as we are now seeing in the current pandemic, but other issues, for example, cyber [issues]. There are no regulatory mechanisms or no rules on that, and that's another.

4. A third one is **issues of high seas**. Again, **beyond your EEZ** [exclusive economic zone], there is very **limited understanding** of what states can do and what states can't do.

Inclusion of India into UNSC will help in transforming its status from being a responsible stakeholder' (following international norms) along with becoming a global rule-maker.

In reforms, now, why should we focus on these broader thematic issues?

- It's because you'll see our experience has been: **ungoverned spaces** lead to opportunities for those who are inimical to global governance to breed, whether it is in states or it is beyond state boundaries, this has been the experience, and therefore, we as a country would like to focus on these things.
- Another area of interest would obviously be **technology with a human touch**. Increasingly, resilience of human beings is an important factor that all of us have been confronted with where there are disasters, can we have a more humane approach to these, etc.
- Under this procedure, the President of the General Assembly could circulate a letter to all member states and indicate the specific election and the names of candidates.
- Propose that a **secret ballot** be dispensed with as the number of candidates is equal to or does not exceed the number of vacant seats.
- Indicate that, if there is no objection until a specific date and time, those candidates would be considered elected; and
- Indicate their terms of office and the date on which those terms begin in the event that they are elected.

Conclusion:

- ❖ **Global power hierarchies are changing** and the P5 needs to realize that this is high-time to initiate UNSC reforms.
- ❖ The declining powers should either give away their membership or should expand the **size of the UNSC opening** the doors for new emerging powers.
- ❖ Other reforms might succeed earlier than the expansion of P5. As at the end of the day, none of the so-called powerful nation wants to expand the table and share their pie with another nation.
- ❖ India needs to focus on **strengthening itself economically, militarily & diplomatically** in order to participate in major conversations and groupings. Steadily, the UNSC will itself deem **India fit to become a part of the UNSC**.
- ❖ India has been **acknowledged as a rising power** by most of the states. Also, there is a pressing **need to democratize multilateral fora**, starting from the United Nation system itself.
- ❖ In this context, India is making a legitimate claim for its rightful place in the **changing architecture of global governance**, including the UN Security Council.

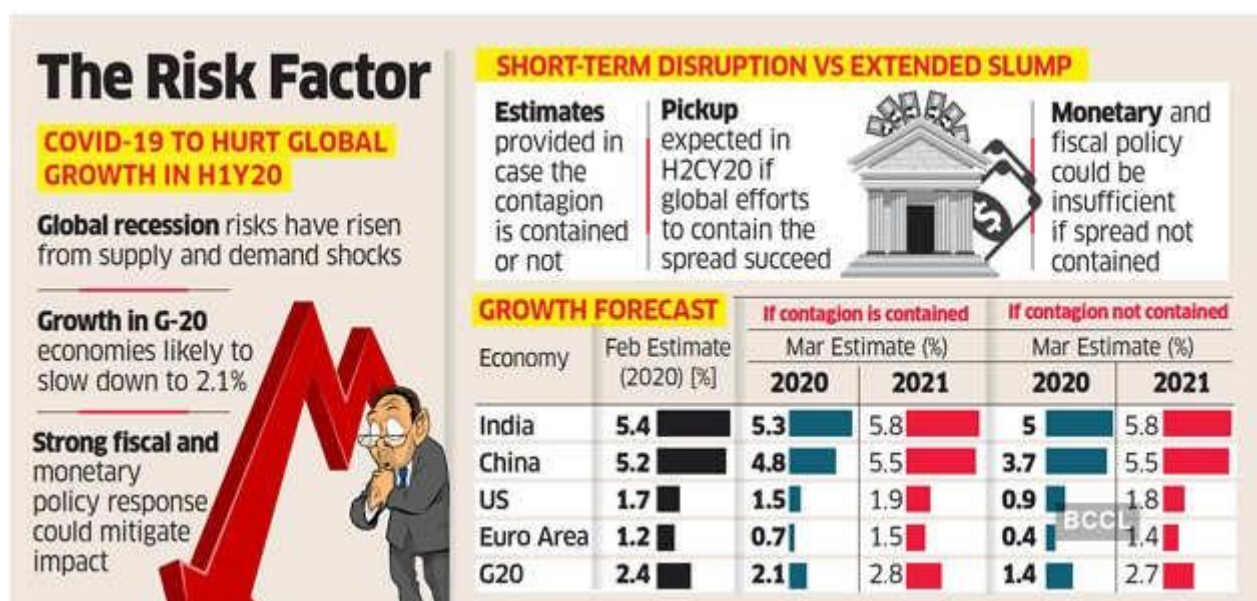
GENERAL STUDIES - III

1. We have a narrow window to enact fiscal relief measures

Introduction:

- As the COVID-19 pandemic continues to ravage economies across the world, policymakers are desperately seeking **effective ways to mitigate its economic effects**.
- The immediate future appears **dire for large emerging markets** including India, which recently saw its **growth forecast for 2020 slashed by the International Monetary Fund (IMF) to 1.9%** from the previously estimated 5.8%.
- In April, the World Bank estimated that India would grow 1.5% to 2.8% in 2020-2021, the lowest since the start of the 1991 economic reforms.

- Dim as these projections are, what is of concern is that these are already starting to look overly optimistic considering that India has extended the lockdown.



What about the size of fiscal relief?

- Current calculations suggest that we need a **fiscal relief programme of around 5% of GDP**.
- The longer we delay the announcement and rollout of the measures the larger will the need become. So, time is of the essence.
- We also need to understand that, in any case, this year's deficit will be higher because of loss of economic activity **resulting in lower tax and non-tax revenues**.
- Hence **broad quantitative assessment** is that the **India's debt-GDP ratio**, in the present unusual circumstances, could well go up to **about 90% of GDP in this fiscal year**, if we undertake such fiscal relief.
- The guiding framework here would have to be some assessment of the fiscal actions that may be **needed to restore economic activity** juxtaposed against possible injections necessary to restore the financial sector in the absence of fiscal action now.

What about monetising part of the fiscal deficit?

1. These are **totally exceptional times** when we have to think out-of-the-box but prudently.
2. If found necessary in view of developments in the financial markets, and excessive pressure on government securities yields, the Reserve Bank will **need to use all the tools at its disposal to support government financing as necessary**.
3. If it is feasible to finance the deficit without resort to RBI, while keeping the long-term bond yields under control as at present, that would be preferable.
4. That will enable appropriate price discovery, and the **RBI could conduct almost back to back OMOs**.
5. RBI has already **expanded its WMA (ways and means advances) limit** to the central government significantly to Rs2,00,000 crore, and has also increased the state government limits to 60%.
6. This is a very good move. It **reduces the cost of borrowing** for the government; it **helps the bond market** from spiking in terms of yield; and gives government and the RBI time to see if further financing is needed from the RBI without disturbing the bond market significantly.
7. But this may not be enough. State governments are bearing the brunt of many expenditures required to protect the livelihoods of the poorest while suffering significant declines in their revenues.

8. Thus, they will also **need significant support from the central government** and the Reserve Bank combined.
9. Various measures that can be thought of are OMOs in state government securities, the inclusion of state government securities in SLR provisions for banks, central government borrowing and onward lending to states.

How do you see the revival of demand playing out in this new normal where social distancing will have to be a part?

1. That is exactly the difficulty that one is foreseeing. Going sector by sector and starting with the **most obvious large sector: airlines**.
2. We don't have any sense when we will start operating flights—domestic and international. This is one sector where supply is clearly being impacted. Even if we start certain flights, for some time to come there will be **very low demand because people will be scared of flying**.
3. **Second, is the tourism sector** which includes large hotels, small hotels, restaurants and so on. Supply here will also be impacted for quite some time.
4. There are ways on how to phase in activities in these sectors. For example, for hotels it ought to be **feasible to operate them at some capacity** while practising physical distancing. In the case of hotels, it ought to be feasible for them to operate to cover their fixed costs, assuming travel is permitted.
5. Third, it ought to be **feasible to allow some degree of restaurant opening** even if it is through a much greater emphasis on take-out and deliveries.
6. There are a large number of people employed in that sector as well across the country.
7. **Third, construction sector** where there is **both a problem of supply and demand**.
8. Given the impact that incomes have taken, I would presume that the **real estate sector** will go through **some difficulty in the short and medium term**.
9. If they are under construction, it ought to be feasible to start getting people in and get activity going. There will be a problem there because of the **labour disruption that has taken place**. None of these things are easy.

Need of the hour: Adequate fiscal space:

- Although it is important to do whatever it takes to moderate the meltdown, offer **disaster relief and eventually kick-start the economy**, there are valid concerns that unless there is **proper governance of any massive fiscal spending**, even a very well-intentioned policy may end up doing more harm than good.
- Even countries like China have been guarded in their fiscal responses so far. In China, this was partly **to avoid a rise in its shadow banking activities**, which turned out to be one of the perverse side-effects of its massive stimulus post the global financial crisis.
- Countries with **higher initial public debt levels** like India need to be particularly concerned as they also happen to possess the least state capacity to make tough decisions to **return to a trajectory of fiscal credibility**.
- This crisis has made clear the critical importance for countries **to build adequate fiscal space to manage future economic distresses**.
- Given the **acute constraints on fiscal policy in India**, there is clearly a need to start re-prioritising expenditures away from low-priority, unproductive areas **towards greater spending on health and social safety nets for low-income households**.

Conclusion:

- ❖ The government should contemplate and across the board **interest-rate subsidy of 2 to 3% for on lending by banks**, and possibly NBFCs (non-banking financial companies) for a specified period of time.

- ❖ The cost of this is quite low in the current circumstances. So additional lending Rs1,00,000 crore would mean a fiscal cost of only Rs2,000 crore.
- ❖ The modalities of such a measure would need to be worked out in some detail but that this would be much more effective than any further attempts to reduce policy rates.
- ❖ What this does is to keep deposit interest rates at reasonable real rates, borrowers get the benefit of more interest rates, while **protecting bank balance sheets** and **thereby financial stability of the system**.

2. Slower growth and a tighter fiscal

Sectoral growth prospects in 2020-21

Differential impact of the novel coronavirus on Gross Value Added in 2020-21



Group	Sector	Share 2019-20 (MAE)	Average growth (2017-18, 18-19, 19-20 MAE)	2019-20 MAE	Targeted growth (2020-21)	Contribution to growth (% points)
A	Agriculture, forestry & fishing	14.4	4.0	3.1	2.8	0.40
B	Mining & quarrying	2.6	0.6	2.2	1.1	0.03
C	Manufacturing	17.4	4.4	0.3	1.8	0.31
B	Electricity, gas, water supply & other utility services	2.3	8.0	4.1	2.1	0.05
B	Construction	7.8	4.7	2.4	1.2	0.09
D	Trade, hotels, transport, communication, etc.	19.6	7.0	5.1	1.5	0.30
B	Financial, real estate & professional services	22.3	6.3	6.8	3.4	0.76
A	Public Administration, defence and other services	13.6	9.3	8.2	7.4	1.00
	GVA at Basic Price	100.0	5.9	4.4	2.94	2.94

MAE refers to modified advance estimates that are derived by adjusting downwards, CSO advance estimates dated February 28, 2020

Introduction:

- The impact of COVID-19 will be debilitating for the global as well as the Indian economies.
- Various institutions have assessed India's growth prospects for 2020-21 ranging from 0.8% (Fitch) to 4.0% (Asian Development Bank). This wide range indicates the **extent of uncertainty and tentative nature of these forecasts**.
- The **International Monetary Fund (IMF)** has projected India's growth at 1.9%, China's at 1.2%, and the global growth at (-) 3.0%.

Growth prospects of India by International Institutes:

- India slid into the novel coronavirus crisis on the back of a **persistent economic downside**.
- There was a **sustained fall in the saving and investment rates** with unutilised capacity in the industrial sector.
- In 2019-20, there was a **contraction in the Centre's gross tax revenues** in the first 11 months during April 2019 to February 2020, at (-) 0.8%. These trends continue to beset the Indian economy in this crisis.
- Experts examine the growth prospects for 2020-21 from the output side, making reference to real gross value added (GVA).
- In 2019-20, which would serve as the base year, India may show GVA growth of about 4.4%, well below the Central Statistics Office's second advance estimate of 4.9%, as the fourth quarter

number is likely to be revised downwards on account of the adverse impact of the virus on economic activities. **The IMF's GDP growth estimate for 2019-20 is at 4.2%.**

Gross value added (GVA) growth of the economy:

The **actual growth outcome for India** would depend on:

1. The speed at which the economy is opened up;
2. The time it takes to contain the spread of virus, and,
3. The government's policy support.

Output side assessed by Real gross value added (GVA):

- GVA is divided into **eight broad sectors**. Although all sectors have been disrupted, some may be affected less than the others. We divide the output sectors in four groups.
- In group A, we consider two sectors that have suffered only limited disruption — namely agriculture and allied sectors, and public administration, defence and other services.
- **In the case of agriculture**, rabi crop is currently being harvested and a good monsoon is predicted later in the year. Despite some labour shortage issues, this sector may show near-normal performance.
- The **public and defence services** have been nearly fully active, with the health services at the forefront of the COVID-19 fight. For the group A sectors, it may be possible to achieve 90% of the 2019-20 growth performance.

Next, we consider the group that is likely to suffer maximum disruption (Group D) :

- This includes, trade, hotels, restaurants, travel and tourism under the broad group of "Trade, Hotels, Transport, Storage and Communications".
- This sector may be able to show 30% of 2019-20 growth performance.
- Group B comprises four sectors which may suffer average disruption showing 50% of 2019-20 growth performance. These sectors are mining and quarrying, electricity, gas, water supply and other utility services, construction, and financial, real estate and professional services.
- In the last group (Group C), we place **manufacturing which has suffered significant** growth erosion in 2019-20. It is feasible to stimulate this sector by supporting demand.
- In this case, we apply a 40% performance factor, not on the 2019-20 growth which is an outlier, but on the average growth of the preceding three years. Considering these four groups together, a GVA growth of 2.9% is estimated for 2020-21.

Calibrating policy support by RBI and reducing non-salary expenditure:

1. **Monetary policy initiatives** undertaken so far include a reduction in the repo rate to 4.4%, the reverse repo rate to 3.75%, and cash reserve ratio to 3%. The Reserve Bank of India has also opened **several special financing facilities**.
2. These actions will have a positive impact on output only after the lockdown is lifted. These measures need to be supplemented by an appropriate fiscal stimulus.
3. Although industry has been clamouring for a large fiscal stimulus, cash-constrained central and State governments have taken expenditure reducing measures by announcing a freezing of enhancements of dearness allowance and dearness relief.
4. This may result in savings of Rs.37,000 crore for the Centre and about Rs.82,000 crore for the States, **together amounting to 0.6% of GDP**.
5. There is also a talk of substantially **reducing non-salary defence expenditure**. With lower petroleum prices, fertilizer and petroleum subsidies may be reduced.
6. These expenditure cuts are contemplated to **keep the fiscal deficit under some control**.

On fiscal deficit and ways of providing fiscal stimulus:

1. Fiscal stimulus can be of three types:

- a. Relief expenditure for protecting the poor and the marginalised;
 - b. Demand-supporting expenditure for increasing personal disposable incomes or government's purchases of goods and services, including expanded health-care expenditure imposed by the novel coronavirus, and,
 - c. Bailouts for industry and financial institutions.
2. Thus, the Centre's fiscal deficit may increase to 6.0% of GDP. Expenditure on construction of hospitals, roads and other infrastructure and purchase of health-related equipment and medicines require prioritisation. These expenditures will have high multiplier effects.
 3. Similar initiatives may be undertaken by the State governments which may also enhance their combined fiscal deficit to about 4.0% of GDP to account for 3.0% of GDP under their respective *Fiscal Responsibility Legislation/Law and to provide for the shortfall in their revenues and some stimulus*.
 4. Financing of the fiscal deficit poses a major challenge this year. On the demand side, the Central (6.0%) and State governments (4.0%) and Central and State public sector undertakings (3.5%) together present a total public sector borrowing requirement (PSBR) of 13.5% of GDP.
 5. Against this, the **total available resources may at best be 9.5% of GDP** consisting of excess saving of the private sector at 7.0%, public sector saving of 1.5%, and net capital inflow of 1.0% of GDP.
 6. The gap of 4.0% points of GDP may result in increased cost of borrowing for the Central and State governments.

Conclusion:

- ❖ Realising this **requires strong policy support**, particularly for the manufacturing sector which has a weight of 17.4%.
- ❖ It is also based on the assumption that the Indian economy may move on to positive growth after the first quarter. In the first quarter, GVA growth will be negative.
- ❖ The increased fiscal deficit gap may be bridged by **enhancing net capital inflows** including borrowing from abroad and by monetising some part of the Centre's deficit. Monetisation of debt can at best be a one-time effort. This cannot become a general practice.

3. Economic package math: It's 10% of GDP but about half is already factored in

Context:

- The **Rs 20-lakh crore package** announced by Prime Minister Narendra Modi sounds big but will burn only a small hole in the government's finances.
- A large part of it, or as much as **Rs 8.04 lakh crore**, is additional liquidity injected into the system by the **Reserve Bank of India** through various measures in February, March and April.

Economic package to boost the Indian Economy:

- Add to this the **Rs 1.7 lakh crore fiscal package** announced by Finance Minister Nirmala Sitharaman on March 27.
- The balance of the economic package, details of which are not yet known, then stands at Rs 10.26 lakh crore.
- Sources familiar with discussions within the government said the **fiscal outgo may not be more than Rs 4.2 lakh crore during the year**, taking cues from the revised borrowing calendar announced just three days back.
- On May 9, the government revised its estimated **market borrowings to Rs 12 lakh crore from Rs 7.8 lakh crore** as announced in Budget 2020-21. In a way, this puts a ceiling to the size of the **fiscal package at 2.1 per cent of the GDP** (Rs 4.2 lakh crore).

New Package: Boosting economic cycle by injecting Fiscal Stimulus:

The package is predicated to make the **Indian economy self-reliant** by leveraging our inherent strengths of demographics, technological skills and domestic demand by building infrastructure and robust supply chains that would give a **boost the Make in India programme**.

1. Finance Minister has announced **collateral-free loans for MSME up to Rs 3 lakh crore**.
2. For the stressed MSMEs, Ministry further announced **Rs 20,000 crore liquidity to benefit around 2 lakh MSMEs**. Stressed and NPA MSMEs will be eligible for this facility.
3. It has also decided **to infuse capital of Rs 50,000 cr in MSMEs** for their expansion. FM Sitharaman has also changed the definition of MSMEs which will allow them to still get the **facilities even with higher investment in them**.



4. The government procurement, tenders up to Rs 200 crores will not be global tenders. Besides, **liquidity of Rs 2,500 crore EPF support** for business and workers for 3 more months has been announced due to which over 72 lakh employees are expected to be benefitted.
5. For the NBFCs, FM Sitharaman has announced a **special liquidity scheme** and Rs 45,000 crore as a **partial credit guarantee scheme**.
6. The government has also set aside **Rs 90,000 for DISCOMS** against receivables through state-issued guarantees, to help clear GENCOS dues to reduce their stress.
7. While the Rs 1 lakh crore helps the government in **showing a big economic package**, the actual cost to the exchequer will probably be a couple of thousand crores of rupees.
8. Further, the government can **also recapitalise banks**, helping their capital adequacy.
9. Again, we just have to account for the **interest to be paid on the recapitalisation bonds**, which also does not amount to any substantial outgo.

However, not only fiscally responsible but also specifically aimed to connect weaker dots in economy:

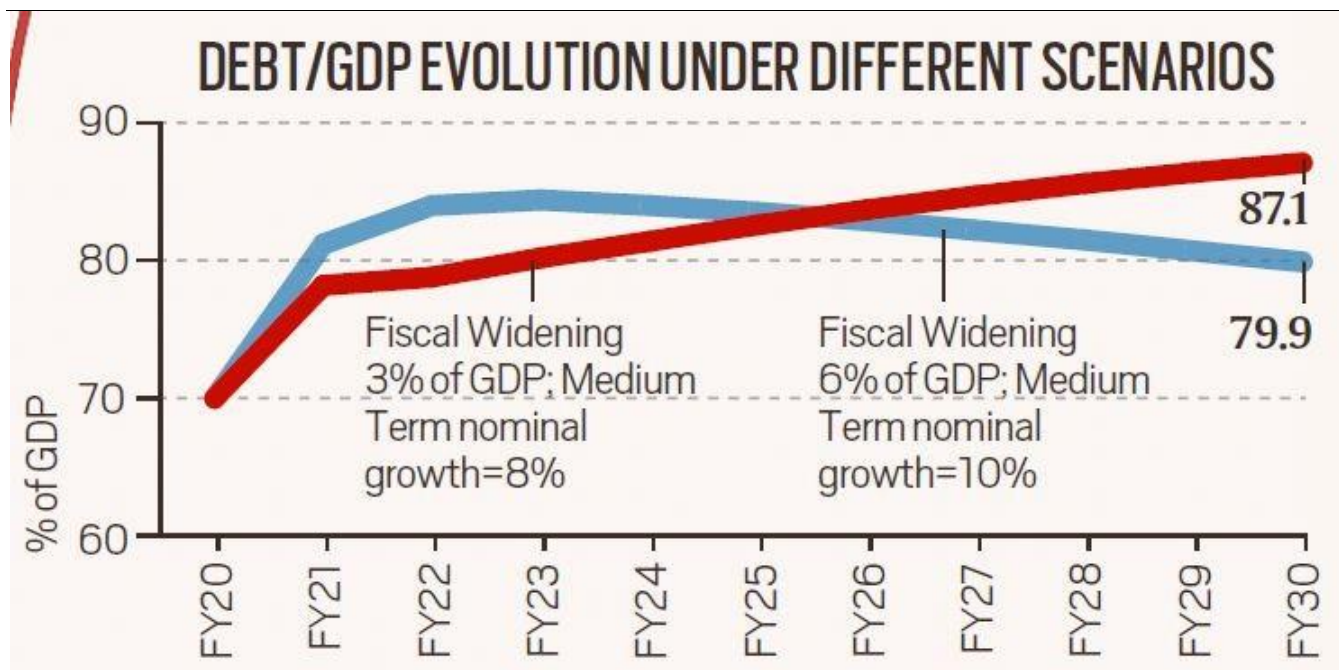
1. One of the most astute stimulus package series-1 has been announced by our Finance Minister which is not only fiscally responsible but also **specifically aims to connect the weaker dots in the economy**. This is to quicken India's revival as soon as the lockdown eases.
 2. Although late, the Government indeed came out with a superior proposition as compared to developed countries when seen in terms of specific targeting and effectiveness thereof.
 3. **Infrastructure sector** could be a **game-changer acting as a catalyst** for the government to not just jump start the economy but also to lead the economy towards a sustained long-term growth.
 4. Fresh injection of Rs. 90,000 Cr into DISCOMs would certainly lead to financially de-stress them and in turn **improve the liquidity for Power Generation companies**.
 5. This was long due and hopefully would lead to end consumers getting benefitted in terms of cheaper tariffs, however that is likely to happen on a medium to long term.
 6. Going forward one needs to ensure that Developers and the investors get a clear understanding and the precise details of the upcoming projects to start preparing for it sooner than later.
 7. The extension of up to 6 months announced both for ongoing Construction contracts and concessions awarded on PPP model is a welcome move, however Contracting community is awaiting to hear on the outcome of force majeure provisions triggered during the COVID period on the Government contracts.
 8. While the intent of the Government demonstrated by augmenting scope of the grand NIP is both ambitious and commendable it is the roll out plan that really matters.
- This economic package is for our cottage industry, home industry, our small-scale industry, our MSME, which is a source of livelihood for millions of people, which is the **strong foundation of our resolve for a self-reliant India**.
 - This economic package is for that labourer of the country, for the farmers of the country who are working day and night for the countrymen in every situation, every season.
 - This economic package is for the **middle class of our country**, which pays taxes honestly and contributes to the development of the country. This economic package is for Indian industries, which are **determined to give a boost to the economic potential of India**.
 - Starting tomorrow, over the next few days, the Finance Minister will give you detailed information about this **economic package inspired by the 'Self-reliant India campaign'**.

Conclusion:

- ❖ The PM reminded citizens that one has to live with corona for some time. "But it is important to ensure that our life does not revolve only around it." PM said people must follow social distancing protocols strictly.

- ❖ India's response has so far been tepid compared to other key nations and thus the catch-up is welcome and is also the need of the hour.
- ❖ PM Narendra Modi sought to turn the **unprecedented coronavirus crisis** into an **opportunity of a lifetime for India**.
- ❖ He underlined **five pillars of a self-reliant India** — **economy, infrastructure, demography, system, and demand**.
- ❖ Besides, the Prime Minister strongly suggested to not only prefer using the local products but also publicise it with pride, in his words, **to become 'vocal for local'**.

4. Public sector assets must be monetised to fund physical, social infrastructure



Context:

- A raging debate is underway in India and indeed in other emerging markets about what the **appropriate fiscal response to COVID-19** should be.
- Monetary policy has moved swiftly and aggressively in many economies but **questions remain on its incremental efficacy**.
- Concerns abound that **highly risk-averse financial systems** will thwart the efficacy of lower rates and higher liquidity.
- So, while monetary policy may have space, how much efficacy will it have? Fiscal policy can have much efficacy. But how much space does it have? Therein lies the debate.

How much will India's debt/GDP jump up this year?

- The debt market plays a significant role in the economy of a country. With the scenario of the COVID-19 situation, the Indian debt market is suffering from shallowness.
- SEBI regulates the corporate debt market and bond markets while RBI regulates the money market and G-Secs.
- The **domestic debt market in India** amounts to about 65% of the GDP while the size of India's corporate bond market is merely 16% of GDP compared with 46% in Malaysia and 73% in South Korea.

- Thus far the **“fiscal space” debate in India** has centred exclusively on this year’s deficit and how it will be financed. How much will the deficit go up? How much can it go up? Who will absorb the extra issuance?
- But a **more holistic assessment of fiscal space** and one that ratings agencies and foreign investors will eventually focus on is the government’s inter-temporal budget constraint and how India’s debt/GDP evolves in the coming years.

Does debt/GDP come down or keep going up in subsequent years?

- In turn, the subsequent trajectory depends **overwhelmingly on medium-term growth**.
- Consider this: Even if this year’s combined fiscal deficit widens by 6 per cent of GDP (but the primary deficit is then consolidated back to 2 per cent of GDP in 3 years) as long as nominal GDP is 10 per cent in the medium term, debt/GDP gets on to a constantly declining path after the third year.
- This suggests a **bigger fiscal intervention is sustainable but only if medium-term growth prospects are lifted in tandem**.
- In contrast, if this year’s **deficit widens by “just” 3 per cent of GDP** but if medium-term nominal GDP growth settles at 8 per cent, debt/GDP rises relentlessly for the next decade towards 90 per cent of GDP.
- This suggests even a **relatively-conservative fiscal response** this year becomes unsustainable if medium-term growth prospects are diminished.
- Small changes in medium-term growth have large implications for fiscal sustainability.

The evolution of debt is essentially a function of three variables:

- The **primary deficit** (fiscal deficit net of interest payments) and
- The relationship between **nominal GDP growth and the government’s cost of borrowing**.
- Central bank will stand ready to take conventional and non-conventional measures when needed, statement given by the RBI.

This step may not be necessary immediately unless the state government **decides to allocate borrowings**.

