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GS 1 : Heritage and culture ,Geography of the World and Society

1. 'We have 56% more water in reservoirs than we had last year' (GS-1)

Context:

Jal Shakti Minister's comments on how India is placed in terms of water availability as COVID-19 underlines the necessity of piped supply.

Details:

- The plentiful rains in 2019 and heavy snowfall in the Himalayan States have ensured that in terms of just volumes, India is pretty well off for 2020.
- With the review of 132 reservoirs under the Central government, which are out of the 5,000 total reservoirs but which provide two-thirds of the total supply of water across the country, it is found that India has 56% more water than 2019, in the reservoirs.
 - This is 47% higher than the average for the last 10 years.

Jal Jeevan Mission:

- The Jal Jeevan Mission was announced in August 2019.
- The chief objective of the Mission is to provide piped water supply (Har Ghar Jal) to all rural and urban households by 2024.
- It also aims to create local infrastructure for rainwater harvesting, groundwater recharge and management of household waste water for reuse in agriculture.
- The Jal Jeevan Mission will converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management across the country.

2. Kamakhya temple festival called off (Prelims - Art & Culture)

What's in News?

With the lockdown, the annual festival at the Kamakhya temple has been cancelled for the first time in its recorded history.

Kamakhya Temple:

- Legends say the temple atop the Nilachal Hills, whose northern face slopes down to the Brahmaputra river, was built by the demon king Narakasura.
- Records are available from 1565 when Koch King Naranarayana had the temple rebuilt.
- Kamakhya is one of the 51 shaktipeeths, or holy sites, for the followers of the Shakti cult, each representing a body part of Sati, Lord Shiva's companion.

- There is no idol of the presiding deity but she is worshipped in the form of a yoni-like (female genitals) stone instead, over which a natural spring flows.

Ambubachi Mela:

- Ambubachi Mela is an annual Hindu mela held at Kamakhya Temple in Guwahati, Assam.
- The annual festival marks the menstruation of the goddess.
- The Ambubachi Mela symbolises the fertility cult of goddess Kamakhya.
- The festival is also known as 'Mahakumbh of the East' as it draws lakhs of devotees from all over the world.

3.A change in migrant policy (GS-1)

Context:

- Internal migration in India.

Details:

- Seasonal migration is an important issue of our time and the COVID-19 crisis has brought the issue of migration to the centre stage of public discourse due to the following reasons:

High number of migrants:

- The numbers of internal migrants are high.
 - The **number of internal migrants in India was 450 million as per the most recent 2011 census**. This marks an increase of 45% over the 309 million recorded in 2001. This far exceeds the population growth rate of 18% across 2001-2011. Internal migrants as a percentage of population increased from 30% in 2001 to 37% in 2011.

About 12% of internal migration in India is inter-state.

- The **source states** for these migrants are the states with relatively low economic and social development. The four states, **Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh** accounted for 50% of India's total inter-state migrants.
- The **destination states** are the relatively developed states. **Maharashtra, Delhi, Gujarat, Kerala** house a large number of the country's inter-state migrants.

Bihar with a population of about 123 million has an estimated 10 million migrants, with 3 million of them being inter-State migrants. It also involves a substantial number of seasonal migrants.

Ensuring the return of such a large number of migrants during a crisis can be a logistical improbability.

Public health:

- In the case of epidemics, the **exodus of seasonal migrants** creates apprehensions about the spread of the disease and runs **counterproductive to the very purpose of a lockdown**.

Impact on destination centres:

- **India's economy, particularly of the growth centres, depends on the services of migrant workers.** Sectors such as construction, garment manufacturing, mining, and agriculture would come to a standstill without them.
- One of the biggest challenges after the lockdown is lifted will be to bring back the migrants to restart these sectors.

Impact on source states:

- The return of migrants to their home states leads to an **economic shock in the source States**.
- Given the lack of compensatory sources of livelihood in these source states, the poor States may find it difficult to sustain themselves without the remittances. This will not only cause **demand side setbacks** but also impact nutrition, health, education and the well-being of the older population.

Vulnerability of the migrants:

Subsistence living:

- Most of the migrant labourers are **dependent on daily wages**. Working from home or getting paid leave is not an option for such labourers.
- A substantial proportion of these internal migrants involve the seasonal migrants who move in search of jobs during the lean activity period in their home states.
- The low wages they earn for their work and also the family's dependency on the daily income **does not allow these daily-wage earners to stay at a destination without work**.