1. The higher is the difference between growth and cost of borrowing, the greater is the depreciation of the existing debt stock.
 2. High growth allows countries to “grow out” of their debts. In contrast, high primary deficits worsen the debt burden.
- India comes into COVID-19 with a **debt/GDP of about 70 per cent**, a **primary deficit** across the Centre and states of **about 2.5 per cent of GDP** (including the Centre’s extra-budgetary resources) based on the Revised Estimates for 2019-20 a weighted average sovereign borrowing cost of about 7.5 per cent (on the stock of debt) and an estimated pre-COVID nominal GDP growth of 7.5 per cent in 2019-20.
 - In other words, the **favourable gap between growth and borrowing costs had closed**.
 - With this backdrop, one can simulate **what happens to debt/GDP** in the coming years under different growth, fiscal and interest-rate scenarios.

What could these interventions potentially comprise?

- First, policy must **ensure that all viable enterprises can survive the pandemic**.
- If economically-viable but illiquid small and medium enterprises go under, the implications both for unemployment and India’s underlying production capacity could be severe.
- The **government’s credit-guarantee scheme** is, therefore, very important and should hopefully induce banks **to provide much-needed working capital to keep small businesses afloat**.

- It will be equally important, however, to jumpstart a risk-averse financial sector into funding an economic recovery, more broadly.

Reforms in Banking sector:

- **Bond market interventions** (special liquidity and partial guarantee funds) are important to ease conditions at the financial periphery. Over time, however, **liquidity must give way to capital and reform.**
- Pre-emptively recapitalising public sector banks for growth and resolution capital, **conducting an AQR for the NBFC sector** (once the dust settles from the panic), then **converting well-run NBFCs into banks** to avail of a stable deposit franchise, and modifying the incentives under which public sector banks operate will be crucial to strengthening the financial sector.
- ***Higher potential growth is only feasible if the financial sector is able to fund it.***

In Agriculture:

- But real reforms must accompany those in the financial sector. The government's announcement on **unshackling agriculture** if carried through to its logical conclusion is **potentially game-changing for farmers** and will be a **landmark reform for the sector**. But reforms are a process, not an event.

Other reforms that can be implemented: What else can we contemplate?

1. As COVID-19 hastens the **reorganisation of supply-chains within Asia**, India must seize the moment to **integrate into the Asian supply chain.**
2. Why not **revisit a Special Export Zone (SEZ) model** (with the appropriate regulatory environment to avoid the pitfalls of the past) **to help create discrete ecosystems within the country** that enable globally-competitive export production.
3. **Path dependence will be key.** If the first one or two SEZs succeed, it would create a powerful demonstration effect both externally (to help attract more firms into India) and internally (inducing different states to compete to create their own SEZs to drive jobs and investment).

Way Ahead:

- ✓ The main takeaway is How much fiscal space India has to respond in the crisis year will depend crucially on **what potential growth is likely to be in the coming years.**
- ✓ The more that India's policy response can preserve, protect and boost medium-term growth both through the nature of the policy intervention this year and the accompanying reforms the larger the fiscal response India can mount.
- ✓ Put more starkly, the **fiscal debate between "need" and "affordability" is endogenous.** The medium-term sustainability of any fiscal package this year will depend on the nature of growth-enhancing interventions and reforms that accompany it.
- ✓ For the Indian economy to revive and kick start again after the COVID-19, our debt markets have to scale up.

Conclusion:

- ❖ Finally, if the virus has taught the world anything, **it's the criticality of social infrastructure.**
- ❖ India will not be able to fundamentally alter its **growth potential without crucial investments in health and education.**
- ❖ The government's announcement to **boost health spending** is, therefore, very welcome.
- ❖ **Existing assets on the public sector balance sheet** must be aggressively monetised to fund growth-enhancing investments in physical and social infrastructure.
- ❖ This will **simultaneously take the pressure off the fiscal and financial sectors**, and deliver a productivity-enhancing swap on the public sector balance sheet.

- ❖ **Higher potential growth** is the antidote to many pressures, from incomes to jobs to debt sustainability. To the extent this unprecedented crisis **creates political space and capital to reform**, the opportunity must be seized.

5. Why the govt had to inject money into the power sector

Introduction:

- The nationwide lockdown has resulted in peak electricity demand coming down, with commercial and industrial power demand taking a hit after many factories shut down.
- However, household consumption, which accounts for around a quarter of India's power demand, has gone up.
- Energy consumption, especially electricity and refinery products, is usually linked to overall demand in the economy.

DISCOM PERFORMANCE

Financial Parameters	FY16	FY17	FY18	FY19*
Loss (Rs cr)	51,562	38,080	15,132	28,036
AT&C losses (%)	20.81	20.28	18.80	18.19
ACS-ARR gap (Rs/ kWh)	0.60	0.42	0.17	0.27

*Based on provisional/unaudited data entered by states/discoms on UDAY portal; *AT&C and ACS-ARR gap for FY19 based on data submitted by 28 states, P&L data based on submissions by 27 states, rest from Q3FY19 or latest available data on UDAY portal (as on Sept 27); Source: Govt data*

Context:

- Part of the package announced by Finance Minister was a **Rs 90,000-crore liquidity injection into power distribution companies (or DISCOMS)**.
- The move is aimed at helping the DISCOMS clear their dues with GENCOS (or electricity generation companies), who in turn can clear their outstanding dues with suppliers, such as coal miners, easing some of the working capital woes of Coal India Ltd and contract miners.
- This is subject to the condition that the **Centre will act as guarantor for loans given by the state-owned power finance companies** such as PFC and REC Ltd to the DISCOMS.

Economic stimulus: Rs.90,000 crore liquidity injection for fund-starved DISCOMS:

- As part of its strategy to bring India's battered economy back on track, India will **provide Rs.90,000 crore liquidity injection** for the fund-starved electricity distribution companies (DISCOMS).
- This was announced as one of the 15 measures in the first tranche **to combat the economic disruption** from the coronavirus lockdown, that has worsened the already precarious finances of power DISCOMS.
- DISCOMS today are facing unprecedented cash flow problems. This Rs.90,000 crore will help in clearing the outstanding dues of DISCOMS by state owned financial institutions.

Why was this needed?

- The primary trigger is the **poor financial condition and revenue collection abilities** of most state DISCOMS.

- This is despite several interventions, including a **scheme called UDAY** that was launched in 2015 **to fix the problems of a sector** where the upstream side (electricity generation) was drawing investments even as the downstream (distribution) side was leaking like a sieve.

To understand how the Electricity sector works, we have to imagine a three-stage process:

First stage:

- **Electricity is generated** at thermal, hydro or renewable energy power plants, which are operated by either state-owned companies such as NTPC Ltd, NHPC Ltd, or private companies (also called Independent power producers or IPPs) such as Tata Power, Adani Power, or renewable companies such as ReNew Power or Greenko.

Second stage:

1. The generated electricity then moves through a **complex transmission grid system** comprising electricity substations, transformers, and power lines that connect electricity producers and the end-consumers.
2. The transmission segment is **dominated largely by state-owned companies** such as Powergrid Corp, which operate the grid.
3. Similarly, each state has a State Transmission Utility (STU) along with private transmission companies which are responsible for setting up intra-state transmission projects.
4. Companies like Power System Operation Corporation (POSOCO) along with National, Regional and State Dispatch Centres (NLDC, RLDC, SLDC) work in tandem to ensure grid security and balance.
5. The **entire electricity grid** consists of hundreds of thousands of miles of high-voltage power lines and millions of miles of low-voltage power lines with distribution transformers that connect thousands of power plants to millions of electricity customers all across the country.

Third stage:

- This last mile link is where DISCOMS come in, **operated largely by state governments**.
- However, in cities such as Delhi, Mumbai, Ahmedabad, and Kolkata, private entities own the entire distribution business or parts of it.

Why there is a problem?

- DISCOMS essentially **purchase power from generation companies** through power purchase agreements (PPAs), and then **supply it to their consumers** (in their area of distribution).
- The key issue with the power sector currently is the **continuing problem of the poor financial situation of state DISCOMS**.
- This has been **affecting their ability to buy power for supply**, and the ability to invest in **improving the distribution infrastructure**. Consequently, this impacts the quality of electricity that consumers receive.

Effectiveness of the DISCOMS:

- Power Distribution Companies (DISCOMS) responsible for the supply and distribution of energy to the consumers (industry, commercial, agriculture, domestic etc.).
- This sector is the ***weakest link in terms of financial and operational sustainability***.
- DISCOMS essentially purchase power from generation companies through power purchase agreements (PPAs), and then supply it to their consumers (in their area of distribution).
- Due to the **perennial cash collection shortfall**, often due to payment delays from consumers, DISCOMS are unable to make timely payments for their energy purchases from the generators. This **gap/shortfall is met by borrowings (debt), government subsidies**, and possibly, through reduced expenditure.
- This **increases the DISCOMS cost of borrowing (interest)**, which is inevitably borne by the consumer.

There are two fundamental problems here:

1. One, in India, **electricity price for certain segments** such as agriculture and the domestic category (what we use in our homes) is **cross-subsidised** by the industries (factories) and the commercial sector (shops, malls).
 1. This **affects the competitiveness of industry**. While the government has started a process through which the extent of cross-subsidisation is gradually being reduced, this is easier said than done as states do not like to increase tariffs for politically sensitive constituents, such as farmers.
 2. **So, industry continues to cross-subsidise these categories.**
2. Second, there is the **problem of AT&C (aggregate transmission and distribution losses)**, which is a **technical term** that **stands for the gap** between the cost of the electricity that a DISCOMS gets from the generating company, the bills that it raises and the final realisation from the collection process from end-consumers such as you and me.

Conclusion:

- ❖ While there are **regulatory bodies** such as the Regulatory Commissions of the state (SERCs), which are largely responsible for ensuring that **tariff revisions happen regularly** and a DISCOMS recovers the money for the electricity that it supplies to each customer, this has not been that successful on the ground.
- ❖ As a result, the DISCOMS are perennially **short of funds**, even to pay those supplying power to them, resulting in a **cascading impact up the value chain**.
- ❖ DISCOMS must therefore, buy cost-efficient power for consumers, ensure supply reliability with quality by minimising losses/leakages, accurately meter, bill, and collect payments from the consumers, and thereby, enable timely payments to the generators.
- ❖ Measures for **improving viability of distribution companies**, including tariff rationalization and timely release of subsidies along with improved governance were also discussed.

6. How India can become self-reliant



Context:

- Addressing the nation on the COVID-19 pandemic, Prime Minister emphasised the necessity of a self-reliant India.
- He said the need was brought home by the absence of domestic production of personal protective equipment (PPE) when COVID-19 struck, but India initiated and quickly ramped up PPE production.

India opens to globalisation:

1. India opened itself to the **global market in 1991** through its liberalisation, privatisation and globalisation policies, but remained cautious as it skirted around the whirlwind of international capital in the following decades.
2. This hesitant approach of India often led to a **clamour from various vocal quarters for faster and deeper opening of its economy** but its relative insularity from disruptive global headwinds turned out to be helpful several times in the last three decades.
3. The pandemic brought to the fore at once the **limits and inevitability of globalisation**. Countries such as the U.S. that relied on others for the supply of essential medicines and medical equipment were suddenly vulnerable.
4. China's unmatched leverage in global supply chains and concerns that it may weaponize trade have prompted **a renewed global discussion** on the components of national security and how to protect them.
5. At the same time, this pandemic continues to illustrate how inseparably shared is the future of humanity, across national boundaries.
6. PM Mr. Modi understands this **dynamic of global politics** and has sought to advance India's interest within an emerging framework.
7. PM did not repudiate globalisation, but **proposed a new syntax for it a human-centric one**, as opposed to the current profit motivated model, according to him. He placed India at its centre.

Indian Industries need to be globally competitive:

- **Self-reliance** in state-run heavy industries and strategic sectors in the decades following independence had placed India ahead of most developing countries.
- In the 1970s and 80s, however, India did not modernise these industries to climb **higher up the technological ladder**.
- The private sector, which had backed the state-run core sector approach in its Bombay Plan, stayed content with near-monopoly conditions in non-core sectors in a protected market.
- Little effort was made to **modernise light industries or develop contemporary consumer products**.
- India's industrial ecosystem was thus characterised by **low productivity, poor quality and low technology, and was globally uncompetitive**.

India's performance in 3rd Industrial Revolution:

- India completely missed out on the 'third industrial revolution' comprising electronic goods, micro-processors, personal computers, mobile phones and decentralised manufacturing and global value chains during the so-called lost decade(s).
- Today, **India is the world's second largest smartphone market**. However, it does not make any of these phones itself, and manufactures only a small fraction of solar photovoltaic cells and modules currently used, with ambitious future targets.
- At the turn of the millennium, when India embarked on liberalisation, privatisation and globalisation, the very concept of self-reliance was rubbished, in the belief that it was tantamount to reinventing the wheel when advanced technologies could simply be bought from anywhere at lower costs.

Two related ideas have not delivered the desired results:

The first was that **public sector undertakings (PSUs)** are, by definition, inefficient and sluggish for the competitive globalised scenario.

1. No effort was made to engender either real autonomy or a transition to new technological directions. Instead, PSUs with capability and scale for the task were undermined or abandoned, along with many nascent research and development (R&D) efforts (for instance, in photovoltaics, semiconductors and advanced materials).
2. On the other hand, the **private sector displayed little interest** in these heavy industries and showed no appetite for technology upgradation.
3. With entry of foreign corporations, most Indian private companies retreated into technology imports or collaborations.
4. Even today, most R&D in India is conducted by PSUs, and much of the smaller but rising proportion of private sector R&D is by foreign corporations in information technology and biotechnology/pharma.
5. Given the disinclination of most of the private sector towards R&D and high-tech manufacturing, significant government reinvestment in PSUs and R&D is essential for self-reliance.

The second idea was that **inviting foreign direct investment and manufacturing by foreign majors** would bring new technologies into India's industrial ecosystem, obviating the **need for indigenous efforts towards self-reliance**.

1. However, mere setting up of manufacturing facilities in India is **no guarantee of absorption of technologies** (the ability to independently take them to higher levels).
2. There is no evidence from any sector that this has taken place or has even been attempted.
3. The fact is, foreign majors jealously guard commercially significant or strategic technologies in **off-shore manufacturing bases**.
4. The key problem of self-reliance is therefore neither external finance nor domestic off-shore manufacturing, but **resolute indigenous endeavour including R&D**.

Lessons from other Asian countries:

1. Experience and achievements in other countries in Asia attest to this, and also contradict the notion that self-reliance is a hangover from Nehruvian 'socialism'.
2. Learning from Japan's post-war success, countries like South Korea, Taiwan, Singapore and Hong Kong took huge technological and industrial strides in the 1970s and 80s.
3. South Korea, in particular, climbed determinedly up the technology ladder and value chains in electronic goods, consumer durables, automobiles, micro-processors, personal computers and heavy machinery.
4. It emerged as a **global powerhouse in manufacturing**, but also in indigenously developed technologies. Taiwan developed technologies and manufacturing capacities in robotics and micro-processors, while Singapore and Hong Kong adapted advanced technologies in niche areas.
5. These **self-reliant capabilities** were enabled, among other factors, by planned state investments in R&D including basic research (3-5% of GDP), technology and policy support to private corporations, infrastructure and, importantly, education and skill development (4-6% of GDP).
6. Countries like Thailand, Malaysia, Indonesia and Vietnam have focused on off-shore manufacturing lower down the value chain and without the thrust on self-reliance.
7. This is **useful for job creation** but is an unsuitable model for a country of **India's size and aspirations**.
8. China is, of course, **unique in scale and in its determination** to become a superpower not just geopolitically but also in **self-reliant S&T and industrial capability**.
9. China advanced purposefully from low-end mass manufacturing to a dominant role in global supply chains.

10. It has now decided on shifting to advanced manufacturing and has set itself a target of becoming a world leader by 2035 in 5G, supercomputing, Internet of Things, artificial intelligence (AI), autonomous vehicles, biotech/pharma and other technologies of the '**fourth industrial revolution**'.

The way forward for India:

1. Unfortunately, India may well have missed the bus in many of these technologies in which the U.S., Europe and China have established perhaps insurmountable leads.
2. Yet **self-reliant capabilities** in electric and fuel cell vehicles, electricity storage systems, solar cells and modules, aircraft including UAVs, AI, robotics and automation, biotech/pharma and others are well within reach.
3. **Large-scale concerted endeavours** would, however, be required, since self-reliance will not happen by itself.
4. State-funded R&D, including in basic research, by PSUs and research institutions and universities needs to be scaled-up significantly, well above the dismal 1% of GDP currently.
5. **Upgraded and reoriented PSUs** would also be crucial given their distinctive place in the ecosystem.
6. **Private sector delivery-oriented R&D** could also be supported, linked to meaningful participation in manufacturing at appropriate levels of the supply chain.
7. Finally, **India's meagre public expenditure on education** needs to be substantially ramped up (as against current trends of privatisation which would only shrink access), including in skill development.
8. No country has achieved self-reliance **without mass quality public education**. And no country has developed without a much stronger public health system than what we have in India.

Conclusion:

- ❖ Much has changed since the **self-reliance model of the Nehruvian era**, so a perspective for Indian self-reliance in science and technology (S&T) and industry in a globalised world is long overdue.
- ❖ PM Mr. Modi said there needs to be improvement in **quality and domestic supply chains going forward**. If this is to happen though, India will have to make major course changes in development strategies.

7. Contempt for labour: On dilution of labour laws

Context:

- The long-awaited labour law reforms by states may make it easier for factories and businesses to run efficiently amid the coronavirus-led economic crisis, but the **relaxation in rules** may also put **at stake the interest of labourers and workers**, with businesses getting a free hand.
- At a time when everyone is awaiting an early end to the health and economic crisis caused by the global pandemic, the **interests of labourers and workers** are once again set to be sacrificed.
- The revival of business and economic activity after weeks of forced closure is indeed a **key objective to be achieved**.

Granting exemptions from Legal provisions by some states:

- On one hand, the industry sought to assure that the rule changes will let businesses function and thus **generate more employment**; on the other hand, social experts said the move **may further aggravate the crisis** for those who are worst affected.
- Given the unprecedented economic fallout from coronavirus, various industry bodies appreciated the labour law relaxations.

- However, it is a **moral and perverse** on the part of some States to address this **need by granting sweeping exemptions from legal provisions** aimed at protecting labourers and employees in factories, industries and other establishments.

ET GRAPHICS

No Labour Pain

Three big BJP-ruled states – Gujarat, Madhya Pradesh and Uttar Pradesh – announced significant labour reforms allowing businesses to hire and fire, among a host of other measures, to unshackle industry and attract investments. ET examines the labour reforms template of these states, which also seems to be part of efforts to lure companies looking to move out of China.

MADHYA PRADESH	UTTAR PRADESH	GUJARAT	WHAT IT MEANS FOR BUSINESS
1] HIRE & FIRE <ul style="list-style-type: none"> • Establishments with up to 100 workers can hire according to needs • No registration for contractors with 50 labourers 2] THE END OF INSPECTOR RAJ <ul style="list-style-type: none"> • No factory inspection for 3 months • No inspection for firms with less than 50 workers • Third-party inspection allowed 	3] EASIER LICENCES & REGISTRATION <ul style="list-style-type: none"> • Registrations and licences to be issued in a day • Renewal of factory licence once in 10 yrs • Startups need one-time registration; no renewal 4] SHIFT HOURS <ul style="list-style-type: none"> • Raised to 12 hrs from 8 hrs in factories • Overtime of up to 72 hours permitted; flexibility in changing shifts • Shops and establishments can operate from 6am till midnight 	Industry exempted from all labour laws barring the following: <ol style="list-style-type: none"> 1] Building and Other Construction Workers' Act, 1996 2] Workmen Compensation Act, 1923 3] Bonded Labour System (Abolition) Act, 1976 4] A Section of Payment of Wages Act to apply 	New Industrial establishments exempted from all labour laws barring the following: <ol style="list-style-type: none"> 1] Minimum Wages Act 2] Industrial Safety Rules 3] Employees' Compensation Act <ul style="list-style-type: none"> • Ordinance to roll out benefits that will be available for 1,200 days • 100% online approvals within 15 days • 33,000 hectares set aside; land to be allocated in 7 days

INDIA INC PLEASED...

- Says this will provide much-needed flexibility
- There will be competition among states for reforms

The changes will give immense flexibility to industry in labour practices while giving a huge relief to economic activity.

CHANDRAJIT BANERJEE, Director-General, CII

...BUT LABOUR UNIONS UNHAPPY

- Want the Centre to restrain states from introducing such changes
- Say these would be detrimental to workers, give free hand to employers

If govt allows states to amend labour laws, it will affect industrial peace in the country.

SAJI NARAYANAN, President, Bharatiya Mazdoor Sangh

WELCOME CHANGES
➔ SEE EDIT

Ordinance by states to suspend all labour laws:

- Madhya Pradesh has embarked on a plan **to give a boost to business and industry by allowing units** to be operated without many of the requirements of the Factories Act **working hours may extend to 12 hours**, instead of eight, and weekly duty up to 72 hours.
- It appears the **State has used Section 5 of the Act**, which permits exemption from its provisions for three months, in the hope that the Centre would approve such suspension for at least a thousand days.
- However, this exemption can be **given only during a 'public emergency'**, defined in a **limited way as a threat to security** due to war or external aggression.
- Uttar Pradesh has approved an **ordinance suspending for three years all labour laws**, save a few ones relating to the abolition of child and bonded labour, women employees, construction workers and payment of wages, besides compensation to workmen for accidents while on duty.
- Reports suggest that several States are following their example in the name of boosting economic activity.

Labour Regulations in Emerging and Developed Countries:

- Taking into account the features of regulations in India **governing flexibility in labour markets**, we consider below the main features of corresponding regulations in selected emerging (Brazil, China, and South Africa) and developed countries (France, Germany, Japan, Korea and the US).
- On collective bargaining and trade unions we also look at the law and practice in the U.K. and Malaysia, as they provide insights that could be **helpful in resolving the problems that are endemic in India**, such as multiplicity of trade unions, domination of outsiders in trade unions and industrial action being initiated without the support of the majority of workmen.
- The specific aspects we deal with are **collective dismissal** (downsizing or closure of firms for economic reasons), contract workers, fixed term employees, and collective bargaining.

Salient Features of Labour Regulations in India:

- India has a federal government and the Constitution has demarcated law making authority between the centre and the states through the Union list, State List and the Concurrent List.
- Regulation of labour is on the Union List but certain aspects such as industrial disputes and social security also figure on the Concurrent List. As a result, both the Parliament and state legislatures have been enacting labour laws and there is multiplicity of such laws.
- State amendments provide mostly for minor variations, but sometimes for more significant ones, without departing from the main thrust of the central enactment.
- According to the list given in the **Annual Report of the Ministry of Labour and Employment for 2013-14**, there are at **present 44 extant enactments** of the central government.
- In addition, there are some 160 state level enactments containing supplementary provisions.
- A general comment is that the uncertainty caused by complex, overlapping and out-dated laws is influencing 'labour market outcomes' in India.
- In order to eliminate the widely perceived deficiencies in labour regulations, the National Commission on Labour (2002) had recommended the clubbing of the laws into five or more groups relating to industrial relations, wages, social security, safety, welfare and working conditions etc.

The biggest concern: Exploitation of labour:

- Meanwhile, the **new labour law changes are also seen as a bane for the workers** desperately looking for a job to end their financial nightmare.
- Instead of providing protections to the **most marginalised and vulnerable**, as exposed by the covid crisis, and thus an **opportunity to rectify the fractured economic system**, these moves will further exacerbate the crisis for those who are worst affected by it.
- It goes **against the grain of transformative reforms**, which is the need of the hour, in an effort to build back better and it rings the government's mantra of 'sabka Saath, sabka vikas' hollow.

Labour reforms must also be takes into consideration:

- Labour reform is a **tedious process** but once implemented, it will be beneficial for industries and **ultimately help in job creation**.
- As a country with sizable youth population, we should strive to create a conducive atmosphere for industries for better employment generation. The labour reforms including the code on occupational safety will reduce hassles and paper works for industries, and in a way improve productivity.
- The reforms will give the **required push for simpler labour laws**, and help in economic growth. It needs to come into force faster for a developing economy like ours.

Conclusion:

- ❖ Changes in the manner in which **labour laws operate in a State may require the Centre's assent**.
- ❖ One hopes the Centre, which is pursuing a labour reform agenda through consolidated codes for wages, industrial relations and occupational safety, health and working conditions, would **not readily agree to wholesale exemptions** from legal safeguards and protections the law now affords to workers.
- ❖ The most egregious aspect of the country's response to the pandemic was its inability to protect the **most vulnerable sections** and its vast underclass of labourers from its impact.
- ❖ The emphasis in the initial phase was on dealing with the health crisis, even when the **consequence was the creation of an economic crisis**.
- ❖ While the country watches with horror the **continuance of the collective misery of migrant workers well into the third spell of the national lockdown**, the attitude of the ruling class towards labour remains one of utter apathy, bordering on contempt.

8. Working safely: On workplaces during the pandemic

Context:

- **Opening up economic production** from a lockdown, even partially, when the COVID-19 pandemic has not peaked in the country poses an **extraordinary challenge**.
- Countries around the world are focusing on making the workplace safe, and issuing guidelines to help workers return to their jobs.
- Reducing the number of people present at any given time is a universal principle, either through resort to shifts, or arrangements to enable employees to work from home.
- The Union Health Ministry has addressed the issue through a **manual of preventive measures** that covers all types of workplaces and depends heavily on behavioural change, with some additional requirements for confined spaces such as offices.

OFFICE GUIDELINES		
High-risk contact <ul style="list-style-type: none">■ Touched body fluids of the patient (respiratory tract secretions, blood, vomit, saliva, urine, faeces; e.g. being coughed on, touching used paper tissues with bare hands)■ Had direct physical contact with the body of the patient including physical examination without PPE■ Touched or cleaned the linens, clothes, or dishes of the patient. Lives in the same household as the patient.■ Anyone in close proximity (within 1 meter) of the confirmed case without precautions.■ Passengers in close proximity (within 1 metre) for more than 6 hours in a	<p>conveyance with a symptomatic person who later tested positive for Covid-19</p> Low-risk contact <ul style="list-style-type: none">■ Shared the same space (worked in same room/ similar) but not having a high-risk exposure to confirmed case of Covid-19■ Travelled in same environment (bus/train/flight/ any mode of transit) but not having a high-risk exposure DENTAL GUIDELINES Emergency procedures <ul style="list-style-type: none">■ Uncontrolled bleeding of dental origin■ Severe uncontrolled dental pain, not responding to routine measures■ Trauma involving the face	<p>or facial bones</p> <ul style="list-style-type: none">■ Urgent procedures■ Dental pain of pulpal origin not controlled by advice, analgesics, antibiotics■ Acute dental abscess of pulpal/periodontal/ endoperio origin■ Vertical split of teeth■ Completion of ongoing root canal treatment■ Broken restoration/fixed prosthesis causing sensitivity of vital teeth/ endangering to pulpitis■ Unavoidable dental extractions/post-extraction complications■ Already prepared teeth/implant abutments to receive crowns

Health Ministry issues new guidelines for workplaces:

1. The Ministry directed that anyone diagnosed as a suspected/confirmed case of COVID-19 should **immediately inform the office authorities and isolate themselves**.
2. Any staff requesting **home quarantine based on the containment zone activities** in their residential areas should be permitted to work from home.
3. Also, any staff reportedly suffering from flu-like illness should not attend office and seek medical advice from the local health authorities.