Lifestyle:

- The **harsh working and living conditions** of migrants defy the very idea of decent work and general security that these migrants come seeking. **Lack of sanitation, hygiene, safe drinking water, health services, social security measures, and affordable housing** have resulted in a low quality of life.
 - A considerable number of workers live within the manufacturing units or at work sites. Any lockdown results in loss of their accommodation too.

- Slums and slum-like colonies are breeding grounds of ailments and communicable diseases.
- The **cramped living and working spaces** do not allow the people living in these areas to practise social distancing.

Limitations of the relief package:

- The 1.70 lakh crore relief package announced by the Central government comes as a welcome relief. However, despite the government's good intentions, the package **may not benefit seasonal migrants**.
 - Those migrants who are unable to return home and are not ration cardholders in the cities where they are stationed will not benefit from additional free foodgrains under the PDS.
 - They cannot avail of increased MGNREGA wages until they go back home.
 - As many seasonal migrants are landless or marginal farmers, they will not benefit from the grant to landholders.

The seasonal migrant workforce may remain largely deprived of the benefits under the present package at their destination places.

Way forward:

- The state could work out a strategy of **addressing immediate distress conditions** and simultaneously initiating **long-term measures to bring structural changes in the policy towards migrants** and the informal sector.
- The aim should not focus on limiting migration but should focus on **limiting push migration and encouraging pull migration**.
 - Pull factors attract migrants to an area (area of destination) like, employment and higher educational opportunities, higher wages and better working conditions and facilities.
 - The push factors are poverty, lack of work opportunities, unemployment and underdevelopment, poor economic conditions, lack of opportunities, exhaustion of natural resources and natural calamities, scarcity of cultivated land, inequitable land distribution, low agricultural productivity, etc.

The government policy measures should also focus towards **the social inclusion of internal migrants** in India.

4. Gender violence is a shadow pandemic: UN (GS-1)

Context:

The UN Women has urged member-states to include the prevention of violence against women in their action plans on COVID-19 and consider shelters and helplines essential services, calling the rise in gender-based violence a shadow pandemic.

Details:

- 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 months.
- 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.
- As per data compiled by the U.N. body, France has seen a 30% increase in domestic violence since the lockdown.
- In Argentina, emergency calls for domestic violence cases have increased by 25% since the lockdown on March 20 and Cyprus (30%), Singapore (33%) have also registered an increase in calls.
- Canada, Germany, Spain, the U.K. and the U.S. have also registered an increase in cases of domestic violence and demand for emergency shelter.
- Also, Interpol has warned that with a majority of people working from home due to the pandemic, there was a change in the pattern of crimes. The lockdown period has led to a significant increase in domestic violence.

Way forward:

- Helplines, psychosocial support and online counselling should be boosted.
- Technology-based solutions such as SMS, online tools and networks must be used to expand social support.
- Alternative arrangements must be made 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.

5. No lockdown for abuse (GS-1/2)

Context

- Increase in domestic violence cases in India and other countries since the imposition of lockdowns.
- It highlights the plight of many silent sufferers of domestic violence across the world in these times.

Why increase in domestic violence cases?

- The literature on domestic violence suggests that when men and/or women get employed, **domestic violence tends to fall as interactions between couples reduce**, going to work might have been the only reprieve from emotional abuse and violence.
- Under a lockdown, interaction time has increased and families have been left without access to the outside world. The literature also suggests that **violence is a way for the man to assert his notion of masculinity**.
- The current atmosphere of fear, uncertainty, food insecurity, and unemployment **may create feelings of inadequacy in men**.
- All these factors are only likely to aggravate tensions at home and make women victims of those tensions.
 - It is believed when people feel powerless in one area of their lives, they often seek to establish more power over other areas.
 - This is particularly dangerous in domestic violence situations, because domestic abuse is, at its core, an effort by one partner to dominate and establish psychological, emotional, physical and sexual control over the other partner.

Women are also confined within the four walls of the house and they cannot share their grief with anybody.

- The lack of access to friends, family and support organisations is expected to aggravate the situation for abused women further.

What can be done?

- **Police** around the country should come up with **domestic violence response plans** to prepare for the expected increases and to ensure victims get help even with restrictions on public movement.
- **The National Commission for Women (NCW)** has appealed to women to reach out to their nearest police stations or call the State Women's Commission for support.
 - The NCW could increase its advertising expenditure on TV to relay messages requesting women to contact the police station for help.