4. The guidelines have been issued following a **revision of the testing pattern** where, in addition to earlier criteria, the strategy has been widened to include front line workers involved in **containment and mitigation of COVID-19**, all hospitalised patients who develop Influenza Like Illness (ILI) symptoms and all symptomatic ILI among returnees and migrants within 7 days of illness.
5. Fortunately, the first line of defence against the novel coronavirus is a set of simple measures that **involves little expenditure**: physical distancing of at least one metre, mandatory use of face masks or cover, frequent hand washing with soap, respiratory etiquette, sanitising contact surfaces and self-monitoring of health.
6. These requirements have by now become familiar to everyone, and employees need only be nudged into adopting them through persistent communication, free provisioning of masks and sanitising materials, and organising office space suitably.
7. **Physical distancing of even one metre**, if not the 'do gaz' or six feet that Prime Minister Narendra Modi advocated, does pose difficulties because of the lack of space and density of workers in many places.
8. But employers should see the **value of keeping staff attendance at safe levels** even within the legally permitted ceiling, which now extends to 50% in specified sectors and even in some government offices.
9. **Failure to maintain distancing**, more so in a poorly-ventilated, closed environment, gives the virus a free run, *as Chennai's wholesale vegetable market showed starkly.*

What happens when someone in the office tests positive?

- In case one or a few persons who share a room or a closed space are found to be suffering from symptoms suggestive of COVID-19, the following **measures are recommended**:
- Place the ill person in a room or area where they are **isolated from others** at the workplace. **Provide a mask/face cover** till such time he/she is examined by a doctor.
- Report to concerned central/state health authorities. Helpline 1075 will be immediately informed.
- A **risk assessment** will be undertaken **by the designated public health authority** (district RRT/treating physician) and accordingly further advice shall be made regarding the management of a case, his/her contacts and need for disinfection.
- The suspect case if reporting **very mild/mild symptoms on an assessment** by the health authorities would be placed under home isolation, subject to fulfilment of certain criteria.

Closure of workplace:

- If one or two cases are reported in the office, places visited by the patient over the last 48 hours will be disinfected.
- Work will be resumed after disinfection. In case of a large outbreak, the building will be sealed for 48 hours after disinfection, while **the staff will work from home until the building is declared fit for occupation.**
- The Health Ministry also said that ***no decision has been taken as yet to replace hydroxychloroquine (HCQ)***, introduced as a game-changer to arrest the spread of COVID-19, as a prophylactic, with HIV combination drugs, after reports of experts demanding that it be dropped from the safety guideline list of drugs prescribed for high-risk persons, including healthcare workers.
- With experts questioning the effectiveness of HCQ, a senior health official said the drug was under review **"but no decision has been taken to drop it just yet"**.
- Since the COVID-19 situation was a dynamic one and now with the lockdown being relaxed, a relook was being done by the Indian Council of Medical Research (ICMR).

Conclusion:

- The Centre's protocol for symptomatic cases at the workplace, requiring testing, and, where warranted, quarantining of both the worker and close contacts, and a two-day closure of offices experiencing an outbreak, should underscore to employers the importance of prevention.
- **Responsibility**, however, does not devolve entirely on offices and establishments, and it is imperative for other activities, such as public transport used by many workers, to meet COVID-19 requirements.
- Some institutions are **mandating installation of the Aarogya Setu app** by employees returning to work, when the **legal basis of this monitoring mechanism remains shaky** and there are no assured benefits in terms of health care.
- At this stage of the pandemic, when a **gradual resumption of economic activity** in multiple sectors ranging from construction to food takeaways is a necessity, the most feasible interventions at the workplace are voluntary and those that cost the least.
- There may still be occasion **to resort to intermittent lockdowns** if opening up leads to mounting cases.
- A prudent course would be to navigate the **present with a minimalist approach**, as the quest for a medical breakthrough makes progress.

9. MGNREGA work demand at five-year high, shows stress in informal sector

Context:

- The monthly demand for **rural jobs** under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has touched a **new high at 3.95 crore** until May 20, with analysts saying it will **most likely cross 4 crores** by the end of the month.
- This is significantly higher than the month-wise demand this year, which was 2.48 crore in January, 2.92 crore in February, 2.70 crores in March and 1.77 crore in April, according to the Ministry of Rural Development data.
- It is also much more than the monthly average demand of 2.3 crores in 2019-20. The spike in May this year is indicative of the **huge job losses all around, particularly in the informal sector**, where lakhs of workers have suddenly become unemployed owing to the lockdown.

Kickstarting rural demand

The government aims to revise wages of MGNREGA workers to address the slowdown in the rural economy



- MGNREGA wages will be linked to an updated inflation index
- Higher wages will increase MGNREGA expenditure by 10%
- They may also increase purchasing power and revive rural demand
- MGNREGA budgetary allocation for FY20: **₹60,000 crore**
- Funds released till Sept. 17: **₹46,486 cr.**
- Additional funds requested: **₹15,000-20,000 crore**

Reverse Migration during Lockdown period:

- A significant part of this workforce has **reverse migrated from cities to rural areas**. In order to address this migrant crisis, the government has allocated an additional fund of **Rs 40,000 crore for MGNREGA**, as part of the stimulus package under **Atma Nirbhar Bharat Abhiyan**.
- With nearly **eight crore migrant workers returning to their villages** and an additional allocation of funds could be a moment for the true revival of MGNREGA.
- However, in order to utilise the true potential of this scheme, there is a need to address the underlying challenges of MGNREGA.

About Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):

- MGNREGA is a **social security measure** that aims to **guarantee the 'right to work'**.
- It aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.
- MGNREGA has been a **critical source of income for female-headed households**. A major proportion of the beneficiaries much higher than their percentage in the general population belong to SC/ST and other marginalized communities.
- The scheme has **boosted agricultural productivity** through development of wasteland/fallow land, and construction of post-harvest storage facilities and work sheds.
- MGNREGA works have contributed to **improved ground water levels**, and increased availability of drinking water for humans and livestock.

When industries cease to function, where will the workers go?

- The high number of people seeking work under the MGNREGA is **due to desperation**.
- Most of these workers have gone home and have no work hence they are seeking jobs under the scheme.
- An analysis of the data shows there is a **spike in demand for MGNREGA jobs** in May-June when the **sowing season for kharif crops** is set into motion.
- The data also shows that states which have seen **reverse migration of workers** have seen a sharp rise, most significantly in Uttar Pradesh. The total number of applications in UP was 17.4 lakh in March and 12.7 lakh in April. This jumped to 49.3 lakh until May 20.
- The increasing demand for MGNREGA jobs only seems to confirm what many organisations have projected about **unemployment**.
- According to the **Centre for Monitoring Indian Economy**, rural unemployment rose from 8.49% in March to 22.67% on April 29.

Measures for Revival of MGNREGA:

1. MGNREGA should be converged with other schemes of the government. For example, Green India initiative, Swachh Bharat Abhiyan etc.
2. There has been a delay in the completion of works under MGNREGA and inspection of projects **has been irregular**. Also, there is an **issue of quality of work and asset creation under MGNREGA**.
3. After the additional Rs 40000 crore allocated, the budget for 2020-21 is now above Rs 100k crore.
4. This is the highest allocation for MGNREGA in any year since the passage of the law. However, the allocation, which amounts to **47 % of the GDP** continues to be much lower than the **World Bank recommendations of 1.7 % for the optimal functioning of the program**.
5. There is a need to **strengthen the demand-driven aspects of MGNREGA** through a focus on local level social audits, funding and tracking of outcomes.
6. State governments must ensure that public work gets started in every village. Workers turning up at the worksite should be provided work immediately, without much delay.
7. **Local bodies must proactively** reach out to returned and quarantined migrant workers and help those in need to get job cards.
8. In order to **improve transparency and the accountability of Sarpanchs**, it is recommended that MGNREGA projects be tracked right down to the village-level and not just the Gram Panchayat level as is the practice now.
9. **Social Auditing creates accountability of performance**, especially towards immediate stakeholders. Hence, there is a need to create awareness regarding government policies and measures in rural areas.

Conclusion:

- ❖ Residents and people reached back to their places also demand the **simplification of the procedure of application for job cards** which are necessary to find work under the scheme and also suggest the **emulation of an urban employment guarantee programme** based on MGNREGA.
- ❖ Along with this, the letter also demands that **dry rations be provided** in addition to **full minimum wages** in cash for the next three months.
- ❖ Also, those who are not permitted to work due to the existing medical advisory should be paid full wages till they are allowed to resume work.
- ❖ MGNREGA is a bottom-up, people-centred, demand-driven, self-selecting and rights-based programme.
- ❖ Thus, MGNREGA remains crucial for **integrated resource management and livelihoods generation perspective**.

10. 'One nation, one ration card' scheme: 5 more states join the initiative

Context:

- Previously it was announced that all other States/UTs having attained requisite readiness for inter-State portability, shall be integrated in a phased manner.
- Thereby, **enabling nation-wide portability of ration card holders** to receive **subsidized food grains under NFSA** from anywhere in the country by 1st June 2020.
- The Union Minister said that this initiative shall be very helpful for the large migratory population of the country who migrate from one part of the country to other in search of job/employment, marriage, or any other reason and find difficulty in accessing subsidized food grains in the present system.
- **Five more states**, including Bihar and Uttar Pradesh, have been integrated with the **'one nation, one ration card' scheme**.
- 5 more states — Bihar, UP, Punjab, Himachal Pradesh and Daman and Diu — have been integrated with One Nation-One Ration Card System.
- However, the **migration of the poor from rural areas to urban locations** is more commonplace.
- Thus, **geographical location is one of the hindrances** that migrant workers face in order to claim their quote of grains and subsequently get denied their right to food.
- To address the grim state of food security in the country and combat the problem of hunger, the government has started the **'One Nation, One Ration Card' facility**.

Easy access

Under the 'One nation, one ration card' system, beneficiaries can buy subsidised foodgrains from a ration shop in any part of the country

Ration card-Aadhaar linkage must to access the portability scheme

The scheme will be rolled out across the country on: July 1, 2020



A migrant will be allowed to buy a maximum of 50% of the family quota. This is to ensure that the individual, after shifting to another place, does not buy the entire family quota in one go

States providing portability of PDS entitlements:

- Andhra Pradesh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Rajasthan, Telangana and Tripura
- A person will only be eligible for the subsidies supported by the Centre, which include rice sold at ₹3/kg and wheat at ₹2/kg
- Even if a beneficiary moves to a State where grains are given for free, he/she will not be able to access those benefits

About 'one nation, one ration card' scheme:

- Under 'one nation, one ration card' system, the **migratory ration cardholders** will be able to get food grains from any Fair Price Shops (FPS) in the **integrated 17 states & UT's**.
- They will be entitled to the **subsidized food grains** by using their existing ration cards issued in their own states or UT's.
- It will certainly help the migrant workers who have not been able to reach their hometown and have been stuck in different states at the time of the lockdown.
- ONORC will be particularly beneficial for **women and other disadvantaged groups**, given how social identity (caste, class and gender) and other contextual factors (including power relations) provide a strong backdrop in accessing PDS.

Standard format of 'one nation, one ration card':

1. A standard format for ration card has been prepared after taking into account the format used by different states.
2. For national portability, the state governments have been asked **to issue the ration card in bi-lingual format**, wherein besides the local language, the other language could be Hindi or English.
3. The states have also been told to **have a 10-digit standard ration card number**, wherein first two digits will be state code and the next two digits will be running ration card numbers.
4. Besides this, a set of another two digits will be appended with ration card number **to create unique member IDs** for each member of the household in a ration card.
5. Andhra Pradesh, Telangana, Gujarat, Maharashtra, Haryana, Rajasthan, Karnataka, Kerala, Madhya Pradesh, Goa, Jharkhand and Tripura are 12 states where ration card portability has been implemented.

One nation, one ration card: It will give a cushion to migrant workers:

1. Recently the Supreme Court (SC), asked the Union government to examine the **feasibility of implementing the "one nation one ration card" (ONORC) scheme** during the **national lockdown**.
2. The scheme, which allows beneficiaries **to access food grains** that they are entitled to under the National Food Security Act, 2013, **from any fair-price shop in the country**, was announced last June.
3. The SC's nudge to expedite the ONORC is critical. **Millions of out-of-work migrant workers are stuck in host cities due to the lockdown**.
4. Many have run out of money to buy food and don't have a proof of identity like ration cards to access subsidised food grains via the well-stocked public distribution system (PDS).
5. States where they are stuck prefer **offering relief to their own residents first**, and cite the lack of identity documents to deny benefits.
6. And among those states which have **opened community kitchens** for out-of-job migrant workers, there have been complaints of the quantity, quality and type of food.
7. Some feel that the ONORC scheme will not be of much help during the present crisis since many migrant workers have left their PDS cards in their villages.
8. Instead, the Union government must **expand the well-stocked PDS system to cover all individuals**, irrespective of whether they have a ration card or not, for at least six months.

Issues that need to be resolved are:

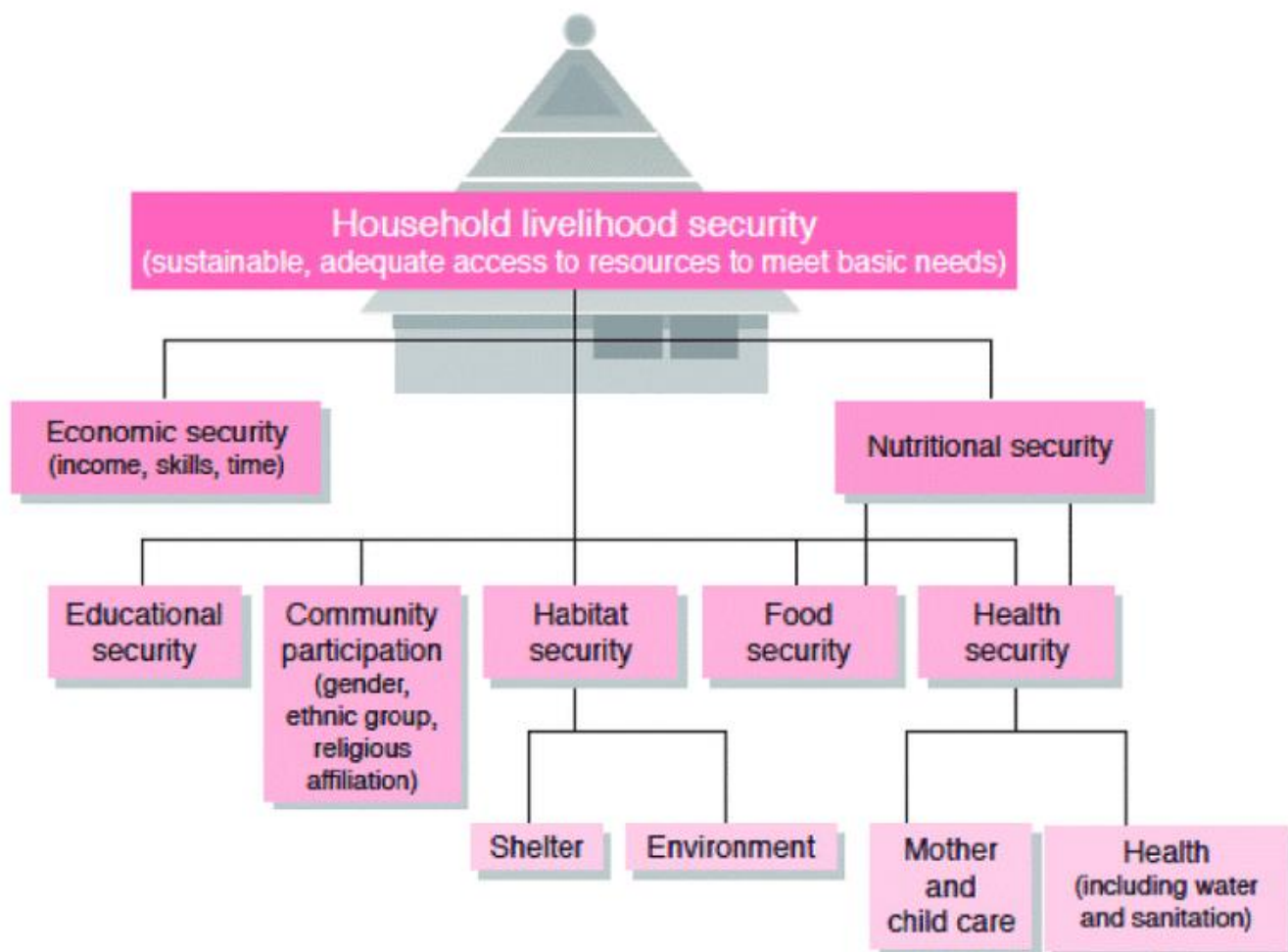
- The digitisation of this PDS process, through **Aadhaar-linked ration cards and smart cards**, has been pushed in an effort to reduce leakages. However, there has been a rise of exclusion errors in post-Aadhaar seeding.
- There are many **sections of society who still don't have Aadhar Card**, thereby depriving them of food security.

- The **fears of exclusion** are also **applied for migrant workers**, as the ***fingerprints of people engaged in construction labour and domestic work*** may change or fade and may not match with the ones entered in Aadhar.
- There is **no exact data on the mobility** of poor households migrating to work, locating intra- and inter-state destinations and sectors employing the workers.

Conclusion:

- ❖ The current migrant crisis should be seen as an **opportunity to develop a national migration policy** addressing the challenges faced by migrant workers **productivity, living conditions and social security**.
- ❖ While this must be done, the government must also **fast-track the ONORC scheme** because India's present rights-based regime is based on the assumption that people are sedentary.
- ❖ This is not true given the **high rates of inter- and intra-state migration**. Without any safety net, migrants depend either on their employers or labour contractors for food provisions or purchase food in the open market.
- ❖ This increases their cost of living and reduces the additional earnings they might hope to remit to their families. During the lockdown, the crisis has become even more acute.
- ❖ But even after the coronavirus pandemic is over, this will be useful. **Migration is bound to restart because of unemployment**.
- ❖ When migrant workers again start boarding trains and buses for the destination cities, they must have their **PDS cards that are valid across India with them**.

11. It's about food, nutrition and livelihood security



Introduction:

- The current national lockdown to tackle the COVID-19 pandemic has highlighted the **problems of food, nutrition and livelihood security** confronting a large number of rural people, in particular, **migrants to cities**.
- While some measures have been announced, such as provision of additional rice or wheat, some pulses and oil free of cost, as well as Rs.1,000 cash for the purchase of other essential commodities through the **Public Distribution System (PDS)**.
- However, we need to understand the **different dimensions of food security** in a holistic manner in order **to address this problem in its totality**.

Different dimensions of Food Security:

The first is the availability of food in the market:

1. This is seen as a **function of production**. Fortunately, thanks to the Green Revolution, today we have **enough food in the market** and in government go-downs.
2. This is a **great accomplishment** by Indian farmers who converted a “ship to mouth” situation to a “**right to food**” commitment.
3. Yet we cannot take farmers’ contributions in terms of **sustaining production for granted**.
4. While some **special exemptions** have been given to the agricultural sector, farmers are confronted at the moment with labour shortages, many of the inputs, including seeds, are expensive or unavailable, marketing arrangements including supply chains are not fully functional, pricing is not remunerative, and public procurement is also not adequate.
5. There is **no room for complacency**, as in the absence of demand, the lack of storage or value addition facilities, especially for **perishable commodities**, we do not yet know exactly what the impact of the current pandemic will be **on the kharif sowing and food availability in the future**.

Second dimension of Food Security: Widen the food basket:

1. The second dimension is the **access to food**, which is a function of purchasing power, as unless you are a farmer and grow your own food, others have to buy it.
2. Fortunately, the government, through the National Food Security Act (NFSA) and the PDS, has assured **some additional food to every individual** during this crisis.
3. This should be further **strengthened** and the **food basket widened** by including millets, pulses and oil.
4. Steps should also be taken **to avoid hidden hunger** caused by the deficiency of micronutrients in the diet.
5. In light of the closure of schools and anganwadi centres, and the consequent disruptions in the **provision of midday meals or other nutritional inputs**, it is important to pay attention to the **life cycle approach** advocated in the NFSA, particularly the first thousand days in a child’s life, when the cognitive abilities of the child are shaped.
6. We may otherwise see negative effects on nutritional security in the medium to longer term.

If Job security is threatened, then so is Food and Nutrition Security:

1. Food security and access to nutritious, good quality food is also contingent on job security.
2. Today, a lot of people employed both on farms and in the non-farm sector are without jobs.
3. We have to ensure people do not lose their jobs, and one way of doing this will be to **ensure value addition to primary products**.
4. One example of such value addition is the **Rice Biopark in Myanmar**, wherein the straw, bran, and the entire biomass are utilised.
5. This would of course mean some attention to and investment in new technologies that can contribute to biomass utilisation.
6. **The Amul model** provides a good example from the dairy sector of improved incomes to milk producers through value addition.

7. Similar attention needs to be given to the **horticulture sector on a priority**
8. **Women farmers** are at the forefront of horticulture and special attention needs to be given to both their technological and economic empowerment during this crisis.

Work under MGNREGA: way of Job Security:

- A second pathway to livelihood security for small and marginal farmers and landless households, and women within them, is strengthening the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).
- The definition of a worker in MGNREGA has so far been **applied only to unskilled, manual work**, and not to skilled jobs in agriculture and allied activities.
- Given the lack of jobs and incomes during the COVID-19 crisis, it is imperative to **expand the definition of work in MGNREGA** to cover skilled work related to farmers and their farming activities.
- This is particularly **important for women farmers and workers**, who should not just be given tasks of carrying stones or digging mud.
- Apart from farming, they **engage in a range of essential care tasks**, including caring for children, the elderly and sick people.
- These tasks, often invisible, **need to be recognised as work** and supported with appropriate education, including on nutrition.

Third dimension of Food Security: Focus on non-food factors

1. The third dimension of food security is **absorption of food** in the body or its utilisation, which is dependent importantly on **sanitation, drinking water and other non-food factors**, including public health services.
2. Ensuring that these services are functional depends on the capacities of the local panchayats and their coordination with other local bodies.
3. The **lack of adequate clean water** in particular has come to the fore in both rural areas and urban slums in the context of COVID-19, where one of the key measures for **stopping transmission** relates to frequent hand-washing.

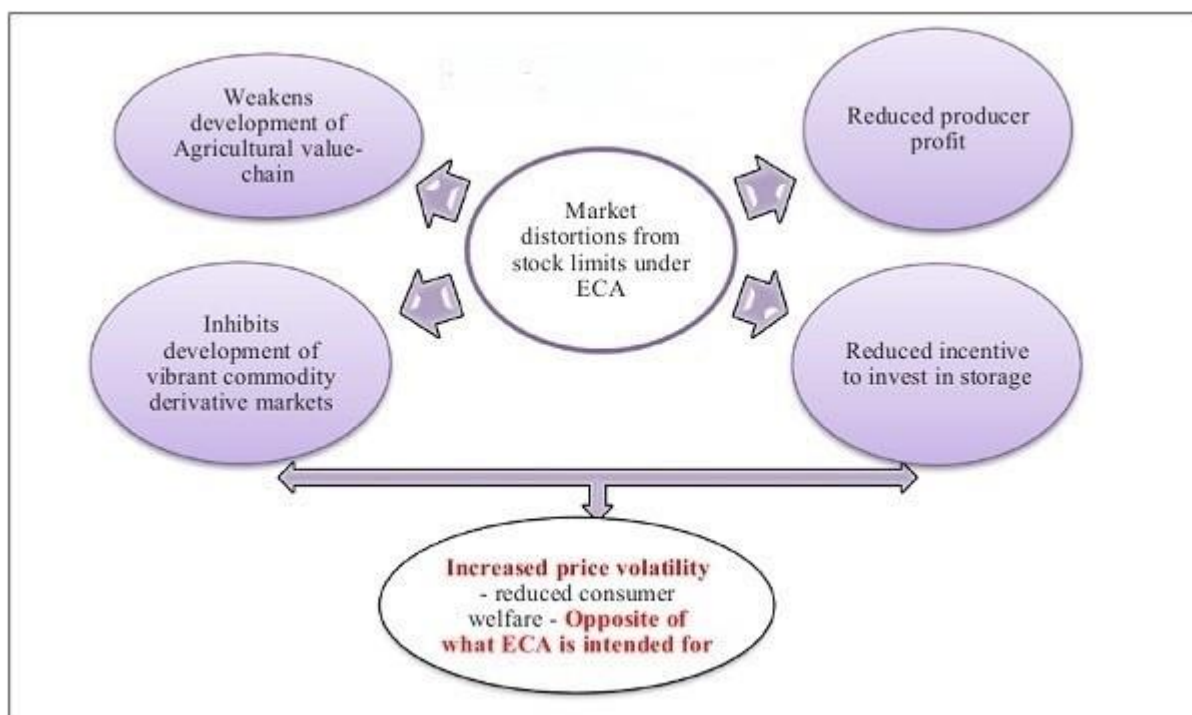
Conclusion:

- India avoided what could have been a big famine in the 1960s through the **help of technology and public policy**, which actively worked with and supported farmers to achieve significant increases in yield. Today's problems are not as daunting.
- All the above dimensions are, however, now threatened by the novel coronavirus, as discussed earlier.
- If we can **ensure food availability, food access and food absorption**, then we have a **fairly robust system of food and nutrition security**.
- It is very critical to highlight the **linkages between agriculture, nutrition and health**.
- While the PDS may be able to meet calorie needs, the inability to harvest, transport and market perishable fruits and vegetables at remunerative prices during the current crisis, has not just deprived farmers of incomes and livelihoods, but consumers too are **deprived of micronutrients in their diets**.
- Farmers making losses, and agriculture moving from being job-led to jobless, raise questions about the sustainability of the production cycle.
- At the same time, this can have **long-term consequences on nutrition and health security**.
- Through a **combination of farmers' cooperation, technological upgrading and favourable public policies** in procurement, pricing and distribution, we can deal with the fallouts of the pandemic.
- We hope that **this pandemic will help recognise the contribution of our farmers**.

12. Agriculture needs 1991-like reforms push

Context:

- The spirit of Finance Minister **package for farmers**, the reforms can go a long way in **building efficient value chains and ensuring better returns for farmers**.
- The consumers will also be ensured better products without burdening their pockets.



Agriculture sector in India:

- In a sense, the country is facing its **1991-moment in the farm sector** where problems of unprecedented proportions, across various states, have suddenly telescoped into one another, leading to unrest among cultivators and knee-jerk responses by frantic state governments.
- All stakeholders realise that solutions being worked out are at best patchworks which will come apart again, piling up miseries of a segment of the economy, whose share of the GDP has been progressively coming down even as the number of people dependent on it for a livelihood has only swelled.
- As suppliers of credit, the first issue that bankers now have to deal with is the intrinsic viability of agriculture as a vocation, given the present state of its art.
- At current costs of cultivation and prices, agriculture has lost much of its sheen and looks jaded.

Agriculture Package in Covid-19:

- The finance minister's package had 11 major points, of which eight pertain to miscellaneous items, ranging from Rs one lakh crore for building agriculture infrastructure to Rs 500 crore for beekeeping and another Rs 500 crore for tomatoes, onions, potatoes, and other fruits and vegetables.
- These are **steps in the right direction**, but we do not have details on how they will be implemented.
- Most schemes of this government including the **project to double farmers' incomes by 2022** and the programme **to complete 99 irrigation projects by 2019** have had a success rate of less than 50 per cent.