- The 181 helpline number set up for this reason should remain active, and women should be reminded of this number via TV ads.

The **government** could also send mass SMS messages as it did during the onset of the COVID-19 crisis as most women have access to at least a basic phone.

Mental-health organizations should issue suggestions to help families reduce uncertainty and stress in the home.

Examples from the world

- The **French government** has extended monetary support to organisations fighting this crime.
- **British activists** have requested their government to release emergency funds to support organisations that are dealing with domestic violence-related issues.
- The **Indian government** should also extend monetary support to such organisations in India rather than rely entirely on ASHA workers on whom the burden of community welfare is already very high.
 - The staff of such organisations should be allowed to travel without being stopped by the police.

Conclusion

- Studies show that women more than men tend to be affected adversely during epidemics.
 - We need to take these advisories seriously to prevent further widening of the rift between men and women in our society.

As the lockdown and limited movement outside the house appears to be a long drawn affair, the best recourse for victims of physical abuse is to report the crime and seek help.

6. 'Gamosa' evolves from memento to mask in Assam(GS-1)

What's in News?

'Gamosa' evolves from memento to mask in Assam. The ubiquitous decorative cotton towels are being repurposed as protective gear to fight the Coronavirus.

- Assam has traditionally had two types of gamosas:
 - The uka or plain kind used to wipe sweat or dry the body after a bath.
 - The phulam is decorated with floral motifs to be gifted as a memento or during festivals such as Bihu.

Cultural historians say the gamosa came to symbolise Assamese nationalism in 1916 when the Asom Chatra Sanmilan, a students' organisation was formed, followed by the Assam Sahitya Sabha, a literary body.

Wearing the phulam gamosa around the neck became a standard for cultural identity.

The gamosa's graph as a symbol of protest rose during the anti-foreigners Assam Agitation from 1979 to 1985.

7. Ambedkar and the Poona Pact (GS-1)

Context:

- Ambedkar Jayanti is being observed throughout the country to commemorate the memory of B. R. Ambedkar.

Details:

Communal Award of 1932:

- In line with the **British policy of divide and rule** which led to the introduction of **separate electorate** for Muslims (Government of India Act 1909), Sikhs, Indian Christians, Anglo-Indians and Europeans (Government of India Act 1919), the **communal award was made by the British Prime Minister Ramsay MacDonald on 16 August 1932** which further extended separate electorate.
- The Communal Award also known as **MacDonald Award** was announced after Round Table Conference(1930-32) and **extended the separate electorate to depressed Classes** (now known as the Scheduled Caste). It reserved 71 seats in the central legislature for the depressed classes.
- Gandhi seeing the communal award as a **British attempt to split Hindus**, firmly opposed it and began a **fast unto death in Yerwada prison**.

Poona pact:

- In late September 1932, BR Ambedkar negotiated the Poona Pact with Mahatma Gandhi in Yerwada Central Jail in Poona.
- However, contrary to popular belief, Gandhi was not involved in signing the pact. It was **signed by Ambedkar** on behalf of the depressed classes **and Madan Mohan Malviya** on behalf of the Upper Caste Hindus as a means to end the fast that Gandhi was undertaking in jail as a protest against the Communal Award.

Major provisions:

- Ambedkar had agreed for **depressed class candidates to be elected by a joint electorate** instead of the separate electorate.
- There were to be **electoral seats reserved for the Depressed Classes in the provincial Legislatures**. On the insistence of Ambedkar, almost twice as many seats (147) were reserved for the depressed classes in the legislature than what had been allotted under the Communal Award.

- In addition, the Poona Pact assured a **fair representation of the depressed classes in the public services** while earmarking a portion of the **educational grant** for their uplift.

Significance:

Recognition of the plight of the depressed class:

- The Poona Pact was an **emphatic acceptance by the Hindu society of the hardships and discrimination** faced by the depressed classes.
- The pact conceded the need for some concrete action to work towards the **upliftment of the depressed classes**. It made the entire country, and not just the Congress Party, **morally responsible for the uplift of the depressed classes**.

Voice to the depressed classes:

- The Poona pact gave the most discriminated section of the Hindu society a **political voice**.
- The pact succeeded in making the **depressed classes a formidable political force** for the first time in history.

Pragmatic approach:

- Despite his **strong support for the system of separate electorate** for depressed classes and **significant differences with Gandhi**, Ambedkar still went ahead with the signing of the Poona pact.
- Ambedkar would have weighed the **consequences of not signing the Poona Pact**.
- Ambedkar did not lose sight of the fact that Muhammad Ali Jinnah, was watching and waiting to take advantage of the evolving situation which could have led to **divisions in the larger Indian society**.
- The Poona Pact helped save Gandhi's life and helped **keep the national movement alive** while giving a big voice to the depressed classes.

Precursor to affirmative action's post-independence:

- The concessions agreed to in the Poona Pact were precursors to the world's largest affirmative programme launched in independent India.
- **Post Independence, a slew of measures were initiated to uplift Scheduled Castes and Scheduled Tribes**, which included reservation in education and public sector jobs and in the legislature.

GS 2 : Polity, Governance, International Relations

1.COVID-19 and the Orphan Drug Act

Why in News

- Recently, the **World Health Organisation (WHO)** declared the **Covid-19 outbreak a pandemic**. However, the **United States Food and Drug Administration (FDA)** declared **Covid-19 an orphan disease**, or a rare disease.

Key Points

- The FDA granted Gilead Sciences **orphan drug status** for its antiviral drug, **Remdesivir**, on March 23, 2020.
 - Originally developed to treat Ebola, the drug is now being tested for treating COVID-19. Clinical trials are already in Phase III.
- But on March 25 Gilead announced that it had submitted a request to the FDA to remove its orphan drug designation for Remdesivir.
 - Earlier, Gilead had sought the orphan status to the Remdesivir drug to expedite approval of the drug. However, advocates for global access to medicines, rejected the company's argument.
 - Gilead's exorbitant pricing of its drug to treat hepatitis C and its drug to treat HIV also attracted attention in the past.
- In recent years, drug companies have been accused of exploiting the law to reap profits, in sales.

Orphan Drug Act, 1983

- **Rare diseases became known as orphan diseases** because drug companies were not interested in adopting them to develop treatments.
- In the U.S., under the Orphan Drug Act, **companies are provided incentives to develop therapies, or orphan drugs**, for rare diseases.
- The Act allows **seven years of market exclusivity** and financial incentives to **innovators of these drugs**. As a result, orphan drugs are **often exorbitantly priced**.
- Privileges under the Act may be conferred to companies for drugs **to treat a disease that affect less than 200,000 people in the U.S., or for a disease that affects more than 200,000 people but for which there is no hope of recovering R & D costs**.
 - The idea is that without these incentives, companies would find it difficult to recover their R&D costs given the small number of people suffering from the rare disease.

Issues

- **Covid-19 not a Rare Disease:** The Orphan Drug Act applies to a potential drug for COVID-19, which is anything but a rare disease, with 800,049 confirmed cases across the world.
- **Paradox:** The U.S. FDA conferred the status of an orphan drug on Remdesivir proposed to treat COVID-19 a pandemic.

Impact

- Had Gilead not sought that orphan drug status be rescinded, **generic manufacturers would not have been able to market a drug to treat COVID-19 with the same active ingredient till the seven-year period of market exclusivity** had ended.
- This would have given Gilead **free rein on pricing and licensing** which would have had **disastrous consequences on the healthcare system**.
- However, **orphan drug status of Remdesivir would have no impact on India** as Gilead Sciences holds patents in India and patents are open to challenge.
- As far as its patent rights are concerned, **Indian law permits the government to issue a compulsory licence in certain circumstances** of a public health crisis under **Section 92 of the Patents Act**.
 - This would allow third parties to manufacture a patented drug without permission of the patent holder.

Rare Diseases

- A rare disease is a health condition of low prevalence that affects a **small number of people** compared with other prevalent diseases in the general population.
 - There is **no universally accepted definition** of rare diseases and the definitions usually vary across different countries.
- Though rare diseases are of low prevalence and individually rare, collectively they affect a considerable proportion of the population.
- 80% of rare diseases are **genetic in origin and hence disproportionately impact children**.
- In India there are **56-72 million people affected by rare diseases**.
- There is also a demand for the **reformulation of National Policy for Treatment of Rare Diseases, 2017**.

National Policy for Treatment of Rare Diseases, 2017

- The policy highlights the measures and steps, both in the short as well as in the long term, that need to be taken to deal comprehensively with rare diseases.