The Essential Commodities Act (ECA), 1955:

- The ECA was enacted way back in 1955. It has since been used by the Government **to regulate the production, supply and distribution of a whole host of commodities** it declares 'essential' in order to make them available to consumers at fair prices.
- The list of items under the Act include drugs, fertilisers, pulses and edible oils, and petroleum and petroleum products.
- The Centre can include new commodities as and when the need arises, and take them off the list once the situation improves.

The ECA gives consumers protection against irrational spikes in prices of essential commodities.

- The Government has invoked the Act umpteen times to ensure adequate supplies. It cracks down on hoarders and black-marketeers of such commodities.
- But there is another side to the story. Given that almost all crops are seasonal, ensuring round-the-clock supply requires adequate build-up of stocks during the season.

Reforms relate to amending the Essential Commodities Act (ECA), 1955:

- They relate to **amending the Essential Commodities Act (ECA) of 1955**, bringing a Central legislation to allow farmers **to sell their produce to anyone, outside the APMC mandi yard**, and having **barrier-free inter-state trade**, and creating a legal framework for contract farming the buyer can assure a price to the farmer at the time of sowing.

First, the ECA of 1955 has its roots in the Defence of India Rules of 1943, when India was **ravaged by famine** and was **facing the effects of World War II**. It was a scarcity-era legislation.

1. By the mid-1960s, hit by back-to-back droughts, India had to fall back on PL480 imports of wheat from the US and the country was **labeled as a "ship to mouth" economy**.
2. Today, **India is the largest exporter of rice in the world** and the **second-largest producer of both wheat and rice, after China**.
3. **Our granaries are overflowing:**
 - But our legal framework is of the 1950s, which discourages private sector investment in storage, as the **ECA can put stock limits on any trader**, processor or exporter at the drop of a hat.
4. As a result, the **country lacks storage facilities**. When farmers bring their produce to the market after the harvest, there is often a glut, and prices plummet. All this hurts the farmer. In the lean season, prices start flaring up for the consumers.
 - So, both lose out because of the **lack of storage facilities**.
5. The amendment announced, if implemented in the right spirit, will remove this roadblock and help both farmers and consumers while bringing in relative price stability.
6. It will also **prevent wastage of agri-produce that happens due to lack of storage facilities**.

Second, the **proposed Central law to allow farmers to sell to anyone outside the APMC yard** will bring **greater competition** amongst buyers, lower the mandi fee and the commission for **arhatiyas** (commission agents) and reduce other cesses that many state governments have been imposing on APMC markets.

1. Our farmers suffer more in marketing their produce than during the production process.
2. APMC markets have become monopsonistic with high intermediation costs. The proposed law will open more choices for the farmers and help them in getting better prices. So their incomes should improve.
3. By removing barriers in inter-state trade and facilitating the movement of agri-goods, the law could lead to better spatial integration of prices.
4. This will help farmers of regions with surplus produce to get better prices and consumers of regions with shortages, lower prices. India will have one common market for agri-produce, finally.

Third, the **legal environment for contract farming**, with the assurance of a price to the farmers at the time of sowing, will help them take cropping decisions based on forward prices.

1. Normally, our farmers look back at last year's prices and take sowing decisions accordingly. The new system will minimise their market risks.
2. However, one must bring in some supplementary notes for optimal results. Big buyers like processors, exporters, and organised retailers going to individual farmers is not a very efficient proposition.
3. They need to create a scale, and for that, **building farmer producer organisations (FPOs), based on local commodity interests**, is a must.
4. This will help ensure uniform quality, lower transaction costs, and also improve the bargaining power of farmers vis-à-vis large buyers.
5. NABARD has to **ensure that all FPOs get their working capital at 7 per cent interest rate**, a rate that the farmers pay on their crop loans.
6. Currently most of them depend on microfinance institutions and **get loans at 18-22 per cent interest rates**. This makes the entire business high-cost.
7. One needs to understand how much is the **"extra burden" inflicted by the price increase on the food budget of a household**.

Conclusion:

- ❖ The government has surely shown a **willingness to walk the right path and deserves compliments**.
- ❖ Agriculture being a **state subject**, hinders the materialisation of these reforms on the ground. Therefore, in order to make India's farmer truly Atmanirbar (self-reliant), there is a need to follow the **ethos of cooperative federalism**.
- ❖ The reforms, announced could be a harbinger of major change in agri-marketing, a **1991 moment of economic reforms for agriculture**. But before one celebrates it, let us wait for the fine print to come.

13. Understanding zoonotic diseases: How viruses break the nature-human divide

Introduction:

- In the first 20 years of the 21st century, the world has seen outbreaks of avian influenza, Ebola virus disease, Zika virus disease, Nipah virus disease, Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Disease (MERS) and now, the novel coronavirus disease (COVID-19).
- Of these, three — SARS, MERS and COVID-19 are all **caused by beta coronaviruses** of the coronavirus family. Despite the phylogenetic similarity among the viruses, all three have created very different outcomes.

Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Disease (MERS):

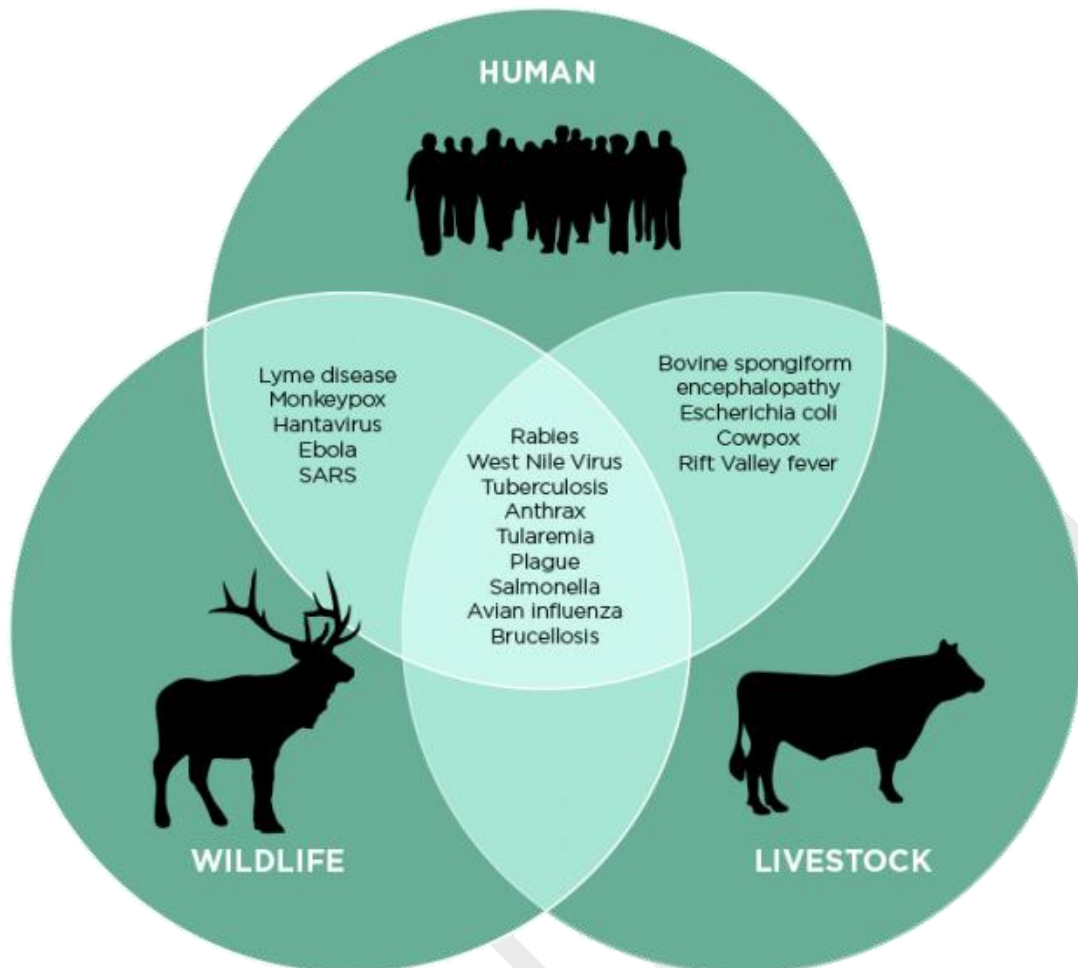
- Between 2002-03, **SARS caused by SARS CoV virus** infected 8,422 people and killed 914. The **MERS outbreak caused by MERS CoV virus** which came a decade later, infected 1,791 and killed 640 people between 2012 and 2016.
- The SARS-CoV-2 virus, in comparison, is much **more contagious**, with over 3 million cases in five months, but is less deadly with a mortality rate of 2-5 per cent as compared to SARS (9.5 per cent) and MERS (34 per cent).
- In fact, experts say SARS-CoV-2 is more contagious because it is less deadly.
- But one thing is common among all these diseases: **They are all caused by zoonotic viruses that made the jump to humans**.

Various contact routes for disease transmission are possible:

1. Direct contact with an animal's bodily fluids (e.g. saliva, faeces and blood), via, for example:
 1. Touching an infected animal's skin;
 2. Being bitten by an infected animal.
2. Indirect contact within areas where infected animals live and roam, including:
 1. Breathing in dust particles and small droplets of saliva;
 2. Consuming contaminated food products;
 3. Contact with contaminated water, soil, objects or clothing.
3. **Disease vectors:** organisms that transmit infectious disease between animals, and between animals and humans. These are typically insects that feed on the blood of humans and animals, and in so doing, transmit pathogens between them.
4. **Direct contact and food consumption** are the most common modes of transmission for diseases associated with food systems. **Airborne transmission of viruses** are also common routes for infection.
5. The **risk of transmission to humans is higher** for those with high level of **occupational exposure to livestock and livestock products**, such as those working with livestock, in abattoirs, and in the meat processing industry.
6. While the type of contact is what **directly enables disease transmission** to take place in each case, many other factors may promote or reduce the likelihood that a contact event occurs (i.e. degree of exposure to an infection), and that if it does, this then leads to a human infection (i.e. degree of susceptibility to infection).
7. These include natural and human induced changes in ecosystems, changes in food and agriculture systems, and changes in human living environments and consumption practices.

Sylvatic cycle / Enzootic cycle: How and When Viruses mutate to effect our immune system?

1. Viruses are everywhere and exposure to them is always there. But only a few are able **to mutate and infect us**.
2. In most cases, either the virus hasn't evolved enough to infect or the immune system recognises it and protects us against it.
3. The infections did not usually happen in the first exposure. **Prolonged exposure or a long period of incubation was required for that.**
4. For any infectious disease, be it an emerging or an established one, there are **three major requirements**, often referred to as **epidemiological triad**:
5. The causative agent, the host and an environment in which the host and agent are brought together.
6. In case of most of the recent spill-over events, the causative viruses or their precursor strains already existed in the system through the "**sylvatic cycle / enzootic cycle**", a **natural transmission cycle of a viral pathogen** within its natural animal host (bats for rabies and Nipah; macaques and rodents for Kyasanur Forest Disease, etc).
7. For instance, Ebola was not new to Africa, and outbreaks had been confirmed as far back as 1976.
8. However, the initial outbreaks were restricted to one or two countries during individual episodes and outbreaks gradually faded out.
9. However, the 2013-2014 outbreak in West Africa was the largest-ever recorded and differed dramatically from prior outbreaks in its duration, number of people affected, and geographic extent.
10. More than 5,000 laboratory-confirmed human cases were recorded, with 50 per cent plus mortality.



How are diseases transmitted between animal species, and then on to humans?

- If pathogens are biologically able to infect more than one type of animal species (including humans), when contact is made between such animals, the potential for the pathogen to be transferred to a new host species exists. Occasions where this takes place are known as 'spill over' events.
- **Environmental factors** like temperature, ultraviolet radiation, relative and absolute humidity, and air ventilation or air movement are important drivers influencing virus viability in the air, the study found.
- Factors like temperature and humidity impact the size of droplets, which in turn, affect the viability of the virus.

What are the common factors in animal and human disease?

- In both animals and humans, infectious diseases are caused by microorganisms known as pathogens.

Types of pathogen include:

1. Fungi
2. Viruses
3. Parasites
4. Bacteria

- Many pathogens are **intrinsically able or have developed the ability** to infect both animals and humans, and so may be transmitted between them.
- These are **collectively known as 'zoonotic' diseases** and make up more than 60% of all known human infectious diseases.

- Through the **biology and ecology of their shared pathogens**, human and animal health are interconnected.
- In turn, humans, animals and pathogens are also influenced by wider changes in ecosystems and the natural environment in which they exist.
- In recent years, a growing trend has been the **adoption of more interdisciplinary and transdisciplinary approaches** to managing health risks.
- These approaches include **One Health, Planetary Health, and Eco-health**, which look beyond human medicine, and also incorporate the biology and health of non-human species, ecosystems functioning, and the effects of environmental change.

Population growth areas are having direct correlation with spreading of zoonotic diseases:

- There was a **positive correlation** between the outbreak and population and urban growth between the 1970s and 2013 in these countries.
- Population growth has been dramatic in the region, with population densities increasing by 223 per cent, 178 per cent, and 275 per cent in Guinea (1960-2012), Sierra Leone, and Liberia, respectively (1961-2013).
- **Rural-to-urban migration and growth in the affected countries** has significantly increased here; the proportion of the population that is now urbanised has increased significantly in Guinea (248 per cent, 1960-2013), Sierra Leone, and Liberia (130 per cent and 163 per cent respectively, 1960-2013).
- All the major Ebola outbreaks were in such urbanised set ups with high human densities.

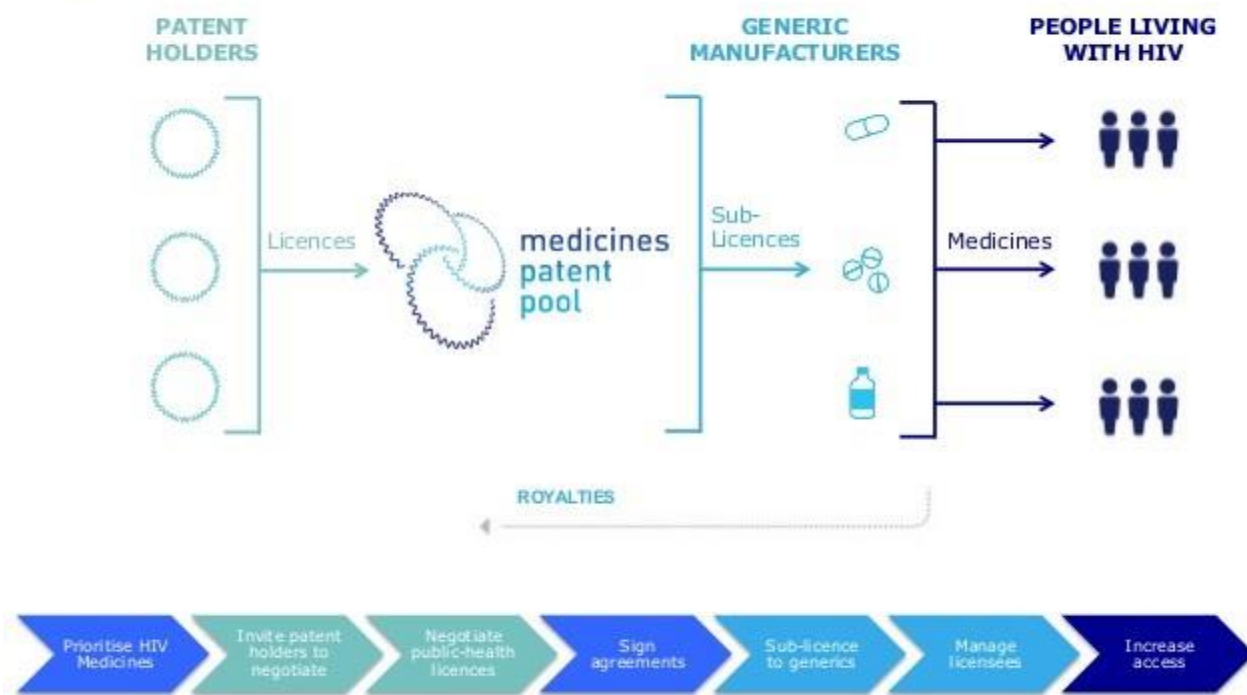
Conclusion:

- ❖ **Zoonotic diseases are so dangerous** because they are novel and highly unpredictable.
- ❖ Because they jump from animals to humans, **our immune system is unable to fight them**. And because **they are unpredictable**, no one knows when a localised outbreak can turn into a pandemic.
- ❖ Unlike the old diseases like cholera, pneumonia, which we know how to deal with, these diseases are highly unpredictable.
- ❖ With **factors like climate change**, zoonoses are emerging as the **single biggest threat to human health** and humanity is not prepared, as is evident from the COVID-19 pandemic.

14. Needed: a pandemic patent pool



How the MPP works



Context:

- Every **April 26**, we celebrate **World Intellectual Property Day**. This year, it was not a day for celebration, but one for reflection and dedication.
- It provided us an **opportunity** to reflect upon the **role of intellectual property (IP)** in the ongoing **health crisis** and dedicate IP to finding a solution.

Should pandemics such as COVID-19 be an exception to this?

1. For human life to become normal again, **vaccines or medicines** are the only **permanent solutions**.
2. However, even by conservative estimates, it will take **at least 6-10 months** for any vaccine/drug to be available.
3. Even when approval for marketing of a vaccine/drug is granted, it will be impossible for it to be **made instantly available** across the world.
4. This is because even after approval for commercial production is granted, say, in one country, in order for the product to be available to the rest of the world, **approvals will be required in each and every country**.
5. Then countries will have to gear up for instant manufacturing and marketing of the drug.
6. For this to happen, **continuous dialogue** has to take place among innovators, manufacturers and supply chains. This requires massive efforts by private players, governments and international organisations.

Patent rights will be detrimental to society:

- With the outbreak of COVID-19, there are several innovations. All these innovations may be the **subject matter of patent applications** around the world.

- It will be a few years before patents are even granted. However, friction already exists among various stakeholders.
- For instance, one country made attempts to **obtain exclusive rights** to a vaccine being developed. On the other hand, there are also **collaborations taking place**.
- However, the **spirit of collaborative solutions** is only on the anvil. The question that arises is whether the exclusivity that is recognised by patent rights will be detrimental to society.

Will patents create roadblocks or is there a solution?

1. **Pandemics need disruptive solutions.** Governments and international organisations need to arrive at a consensus in advance to ensure that the system is ready. Procrastination would be disastrous.
2. **Creating hindrances** through exclusivity claims, in the wake of a pandemic, will result in dividing countries, corporations and international organisations.
3. This will not benefit patients and the world as a whole. If patent owners create impediments on the strength of patent rights, the world will start despising patents and that is not a situation IP owners ought to be in.
4. Under the **TRIPS (Trade-Related Aspects of Intellectual Property Rights) regime**, there are several tools such as **compulsory licensing** that are available to ensure access to medicines.
5. However, beyond the laws, **society needs to respect innovation**. To protect the **sanctity and integrity of patent systems**, and in order to ensure that an anti-IP sentiment is not generated globally, answers need to be found within the existing regime.
6. In exceptional circumstances such as these, there is a likelihood that societies may resort to **extreme steps to protect themselves**. Before such ideas are floated, solutions should be created.

Creating a patent pool will be a better solution:

1. One method by which aggregation and dissemination of innovative products can be **ensured is by creating a patent pool**.
2. **Patent pools** are usually effective in aggregating, administering and licensing patents related to specific areas of technology.
3. Such pools are usually **managed by a central agency** and the patents which become part of the pool are **readily made available for licensing**.
4. Some pools even publish the royalty rates payable for such licences. Anyone who wishes to obtain a licence will be able to approach the pool, agree to the terms, and begin to manufacture and sell the products.
5. Such pools are prevalent in, for instance, standard essential patents related to telecom and digital innovations.
6. At the moment, individual efforts are being made by research organisations to create their own pools.
7. A more fruitful endeavour would be **to create a global pool of COVID-19-related innovations, or innovations** related to rare pandemics, in respect of vaccines and medicines. This could be managed by a **trustworthy international organisation**.
8. All countries ought to have the right to implement these innovations without further permission from the patent-holders and without resorting to provisions such as compulsory licensing, state acquisition, etc.
9. Even if royalties are at a minimal level, the revenues would still be in billions of dollars owing to the large swathes of the population affected by the pandemic, who will need to be administered these products.

A long road ahead:

- The purpose of creating and recognising patent rights is for the **common public good**, i.e., innovation should be made public in exchange for a limited monopoly.
- Thus, patents need to be disclosed to the public in order to enable further research.
- Public-private partnerships (PPP) need to be scaled up. **Creation of the 'PPP-pandemic patent pool'** at a global level, to pool all innovations, is the way forward. Let us not wait any longer.
- Pooling of patent resources is also **in line with the Doha Declaration on Public Health** which is a part of **the TRIPS agreement**. This declaration recognises the need for taking measures to 'protect public health' and 'promote access to medicines'.

Conclusion:

- ❖ **Creation of a pool and immediate licensing** will ensure that there are hundreds of manufacturers across the world. As a result, vaccines and medicines will be quickly available.
- ❖ Such a pool **needs the cooperation** of not just countries and international organisations but also the hundreds of researchers, innovators, companies and universities involved.
- ❖ Concerns relating to patents and profits to be earned therefrom should be put aside. The world has to come out of this crisis quickly and patents ought to accelerate rather than impede the path. **Combating the crisis and earning collectively is the need of the hour.**

15. COVID must not be used as an excuse to ignore environment protection

Measures in Environmental Initiatives



Introduction:

- The **damage to the global economy from COVID-19** threatens to far exceed that of the recession of 2007-2009 and could, according to the **International Monetary Fund**, trigger the **worst recession** since the Great Depression of the 1930s.
- Governments desperate to reopen moribund economies are now tiptoeing around the lockdown to avoid the **dreaded "second wave" of the virus**.
- However, as lockdown exit strategies turn their attention to saving livelihoods, there is pressure on governments to lower environmental standards, suspend environmental monitoring requirements and reduce environmental enforcement, in the belief that this is necessary to salvage economic growth.
- Yet, it would be a mistake to assume that there is a trade-off between saving livelihoods and protecting the environment.

Environmental protection is an emergency:

- The crisis of COVID-19 has highlighted that improving the quality of air in our country is **not a matter of choice but an emergency**.
- At the end of March, the US announced a significant reduction in fuel efficiency standards for new cars, which could result in increased gasoline consumption by 80 billion tonnes, pumping increased carbon emissions into the atmosphere.
- The **US Environmental Protection Agency** has announced that it will not be enforcing compliance with routine monitoring and reporting obligations of environmental protection, for an indefinite period.
- On April 15, the UN special rapporteur on human rights and the environment, David Boyd, condemned such steps as “irrational, irresponsible, and jeopardiz[ing] the rights of vulnerable people”, emphasising that COVID-19 must not be used as an excuse to weaken environmental protection.
- Thirteen European climate and environment ministers, including those of Italy and Spain, the countries worst affected by the virus in Europe, wrote as recently as on April 9 that “we should **resist the temptations of short-term solutions** in response to the present crisis”.
- They stressed the **need to maintain and strengthen EU’s effective regulatory tools to stick to its 2030 climate goals**.

India has even greater reason to resist the temptation to put clean air on the backburner:

1. First and foremost, people living in areas with higher levels of air pollution face **increased risk of premature death from COVID-19**.
 - a. New Delhi was the **world’s most polluted capital city** for the second straight year in 2019, and India was also home to **21 of the world’s 30 most polluted cities**, Swiss-based group IQ AirVisual said in a recent study.
 - b. The **State of Global Air 2019 Report** finds **air pollution** responsible for **over 1.2 million deaths in China and India each**, based on 2017 data.
 - c. Whereas China succeeded in reducing air pollution in its cities by 32 per cent on average in four years from 2014-2018, India has had little success.
 - d. Again, continued air pollution directly translates to mortality under COVID-19.
2. Second, there is **enormous inequality** in the impact of the COVID-19 fallout. Those who **suffer the most from air pollution** are the millions who live and toil in the open, who **cannot afford air-purifiers or other mitigating measures**, as also the elderly and children.
3. Third, there is good evidence that three-quarters of the emerging infectious diseases migrate from wild or domesticated animals into humans.
 - This includes Ebola, SARS, MERS and now COVID-19. Deforestation, industrial agriculture, illegal wildlife trade, climate change and other types of environmental degradation **increase the risk of future pandemics**.
4. Fourth, from Delhi to Sao Paulo, Bangkok to Bogota, the dramatic improvement in the **quality of air and water** in the most polluted cities around the world has been transmitted by social media.
 - This may well result in a **groundswell of public support for measures to protect the environment**.
5. Fifth, it is possible that the cataclysm of corona will jolt the markets into **giving a clean, healthy and sustainable environment the economic value it deserves**.
 - The traditional drivers of value have been shaken, new ones will gain prominence, and there’s a possibility that the gulf between what markets value, and what people value, will close.
 - For all these reasons and more, the **pandemic is an urgent call to action on the environment** air pollution in particular on a war footing.

- In the past, we have never treated **air pollution as a national emergency**, failing to coordinate between the Centre and state governments.
- The COVID pandemic has been declared a national disaster in India, under the National Disaster Management Act, 2005.
- This legislation mandates the disaster authorities at the national, state and district levels under the Act, as well as the Central and state governments, coordinate among themselves and take measures for the prevention and mitigation of the pandemic.

Air pollution creates medical conditions that **gravely increase the risk of fatalities from COVID-19**.

The Clear Advantage of Clean Air:

- Regulations addressing environmental problems such as air pollution might be **dismissed as a luxury for rich countries** that can afford it, but members of the UN Environment Programme (UNEP) insist that such measures actually represent the **most effective means of lifting countries out of poverty**.
- By including pollutant exposures, ability to work, and health effects on different age groups over time, the model compared actual economic performance with what would have happened in the absence of regulations.
- The tally wound up representing 3–4% of the entire U.S. market consumption over a quarter of a century. By comparison, the entire agricultural sector accounts for just 1%.

Conclusion:

- ❖ Preventing and mitigating the risks of COVID-19, therefore, means the mandate for the disaster authorities is also **to tackle air and other forms of pollution head-on**.
- ❖ The **NDMA** is a platform which should be **used to combat air pollution** as an emergency, with a **framework for coordination between different levels of the government**.
- ❖ Similar coordination will be required at an international level to continue to work **towards reduced emissions under the Paris Agreement**.
- ❖ It is a great pity that it takes a pandemic to bring the realisation that **economic growth versus clean air is a false dichotomy**.

16. Why the worst locust attack in decades has invaded north India?

Context:

- At a time when India is grappling with Covid-19, a **locust crisis is swarming over northern parts of the country**, with several states issuing advisories to prevent a desert locust attack.
- With India battling the **worst desert locust outbreak** in three decades, the crop-destroying insects have now spread to **Punjab, Gujarat, Maharashtra and Madhya Pradesh after arriving in Rajasthan**.
- In its latest update, the United Nations's Food and Agriculture Organisation (FAO) desert locust information center said much of these movements were associated with strong westerly winds from the Bay of Bengal.
- According to the **Locust Warning Organisation (LWO)**, which monitors locust swarms, there is no immediate danger of the swarms heading towards Delhi.
- The insects feed on a large variety of crops. If not controlled, locust swarms can threaten the food security of a country.