- The policy intends to constitute an Inter-ministerial Consultative Committee to coordinate and steer the initiatives of different ministries and departments on rare diseases.
- It also mentions the creation of a corpus fund at Central and State level for funding treatment of rare diseases.
- The policy aims to create a patient registry for diseases housed in **Indian Council of Medical Research (ICMR)**.
- However, recognizing the higher cost of treatment for rare diseases, the policy also seeks to strike a balance between access to treatment and health system sustainability.
- It also aims to create awareness among health professionals, families of patients and the public in general, about rare diseases.

2. India-China: 70 Years of Diplomatic Relations

Why in News

India and China mark the 1st April 2020 as the **70th anniversary of the establishment of diplomatic relations between them starting from 1950 till now.**

Chronology

- **1950**
 - India and China established **diplomatic relations** on **1st April 1950**.
 - **India** was the **first non-socialist country** to establish relations with the People's Republic of China and the catchphrase '**Hindi Chini Bhai Bhai**' became famous.
- **1955**
 - Both countries attended the **Asian-African Conference** in which 29 countries participated in **Bandung, Indonesia** and jointly advocated the **Bandung Spirit of solidarity, friendship and cooperation**.
 - It has led to the decolonisation of the whole of Asia and Africa and to the formation of a **Non-Aligned Movement** as the third Way between the Two Blocs of Superpowers.
 - The First NAM Summit Conference took place in **Belgrade, Yugoslavia, in September 1961**.
- **1962**
 - The **border conflict** led to a serious setback in bilateral relations.

- **1976**
 - China and India **restored ambassadorial relations** and bilateral ties improved gradually.
- **1988**
 - Indian Prime Minister Rajiv Gandhi visited China, **initiating the process of normalization of bilateral relations.**
 - The two sides **agreed to look forward** and develop bilateral relations actively in other fields while seeking a mutually acceptable solution to boundary questions.
- **1992**
 - Indian President **R. Venkataraman** visited China.
 - He was the **first President who visited China since the independence of the Republic of India.**
- **1996**
 - Chinese President Jiang Zemin visited India.
 - He was the **first head of state from China who visited India since the establishment of bilateral ties.**
 - **Agreement** between the Government of China and the Government of India on **Confidence Building Measures in the Military Field** along the Line of Actual Control in the India-China Border Areas was **signed.**
- **2000**
 - Indian President K R Narayanan visited China on the occasion of the **50th anniversary of the establishment of diplomatic ties** between China and India.
- **2008**
 - "**A Shared Vision for the 21st Century**" was **agreed upon** by the two governments.
- **2010**
 - The **60th anniversary of the establishment of diplomatic ties** between China and India.
 - In December, the two countries issued a **Joint Communiqué.**

- **2011**
 - It was the '**China-India Exchange Year**'.
 - Both sides held a **series of people-to-people and cultural exchange activities**.
 - Both of them signed a **memorandum on joint compilation** for the '**Encyclopedia of India-China Cultural Contacts**'.
- **2012**
 - It was the '**Year of China-India Friendship and Cooperation**'.
 - The head of the governments met each other on the **sidelines of the 4th BRICS Summit** and the **United Nations Conference on Sustainable Development**.
- **2015**
 - The two sides met on the sidelines of the **7th BRICS Summit in Ufa, Russia** and the **Leaders' Meetings on East Asia Cooperation in Malaysia**.
 - China decided to **open the Nathu La Pass (Sikkim)** to Indian official pilgrims to Xizang.
 - India celebrated the **India Tourism Year** in China.
- **2018**
 - Chinese President held an **informal meeting with Indian Prime Minister in Wuhan** which set up a new model of exchanges between two leaders.
 - Indian Prime Minister visited China to attend the **SCO Summit in Qingdao**.
 - The two leaders met again on the **sidelines of the 10th BRICS Summit and the G20 Summit in Buenos Aires**.
- **2019**
 - The **second informal meeting was held in Mamallapuram, Chennai** which **reaffirmed the Wuhan consensus**.
 - Both nations agreed to build a closer partnership for development, enhance the in-depth strategic communication, promote mutually beneficial cooperation in various fields and advance exchanges and mutual learning between the two civilizations.
 - Both sides met on the sidelines of the **SCO Summit in Bishkek and the 11th BRICS Summit**.
- **2020**

- It marks the year of the **70th anniversary of the establishment of diplomatic relations** between China and India.
- It is also **China-India Year of Cultural and People-to-People Exchanges**, where the two sides agreed to hold 70 celebratory activities to demonstrate the historic connection between the two civilizations as well as their growing bilateral relationship.