INSUFFERABLE INSECTS



THE ROUTE: The locusts coming to India (Rajasthan and Gujarat) originate from Horn of Africa and traverse Middle Eastern countries before coming via Pakistan after monsoon. Locusts can travel up to 200km a day riding on the winds



Desert locust (*Schistocerca gregaria*) affect the entire north Africa, Middle East and east Asian countries primarily after monsoon

- > About 60 countries, forming 20% of Earth's land surface, get affected by the locust attacks
- > The feisty insects have even found mention in Bible and Quran for its devastating effects

- > A swarm of locusts have about 4 crore insects in a square km area

- > As a locust can eat equal to its weight daily (2 grams), a swarm can eat food equivalent to over 2,500 adults within minutes

- > Currently 17 talukas in north Gujarat are severely affected by the locust attack where crops including cumin, jetropha, potato and papaya are destroyed



FROM BLANKETS TO DJS: Farmers in northern districts are hiring huge cloths to cover their farms and some are hiring loudspeakers to keep locust swarms at bay. Creating noise with utensils is also being tried

JOINT EFFORTS: India and Pakistan, arch-enemies in almost all fields, are forced to cooperate when it comes to early locust warning systems. In 2019 alone, officials from both the countries met five times since June, the latest being December 3. They shared notes on spread and measures taken to control swarms.

TEACHERS ROPED IN TO DRIVE AWAY LOCUSTS IN THARAD: The teachers in Banaskantha district were up in arms against a notification on Monday by Tharad TDO, asking the teachers in the taluka to support farmers in driving away locusts by creating noise. "We are confused whether conducting classes are important or shooting away the insects," said a Vav-based primary school teacher.



Infestation is declining on India-Pakistan border: FAO

The Food and Agriculture Organization (FAO) bulletin dated December 18 mentioned that breeding of desert locusts continued in eastern Ethiopia and adjacent areas of Somalia. It is likely to affect Horn of Africa region due to good rains this year. Breeding is also in progress along both sides of Red Sea which would affect Yemen, Saudi Arabia and Egypt. The report mentioned that infestation is declining on India-Pakistan border. In December so far, 1,800 hectares of land in India and 20,000 hectares in Pakistan is affected due to swarming. "Both countries are advised to be extremely vigilant in all areas and undertake regular surveys, supplemented by control operations whenever necessary," mentioned the bulletin.



Nathabhai Patel, MLA of Dhanera played the loud drums at a farm to keep locusts away

History of outbreaks:

- While legend has it that locusts were part of the Mahabharata during Karna's battle with Arjuna, modern-day records suggest that since the beginning of the 19th century, there have been at least eight "outbreaks" in India from 1812 to 1889, and a ninth in 1896-1897.
- According to history of the Locust Warning Office published by the UN Food and Agriculture Organization (FAO), there were "**serious invasions**" of locusts in India every few years **during the 1900s**.
- A "five-year invasion" from 1926 to 1931 is estimated to have to have damaged crops worth Rs 2 crore (about \$100 million at today's prices).

What are 'desert locusts' doing in non-desert lands?

1. Desert locusts (*Schistocerca gregaria*), which belong to the family of grasshoppers, normally live and breed in **semi-arid or desert regions**.
2. For laying eggs, they require bare ground, which is rarely found in areas with dense vegetation.
3. So, they can breed in Rajasthan but not in the Indo-Gangetic plains or Godavari and Cauvery delta.
4. But **green vegetation is required for hopper development**. Hopper is the stage between the nymph that is hatched from the eggs, and the winged adult moth. Such cover isn't widespread enough in the deserts to allow growth of large populations of locusts.

5. As individuals, or in small isolated groups, locusts are not very dangerous. But when they grow into large populations their behaviour changes, they transform from 'solitary phase' into 'gregarious phase', and start forming 'swarms'.
6. A single swarm can contain 40 to 80 million adults in one square km, and these can travel up to 150 km a day.

What damage have they caused?

- So far, not much, since the rabi crop has already been harvested, and farmers are yet to really start kharif sowings.
- The UN Food and Agriculture Organization (FAO) has, however, predicted "several successive waves of invasions until July in Rajasthan with eastward surges across northern India right up to Bihar and Odisha".
- But after July, there would be westward movements of the swarms that will return to Rajasthan on the back of changing winds associated with the southwest monsoon.
- The danger is when they start breeding. A single gregarious female locust can lay 60-80 eggs three times during its average life cycle of 90 days. If their breeding is coterminous with that of the kharif crop, we could well have a situation similar to what maize, sorghum and wheat farmers of Kenya, Ethiopia and Somalia experienced in March-April.

How can these pests be controlled?

- Historically, locust control has involved **spraying of organo-phosphate pesticides** on the night resting places of the locusts.
- The Indian Institute of Sugarcane Research, Lucknow, advised farmers to spray chemicals like lambdacyhalothrin, deltamethrin, fipronil, chlorpyrifos, or malathion to control the swarms.
- However, the Centre had on May 14 **banned the use of chlorpyrifos and deltamethrin**. Malathion is also included in the list of banned chemicals but has been subsequently allowed for locust control.
- Special mounted guns are used to spray the chemicals on the resting places and India has 50 such guns, and 60 more are expected to arrive from UK by the first week of June. Drones are also being used this year.

Beginning of cooperation:

1. Iran too suffered locust attacks, in 1876, and in 1926-1932.
2. "Apparently the first case of collaboration between countries in the region occurred in 1942 when a delegation from India helped with locust control work in southwest Persia.
3. Over the next two years, **Indian help was also provided to Oman and Persia**. This was followed by the first conference within the region on Desert Locust, which was held in Tehran in 1945 and involved Iran, India, Saudi Arabia and Egypt. A second conference took place in 1950 also in Tehran with Pakistan participating," the FAO says.
4. In the 1950s, India and Iran cooperated and Pakistan provided two aircraft for locust surveys in Saudi Arabia.
5. Following another attack during 1958-61, a decision was taken to group Iran, Afghanistan, Pakistan and India together and the FAO Desert Locust commission was formed in 1964.
6. The commission held annual sessions, skipped in 1965 and 1999 but held in 1971. Even in the last six years when the relationship between India and Pakistan has deteriorated, it has been held in 2014, 2016 and 2018.

Damage and mitigation:

1. However, humans have a **distinct advantage in fighting locusts** now as compared to their ancestors — **deeper knowledge and technology**.

2. Farmers have switched to crops that can be harvested much before swarming season, and the locusts themselves can be controlled and killed with pesticides.
3. **Monitoring for locust breeding** is essential as it is much easier to destroy eggs than fully grown locusts.
4. At present, the primary method of controlling desert locust swarms is through **organophosphate chemicals** (the prime ingredient in herbicide and pesticide) applied in small concentrated doses by vehicle-mounted and aerial sprayers along with knapsack- and hand-held sprayers.
5. In rural areas of India, farmers have been known to beat steel utensils during late afternoons and evenings, and play loud music at night and create wood-fire, to ward off locust swarms from farms, albeit temporarily.
6. Additionally, **newer technology in the form of serotonin inhibition has shown promise in laboratory settings.**

Way Ahead:

- ❖ As the current locust swarms attacking crops in India have bred and matured in Iran and Pakistan, **New Delhi has offered assistance to both the countries to jointly combat the locust menace.**
- ❖ However, only Iran has accepted the offer so far. The External Affairs Ministry has approached state-owned HIL for the **manufacture and supply of the pesticide Malathion Technical to Iran.**
- ❖ Monthly meetings are held between June and October-November at Zero Point, west of Barmer, Rajasthan and east of Chor, Tharparkar.
- ❖ Arrangements are made in advance and protocols are followed for crossing the border.
- ❖ While **politics and diplomacy is kept out of the technical discussions**, locust control authorities feel that one of the more difficult challenges faced by the commission is that of **"insecurity and sensitivities" in the region.**

17. Visakhapatnam gas leak: What is styrene gas?

Context:

- A gas leak, reminiscent of the Bhopal gas tragedy, has claimed at least 11 lives and affected thousands of residents in **five villages in Visakhapatnam in Andhra Pradesh.**
- The source of the leak was a **styrene plant** owned by South Korean electronics giant LG, located at RRV Puram near Gopalapatnam, **about 15 kms from the coast city.**
- Initial reports indicate that several people from the surrounding villages fell unconscious on the roads. While six died due to prolonged exposure to the gas, another two died while trying to escape from the leak.

Not learned from Bhopal gas tragedy:

- The government's failure in **protecting the legal rights of the gas victims** is evident from the fact that close to 11 years after the disaster the registration of claimants is far from complete.
- According to official figures in all 5,97,306 claims have been registered with the directorate of claims, Madhya Pradesh government.
- The single largest omission is the non registration of claims of **over 1,50,000 gas affected persons** who were less than 18 years age at the time of registration of claims.
- Such a situation has been brought about primarily due to the arbitrary decision of the government officials in charge of claim registration to disallow persons under 18 to register their claims.
- This illegal practice was carried out under the erroneous notion that since minors cannot be owners of property, they cannot be entitled to compensation amounts.

MAJOR GAS LEAKS IN INDIA IN THE PAST				
	When did it happen	Where did it happen	What caused the disaster	Number of deaths/casualties
Bhopal gas tragedy	December 2-3, 1984	Union Carbide India pesticide plant, Bhopal, Madhya Pradesh	Methyl isocyanate (MIC) gas leak	Nearly 5,000 were killed and more than 5,00,000 were affected
GAIL pipeline blast	June 27, 2014	GAIL plant, Nagaram, East Godavari, AP	Underground natural gas pipeline rupture	Over 18 people were killed, over 40 injured
Bhilai Steel Plant gas leak	June 12, 2014	Bhilai Steel Plant, Durg, Chhattisgarh	Methane gas leak	6 people were killed, over 40 were injured
Tughlakabad gas leak	May 6, 2017	Container depot, Tughlaqabad, S-E Delhi	Chemical gas leakage from a container truck	Over 400 school children were hospitalised
Kanpur ammonia gas leak	March 15, 2017	A cold storage facility at Shivrajpur, Kanpur, Uttar Pradesh	Ammonia gas leak	5 people were killed, 9 injured
Belur chlorine gas leak	May 16, 2017	A water treatment plant at Gandehalli in Belur, South Karnataka	Chlorine gas leak	More than 10 people fell sick
Bhilai Steel Plant blast	Oct 9, 2018	Bhilai Steel Plant, Durg, Chhattisgarh	Explosion in a gas pipeline connected to the coke-oven section	9 people were killed, 14 were injured

WHAT HAPPENED IN VISAKHAPATNAM			
WHAT LEAKED	WHAT IS IT	HOW DANGEROUS IS IT	WHAT IS IT USED FOR
Styrene	It is also called ethenylbenzene, vinylbenzene and phenylethene. It is an organic compound derived from benzene	Sustained exposure affects the central nervous system. Studies have shown that it causes cancer	Manufacturing polystyrene plastics, fibreglass, rubber and latex

Vizag gas leak: What is styrene?

- It is a **flammable liquid** that is used in the **manufacturing of polystyrene plastics**, fiberglass, rubber, and latex.
- According to Tox Town, a website run by the US National Library of Medicine, **styrene is also found in vehicle exhaust, cigarette smoke, and in natural foods like fruits and vegetables.**

What happens when exposed to styrene?

- As per the **US-based Environment Protection Agency (EPA)**, short-term exposure to the substance can result in respiratory problems, irritation in the eyes, irritation in the mucous membrane, and gastrointestinal issues.
- And **long-term exposure** could drastically **affect the central nervous system** and lead to other related problems like peripheral neuropathy. It could also lead to cancer and depression in some cases.
- However, EPA notes that there is no sufficient evidence despite several epidemiology studies indicating there may be an association between styrene exposure and an **increased risk of leukemia and lymphoma.**

What are the symptoms?

- Symptoms include headache, hearing loss, fatigue, weakness, difficulty in concentrating etc.
- Animal studies, according to the EPA, have reported effects on the CNS, liver, kidney, and eye and nasal irritation from inhalation exposure to styrene.

How bad is the situation in Visakhapatnam?

- While it unclear at the moment whether the deaths are **due to direct exposure to styrene gas or one of its byproducts**, Visakhapatnam Police Commissioner has maintained that the gas is “non-poisonous” and is only fatal when exposed for longer durations.
- However, hundreds of people including many children were admitted to hospitals. The cases are high as the gas leak was only detected at 3 am in the morning, meaning several crucial hours have been lost till safety precautions were taken, and the gas was allowed to spread while people were fast asleep.

What caused the leak?

- A statement from LG Polymers said that **stagnation and changes in temperature inside the storage tank** could have resulted in **auto polymerization** and could have caused **vapourisation**.

Neutralising Styrene gas to take more time:

- The high-powered committee will inquire into the causes of the leakage, including possible lapses in the plant's adherence to safety protocols; it will study the long-term effects of the gas leakage on the surrounding villages, if any and recommend action to be taken against the company if negligence is found.
- The committee will also suggest measures to be taken by industry units, including safety audits, to prevent such mishaps in future and will also make observations and suggestions for all similar industrial plants, which will be included in their report to be submitted within a month.

Who, Then, Is to Be Held Responsible for Industrial Disasters?

1. The legal gains made during the Bhopal Gas Leak, and subsequently with the Delhi Oleum Leakage case, held the **principle of absolute enterprise liability for hazardous substances**.
2. That is, any manufacturer of hazardous or inherently injurious substance was to be held liable. However, the Public Liability Insurance Bill (now Public Liability Insurance Act, 1991) took away these legal gains.
3. **Aimed at providing immediate relief to the survivors of industrial accidents** and incidents, the bill not only provided an inadequate treatment of the scope and definition of "hazardous substance," but it also allowed for the centre and state governments to excuse themselves from any liability arising out of industrial disasters.
4. Moreover, despite the precedents before it, it took a narrow viewing of the injuries that manifest due to industrial disasters.
5. The National Green Tribunal sought response from the Centre, South Korean company LG Polymers, Central Pollution Control Board after 11 people died in the Vishakhapatnam gas leak tragedy.
6. A bench headed by NGT Chairperson issued notices after taking cognizance of the incident in which hundreds more were admitted to the hospital, with several critical.

Conclusion:

- ❖ **India's handling of industrial disasters** suffers from systemic apathy. To respond to the currently **unfolding Visakhapatnam Gas Leak effectively and sensitively**, it must reflect on and learn from its inadequate handling of the Bhopal Gas Tragedy.
- ❖ Imposes a no-fault liability on the owner of hazardous substance and requires the owner to compensate victims of accident irrespective of any neglect or default. For this, the owner is required to take out an insurance policy covering potential liability from any accident.
- ❖ Ensuring public safety, a **comprehensive safety audit of all the industries** should be taken up and a **Standard Operating Procedure** should be enforced.
- ❖ Without any hesitations, the officials should come up with **suitable recommendations to avoid such mishaps in future**.

RSTV/LSTV/AIR SYNOPSIS

GENERAL STUDIES - I

1. Ishwar Chandra Vidyasagar

Introduction:

- Revered as a Bengali icon, Ishwar Chandra Vidyasagar was a Bengali Sanskrit pundit, educator, social reformer, writer and philanthropist. He was one of the greatest intellectuals and activists of the 19th century. Born on 26th September, 1820 to a Kulin Brahmin family at Birsingha in the Midnapore District in Undivided Bengal Vidyasagar brought about some of the most far-reaching reform against malpractices by his own community. Vidyasagar made a difference in a period when few men tried to challenge the decadent traditions of the time.
- Ishwar Chandra Vidyasagar (1820-1891) was as one of the pillars of Bengal renaissance who managed to continue the social reforms movement that was started by Raja Rammohan Roy in the early 1800s. Vidyasagar was a well-known writer, intellectual and above all a staunch supporter of humanity. He had an imposing personality and was revered even by the British authorities of his time. He brought about a revolution in the Bengali education system and refined the way Bengali language was written and taught. His book, 'Borno Porichoy' (Introduction to the letter), is still used as the introductory text to learn Bengali alphabets. The title 'Vidyasagar' (ocean of knowledge) was given to him due to his vast knowledge in several subjects.

Widow Remarriage:

1. The focus of his social reform was women — and he spent his life's energies trying to ensure an end to the practice of child marriage and initiate widow remarriage.
2. He followed in the great reformist tradition of Raja Ram Mohun Roy (1772-1833), and argued, on the basis of scriptures and old commentaries, in favour of the remarriage of widows in the same way as Roy did for the abolition of Sati.
3. Vidyasagar wrote two volumes on the mistreatment of widows, which set the tone for major social reform in the state.
4. His earliest effort at social reform, however, came in the second half of 1850 when, in a paper on the evils of child marriage.
5. He launched a powerful attack on the practice of marrying off girls aged 10 or even younger, pointing to social, ethical, and hygiene issues, and rejecting the validity of the Dharma Shastras that advocated it.
6. He showed that there was no prohibition on widows remarrying in the entire body of 'Smriti' literature (the Sutras and the Shastras).

Educational Reforms:

1. Vidyasagar is credited with the role of thoroughly remodelling medieval scholastic system prevailing in Sanskrit College and bring about modern insights into the education system.
2. The first change that Vidyasagar made when he came back to the Sanskrit College as a Professor was to include English and Bengali as the medium of learning, besides Sanskrit.
3. He introduced courses of European History, Philosophy and Science alongside of Vedic scriptures. He encouraged students to pursue these subjects and take away the best from both worlds.
4. He also changed the rules of admission for students in Sanskrit College allowing non-Brahmin students to enrol in the prestigious institution.
5. He wrote two books 'Upakramonika' and 'Byakaran Koumudi', interpreting complex notions of Sanskrit grammar in easy legible Bengali language.

6. He introduced the concepts of Admission fee and tuition fee for the first time in Calcutta. He set up the Normal School for training teachers enabling uniformity in teaching methods. Through his contacts at the deputy magistrate's office he would help his students get jobs in government offices.

Campaign against polygamy:

1. Alongside the campaign for widow remarriage, he campaigned against polygamy.
2. In 1857, a petition for the prohibition of polygamy among Kulin Brahmins was presented to the government with 25,000 signatures, led by the Maharaja of Burdwan.
3. The mutiny of the sepoys resulted in the postponement of action on this petition, but in 1866, Vidyasagar inspired another petition, this time with 21,000 signatures.
4. In the 1870s, the great rationalist, wrote two brilliant critiques of polygamy, arguing to the government that since polygamy was not sanctioned by the sacred texts, there could be no objection to suppressing it by legislation.

Women's education:

1. He was a keen advocate of education for women. He rightly viewed education as the primary way for women to emancipate themselves from all the social oppression they had to face at the time.
2. He went door to door, asking family heads to allow their daughters to be enrolled in schools. Across Bengal, he opened 35 women's schools and succeeded in enrolling 1300 students.
3. To support women education, he organized a fund called Nari Shiksha Bhandar.
4. He supported Drinkwater Bethune to establish the first permanent girls' school in India, the Bethune School.
5. Vidyasagar spent the last 18 years of his life living among Santhal tribals in present day Jharkhand, where he started what is possibly India's first school for Santhal girls.
6. He expressed his ideas through regular articles he wrote for periodicals and newspapers. He was associated with prestigious journalistic publications like 'Tattwabodhini Patrika', 'Somprakash', 'Sarbashubhankari Patrika' and 'Hindu Patriot'.

Other literary works:

1. Vidyasagar's **Barna Parichay** (an introduction to the Bengali alphabet) is still the first book a Bengali child is handed more than 160 years after it was written.
2. His contribution to the alphabet, translation of several Sanskrit books, including Kalidas's Shankuntala, has helped Bengali literature.
3. He wrote two books which interpreted complex notions of Sanskrit Grammar in Bengali language viz. **Upakaramonika and Byakaran Kourmudi**.
4. He established the Sanskrit Press with an aim to produce printed books at affordable prices so that common people could buy them

Link: <https://youtu.be/qVk1jm6Rgzc>

2. World Day Against Child Labour

Introduction:

- On 12 June 2002, the International Labour Organisation started the World Day Against Child Labour. The International Labour Organisation is celebrating 100 years of advancing social justice. Yet, about 152 million children are still in child labour across the world. India accounts for more than 10 million child workers.

Child labour:

1. According to International Labour Organization (ILO), the term 'child labour' is often defined as work that deprives children of their childhood, their potential, and their dignity, and that is harmful to physical and mental development.

2. **Bonded Labour** is exploitation in which the child is forced to work as a payment of debt taken by his/her parent.
3. **Urban Child Labour** is where the street children who spend almost all of their life on street work as labourers.
4. In India, the child labour has been a long and common practice where children help their parents at their farms and in other activities.
5. The **World Day against Child Labour** is being observed across the world today, on June 12. The **theme** of the day in the year 2019 is, '**Children should not work in fields but on dreams**'.
6. The World Day against Child Labour was **established by the International Labour Organization (ILO) in 2002** to focus attention on the global extent of child labour and the action and efforts needed to eliminate it. The day brings together governments, employers and workers organizations, civil society as well as millions of people to highlight the plight of child labourers and measures to help them.
7. The International Labour Organization is **celebrating 100 years of advancing social justice and promoting decent work**. The day looks towards the UN Sustainable Development Goal Target 8.7 set by the international community calling for an end to child labour in all its forms by 2025.
8. 2019 marked the **20 years** since the adoption of the ILO's Worst Forms of Child Labour Convention, 1999 (No. 182). The convention is close to getting universal ratification with only a few countries still to ratify it. Hence, World Day against Child Labour 2019 calls for full ratification and implementation of Convention No. 182 and of the ILO's Minimum Age Convention, 1973 (No. 138) . The day also aims to encourage ratification of the Protocol of 2014 to the Forced Labour Convention, which protects both adults and children
9. **World Day Against Child Labour 2020** will focus on the impact of crisis on child labour. The **COVID-19 health pandemic** and the resulting economic and labour market shock are having a huge impact on people's lives and livelihoods. Unfortunately, children are often the first to suffer. The crisis can push millions of vulnerable children into child labour. Already, there are an estimated 152 million children in child labour, 72 million of which are in hazardous work. These children are now at even greater risk of facing circumstances that are even more difficult and working longer hours.

Efforts taken to eradicate child labour in India:

1. **Child Labour (Prohibition and Regulation) Act(1986)** to prohibit the engagement of children in certain employments and to regulate the conditions of work of children in certain other employments
2. **Child Labour (Prohibition and Regulation) Amendment Act, 2016** : The Amendment Act completely prohibits the employment of children below 14 years.
3. The amendment also prohibits the employment of adolescents in the age group of 14 to 18 years in hazardous occupations and processes and regulates their working conditions where they are not prohibited.
4. On **World Day Against Child Labour (June 12) in 2017**, India ratified **two core conventions** of the **International Labour Organization on child labour**.
5. **National Policy on Child Labour (1987)**, with a focus more on rehabilitation of children working in hazardous occupations and processes, rather than on prevention.
6. **Juvenile Justice (Care and Protection of Children) Act2000** and **amendment of the JJ Act in 2006**: includes the working child in the category of children in need of care and protection, without any limitation of age or type of occupation.
7. **Section 23 (cruelty to Juvenile) and Section 26 (exploitation of juvenile employee)** specifically deal with child labour under children in need of care and protection.
8. **Pencil**: The government has launched a dedicated platform viz. pencil.gov.in to ensure effective enforcement of child labour laws and end child labour.

9. **The Right to Education Act 2009** has made it mandatory for the state to ensure that all children aged six to 14 years are in school and receive free education. Along with Article 21A of the Constitution of India recognizing education as a fundamental right, this constitutes a timely opportunity to use education to combat child labour in India.
10. Amendments made to the **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act** prescribes severe punishment for people found guilty of retaining bonded labour.
11. The amendment stipulates rigorous imprisonment for those who force children to beg, handle or carry human waste and animal carcasses.
12. The **draft National Policy for Domestic Workers**, when goes into force, will ensure minimum Rs.9,000 salary for household helpers.
13. Every police station in the country has a separate cell for juvenile, women and child protection.
14. Many **NGOs like Bachpan Bachao Andolan, CARE India, Child Rights and You, Global march against child labour, RIDE India, Child line etc.** have been working to eradicate child labour in India.

Constitutional provisions:

1. As per **Article 21(A) and Article 45** – The child has the right to Education i.e. the state shall provide compulsory and free education to the children of the age six to 14 years.
2. As per **Article 24** – There is a provision under which a child below the age of 14 years cannot be employed in any mine, factory or hazardous workplace.
3. As per **Article 39(f)** – The child's youth and childhood are to be protected against moral and material abandonment and exploitation.

Alliance 8.7:

1. Under the Sustainable Development Goals (SDG) of the 2030 Agenda, UN Member States, employers' and workers' organizations, as well as civil society organizations, are urged to eliminate child labour by 2025, and forced labour, modern slavery and human trafficking by 2030.
2. In order to contribute to this goal, the ILO launched **Alliance 8.7**, a global partnership designed to align the efforts of those working towards the achievement of SDG Target 8.7.
3. Goal 8 aims to Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
4. In Target 8.7 leaders committed to take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

Link: <https://youtu.be/fEfeNiTIMOA>

3. Cyclone Fani

Introduction:

Cyclone Fani is the first cyclone to be categorised "severe" by the Indian meteorological department since Cyclone Mala made landfall in Myanmar in 2006.

- Cyclones are given many names in different regions of the world.
- *They are known as typhoons in the China Sea and Pacific Ocean; hurricanes in the West Indian islands in the Caribbean Sea and Atlantic Ocean; tornados in the Guinea lands of West Africa and southern USA.; willy-willies in north-western Australia and tropical cyclones in the Indian Ocean.*
- Cyclone Fani is likely to turn into a '**severe cyclonic storm**'.
- **It was formed at low pressure region in south east of Sumatra** (Indonesian island), which further intensified into a depression.

Conditions Favourable for Cyclone Formation:

- **Large sea surface with temperature higher than 27° C**
- **Presence of the Coriolis force enough to create a cyclonic vortex:**
 - The **Coriolis force is zero at the equator (no cyclones at equator because of zero Coriolis Force)** but it increases with latitude. Coriolis force at 5° latitude is significant enough to create a storm [cyclonic vortex].
 - **About 65 per cent of cyclonic activity occurs between 10° and 20° latitude.**
- **Small variations in the vertical wind speed**
- **A pre-existing weak low-pressure area or low-level-cyclonic circulation**
- **Humidity Factor**
 - High humidity (around 50 to 60 per cent) is required in the mid-troposphere, since the presence of moist air leads to the formation of **cumulonimbus cloud**.
 - Such conditions exist over the equatorial **doldrums**, especially in western margins of oceans (this is because of east to west movement of ocean currents), which have great moisture, carrying capacity because the **trade winds** continuously replace the saturated air.
- **Upper divergence above the sea level system.**
 - A well – developed divergence in the upper layers of the atmosphere is necessary so that the rising air currents within the cyclone continue to be pumped out and a low pressure maintained at the center.
- **Low-level Disturbances**
 - Low-level disturbance in the form of easterly wave disturbances in the Inter-Tropical Convergence Zone (ITCZ) should pre-exist.
- **Temperature contrast between air masses**
 - Trade winds from both the hemispheres meet along inter-tropical front. Temperature contrasts between these air masses must exist when the ITCZ is farthest, from the equator.
 - Thus, the convergence of these air masses of different temperatures and the resulting instability are the prerequisites for the origin and growth of violent tropical storms.
- **Wind Shear**
 - Wind Shear = differences between wind speeds at different heights
 - Tropical cyclones develop when the wind is uniform.
 - **Because of weak vertical wind shear, cyclone formation processes are limited to latitude equator ward of the subtropical jet stream.**
 - In the temperate regions, wind shear is high due to westerlies and this inhibits convective cyclone formation.