Facts and Figures on China-India Cooperation

▪ **Political and Diplomatic Relations**

- The **Communist Party of China (CPC)** has maintained friendly exchanges with 9 major Indian political parties including the BJP, Congress and left-wing parties for a long time.
- **20 Inter-parliamentary friendship groups** have been set up by China and India.
- There are 50 **dialogue mechanisms** between China and India for exchanging views on various topics of bilateral, regional and global concern.

▪ **Economy and Trade**

- Since the beginning of the 21st century, trade between China and India has grown from less than \$3 billion to nearly \$100 billion, an **increase of about 32 times**.
- **In 2019, the trade volume between China and India was \$92.68 billion.**
- With a **combined market of over 2.7 billion people and a GDP of 20% of the world's total**, China and India enjoy huge potential and broad prospects for economic and trade cooperation.

▪ **Science and Technology**

- Both nations have held **Joint Research workshops** on Science and Technology Innovation.
- Indian companies have set up **IT corridors in China**, which help promote China-India cooperation in information technology and high technology.

▪ **Defense**

- **'Hand-in-Hand'** joint anti-terrorist exercises to enhance mutual understanding and trust, exchange training experiences and jointly improve anti-terrorism capabilities.
- **China-India defense and security consultation** to strengthen exchanges and cooperation in the defense field.

- **People-to-People Exchanges**

- Both nations have held meetings of **China-India High-Level People-to-People and Cultural Exchanges Mechanism**. The two sides have made new progress on exchanges and cooperation in the fields of art, publishing, media, film and television, museum, sports, youth, tourism, locality, traditional medicine, yoga, education and think tanks.
- Sessions of **China-India High Level Media Forum** and **China-India Think Tank Forum** were held to strengthen exchanges and cooperation in the field of media and think tanks.
- The two countries have established **pairs of sister cities and provinces**. For example, sister provinces and cities between **Fujian Province and Tamil Nadu State, Quanzhou City and Chennai City**.
- The **number of Indian pilgrims to Xizang Autonomous Region of China has surged** from several hundreds in the 1980s to more than 20,000 in 2019.

Way Forward

- Today's achievements of India-China relations embodied the great efforts of several generations.
- Both nations **need to master the four keys of:**
 - **Leading:** It means to reach consensus and guide the direction of the development of bilateral relations under the guidance of leaders from both nations.
 - **Transmitting:** It means to transmit the leaders' consensus to all levels and translate it into tangible cooperation and outcomes.
 - **Shaping:** It means to go beyond the mode of managing differences, shape bilateral relations actively and accumulate positive momentum.
 - **Integrating:** It means to strengthen exchanges and cooperation, promote convergence of interests and achieve common development.
- At this moment, it is particularly important to revisit the original aspiration of establishing diplomatic relations 70 years ago and carry forward the spirit of good neighborliness and friendship, unity and cooperation.

3.Chinese Trawlers in South China Sea

Why in News

The Chinese fishing fleets have been seen raiding the rich waters of the South China Sea that are internationally recognised as exclusively Indonesia's to fish.

- The fishermen in Natuna Islands (Indonesia) are worried.

Key Points

- The Chinese steel trawlers scrape the bottom of the sea and **destroy other marine life**.
- Chinese trawling also **breaches the maritime borders**.
- Since China is its **largest trading partner**, it has been argued that the **Indonesian government has not taken any steps** to deal with the incursions by Chinese fishing boats.
- China's illegal fishing near the Natuna islands carries global consequence, reminding regional governments of Beijing's expanding claims to the South China Sea through which **one-third of the world's maritime trade flows**.
- China wants to claim the resources such as **oil, natural gas, and fish** in the South China Sea.
- The presence of Chinese fishers also helps to **embody China's maritime claims**. The **nine dash line** (rejected by an international tribunal) asserted by China violates the principle of **Exclusive Economic Zones (EEZ)**.

South China Sea

- The South China Sea is an **arm of western Pacific Ocean in Southeast Asia**.
- It is south of China, **east & south of Vietnam, west of the Philippines and north of the island of Borneo**.
- **Bordering states & territories** (clockwise from north): the People's Republic of China, the Republic of China (Taiwan), the Philippines, Malaysia, Brunei, Indonesia, Singapore and Vietnam.
- It is connected by **Taiwan Strait with the East China Sea** and by **Luzon Strait with the Philippine Sea**.
- It contains numerous shoals, reefs, atolls and islands. The **Paracel Islands, the Spratly Islands and the Scarborough Shoal** are the most important.