Classification of Tropical Cyclones:

- The criteria followed by Meteorological Department of India (IMD) to classify the low pressure systems in the Bay of Bengal and in the Arabian Sea as adopted by World Meteorological Organisation (WMO) are as under:

Type of Disturbances	Associated Wind Speed in the Circulation
Low pressure Area	Less than 17 knots (<31 kmph)
Depression	17 to 27 knots (31 to 49 kmph)
Deep Depression	28 to 33 knots (50 to 61 kmph)
Cyclonic Storm	34 to 47 knots (62 to 88 kmph)
Severe Cyclonic Storm	48 to 63 knots (89 to 118 kmph)
Very Severe Cyclonic Storm	64 to 119 knots (119 to 221 kmph)
Super Cyclonic Storm	119 knots and above (221 kmph and above)

Reason for concentration of Cyclones in Bay of Bengal:

1. Since sea surface temperatures and humidity both directly correlate with chances of cyclone formation, the Bay of Bengal is a more likely target because it gets higher rainfall, and because the sluggish winds around it keep temperatures relatively high: about 28 degrees around the year.
2. Warm air currents enhance this surface temperature and aid the formation of cyclones.
3. In addition, the Bay receives higher rainfall and constant inflow of fresh water from the Ganga and Brahmaputra rivers. This means that the Bay's surface water keeps getting refreshed, making it impossible for the warm water to mix with the cooler water below, making it ideal for a depression.
4. But not all cyclones are formed in the Bay of Bengal. The basin is also host to cyclones that are formed elsewhere but move towards the water body, especially those formed in the Pacific Ocean. Cyclones usually weaken if they encounter a large landmass.
5. However, due to the lack of any such presence between the Pacific and the Bay, cyclonic winds easily move into the Bay of Bengal.

Recent Cyclones in India:

- Kyarr and Maha 2019 (Vayu and Hikka)- Kyarr and Maha are the 2 cyclones at same time developed in the Arabian Sea.
- Cyclone Vayu- Gujarat.
- Cyclone Fani – 2019- Odisha and Andhra Pradesh
- Cyclone Phethai – 2018
- Cyclone Gaja – 2018- Tamil Nadu, Andhra Pradesh
- Cyclone Titli – 2018- Odisha's Gopalpur and Srikakulam of Andhra Pradesh.
- Cyclone Ockhi – 2017- Kerala, Tamil Nadu and Gujarat.
- Cyclone Vardah – 2016- Andaman and Nicobar Islands then crossed the eastern coast of India and affected Chennai, Kancheepuram and Visakhapatnam.
- Cyclone Hudhud – 2014- Visakhapatnam along with Odisha
- Cyclone Phailin – 2013- Odisha, Andhra Pradesh, Jharkhand as well as other Indian states.
- Cyclone Helen – 2013- Andhra Pradesh.
- Cyclone Nilam – 2012- Chennai Port of Tamil Nadu and New Port railway station in Kakinada in Andhra Pradesh.
- Cyclone Phyan – 2009- Tamil Nadu, Maharashtra and Gujarat.

Link: <https://youtu.be/NGwRkBksZR0>

4. Western disturbance

Introduction:

- The western disturbance was strengthened by moisture coming in from the Arabian Sea and the Bay of Bengal. It is estimated that India gets close to 5-10% of its total annual rainfall from Western Disturbances.
- Weak Western Disturbances on the other hand are associated with crop failure and water problems across North India. But strong Western Disturbances can help residents, farmers and governments avoid many of the problems associated with water scarcity.

Storm:

1. A **storm** is any disturbed state of a body especially affecting its surface, and strongly implying a wind force. It may be marked by significant disruptions and lightning, heavy precipitation heavy freezing rain strong winds (tropical cyclone, windstorm), or wind transporting some substance through the atmosphere as in a dust storm, blizzard, sandstorm, etc.

2. Storms have the potential to harm lives and property via storm surge, heavy rain or snow causing flooding or road impassability, lightning, wildfires, and vertical wind shear. Systems with significant rainfall and duration help alleviate drought in places they move through. Heavy snowfall can allow special recreational activities to take place which would not be possible otherwise, such as skiing and snowmobiling.
3. Storms are created when a center of low pressure develops with the system of high pressure surrounding it. This combination of opposing forces can create winds and result in the formation of storm clouds such as cumulonimbus. Small localized areas of low pressure can form from hot air rising off hot ground, resulting in smaller disturbances such as dust devils and whirlwinds.

Types:

1. **Tropical Wave:** An inverted trough (an elongated area of relatively low pressure) or cyclonic curvature maximum moving east to west across the tropics. These can lead to the formation of a tropical cyclone. Also known as an easterly wave.
2. **Tropical Disturbance:** A tropical weather system with organized convection (generally 100-300 miles in diameter) originating in the tropics or subtropics, having a non-frontal migratory character and maintaining its identity for 24 hours or longer. It may or may not be associated with a detectable perturbation of the wind field.
3. **Tropical Cyclone:** A tropical cyclone is a low pressure system (not associated with a front) that develops over tropical and sometimes sub-tropical waters and has organized deep convection with a closed wind circulation about a well-defined center
4. **Extratropical Cyclone:** A cyclone (of any intensity) for which the primary energy source is baroclinic (i.e., results from the temperature contrast between warm & cold air masses).
5. **Post-Tropical Cyclone:** A cyclone that no longer possesses sufficient tropical characteristics to be considered a tropical cyclone. Post-tropical cyclones can continue to carry heavy rains and high winds. Note: former tropical cyclones that become extratropical and remnant lows are 2 specific classes of post-tropical cyclones
6. **Subtropical Cyclone:** A non-frontal low pressure system that has characteristics of both tropical and extratropical cyclones. Subtropical cyclones originate over tropical or subtropical waters and have a closed circulation about a well-defined center. In comparison to tropical cyclones, the maximum winds occur relatively far from the center (greater than 60 nautical miles) and have a less symmetric wind field and distribution of convection.
7. **Tropical Depression:** A tropical depression is a tropical cyclone that has maximum sustained surface winds (one-minute average) of 38 mph (33 knots) or less.
8. **Tropical Storm:** A tropical storm is a tropical cyclone that has maximum sustained surface winds ranging from 39-73 mph (34 to 63 knots).
9. **Hurricane:** A hurricane is a tropical cyclone that has maximum sustained surface winds of 74 mph or greater (64 knots or greater).

Western Disturbance:

- It is ***an extratropical storm originating in the Mediterranean region that brings sudden winter rain to the north-western parts of the Indian sub-continent. It is a non-monsoonal precipitation pattern driven by the westerlies.***
- Extratropical storms are ***a global phenomenon with moisture usually carried in the upper atmosphere, unlike their tropical counterparts where the moisture is carried in the lower atmosphere.*** In the case of the Indian subcontinent, moisture is sometimes shed as rain when the storm system encounters the Himalayas.

Formation:

- Western Disturbance **originates in the Mediterranean Sea as extra-tropical cyclones**. A high-pressure area over Ukraine and neighbourhood consolidates, **causing the intrusion of cold air from Polar Regions towards an area of relatively warmer air with high moisture**.
- This generates **favourable conditions for cyclogenesis in the upper atmosphere, which promotes the formation of an eastward-moving extratropical depression**. They gradually travel across the middle-east from Iran, Afghanistan and Pakistan to enter the Indian sub-continent.

Impact:

- Plays important role in **bringing moderate to heavy rain in low-lying areas and heavy snow to mountainous areas of the Indian Subcontinent**.
- This disturbance is usually **associated with cloudy sky, higher night temperatures and unusual rain**. This precipitation has great importance in agriculture, particularly for the Rabi crops. Wheat among them is one of the most important crops, which helps to meet India's food security.
- **Excessive precipitation due to this disturbance can cause crop damage, landslides, floods and avalanches**. Over the Indo-Gangetic plains, it occasionally bring cold wave conditions and dense fog. These conditions remain stable until disturbed by another western disturbance. **When western disturbances move across northwest India before the onset of monsoon, a temporary advancement of monsoon current appears over the region**.

Link: https://youtu.be/zVXe3MfWK_k

GENERAL STUDIES - II

1. Primary education: Opportunities & challenges

Introduction:

- Sometime in the second week of March, state governments across the country began shutting down schools and colleges temporarily as a measure to contain the spread of the novel coronavirus. It's close to two months and there is no certainty when they will reopen. This is a crucial time for the education sector. As the days pass by with no immediate solution to stop the outbreak of Covid-19, school closures will not only have a short-term impact on the continuity of learning but will also have far-reaching consequences.
- The structure of schooling and learning, including teaching and assessment methodologies, was the first to be affected by these closures. Only a handful of private schools could adopt online teaching methods. Their low-income private and government school counterparts, on the other hand, have completely shut down for not having access to e-learning solutions.

Impacts on education:

1. School and university closures will not only have a short-term impact on the continuity of learning for more than 285 million young learners in India but also engender far-reaching economic and societal consequences.
2. The pandemic has significantly disrupted the higher education sector as well, which is a critical determinant of a country's economic future.
3. A large number of Indian students—second only to China—enroll in universities abroad, especially in countries worst affected by the pandemic, the US, UK, Australia and China.
4. Many such students have now been barred from leaving these countries. If the situation persists, in the long run, a decline in the demand for international higher education is expected.

5. The bigger concern, however, on everybody's mind is the effect of the disease on the employment rate. Recent graduates in India are fearing withdrawal of job offers from corporates because of the current situation.
6. The Centre for Monitoring Indian Economy's estimates on unemployment shot up from 8.4% in mid-March to 23% in early April and the urban unemployment rate to 30.9%.

What do school closures mean for the community?

- The impact on education is likely to cause losses in terms of dropout rates and learning outcomes, especially in regions with low shock-resilience. Children have fewer opportunities of learning from home. Further, closure of schools is likely to lead to parents missing work, in order to stay at home and take care of the children. This also affects productivity, incurs loss in wages, consequently affecting the community and the economy as a whole.
- A large number of health-care professionals are women. Their work may be disrupted by the presence of their children at home due to school closures, causing unintended strain on health-care related systems.

Limited internet availability:

- The 75th report of the National Sample Survey Office (NSSO) for 2017-18 highlights some of the major issues that this new model would have to address. All India percentage of households having internet facilities stands at 23.8% with rural availability at 14.9% and urban at 42%.
- The problem does not end there, as having a facility does not mean it would be used. The percentage of people who were able to use the internet (all-India) stood at 20.1% with rural at 13% and urban at 37.1%. Additionally, only 10.8% of people in India had used the internet in the last 30 days. It is important to note that these statistics vary vastly among different states across the country. For instance, Bihar stands at the lowest (9.1%) for individuals who have used the internet in 30 days, while Delhi has the highest number (49.1%) of such individuals with bigger states like Maharashtra (26%), Rajasthan (15.3%), Andhra Pradesh (14.8%) etc. being in the middle.
- These statistics strike at the core rationale of using the internet as a mode to impart education, and highlight how a majority of the country would be left out of the quest to achieve basic education in the months to come.

Increased responsibility of parents:

- Another important pillar of the new model is the increased role that parents play in educating their wards. Take, for example, the NCERT guidelines which – surprisingly has progressive methods of teaching to improve the analytical, quantitative, and logical reasoning abilities of the students – all key factors which our regular model of teaching and learning does not have. However, the guidelines presume that the parents will have the academic intellect to impart education to their students. But statistics highlight otherwise.
- The same NSSO survey, quoted above, highlights that 26.1% of the population above 15 years of age is 'not literate'.

Challenges:

- The major challenge at the national level is the seamless integration of technology in the present Indian education system, which is the most diverse and largest in the world with more than 15 lakh schools and 50,000 higher education institutions.
- Further, it is also important to establish quality assurance mechanisms and quality benchmark for online learning.

- Many e-learning players offer multiple courses on the same subjects with different levels of certifications, methodology and assessment parameters. So, the quality of courses may differ across different e-learning platforms.
- Democratization of technology is now an important issue, comprising internet connectivity, telecom infrastructure, affordability of online system, availability of laptop/desktop, software, educational tools, online assessment tools, etc

Way Forward:

- While the damage to the sector is similar to the damage every sector across the world is facing, it is possible that with some careful planning, we might be able to limit the long-term consequences of this prolonged shutdown.
- For all this to be a reality, a drastic change in thought process is required in the mind- set of policy makers, authorities, students and specially educationists.
- Faculty selection should gradually be linked to technology friendliness and keenness for technology adoption.
- To begin with, the districts in the green zone should be allowed to open schools – after analysing them further over the next few days.
- Exploring the possibility of digital learning, high and low technology solutions etc on the basis of power supply, digital skills of teachers and students, and internet connectivity
- Inclusion in distance learning programs, especially for students coming from low-income groups or presence of disability, etc.
- Providing support for digitalization to teachers as well as students
- Strict social distancing measures should be implemented, and to limit the number of students, classes may run in two four-hour shifts or **odd even rule**
- Additionally, there is a need to develop a financial stimulus for the education sector primarily targeting low cost private aided and unaided schools – which are likely to witness a reduction in fee collections, due to income losses.
- While understandably, India as a developing country does not have unlimited resources, certain core sectors including education cannot simply be left as the last priority. Similar to other sectors, which are witnessing a staggered opening, the education sector needs to be opened in a staggered way.
- These 12 years of education are crucial for every student and are the base years that will support the upward social and economic mobility of disadvantaged classes. A long and unplanned hiatus is likely to shatter the dreams of many and further harm the country in the long-term with a less-educated workforce. We need more talented and skilled individuals to get us out of the possible recession that the world is going to face and dropping the ball on education, is not going to help the cause.

Link: <https://youtu.be/qMbfJYMRJLA>

2. National Institute Ranking

Introduction:

The fourth edition of the Indian rankings based on the National Institutional Ranking Framework 2019 were announced. IIT, Madras, topped the HRD Ministry's national ranking of higher education institutes, while Bangalore's Indian Institute of Science and Delhi's Miranda House were adjudged best university and college respectively. Among the management colleges, the top six ranks have been retained by Indian Institutes of Management (IIMs), led by Bengaluru. IIT-Delhi, Mumbai and Roorkee are among the top 10 in the category.

- The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29th September 2015.

- This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations broad understanding arrived at by a Core Committee set up by MHRD, to identify the broad parameters for ranking various universities and institutions.
- The parameters broadly cover “Teaching, Learning and Resources,” “Research and Professional Practices,” “Graduation Outcomes,” “Outreach and Inclusivity,” and “Perception”.

Significance of NIRF:

- Ranking promotes competition among the Universities and drive them to strive for excellence. The rankings assume significance as performance of institutions has been linked with “Institutions of Eminence” scheme.

Parameters:

1. Teaching, Learning & Resources (TLR)
 - a. Student Strength including Doctoral Students (SS)
 - b. Faculty-student ratio with emphasis on permanent faculty (FSR)
 - c. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE)
 - d. Financial Resources and their Utilisation (FRU)
2. Research and Professional Practice (RP)
 - a. Combined metric for Publications (PU)
 - b. Combined metric for Quality of Publications (QP)
 - c. IPR and Patents: Published and Granted (IPR)
 - d. Footprint of Projects and Professional Practice (FPPP)
3. Graduation Outcomes (GO)
 - a. Metric for University Examinations (GUE)
 - b. Metric for Number of Ph.D. Students Graduated (GPHD)
4. Outreach and Inclusivity (OI)
 - a. Percentage of Students from Other States/Countries (Region Diversity RD)
 - b. Percentage of Women (Women Diversity WD)
 - c. Economically and Socially Challenged Students (ESCS)
 - d. Facilities for Physically Challenged Students (PCS)
5. Perception (PR) Ranking
 - a. Peer Perception
6. Academic Peers and Employers (PR)

Top 5 Engineering Institutions in India-2019:

1. Indian Institute of Technology, Madras
2. Indian Institute of Technology, Delhi
3. Indian Institute of Technology, Bombay
4. Indian Institute of Technology, Kharagpur
5. Indian Institute of Technology, Kanpur

Top 5 Universities:

1. Indian Institute of Science, Bengaluru
2. Jawaharlal Nehru University, New Delhi
3. Banaras Hindu University, Varanasi
4. University of Hyderabad, Hyderabad
5. Calcutta University, Kolkata

Top 5 Colleges:

1. Miranda House, Delhi
2. Hindu College, Delhi

3. Presidency College, Chennai
4. Stephen's College, Delhi
5. Lady Shri Ram College for Women, New Delhi

Institutions of Eminence scheme:

- The institutes of eminence scheme under the **Union human resource development (HRD) ministry aims to project Indian institutes to global recognition.**

Key features:

- The 20 selected institutes will enjoy complete academic and administrative autonomy.
- The government will run 10 of these and they will receive special funding.
- The selection shall be made through challenge method mode by the Empowered Expert Committee constituted for the purpose.
- Only higher education institutions currently placed in the top 500 of global rankings or top 50 of the National Institutional Ranking Framework (NIRF) are eligible to apply for the eminence tag.
- The private Institutions of Eminence can also come up as greenfield ventures provided the sponsoring organisation submits a convincing perspective plan for 15 years.

3. Gilgit-Baltistan polls illegal

Introduction:

- A Pakistani human rights activist has called Islamabad's move to fortify its occupation of Gilgit-Baltistan by holding elections in the region illegal. He has urged people in Gilgit-Baltistan to boycott the polls sponsored by Pakistan. Earlier this month, the Ministry of External Affairs issued a "strong protest" over an order by the Pakistan Supreme Court allowing the Imran Khan government to hold elections in the region of Gilgit-Baltistan of Pakistan-occupied Kashmir. The government said it had issued a demarche to protest what it called Pakistan's attempt to make "material changes" to the disputed area, by bringing federal authority to Gilgit-Baltistan, which has functioned as a "provincial autonomous region" since 2009.

What's the issue?

- Located in the northern Pakistan. It borders China in the North, Afghanistan in the west, Tajikistan in the north west and Kashmir in the south east.
- It **shares a geographical boundary with Pakistan-occupied Kashmir, and India considers it as part of the undivided Jammu and Kashmir**, while Pakistan sees it as a separate from PoK.
- It has a **regional Assembly and an elected Chief Minister**.
- In a recent order, the Pakistan Supreme Court allowed **the amendment to the Government of Gilgit-Baltistan Order of 2018 to conduct the general elections in the region.**
- **Gilgit-Baltistan** has functioned as a "**provincial autonomous region**" since 2009.
- Besides, India has conveyed that **the entire Union Territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, are an integral part of India by virtue of its fully legal and irrevocable accession.**
- Pakistan is very concerned about this region post August.

India's stand:

- Entire state of Jammu and Kashmir, which also includes the so-called 'Gilgit-Baltistan' has been, is and shall remain **an integral part of India.**
- Pakistan government or judiciary **have no locus standi on territories illegally and forcibly occupied by it.** Any action to alter the status of these occupied territories by Pakistan has no legal basis whatsoever.

Recent developments:

Pakistan, in 2017, declared the strategic Gilgit-Baltistan region as its fifth Province.

1. Gilgit- Baltistan is part of J&K and any such move would seriously damage Pakistan's Kashmir case. Two UN resolutions of August 13, 1948 and January 5, 1949 clearly established a link between GB and the Kashmir issue.
2. Making the region its fifth province would thus violate **the Karachi Agreement** — perhaps the only instrument that provides doubtful legal authority to Pakistan's administration of GB — as well as the UN resolutions that would damage its position on the Kashmir issue.
3. Any such move would also be violative of the 1963 Pak-China Boundary Agreement that calls for the sovereign authority to reopen negotiations with China "after the settlement of the Kashmir dispute between Pakistan and India" and of the 1972 Simla Agreement that mentions that **"neither side shall unilaterally alter the situation"**.

Changing Demography:

- Political activists have accused Pakistan of changing the demography of Gilgit Baltistan and Pakistan occupied Kashmir (PoK) in disregard to its own commitments.
- Islamabad has gradually diluted its constitution in order to facilitate outsiders to grab the land and resources of illegally occupied areas.
- Islamabad abolished the State Subject Rule in Gilgit Baltistan in 1984, which resulted in demographic changes in the territory. People from different parts of Pakistan are free to purchase land there.
- Pakistan has never kept its end of bargain when comes to Jammu and Kashmir. It has encroached on the land of Pakistan-occupied Jammu and Kashmir (PoJK). It has awarded the land of PoJK to China. It is changing the local demography that further violates the State Subject Rule.
- On August 29, 2009, the Gilgit-Baltistan Empowerment and Self-Governance Order 2009, was passed which granted limited autonomy, by creating, among other things, an elected Gilgit-Baltistan Legislative Assembly and Gilgit-Baltistan Council.
- This was overridden by Gilgit Baltistan Order 2018 which entrusted Pakistan with indisputable authority over the region. The order is seen as Islamabad's efforts towards incorporating the disputed region as its fifth province.
- Currently, Gilgit-Baltistan is neither a province nor a state. It has a semi-provincial status.
- Islamabad has designs to exploit the resources and cash-in the geo-strategic advantages of the region.
- It robs the locals off their resources. It denies them jobs and services. It has never paid royalty on local water resources. It never pays tolls on local transit routes. All these activities are illegal and not acceptable.
- The erstwhile princely state of Jammu and Kashmir was divided because of expansionists' designs of Pakistan. And since then people are suffering an endless irony under the undemocratic rule of Pakistan.
- Education, health, infrastructure and society have been destroyed. Natural resources have been plundered since a long time. There is no employment for the educated youth.
- It is believed that the Pakistani military has been systematically carrying out operations to keep the people of Gilgit Baltistan and PoK underdeveloped and underprivileged.
- Most of the educated people have also been recruited by the Inter-Services Public Relations (ISPR) to propagate in favour of the Pakistani establishment and that is a very dangerous phenomenon.

The China Factor:

- Pakistan has the pressure to declare Gilgit Baltistan as province of it so that China can take over its work.

- It is a major presence in the region, by virtue of being a neighbour. In 1963, Pakistan ceded 5,180 sq kms of the Shaksgam Valley to Beijing. In the late 1960s, China began constructing the Karakoram Highway to link Kasghar in Xinjiang province of China with Abbotabad in Pakistan, through the Khunjerab pass.
- Earlier in 2009, India had also formally objected to China undertaking projects in the region, noting that: "Pakistan has been in illegal occupation of parts of the Indian State of Jammu & Kashmir since 1947" and that the Chinese side was fully aware of "India's position and our concerns about Chinese activities in Pakistan Occupied Kashmir."
- Indian move to recover the region for India will be resisted not only by Pakistan, but China as well, which is digging into the region so as to create a cushion between the jihadi bad-lands of its ally Pakistan.
- So, the Chinese have been active in a range of hydro and road-building projects such as those relating to the Neelum Valley, Diamer Bhasha dam, the extension of the Karakoram Highway, the Sost dry port, the Bunji dam etc.
- China announced massive investments in what is now called the China-Pakistan Economic Corridor, India protested again because the corridor passed through Gilgit-Baltistan. The corridor will comprise of oil pipelines, roads and a railway linking Gwadar in Balochistan with Kasghar.

Way Forward:

- ✓ We need to assert our rights to the area and bring in international human rights forums into it.
- ✓ Support the people who have been exploited in that region.
- ✓ It is important to get both political and economic support.
- ✓ Regardless of consequences we need to give them reserve seats for Gilgit Baltistan in J&K assembly.

Link: <https://youtu.be/Vliu19D2uH4>

4. Golan Heights

Introduction:

The Golan Heights, a tiny, rocky plateau that was part of Syria till 1967, is back in international headlines. On March 25th, 2019, US President Donald Trump signed a proclamation recognizing Israeli sovereignty over the disputed region, reversing decades of American policy. Trump's move has drawn intense criticism from across the world. Member countries of the UN Security Council have refused to recognize Israel's sovereignty over Golan Heights, which has been the centre of conflict between Israel and Syria for decades. The Arab countries have even warned of a new wave of tensions in the Middle East.

- **Golan Heights**, also called **Golan Plateau**, Arabic **Al-Jawlān**, Hebrew **Ramat Ha-Golan** or **Ha-Golan**, hilly area overlooking the upper Jordan River valley on the west.
- The area was part of extreme southwestern Syria until 1967, when it came under Israeli military occupation, and in December 1981 Israel unilaterally annexed the part of the Golan it held. The area's name is from the biblical city of refuge Golan in Bashan.
- Syria tried to retake the Golan Heights during the 1973 Middle East war. Despite inflicting heavy losses on Israeli forces, the surprise assault was thwarted. Both countries signed an armistice in 1974 and a UN observer force has been in place on the ceasefire line since 1974.
- **Israel seized the Golan Heights from Syria in the closing stages of the 1967 Six-Day War.** Most of the Syrian Arab inhabitants fled the area during the conflict. An armistice line was established and the region came under Israeli military control. Almost immediately Israel began to settle the Golan.

Strategic importance:

- Southern Syria and the capital Damascus, about 60 km (40 miles) north, are clearly visible from the top of the Heights while Syrian artillery regularly shelled the whole of northern Israel from 1948 to 1967 when Syria controlled the Heights.
- The heights give Israel an excellent vantage point for monitoring Syrian movements. The topography provides a natural buffer against any military thrust from Syria.
- The area is also a key source of water for an arid region. Rainwater from the Golan's catchment feeds into the Jordan River.
- The land is **fertile**, and the volcanic soil is used to cultivate vineyards and orchards and raise cattle. The Golan is also home to Israel's only ski resort

What conflicts have revolved around the heights?

- Ever since Israel took control of the Golan Heights in 1967 there have been sporadic border skirmishes and exchanges of fire. The only major interstate conflict that's taken place since the Israeli occupation is the 1973 Arab-Israeli War, known to Arabs as the Ramadan War and to Israelis as the Yom Kippur War.
- During this conflict, Israel was confronted by two Arab fronts: Egypt on the Sinai peninsula and Syria in the Golan Heights, armed with up-to-date weapons from the Soviet Union. A very tough and bloody battle took place in the Golan Heights between the Syrian and Israeli forces.
- Had it not received immediate American military aid, Israel could have lost not just the Golan Heights but the entire military campaign. Instead, Israel still occupied the Golan Heights and officially annexed it in 1981. Sporadic border skirmishes occur till this very day.

Is Israel's occupation of the area legal?

- Israel's occupation of the Golan Heights is illegal under international law. To understand why, it's very important to remember three crucial resolutions passed by the UN Security Council: UNSCR 242 (1967), UNSCR 338 (1973) and UNSCR 497 (1981).
- In its first clause, UNSCR 242 clearly calls for the "withdrawal of Israel armed forces" from territories occupied in the Six-Day War – meaning the Sinai Peninsula, West Bank and the Golan Heights. UNSCR 338, passed during the Yom Kippur/Ramadan War, calls on all parties involved to implement UNSCR 242 "in all its parts".
- But UNSCR 497 goes further, and explicitly highlights the illegality of the Israeli occupation: "The Israeli decision to impose its laws, jurisdiction and administration in the occupied Syrian Golan Heights is null and void and without international legal effect."
- **Resolutions 242 and 338** in particular have informed peace initiatives ever since they were passed. Both were used to legitimise Arab demands in peace plans such as the **1982 Fez Plan** and the **2002 Arab Peace Initiative**, both of which Israel rejected.

What changed on recent Policy shift by US?

- For decades, the United Nations and the United States refused to recognize **Israel's seizure of the Golan Heights and the West Bank in 1967**, arguing that the contours of Israel must be negotiated diplomatically.
- Trump mentioned that, **after 52 years** it is time for the United States to fully recognize **Israel's sovereignty** over the Golan Heights, which is of **critical strategic and security importance** to the State of Israel and **Regional Stability**.
- Recognition of the Golan Heights could pave the way for US recognition of **Israeli sovereignty** in the Palestinian occupied territories.
- In a recent state department **report on human rights**, the administration changed its description of the West Bank and Gaza from "occupied territories" to "**Israeli-controlled territories**".