Importance

- This sea holds tremendous strategic importance for its location as it is the connecting link between the **Indian Ocean and the Pacific Ocean**. (Strait of Malacca)
- According to the **United Nations Conference on Trade And Development (UNCTAD)** one-third of the global shipping passes through it, carrying trillions of trade which makes it a significant geopolitical water body.
- According to the **Department of Environment and Natural Resources, Philippines**, this sea has one-third of the entire world's marine biodiversity and contains lucrative fisheries providing food security to the Southeast Asian nations.
- The South China Sea is believed to have **huge oil and gas reserves** beneath its seabed.



4. Still no bullseye, in volume and value

Context

- According to latest estimates released by the Stockholm International Peace Research Institute (SIPRI), the Indian defence exports have increased and defence imports have decreased during the period between 2009-13 and 2014-18.

Details

This is a welcome development but the reasons for both are not identical. Broadly, two factors appear to be driving this shift.

1. The first is the 'Make in India' initiative.

- The Government has prioritized this initiative and has sourced a number of components from Indian private and public sector enterprises.

The second is due to external factors.

- Under this, India imported components from multiple countries. These components were not supplied on time leading to undue delay by vendors and in a few circumstances, there was cancellation of contracts by the Indian government as well.

1. 'Make in India' initiative

Under the Narendra Modi government's 'Make in India' initiative, the **Defence Procurement Procedure (DPP)** lays out the terms, regulations and requirements for defence acquisitions as well as the measures necessary for building India's defence industry.

- It came into effect from 2016. It focuses on institutionalising, streamlining and simplifying defence procurement procedure to give a boost to the "Make in India" initiative of the Government of India, by promoting indigenous design, development and manufacturing of defence equipment, platforms, systems and sub-systems.

It created a new procurement category in the revised DPP of 2016 dubbed 'Buy {**Indian-IDDM (Indigenously Designed, Developed and Manufactured)**}'.

- It has been accorded the topmost priority for procurement of capital equipment.
- Preference has been accorded to 'Buy (Indian)' and 'Buy and Make (Indian)' categories of capital acquisition over 'Buy (Global)' & 'Buy & Make (Global)' categories.
- Requirement of indigenous content has been enhanced/rationalized for various categories of capital acquisition.
- The '**Make**' procedure has undergone simplification "earmarking projects not exceeding ten crores" that are government funded and ₹3 crore for Micro, Small and Medium Enterprises (MSMEs) that are industry funded.
- In addition, the government has also introduced provisions in the DPP that make private industry production agencies and partners for **technology transfers**.

Stats

- Small and Medium Enterprises (SMEs) until 2016 accounted for 17.5% share of the Indian defence market.
- According to government of India data for the financial year 2018-19, the three armed services for their combined capital and revenue expenditures **sourced 54% of their defence equipment from Indian industry**.

Public sector driven

- Among arms producers, **India has four companies among the top 100 biggest arms producers of the world.**
- It is estimated, according to SIPRI, their combined sales were \$7.5 billion in 2017, representing a **1% jump from 2016.**
- The largest Indian arms producers are the Indian Ordnance Factories and the Hindustan Aeronautics Limited (HAL), which are placed 37th and 38th, respectively, followed by Bharat Electronics Limited (BEL) and Bharat Dynamics Limited (BDL). All four of these companies are public sector enterprises and account for the bulk of the domestic armament demand.

2. Falling Imports

This is not due to growing indigenization and 'Make in India' initiative. Indian defence acquisitions have also **fallen due to the cancellation of big-ticket items.**

- For example, India-Russia joint venture for the development of the **advanced Su-57 stealth Fifth Generation Fighter Aircraft (FGFA).** India cancelled involvement in 2018 due to rising dissatisfaction in delays with the project as well as the absence of capabilities that would befit a fifth generation fighter jet.
- In 2015, the Modi government also reduced the size of the original acquisition of **126 Rafale Medium Multi-Role Combat Aircraft (MMRCA)** from Dassault to 36 aircraft, which is also responsible for significantly driving down the import bill.
- That apart, the delays in the supplies of **T-90 battle tanks, and Su-30 combat aircraft from Russia** and **submarines** from France, in 2009-13 and 2014-18, also depressed imports.