Challenges posed by the recognition:

1. Combined with last year's Jerusalem declaration, the decision could encourage Israel to begin annexing territory in the West Bank. This would permanently extinguish any remaining possibility for a two-state solution.
2. United Nations Resolution 242 passed immediately after 1967 war and unanimously to endorse a "land for peace" agreement that would exchange Arab peace and recognition of Israel for a return of occupied territory. Neither side wanted to act first. As a result of the diplomatic stalemate, Israel continued the occupations and began building Jewish settlements on the newly controlled lands.
3. Syrians in the occupied Golan face calculated Israeli efforts to restrict their building and land use, destroy their enterprises, cleanse their Arab culture, manipulate their Syrian identity, and suffocate their freedom of movement
4. The decision(to formally recognize Jerusalem as Israel's capital and to relocate the American embassy to the contested city) reversed decades of consistent U.S. policy that encouraged negotiations as the avenue to resolving territorial disputes, including on the status of Jerusalem.
5. Palestinian leaders have since refused to meet with American officials, meaning that their voices will be notably excluded from Trump's Middle East Peace Plan.
6. Russian President may use this as a pretext to justify Russia's annexation of Crimea. China is already claiming South China Sea. Their actions may be emboldened.
7. It may also encourage Pakistan to take similar action in PoK region in India

Link: <https://youtu.be/8oBz7bSTG7s>

GENERAL STUDIES - III

1. Way forward for manufacturing sector

Introduction:

- The government has taken steps to ease conditions for the manufacturing sector to resume operations. The steps include allowing industries outside limits of municipalities and municipal corporations to start operations, freeing up transportation of goods and setting guidelines for the movement and stay of labour. This could help companies to re-start operations. Companies, who had cut production, can now plan to bring back operations to normal levels.

Issues of manufacturing sector amid Lockdown:

1. India's manufacturing activity **contracted at its sharpest pace on record** in April as a lockdown to combat the rapid spread of the coronavirus led to a slump in demand and massive supply chain disruptions
2. Asia's third largest economy is taking a huge hit from the ongoing nationwide lockdown, which started on March 25, and its gross domestic product is expected to shrink for the first time since the mid-1990s this quarter
3. Record **contractions in output, new orders and employment** pointed to a severe deterioration in demand conditions.
4. With new orders and output shrinking at the steepest pace since at least early 2005 factories cut jobs at the fastest rate in the survey's history, signaling a high chance of recession.
5. A **record slump in both input and output prices**, suggesting a sharp fall in overall inflation which has held above the Reserve Bank of India's medium-term target of 4% for six months, failed to stoke demand
6. Enterprises suffer from low productivity given that their small size and lockdown prevents them from achieving economies of scale.

7. The jobs the small enterprises create are low-paying ones.
8. Numerous regulatory roadblocks, unfavourable land and labour laws, inadequate transport, communication and energy infrastructure, among others.
9. India faces stiff competition from South-East Asian and other South Asian countries.
10. Global technological and geo-economic changes.
11. Impact of a strong rupee in recent times on Indian industry and the economy.

MSME Sector:

1. The Micro, Small and Medium Enterprises (MSMEs) are literally the backbone of all Indian sectors and often engaged in manufacturing and export activities — two key drivers of the Indian economy.
2. Almost all MSMEs are out of action due to the lockdown, chocking all production activities at major firms across sectors. There are several reports that indicate how MSMEs are reeling under crisis and have no money to pay their employees.
3. From leaders to experts and industry bodies, everyone has appealed the government to increase its relief package for the MSME sector, which contributes to over 30 per cent of India's GDP.
4. It is worth mentioning that a majority of the small units may have to shut shop if they do not get a relief package soon.
5. The world is going through something unprecedented. Nearly a third of the globe is in lockdown. Due to this lack of trade and shrinking sales, MSME's are feeling the burden of loans, repayments, GST filings, etc.
6. Even after getting support from the government, many of them are almost on the verge of losing their control over losses and unable to generate revenues as well and fighting for their survival.

Opportunities for India:

- There are, however, opportunities that appears to be emerging.
- While there is **hope for a quick recovery in India**, we have to make concerted efforts to realise this including an integrated multi-pronged approach through public policy support, private sector participation and citizens' support.
- This presents a huge opportunity for India as many Companies plan to shift out of China. We need to prepare the **ground forthwith to welcome such investment into India**. We need to try and make life easy for investors.

Way Forward:

- ✓ It will be very important for the government to take initiatives and announce more **relief packages**.
- ✓ The government to provide cash infusions that allow companies to give workers jobs and buy raw materials.
- ✓ The government will also need to increase the insolvency limit for SMEs and MSMEs to 1 crore from 1 lakh.
- ✓ India's manufacturers could learn a lot from the IT sector's experience in promoting the large-scale development of s
- ✓ Continued focus on education will help attract foreign investment and also help the economy overcome the challenges.
- ✓ Favorable market access policies
- ✓ **Investor's confidence** must be improved.
- ✓ **Improving physical infrastructure** from transport systems to the power sector is essential.
- ✓ Enhancing the flexibility of labour regulations.
- ✓ FDI policy requires a review to ensure that it facilitates greater technology transfer, leverages strategic linkages and innovation.

- ✓ Attractive remuneration to motivate people to join the manufacturing sector.

Link: <https://youtu.be/coymUE2CAAw>

2. Localising Globalisation

Introduction:

The dual supply and demand shocks from the Covid-19 pandemic are expected to cause a global recession. In the last several weeks, global supply chains have been disrupted as workers are locked down, factories shut, and closed borders and terminals block supplies and cargo. Aggregate demand has collapsed. The pandemic threatens to usher in a phase of economic insularity, through efforts at localisation of supply chains and stricter immigration controls.

1. There is a widespread belief that nothing will ever be the same after the coronavirus pandemic, with society, the role of government and the economy changing forever. Some predict we will see a society that shows more solidarity and a new economic model that works for all, and perhaps a greater spirit of international cooperation, for example on climate change.
2. But increasingly the sharp falls in output are beginning to resemble the beginning of the Great Depression rather than a short recession. The epidemiological evidence suggests that it could be up to two years, rather than a few weeks or months, before all of the severe restrictions on economic activity can be lifted.
3. The lessons of history suggest that a substantial economic recovery will require global economic cooperation. Continuing to put up barriers to protect national economies, as happened in the 1930s, could turn a national recession into an even longer-lasting global depression in our highly integrated world economy.

The scope of globalization:

- Since 1950, economic globalisation has transformed the world economy, contributing mightily to rising living standards but proceeding unevenly with many countries and individuals losing out. Globalisation's scope extends from trade in goods and services to international migration of labour and, more recently, to finance.
- Each has involved international agreement (in the case of trade) or a consensus that reducing barriers to **immigration and global investment** will benefit all. Underpinning support for globalisation was a strong belief that international economic cooperation would reduce the chance of another war in the aftermath of the devastation of World War II. And the world's leading economic power, the US, saw the opening up of the world economy as the key to economic growth that would counter the appeal of Communism.
- Globalisation produced both winners and losers. The economic miracle of European recovery in the 1950s and 1960s was followed by economic miracles in a number of Far Eastern countries, from Japan to Korea and China by the 1990s, raising the standard of living of urban residents to near-Western levels.
- The boom reduced global poverty by a billion, mainly in China and India. Globalisation seemed to have conquered the world.
- But since 2000, the political impetus for increasing global economic integration has slowed, as concerns about its effect on inequality have grown. Global trade talks started in 2000 failed to produce an agreement and the costs as well as benefits of financial globalisation became evident in the 2008 financial crisis.
- While the pace of globalisation may have slowed and political support for it has weakened, our world is more connected than ever. For American farmers and car manufacturers, China is their biggest market. Britain's role as a global financial centre is the linchpin of its economy. Developing countries such as Bangladesh and Vietnam are increasingly dependent on clothing

exports. And remittances from migrants are vital to the economy of many poor countries, from the Philippines to Nepal to Central America.

- The sharp slowdown in the two world's biggest economic zones, the US and the EU, will reverberate throughout the global economy and probably have its biggest effect on poor countries.

Impact in Asia Pacific and India:

1. COVID-19 crisis is a challenge never seen before and it is going to be a bigger shock for the world economy than the global financial crisis which was only driven by a demand shock.
2. This entails a demand and supply shock and it is still unfolding. It is now clear that many economies are going to shrink — developed countries as well as many in the Asia Pacific region that are highly dependent on tourism and commodities trading will also shrink.
3. Commodity prices are at their lowest in the last 10 years.
4. For India, however, there is a slight silver lining because of low oil and commodity prices as we are net importers and, also, since the government is not allowing a full pass-through of the lower global prices, it means that there is some fiscal space through commodity price reduction.
5. Still, the disruption in work, especially in MSMEs that are the backbone of manufacturing, trading and services, is very serious. This is a very large shock to the world economy and many things will change after we come out of it

Challenges for Self Reliance:

1. Electrical equipment such as smartphones and computers are a key part of India's import bill. The value addition in India's electronics industry is limited to mostly assembly, while the country depends on imports to access most of the primary and critical components used to make them, including printed circuit boards (PCBs).
2. For instance, around 88 per cent of the components used by the mobile handsets industry are imported from countries like China.
3. Over 60 per cent of the country's medical devices are imported as well. Other products heavily imported into the country are cells and modules used by the country's solar power industry
4. India's pharmaceutical industry is capable of making finished formulations, and also has domestic manufacturers of several key ingredients used to make them. However, the industry also imports some key ingredients for antibiotics and vitamins currently not manufactured in India. The country is currently trying to encourage domestic firms to make these key ingredients, known as fermentation-based APIs. However, this may take a few years.
5. India imported around Rs 249 billion worth of key ingredients, including fermentation-based ingredients, in FY19, and this accounted for approximately 40 per cent of the overall domestic consumption, according to CII.
6. Medical devices like ventilators also rely on imports of several crucial components like solenoid valves and pressure sensors.
7. Some auto manufacturers depend on imports for various components, while the country's electric vehicles industry is dependent, "to a large extent" on Chinese imports for chemicals used to make cathodes and battery cells.
8. Local dyestuff units in India are also heavily dependent on imports of several raw materials, while specialty chemicals for textiles like denim are also imported.
9. For instance, when China initiated its lockdown of Wuhan earlier this year during the COVID-19 pandemic, nearly 20 per cent of India's dyes and dyestuff industry production was hit due to a disruption in raw material.

Issues with scaling up production in import dependent sectors:

- The manufacture of some of the key products that India imports such as semiconductors, displays and other very capital intensive electrical equipment may not be possible soon as manufacturing these requires large, stable sources of clean water and electricity.
- They also need a high degree of policy certainty as these require high upfront investments. Indian firms can however begin producing less sophisticated components if certain policy measures are taken
- The Indian industry faces much higher costs in inputs such as electricity and much higher logistics costs.

Conclusion:

- ❖ We have the capacity of becoming the manufacturing hub for our own country and not to become export dependence. A key issue holding back manufacturing in the country and a lack of flexibility in labour laws, high costs and low availability of land, high cost of electricity, expensive credit and too many taxes. Some states including UP and Madhya Pradesh have relaxed some labour laws with Karnataka likely to follow suit.

Link: <https://youtu.be/5NZYiEWnljg>

3. Changing labour and tax laws

Introduction:

- The information technology industry has approached the central government ministries to flesh out changes to taxation and labour laws in line with the work-from-home model. While the coronavirus pandemic forced offices to migrate to WFH, many are expected to continue this even once a solution for the current health crisis emerges. At least 4.3 million IT workers or half the sector's workforce would WFH permanently, according to estimates.

What changes is the IT industry expecting?

- IT industry has moved nearly 85-90% of its workforce to deliver services from home. The government categorised the industry as essential services and permitted exemptions similar to those granted to units in SEZs and STPIs by the department of telecom.
- India's IT sector is seeking revisions in the country's taxation and labour laws as over in the \$191 billion industry could begin to deliver services remotely as part of the changes being wrought by the ongoing pandemic.
- The industry has also requested the government to make permanent several recent concessions extended until July, including relaxation of telecom regulations that allow back-office companies to work from home and move equipment out from designated special economic zones to facilitate remote working.
- Some of the labour laws may not cater to a work-from-home environment, so the industries need to start looking through a fresh lens
- Officials are of the view that labour laws should be amended in a way to safeguard employees while also providing flexibility to employers.
- India's IT industry contributes 8% to the country's gross domestic product and has a 46% share in the country's services exports.
- As working from home catches up, people could work for two or even three companies at the same time. So, the government will need to let employers and workers choose NPS (National Pension Scheme) instead of EPFO as a social security scheme, as in NPS a worker can be an employee today and a gig worker tomorrow.

- Income tax provisions also need to be reviewed as expenses incurred by employers to enable work from home will need to be treated as business expenses and not as benefits in the hands of the worker, including broadband costs or office furniture.
- Current labour laws will need to be revisited to provide industry the flexibility to enable working hours and shift timings. Moreover, the role of employer with respect to safety and health measures at the workplace will require a rethink as the home becomes the new workplace.

What have states done in this regard?

- Several States have recently made significant changes in labour laws in order to deal with the economic challenges posed by COVID-19.
- While most states have only increased working hours for factory workers, states such as Madhya Pradesh and Uttar Pradesh have undertaken wider changes aiming at attracting investment, easing compliance and speeding up the process of granting approvals and licences.
- Since labour welfare falls within the concurrent list of the Constitution, both Central and State Governments can make laws on the subject. Any amendment to a Central statute by a State also requires the assent of the President, unless a change is made by a State exercising its existing powers within the statute itself.
- Most states have followed the latter approach by introducing temporary relaxations under key labour statutes. Uttar Pradesh appears to have passed an ordinance providing a carte blanche exemption to all factories and commercial establishments from the application of almost all labour laws for a period of 3 years, barring provisions relating to the protection of women and children.
- While the legality of some of these changes may ultimately be subject to judicial scrutiny.
- The Government should look at bringing meaningful reforms to address the concerns of the industry while also safeguarding workers' rights by simplifying laws, easing compliance, expediting approvals, and ensuring consistency across States in the interpretation and application of labour laws and procedure.

Issues faced by labourers and concerns related to labour laws:

- If all labour laws are removed, most employment will effectively turn informal and bring down the wage rate sharply. And there is no way for any worker to even seek grievance redressal.
- Laws to protect basic human rights covering migrant workers, minimum wages, maternity benefits, gratuity, etc. have been suspended.
- Through the public health crisis created by the COVID-19 pandemic, workers are being abandoned by their employers and, above all, by the state.
- The workers' right to go home was curbed using the Disaster Management Act, 2005.
- Adequate provisions were not made available for their food, shelter or medical relief.
- Wage payments were not ensured, and the state's cash and food relief did not cover most workers.
- When the centre issued orders permitting their return to their home States, state governments responded by delaying travel facilities for the workers to ensure uninterrupted supply of labour for employers.
- Employers now want labour laws to be relaxed.
- The Uttar Pradesh government has issued an ordinance keeping in abeyance almost all labour statutes including laws on maternity benefits and gratuity; the Factories Act, 1948; the Minimum Wages Act, 1948; the Industrial Establishments (Standing Orders) Act, 1946; and the Trade Unions Act, 1926.
- Several States have exempted industries from complying with various provisions of laws.
- The Confederation of Indian Industry has suggested 12-hour work shifts and that governments issue directions to make workers join duty failing which the workers would face penal actions.

4. A-SAT Missile

Introduction:

- India joined an elite club of nations who possess an anti-satellite technology. The technological mission, named Mission Shakti, was led by DRDO with an aim to strengthen India's overall security. Experts say, the capability of attacking a satellite in a orbit closer to Earth will give a tactical weapons edge to the country.

Outer Space Treaty, 1967:

- The **Outer Space Treaty**, formally the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, is a treaty that forms the **basis of international space law**.
- The Outer Space Treaty **prohibits only weapons of mass destruction** in outer space, not ordinary weapons.
- 108 countries** are parties to the treaty, while another 23 have signed the treaty but have not completed ratification.
- The exploration and use of outer space shall be carried out for the benefit and in the **interests of all countries** and shall be the province of all mankind.
- Given the prohibitively **expensive nature of space projects**, India and other countries must utilise the increased presence in space to legitimately advance the **well-being of their people**

Anti-satellite missile test (ASAT):

- It is the technological capability **to hit and destroy satellites in space** through missiles launched from the ground.
- Scientists and engineers at Defence Research and Development Organisation (DRDO) launched a missile from the **Dr A P J Abdul Kalam Island** launch complex near Balasore in Odisha that struck a predetermined target: a redundant Indian satellite that was **orbiting at a distance of 300 km from the Earth's surface**.

Significance of Mission Shakti:

- Satellites are used by countries for **navigation, communications** and also for guiding their **missile weaponry**.
- The ability to **bring down an enemy's missile**, therefore, gives a country the capability to **cripple critical infrastructure of the other country**, rendering their weapons useless.
- Though the **United States** and the then Soviet Union both tested anti-satellite missiles **way back in the 1970s** at the height of the cold war, never has any country brought down the satellite of any other country, either during a conflict or by mistake.
- During the tests, countries **target their own satellites**, those which **are no longer in use** but continue to be in the space.
- A detailed statement by the Ministry of External Affairs (MEA) confirmed that an **Indian satellite had been used for the test, but did not specify which satellite it was**.
- PM Modi was careful to state that India's test was a "defensive" move, aimed at securing its space infrastructure, and does not change India's strong opposition to weaponisation of space

Raising concerns:

- Outer space has become an **"arena of rivalry between major powers."** At the same time, there was **common concern on space debris**. Satellites today have to avoid almost 6,00,000 debris of over 1cm travelling at speed faster than a bullet.

- As space gets increasingly crowded, **there is need to regulate space traffic on the lines of air traffic or railways.**

Previous ASAT missions:

1. **1959: USA** performs first anti-satellite test. An air-launched ballistic missile was fired from B-47 bomber at Explorer VI satellite.
2. **1963: Soviet Union** acquires ASAT technology.
3. **1985: America** tested AGM-135, launched from a F-15 fighter jet and destroyed its own satellite Solwind P 78-1.
4. **2007: China** enters anti-satellite arena. It destroyed old weather satellite in a high, polar orbit.
5. **2008: USA** carried out Operation Burnt Frost to destroy a defunct spy satellite.
6. **27th March 2019: India** became the fourth nation to acquire ASAT technology.

Way ahead:

- ✓ Arms race in outer space should not be encouraged. India has always maintained that space must be used only for peaceful purposes. It is against the weaponisation of Outer Space and supports international efforts to reinforce the safety and security of space based assets.
- ✓ India believes that Outer space is the common heritage of humankind and it is the responsibility of all space-faring nations to preserve and promote the benefits flowing from advances made in space technology and its applications for all.

Link: <https://youtu.be/D1AgtKBK6do>

5. Acute Encephalitis Syndrome

Introduction:

- The number of child deaths in Bihar had turned the country's attention towards Acute Encephalitis Syndrome. The disease has claimed over 100's of lives. The disease most commonly affects children and young adults, damaging their central nervous system

AES:

1. Acute encephalitis syndrome (AES) is characterized by an acute onset of fever and clinical neurological manifestation that includes mental confusion, disorientation, delirium, or coma
2. Meningitis caused by virus or bacteria, encephalitis (mostly Japanese encephalitis) caused by virus, encephalopathy, cerebral malaria, and scrub typhus caused by bacteria are collectively called **acute encephalitis syndrome.**
3. The disease most commonly affects children and young adults and can lead to considerable morbidity and mortality.
4. The history of AES in India has paralleled with that of the Japanese encephalitis virus (JEV) since the first report in 1955 from Vellore, Tamil Nadu. The first outbreak of JEV was reported in Bankura district, West Bengal in 1973. Thereafter, sporadic cases of AES and outbreaks have been the leading cause of premature deaths due to the disease in India

Causes:

1. **Viruses** are the main causative agents in AES cases, although other sources such as bacteria, fungi, parasites, spirochetes, chemicals, toxins, and noninfectious agents have also been reported over the past few decades. It is not vaccine-preventable.
2. Japanese encephalitis virus (JEV) is the major cause of AES in India (ranging from 5%-35%).
3. Herpes simplex virus, Nipah virus, Zika virus, Influenza A virus, West Nile virus, Chandipura virus, mumps, measles, dengue, scrub typhus, S.pneumoniae are also found as causative agents for AES.

Government Initiatives:

- Several government initiatives have been undertaken to **educate and improve the hygiene** of people living in the JE endemic zones.
- Government and non-government organizations have been instrumental in **providing proper nutrition** to the AES-affected population as most of the affected people belong to the lower economic strata of the society.
- There have been initiatives to help the people residing in the endemic zones for alternative professions such as giving up pig-rearing since pigs are the primary host for JE viruses. Special schools have been set up to help children challenged by clinical sequelae of JE infection.
- Vero cell-derived purified inactivated JE vaccine-JENVAC, was the first vaccine in India that received manufacturing and marketing approvals from the Drug Controller General of India. The vaccine was an outcome of public-private partnership mode between the Indian Council of Medical Research and Bharat Biotech.

Litchi fruit link:

1. In 2012-2013, a two-member team headed by virologist Dr. T. Jacob John confirmed, a **toxin found in litchi fruit** that was responsible for **causing the hypoglycaemic encephalopathy**.
2. In 2017, a large Indo-U.S. team confirmed **the role of the toxin**. The toxin is called **methylenecyclopropyl glycine (MCPG)**.
3. Early morning, there is normal tendency for blood sugar to dip, after several hours of no food intake.
4. Undernourished children who had gone to sleep **without a meal at night develop hypoglycaemia**.
5. The brain **needs normal levels of glucose** in the blood. The liver is unable to supply the need. So the alternate pathway of glucose synthesis, called fatty acid oxidation, is turned on. **That pathway is blocked by MCPG**.
6. Litchi does not cause any harm in **well-nourished children**, but only in undernourished children who had eaten litchi fruit the previous day and had **gone to bed on empty stomach**.
7. What precisely causes the brain inflammation is not clear. **Heat and humidity could be factors**, and also genetic predisposition because not all the children in a family fall ill despite the same conditions

Measures needed:

1. Increase access to safe drinking water and proper sanitation facilities
2. Improve nutritional status of children at risk of JE/AES
3. Preparative measures to be in place before the possible outbreaks.
4. **Vector control :**
 - a. The preventive measures are directed at reducing the vector (mosquito) density.
 - b. Personal protection against mosquito bites using insecticide treated mosquito nets.
 - c. Clothing reduces the risk of mosquito biting if the cloth is sufficiently thick or loosely fitting. Long sleeves and trousers with stockings may protect the arms and legs, the preferred sites for mosquito bites. School children should adhere to these practices whenever possible.
 - d. Repellents are a common means of personal protection against mosquitoes and other biting insects. These are broadly classified into two categories, natural repellents and chemical repellents. Essential oils from plant extracts are the main natural repellent ingredients, i.e. citronella oil, lemongrass oil and neem oil.
 - e. The reduction in mosquito breeding requires eco-management, as the role of insecticides is limited.

5. **Vaccination:** As per Govt. of India guidelines, 2 doses of JE vaccine have been approved to be included in UIP to be given one along with measles at the age of 9 months and the second with DPT booster at the age of 16-24 months w.e.f. April, 2013.
6. Better awareness generation among children, parents through Anganwadi workers, ANMs etc.

Link: <https://youtu.be/kydSjKVblns>

6. Drug resistance

Introduction:

- All of us know what antibiotics are, in fact, whenever we suffer a severe infection, our medical practitioner prescribes these powerful medicines to help us fight the infection caused by bacteria. Also known as antimicrobial drugs, antibiotics have saved countless lives since 1928 – when penicillin, the first antibiotic, was used by doctors. But, over the years, the misuse and overuse of these drugs has contributed to a phenomenon known as antibiotic resistance. This resistance develops when potentially harmful bacteria change in a way that reduces or eliminates the effectiveness of antibiotics.
- The world is heading rapidly towards a post-antibiotic era, in which common infections will once again kill. As per a UN report, at least 7,00,000 people die each year due to drug-resistant diseases currently. By 2050, this number could go up to 10 million. It sounds alarmist, but that's the harsh truth brought to the fore by the World Health Organisation. The efficacy of the world's antibiotics is quickly decaying, the drugs we are using to treat infections are working less and less. In India too, a recent study states that two out of every three healthy Indians are resistant to two major types of antibiotics. Clearly, if we continue at this rate without intervention, we may find that there is not a single antibiotic left to treat any type of bacterial infection

Antibiotics:

- An **antibiotic** is a type of antimicrobial substance active against bacteria and is the most important type of antibacterial agent for fighting bacterial infections.
- Antibiotic medications are widely used in the treatment and prevention of such infections.
- They may either kill or inhibit the growth of bacteria.
- A limited number of antibiotics also possess antiprotozoal activity.
- Antibiotics are not effective against viruses such as the common cold or influenza; drugs which inhibit viruses are termed antiviral drugs or antivirals rather than antibiotics.
- Antibiotics are medicine used to treat infections caused by bacteria. Antibiotic Resistance refers to resistance developed by bacteria against antibiotics or the ability of bacteria to mutate or change so as to resist the effects of antibiotics. The more we use them, and the more we abuse them, the less effective they become.
- Antibiotics are unquestionably useful against bacterial infections. However, indiscriminate use has resulted in development of resistance in patients with bacterial infections thereby leading to long lasting illnesses.
- Thanks to that annoying thing called evolution, bacteria are constantly adapting to counter-attack antibiotics. Antibiotic resistance is one of the most significant threats to patients' safety. It is driven by overusing antibiotics and prescribing them inappropriately.

Key findings:

1. India is one of the top users of antibiotics.
2. The private sector clocked high levels of antibiotic prescription rates (412 per 1,000 persons per year).
3. The highest rate was seen among children aged 0–4 years (636 per 1,000 persons) and the lowest in the age group 10–19 years (280 per 1,000 persons).

4. Per-capita antibiotic consumption in the retail sector has increased by around 22% in five years from 2012 to 2016.

Government Initiatives:

1. National Programme on Containment of Antimicrobial Resistance was launched under the 12th Five-year Plan.
2. The Union health ministry is set to roll out prescription audits as part of a multi-pronged strategy against anti-microbial resistance (AMR).
3. The health ministry, along with WHO, has worked out a national action plan to combat antibiotic resistance.
4. The campaign — 'Medicines with the Red Line', which involves packs of certain medicines carrying a 'red line' to differentiate them from other drugs.
5. Indian Council of Medical Research has issued new national guidelines on the use of Antibiotics.
6. Public awareness messages on state-run radio channels cautioning patients against taking antibiotics without a prescription

Concerns:

1. Antibiotic resistance is already one of the biggest health risks and is estimated to kill 50 million by 2050 worldwide.
2. The threat continues to escalate globally because more than 50 per cent of antibiotics in many countries are used inappropriately such as for treatment of viruses when they only treat bacterial infections or use of the wrong (broader spectrum) antibiotic.
3. Besides, reduced access to effective and appropriate antibiotics in many low- and middle-income countries contributes to childhood deaths and lack of funding and implementation of national plans to tackle antimicrobial resistance.

Way forward:

1. **Poultry:**
 - a. **Ban the use of antibiotics for growth promotion and mass disease prevention.** It should only be used to cure the sick animals based on prescription of veterinarians
 - b. **There is a need to introduce a labelling system wherein poultry raised without use of antibiotics should be labelled through reliable certified schemes to facilitate consumer choice.**
2. Rationalizing antibiotic use to limit antibiotic resistance in India.
3. Improving regulation of drug production and sale
4. Encouraging behavior change among doctors and patients are of immediate priority.
5. Regulation of the medical sector, particularly in the prescription of medicines.
6. Improved management of the health care delivery systems, both public and private, will minimize conditions favourable for the development of drug resistance.
7. Improved awareness of antimicrobial resistance through effective communication. WHO's World Antibiotic Awareness Week is one such event.
8. Reducing the incidence of infection through effective infection prevention and control. As stated by WHO, making infection prevention and hand hygiene a national policy priority.
9. Discourage non-therapeutic use of antimicrobial agents in veterinary, agriculture and fishery practices as growth-promoting agents.
10. Promoting investments for antimicrobial resistance activities, research and innovations
11. Strengthening India's commitment and collaborations on antimicrobial resistance at international, national and sub-national levels.
12. Regulate the release of antibiotic waste from pharmaceutical production facilities and monitoring antibiotic residues in wastewater.

7. The deadly fungus- Candida Auris

Introduction:

- The fungus is emerging as a global threat, having spread in at least 15 countries and claimed several hundred lives. Identified in 2009 in Japan, the deadly fungus is infecting patients in hospitals and nursing homes around the world. According to the Centers for Disease Control and Prevention, nearly half of the patients who contract Candida Auris die within 90 days. Yet, scientists haven't been able to nail down where the fungus came from in the first place.

Candida auris:

1. Although C. auris was first identified in 2009 in Japan, it has spread quickly and caused infections in more than a dozen countries.
2. Candida is a genus of fungi (yeasts) that live on the skin and inside the human body. Candida auris (also called auris) is an uncommon fungus that can cause serious infections.
3. Most people who carry the fungus on their body do not get sick from it, but sometimes it can lead to serious bloodstream, wound and ear infections. People who carry the fungus (known as colonisation) are considered to be colonised for life.
4. Infections caused by auris are concerning because they can be more difficult to treat than other candida infections, as they are often resistant to medicines.
5. Candida auris can also spread more easily from person to person than other types of Candida. For this reason, auris can cause problems in hospitals and nursing homes as it can spread from one patient to another or via shared objects.
6. auris is more likely to affect patients who have:
7. a hospital stay in an area with documented or suspected C. auris transmission
8. a prolonged hospital stay
9. an indwelling medical device, such as a central venous catheter, urinary catheter, biliary catheter or wound drain
10. an impaired immune system
11. multiple or recent exposures to broad spectrum antibiotics
12. diabetes mellitus
13. had recent surgery.

What will happen if one has Candida auris?

- Patient will be moved to a single room and a sign will be placed on your door to remind health care workers who enter your room about the special precautions they need to take, such as wearing a gown and gloves.
- Everyone, will need to wash their hands or use an alcohol-based hand rub before entering or leaving your room.
- An alert will be placed in your hospital record to alert staff, if you are admitted another time, that extra precautions are required.

Concerns:

- It is often multidrug-resistant, meaning that it is resistant to multiple antifungal drugs commonly used to treat *Candida*
- It is difficult to identify with standard laboratory methods, and it can be misidentified in labs without specific technology. Misidentification may lead to inappropriate management.

- It has caused outbreaks in healthcare settings. For this reason, it is important to quickly identify *auris* in a hospitalized patient so that healthcare facilities can take special precautions to stop its spread.

Prevent the spread:

1. avoid touching any areas of broken skin or wound dressings
2. ensure you wash your hands or use an alcohol-based hand rub, particularly
 - a. after using the toilet
 - b. before eating food
 - c. whenever you leave your hospital room.

Visitors should also continue to practice good hand hygiene and ensure they wash their hands or use alcohol-based hand rub before and after touching patients or any items around the bedside.

Is *C. auris* treatable:

- Most *C. auris* infections are treatable with antifungal drugs. However, some *C. auris* infections have been resistant to all three main classes of antifungal medications, making them more difficult to treat

Why is multidrug resistance a problem?

- The increase in resistant organisms is fueled by overuse of antimicrobial drugs, not just in healthcare settings but also in agriculture.
- As more microorganisms evolve ways to survive commonly used drugs, treating infections becomes more difficult. This increases the risks associated with hospitalizations and surgeries.

Link: <https://youtu.be/0chDOZsQNvU>

8. Malaria vaccine

Introduction:

Malaria has been one of the world's deadliest diseases. It kills more than 400,000 people a year worldwide and causes illness in millions of others. Africa is home to 70% of the world's malaria cases and 90% of deaths. In the past two decades, existing interventions have reduced the malaria burden. And India, too, has made good progress in malaria control. The disease burden has declined by 59 per cent. The success has led to the government in making a commitment to eliminate malaria by 2030. The fight against the disease got another shot in the arm when the world's first malaria vaccine launched in Malawi this week.

1. Malaria is caused by **Plasmodium** The parasites are spread to people through the bites of infected female Anopheles mosquitoes, called "malaria vectors."
2. There are 5 parasite species that cause malaria in humans, and 2 of these species – falciparum and *P. vivax* – pose the greatest threat.
3. In 2018, falciparum accounted for 99.7% of estimated malaria cases in the WHO African Region 50% of cases in the WHO South-East Asia Region, 71% of cases in the Eastern Mediterranean and 65% in the Western Pacific.
4. *vivax* is the predominant parasite in the WHO Region of the Americas, representing 75% of malaria cases.
5. **Symptoms**
 - a. Malaria is an acute febrile illness. In a non-immune individual, symptoms usually appear 10–15 days after the infective mosquito bite. The first symptoms – fever, headache, and chills – may be mild and difficult to recognize as malaria. If not treated within 24 hours, falciparum malaria can progress to severe illness, often leading to death.

- b. Children with severe malaria frequently develop one or more of the following symptoms: severe anaemia, respiratory distress in relation to metabolic acidosis, or cerebral malaria. In adults, multi-organ failure is also frequent. In malaria endemic areas, people may develop partial immunity, allowing asymptomatic infections to occur.
6. Prevention
 - a. Vector control is the main way to prevent and reduce malaria transmission. If coverage of vector control interventions within a specific area is high enough, then a measure of protection will be conferred across the community.
 - b. WHO recommends protection for all people at risk of malaria with effective malaria vector control. Two forms of vector control – insecticide-treated mosquito nets and indoor residual spraying – are effective in a wide range of circumstances.

Mosquirix:

1. It is the world's first vaccine against the deadly Malaria.
2. **RTS,S, known by its trade name Mosquirix**, uses antibodies to target proteins presented by sporozoites (such as the circumsporozoite protein of falciparum) to enhance the immune system and help prevent the parasite from infecting the liver.
3. Mosquirix is also engineered using a hepatitis B viral protein and a chemical adjuvant to further boost the immune response for enhanced effectiveness.
4. The vaccine offers partial protection from the disease, with clinical trials finding that it prevented approximately 4 in 10 malaria cases, according to WHO.
5. African Nation, Malawi will be undertaking large scale pilot tests for the world's most advanced experimental malaria vaccine in a bid to prevent the disease. Some 360,000 children a year in three African countries will receive the world's first malaria vaccine as part of a large-scale pilot project.
6. The vaccine has been recommended by **WHO for pilot introduction** in selected areas of 3 African countries- Ghana, Kenya and Malawi.

India's efforts to fight Malaria:

1. India's progress in fighting malaria is an outcome of concerted efforts to ensure that its malaria programme is country-owned and country-led, even as it is in alignment with globally accepted strategies.
2. Indian government has released a **National Strategic Plan (NSP) for malaria elimination for years 2017-2022, targeting eradication by 2030.**
3. This marked a **shift in focus from malaria "control" to "elimination"**. The plan provides a roadmap to achieve the target of ending malaria in 571 districts out of India's 678 districts by 2022.
4. India has sustained significant decline in malaria cases, halving numbers to 5.1 million in 2018 from 9.6 million the year before. This followed a 24% decline in 2017, according to the World Malaria Report 2018.
5. Since 2000, India has reduced malaria deaths by two-thirds and halved the number of malaria cases.
6. Scaling up a diagnostic testing, treatment and surveillance
7. Ensuring an uninterrupted drug and diagnostics supply chain
8. Training community workers to test all fever cases and provide medicines, and distributing medicated bed-nets for prevention, under its 'test-treat-track' in the endemic north-eastern states and Odisha.

World Malaria Report 2019:

1. As per the report, an estimated 228 million malaria cases were reported across the world in 2018, reduced from 251 million cases in 2010 and 231 million cases in 2017.
2. Most of the burden of malaria cases was reported from the African Region (93%), followed by South-East Asia Region (3.4%) and the Eastern Mediterranean Region (2.1%).
3. India and nineteen countries in sub-Saharan Africa were found to have carried 85 percent of the global malaria burden, among which six countries accounted for more than half of the global malaria cases.
4. The countries included Nigeria (25%), the Democratic Republic of the Congo (12%), Uganda (5%) and Côte d'Ivoire, Mozambique and Niger (4% each).
5. Besides, an estimated 405 000 malaria deaths were recorded globally in 2018, reduced from 416000 estimated deaths in 2017 and 585000 deaths in 2010.
6. Children aged below 5 years were found to be most vulnerable to the disease, as they accounted for 67 percent of malaria death globally in 2018. In the region-wise record, the African Region accounted for 94 percent of malaria deaths in 2018.
7. Almost 85 percent of the global malaria deaths in 2018 were restricted to 20 countries from the African Region and India. Nigeria topped the list with 24 percent of global malaria deaths, followed by the Democratic Republic of the Congo with 11 percent of total malaria deaths, United Republic of Tanzania (5%) and Angola, Mozambique and Niger accounting for 4 percent each.
8. Only the African Region and South-East Asia Region showed a reduction in malaria deaths in 2018, in comparison to 2010. The African Region reported the largest absolute reduction in malaria deaths, from 533 000 in 2010 to 380 000 in 2018.
9. India was **one of the only two countries** to report a reduction in malaria burden in 2018. The other nation was Uganda.
10. India witnessed a 28 percent fall in malaria cases between 2017 and 2018. In the 2016 and 2017 period, India had recorded a 24 percent reduction in malaria cases.
11. Further, only seven out of 28 Indian states and 9 UTs accounted for 90 percent of the estimated malaria cases in 2018. These states included West Bengal, Jharkhand, Chhattisgarh, Odisha, Madhya Pradesh, Uttar Pradesh and Gujarat.
12. All the seven states reported large reductions in malaria cases, from 14.3 million cases in 2010 to 5.7 million cases in 2018. The rates of reductions were mostly slower in the past 3 years than in preceding years in other nations.

Link: https://youtu.be/h6_pvrcWE4Y

9. Coronavirus impact on environment

Introduction:

- Global carbon emissions from the fossil fuel industry could fall by a record 2.5bn tonnes this year, a reduction of 5%, as the coronavirus pandemic triggers the biggest drop in demand for fossil fuels on record. The unprecedented restrictions on travel, work and industry due to the coronavirus has ensured several days with good quality air in our choked cities. Pollution and greenhouse gas emissions have fallen across continents

Impact:

1. The coronavirus pandemic has caused a global reduction in economic activity and although this is major cause for concern, the ramping down of human activity appears to have had a positive impact on the environment.
2. Industrial and transport emissions and effluents have reduced, and measurable data supports the clearing of pollutants in the atmosphere, soil and water. This effect is also in contrast to

carbon emissions, which shot up by 5 percent after the global financial crash over a decade ago, as a result of stimulus spending on fossil fuel use to kickstart the global economy.

3. The month of May, which usually records peak carbon emissions due to the decomposition of leaves, has recorded what might be the lowest levels of pollutants in the air since the 2008 financial crisis.
4. China and Northern Italy have also recorded significant reductions in their nitrogen dioxide levels.
5. As a result, air quality levels in the world's major cities improved dramatically in March and April. Air quality improved largely because of a reduction in factory and road traffic emissions of carbon dioxide (CO₂), nitrogen oxides (NO_x) and related ozone (O₃) formation, and particulate matter (PM).
6. Water bodies have also been clearing and the rivers Yamuna and Ganga have seen significant improvement since the enforcement of a nationwide lockdown.
7. In conclusion, the takeaway from this is that once nations come to grips with the coronavirus, better implementation of the environmental, transport and industry regulations should be considered a priority to ease the detrimental impacts of human activity on the environment.
8. While these developments have inflicted substantial economic and social shocks as global production, consumption and employment levels dropped precipitously, they have also been associated with significant reductions in air pollution and greenhouse gas emissions.
9. So long as the coronavirus crisis keeps economic activities reduced, emissions will remain relatively low. However, it would be short-sighted to conclude this is a durable environmental improvement as emissions will most likely rise to previous levels when economic activity picks up as the crisis resolves.

Investing in a cleaner future:

1. Globally, deaths related to exposure to air pollution are of pandemic proportions, with 7 million deaths every year.
2. This should be a wake-up call for India to address the problem.
3. This is not the most ideal way to bring down air pollution, but it does prove that air pollution is manmade. It gives a lot of encouragement and hope that we can bring pollution down.
4. The coronavirus crisis also presents India with an opportunity to invest in a clean energy future.

Why we need to act now?

1. Short-lived climate pollutants – including black carbon, methane, hydrofluorocarbons, and tropospheric ozone – are powerful climate forcers with global warming potentials many times that of carbon dioxide.
2. They also significantly impact food, water and economic security for large populations throughout the world, both directly through their negative effects on public health, agriculture and ecosystems, and indirectly through their impact on the climate.
3. The effects of short-lived climate pollutants represent a major development issue that calls for quick and significant global action.
4. Measures to reduce short-lived climate pollutant emissions are often accessible and cost-effective, and if quickly implemented can bring immediate benefits for the climate as well as the health and livelihoods of millions.

Biggest Lessons learnt:

- We can save lives by funding, accessing and understanding the best science available. The science on climate change has been clear for decades, but we've failed in communicating the danger to the public, leading to slow action and widespread denial of the facts.

- The loss of habitat and biodiversity creates conditions for lethal new viruses and diseases like COVID-19 to spill into human communities. And if we continue to destroy our lands, we also deplete our resources and damage our agricultural systems.
- Quick and drastic action can flatten the curve for coronavirus and free up healthcare resources, lowering death rates.
- Similarly, drastic action on climate change could reduce food and water shortages, natural disasters and sea level rise, protecting countless individuals and communities.
- All over the world, healthy people are changing their lifestyles to protect the more vulnerable people in their communities. Similar dedication for climate change could transform our energy consumption immediately.
- Those with underlying social, economic or physical vulnerabilities will suffer most.
- Business as usual — digging up fossil fuels, cutting down forests and sacrificing the planet's health for profit, convenience and consumption — is driving catastrophic climate change. It's time to abandon this destructive system and find sustainable ways to inhabit our planet.

Link: <https://youtu.be/1-XBsPHtpew>

10. Earth Day

Introduction:

Mahatma Gandhi once said – Earth provides enough to satisfy every man's need, but not every man's greed. Human beings have destroyed a tenth of Earth's wilderness in the last 25 years and there may be none left within a century if trends continue. According to a study published in the journal Current Biology few months ago, a vast area the size of two Alaskas – about 3.3 million square kilometres – has been tarnished by human activity since 1993. Humans account for only 0.01% of all biomass on Earth, but despite being such a small part of the planet, they have caused the annihilation of 83% of all wild mammals and half of all plants. There is an increasing need for us to remind ourselves that we must protect and safeguard our environment for our future generations. With this view, April 22nd every year is observed as International Earth Day.

- Earth Day is **April 22** of every year. April 22, 2020 marked 50 years of Earth Day.
- *Theme of Earth Day 2019: **Protect Our Species***
- Theme for Earth Day 2020 was **climate action**. The enormous challenge — but also the vast opportunities — of action on climate change have distinguished the issue as the most pressing topic for the 50th anniversary.
- Climate change represents the biggest challenge to the future of humanity and the life-support systems that make our world habitable

History of Earth Day:

- Earth Day was a unified response to an environment in crisis — oil spills, smog, rivers so polluted they literally caught fire.
- On April 22, 1970, 20 million Americans — 10% of the U.S. population at the time — took to the streets, college campuses and hundreds of cities to protest environmental ignorance and demand a new way forward for our planet.
- The first Earth Day is credited with launching the modern environmental movement, and is now recognized as the planet's largest civic event

Result of the first Earth Day:

- The first Earth Day in **1970** launched a wave of action, including the passage of landmark environmental laws in the United States.

- The Clean Air, Clean Water and Endangered Species Acts were created in response to the first Earth Day in 1970, as well as the creation of the Environmental Protection Agency (EPA). Many countries soon adopted similar laws.
- Earth Day continues to hold major international significance: In 2016, the United Nations chose Earth Day as the day when the historic Paris Agreement on climate change was signed into force.

Significance:

1. It is celebrated to remind each of us that the Earth and its ecosystems provide us with life and sustenance.
2. This Day also recognizes a collective responsibility, as called for in the 1992 Rio Declaration, to promote harmony with nature and the Earth to achieve a just balance among the economic, social and environmental needs of present and future generations of humanity.
3. This day provides an opportunity to raise public awareness around the world to the challenges regarding the well-being of the planet and all the life it supports.
4. This year, Earth Day focuses on putting an end to plastic use and thereby reducing pollution. According to Earth Day Network, Earth Day 2018 will focus on fundamentally changing human attitude and behaviour about plastics and catalyzing a significant reduction in plastic pollution.

Policy changes to keep up with:

1. **National Action Plan on Climate Change (NAPCC):**
 - It was initiated primarily in response to developments at the international level, the **eight missions** focus on India's domestic development needs.
2. **Ratifying Paris Agreement**
 - The 21st Conference of Parties (COP 21) under the United Nations Framework Convention on Climate Change (UNFCCC) successfully concluded in Paris after intense negotiations by the Parties followed by the adoption of the Paris Agreement on post-2020 actions on climate change. India ratified the same and is actively working towards the goals.
3. **Tackling Climate Change:**
 - To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 level. To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030, with the help of transfer of technology and low-cost international finance, including from Green Climate Fund. To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.
4. **Clean Fuel**
 - India introduces BS-VI petrol and diesel. Delhi will be the first city to leapfrog from BS-IV to BS-VI. 13 major cities like Mumbai, Chennai, Bengaluru, etc. will make the shift from 1st Jan 2019. The rest of the country will make the change from April 2020 next year.
5. **No Plastics:**
 - India has pledged to eliminate all single-use plastic in the country by 2022.
6. **National Bio-fuel policy**
7. **National offshore wind-energy policy**
8. **International Solar Alliance (ISA):**
 - ISA is a group of 121 solar rich countries which are situated either on or between the tropics. Aims to deploy over 1000 GW of solar energy and mobilize more than \$1000 billion into solar power by 2030.
9. **The Clean Development Mechanism projects in India**
 - Indian projects have been issued a huge number of Renewable Energy Certificates in lieu of their green deeds.

10. State Action Plans on Climate Change:

- The State Action Plans on Climate Change (SAPCC) aim to create institutional capacities and implement sectoral activities to address climate change. These plans are focused on adaptation with mitigation as co-benefit in sectors such as water, agriculture, tourism, forestry, transport, habitat and energy.

11. Coal Cess and the National Clean Energy Fund

- India is one of the few countries around the world to have a carbon tax in the form of a cess on coal. Not only has India imposed such a cess but it has also been progressively increasing it. The National Clean Energy Fund (NCEF) which is supported by the cess on coal was created for the purposes of financing and promoting clean energy initiatives, funding research in the area of clean energy and for any other related activities.

12. FAME Scheme for E-mobility:

- Union Government in April 2015 launched Faster Adoption and Manufacturing of Hybrid and Electric vehicles (FAME) – India Scheme with an aim to boost sales of eco-friendly vehicles in the country. It is a part of the National Mission for Electric Mobility.

13. Atal Mission for Rejuvenation & Urban Transformation (AMRUT) for Smart Cities.

14. Pradhan Mantri Ujjwala Yojana:

- The scheme provides LPG connections to five crore below-poverty-line beneficiaries. The connections are given in the name of women beneficiaries to reduce their dependence on fossil fuels and conventional fuel like cow dung for cooking food, thus reducing air pollution.

15. UJALA scheme:

- The scheme was launched in January 2015 with a target of replacing 77 crore incandescent lamps with LED bulbs. The usage of LED bulbs will not only result in reducing electricity bills but also help in environment protection.

16. Swachh Bharat Mission:

- Swachh Bharat Abhiyan (Clean India Movement) is a campaign that was launched by Prime Minister on October 2, 2014. The campaign seeks to clean the streets, roads and infrastructure of the country's 4041 statutory cities and towns.

17. National Adaptation Fund for Climate Change

- A National Adaptation Fund for Climate Change (NAFCC) has been established with a budget provision of ₹350 crore for the year 2015-2016 and 2016-2017. It is meant to assist in meeting the cost of national- and state-level adaptation measures in areas that are particularly vulnerable to the adverse effects of climate change.

Link: <https://youtu.be/kS55ktyh19w>

11. Visakhapatnam gas leak

Introduction:

- The Andhra Pradesh government on Thursday appealed to people of Visakhapatnam not to panic and cooperate with authorities working to bring under control the situation following a gas leak from a chemical plant there. A major leak from a polymer plant LG Polymers near Visakhapatnam impacted villages in a five-km radius, leaving at least 9 people dead and thousands of citizens suffering from breathlessness and other problems in an early morning mishap that raised fears of a serious industrial disaster.

What is styrene?

1. It is a flammable liquid that is used in the manufacturing of polystyrene plastics, fiberglass, rubber, and latex.

2. Styrene is also found in vehicle exhaust, cigarette smoke, and in natural foods like fruits and vegetables.
3. Short-term exposure to the substance can result in respiratory problems, irritation in the eyes, irritation in the mucous membrane, and gastrointestinal issues.
4. And long-term exposure could drastically affect the central nervous system and lead to other related problems like peripheral neuropathy.
5. It could also lead to cancer and depression in some cases.
6. Several epidemiology studies indicating there may be an association between styrene exposure and an increased risk of leukemia and lymphoma.
7. Symptoms include headache, hearing loss, fatigue, weakness, difficulty in concentrating etc.
8. Animal studies, have reported effects on the CNS, liver, kidney, and eye and nasal irritation from inhalation exposure to styrene.

What caused the leak?

- LG Polymers said that stagnation and changes in temperature inside the storage tank could have resulted in auto polymerization and could have caused vapourisation.

Causes of accidents in a chemical plant:

1. A common reason accidents in chemical plants occur is from improper maintenance of equipment. A piece of equipment can ultimately fail and malfunction if it is not properly maintained. This can be very hazardous for the workers who are operating and working around the machine.
2. Regular maintenance at scheduled intervals and the manufacturer's recommendations is important to ensure that the equipment runs smoothly and safely.
3. A majority of accidents that occur in refineries are the result of human error. Often times a worker fails to follow the safety procedures that have been put into place by the company.
4. An accident can occur when a worker uses improper equipment. Furthermore, injuries occur when a worker uses improper tools to work on the equipment. This can damage the machines and create a safety hazard on the workers.
5. Oftentimes an accident occurs due to a manufacturing defect. These defects can sometimes be present in the materials used or in a piece of equipment.
6. An inspector may miss a defect in the equipment during the manufacturing process. A problem like this is not recognized until a worker is injured by the defective equipment.
7. Whenever personnel is not adequately or properly trained, chemical plant and refinery accidents are more likely to occur.
8. Employees should be properly taught on how to operate the equipment in the way it was designed to be used. They should also learn to employ safety procedures when they are operating a piece of equipment. Also, employees should be well versed in what to do if something goes wrong so that they can fix it before it gets out of control.

Precautions and Safety Measures:

1. First step to bring the situation in control is to not panic and shout. This can make your lungs suffocated
2. Do not run here and there and tire yourself. This makes the situation worse and affects your body harmfully
3. Do not leave the house without wearing a mask. Step out only if very necessary
4. Use wet masks to avoid inhaling the poisonous gas. If you do not have the mask, cover your mouth and nose with a wet cloth
5. If you have come in contact with the gas, try to reach to a safe spot and take deep breaths

Next course of Action:


1. **Civil Nuclear Liability Act, 2010** deals with instituting civil liability for nuclear damage and granting prompt compensation to victims of a nuclear incident
2. The **Environment Relief Fund (ERF)**, a central fund under the Public Liability Insurance Act, 1991, was set up to provide immediate relief to victims of accidents in chemical industries. In March, a study found that a corpus of Rs 810 crore with ERF has remained unutilised for nearly three decades.
3. India follows the highest standard of liability for an incident like this, when a hazardous or dangerous substance used for industrial purposes leaks and causes harm to people.
4. **Environment Protection Act, 1987**, brought in the aftermath of Bhopal Gas Tragedy. Under this, the Centre has notified Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 for regulating hazardous substances.
5. The principle of '**absolute and strict liability**' was formulated by the Supreme Court in a crucial judgment in **MC Mehta vs Union of India in 1986**, when the court was dealing with the leak of oleum gas at the Shriram Foods and Fertiliser Industries plant in Delhi.
6. This means that if there is an accident at a plant like LG Polymers in Visakhapatnam, which involves the manufacture or use of a hazardous substance (like styrene gas here, or oleum gas in the Delhi case) the company which runs the plant has to make sure that it compensates everyone who suffers any sort of harm as a result.
7. For them to be held responsible, there is no need to show they were negligent, or did something which caused the leak – the very fact that it happened from their plant is enough.
8. There are no exceptions or defences whatsoever to this 'absolute liability', which is what makes it stronger than the legal standard that is generally followed in other countries. Till the *MC Mehta* case, India also followed the concept of 'strict liability' – the owner/operator of the business is liable for any non-natural activity on their premises regardless of whether they did anything wrong.
9. However, unlike absolute liability, under the principle of strict liability, there were some limited exceptions and defences, including an accident caused by an 'act of god'. While the exact details of the Vizag Gas Leak are not yet entirely clear, it is not hard to imagine that LG Polymers could try to argue that the leak was out of their control because of difficulties arising out of the coronavirus lockdown.
10. Under the concept of 'absolute liability', it needs to be remembered this would make no difference to LG Polymers' responsibility, and the amount of compensation they have to pay.
11. Whatever damage has been caused by the gas will need to be compensated for, from deaths to illness, to hospital costs.
12. Violation of these regulations or failure to comply with standards would constitute an offence. The Act also has provisions against government officials found violating the law. The accused are booked under **Section 304A of the IPC**, pertaining to causing death by negligence and with a provision of jail term of maximum two years.

Link: <https://youtu.be/zOc0JZFGbpU>

UPSC IAS ESSAY WRITING CHALLENGES

Write an **essay** on the following topics in **not** more than **1000-1200 words**:

1. “Uncertainty should ignite creativity, not depravity”
2. “Urban Exclusion of Migrant Workers in India is a Reality and Needs Urgent Robust Policy Measures”
Essay perspectives: <https://youtu.be/e0QjihQQyck>
3. “The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little”
Essay perspectives: <https://youtu.be/vibTDXEUHmc>
4. “Nearly all men can stand adversity, but if you want to test a man’s character, give him power.”
Essay perspectives: <https://youtu.be/45QXKS3rWkM>
5. “Despite Challenges, To be a Healthy and Successful Nation, India must Ensure Universal Health Coverage”
Essay perspectives: <https://youtu.be/cjNPNar1kzg>

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