India's defence model faces challenges despite the positive trends generated by 'Make in India'

- SMEs still face stunted growth because **India's defence industrial model is at odds with global trends** in that it tends to create disincentives for the private sector.
 - Governments in the past and the current regime have given importance to Defence Public Sector Units (DPSUs) over the private sector, despite 'Make in India'.
 - This model is highly lopsided, undermining the growth of private players and diminishes the strength of research and development.

The other challenges are more fundamental in nature. India is not a reputed defence manufacturer producing a wide variety of military platforms. The proven military platforms that are made in India, such as the Su30 fighter or the

T90 tank, are licensed productions with Intellectual Property Rights (IPR) held by foreign defence firms. India cannot export these platforms.

- Even in the case of joint production platforms such as the BrahMos missile, built by India and Russia, the approval of the BrahMos board is required for export.

Export trends

- In the last two fiscal years, 2017-18 and 2018-19, exports have witnessed a surge from ₹7,500 crore to ₹11,000 crore, representing a 40% increase in exports.
- While this initial increase started during the previous United Progressive Alliance (UPA) government, the sharpest rise in defence export products can be attributed to the measures introduced by the National Democratic Alliance (NDA) government under Mr. Modi, which in 2014, **delisted or removed several products that were restricted from exports.**
 - It dispensed with the erstwhile **No Objection Certificate (NOC)** under the DPP restricting exports of aerospace products, several dual-use items and did away with two-thirds of all products under these heads.

Conclusion

-
- Thus, from a volume and value standpoint, Indian defence exports, while showing a promising upward trend has failed to meet desired success globally.
- To help ideas meet action, there is a need to create an environment for greater participation of private industry.
- To ensure that 'Make in India' initiative reaches its full potential, focus should be laid on export promotion/facilitation and export regulation.

Additional Information - Indian Defence Product Exports

- **Australia:** 5.56x45mm Ball MK N (SS109) cartridges
- **Azerbaijan:** protective headgear and hard armor plates
- **Germany:** helmets, bomb suppression blanket and soft armor panels
- **Singapore:** radar parts, bullet proof vests and helmets with accessories
- **South Africa:** detonators
- **Thailand:** night vision binoculars

5.Classes in Distance Mode

Why in News

The Centre is planning to start the next academic year virtually.

- Many schools have been shut since early March due to the **COVID-19** pandemic, even before the countrywide lockdown.

Key Points

- This means that the new academic calendar will begin as usual in April for classes 9 to 12, though the last academic year may have been somewhat truncated, with examinations postponed in some cases including the CBSE exams for classes 10 and 12.
 - Recently, it has been decided that the cbse will conduct exams only for the main subjects: required for promotion or may be crucial for admission in higher educational institutions.
- The Centre plans to restart classes in the distance mode, with teaching via **dedicated TV and radio channels in English and Hindi**.
 - There is an existing program, **Swayam Prabha**, which is a group of 32 DTH channels devoted to telecasting high-quality educational programmes on 24X7 basis using the GSAT-15 satellite.
- **National Institute of Open Schooling (NIOS)** has been asked to create a structured programme for schools class-wise. This is being done along with the **National Council of Educational Research and Training (NCERT)** using their syllabus.
- The material will be ready for use by schools following the NIOS or the Central Board of Secondary Education (CBSE) syllabus.
- **For the State Boards**
 - **Digital Infrastructure for Knowledge Sharing (DIKSHA) mobile app has been offered to States** as a platform to provide content in local languages.
 - If States are willing to produce the content in local languages, the Centre can give them 2-3 hours on the channel.

Digital Infrastructure for Knowledge Sharing

- Diksha Portal was launched by the **Ministry of Human Resource Development (MHRD)**
- in 2017 for providing a digital platform to teachers giving them an opportunity to **learn and train themselves and connect with the teacher community**.
- It is built considering the **whole teacher's life cycle** - from the time student teachers enroll in Teacher Education Institutes (TEIs) to after they retire as teachers.
- **States, government bodies and even private organisations**, can integrate DIKSHA into their respective teacher initiatives based on their goals, needs and capabilities.

- It also provides access to NCERT textbooks and lessons, following the regular school curriculum.

National Institute of Open Schooling

- NIOS, formerly known as National Open School (NOS) was established in November, 1989 as an **autonomous organisation in pursuance of National Policy on Education 1986** by the **Ministry of Human Resource Development (MHRD)**.
- NIOS provides a number of **Vocational, Life Enrichment and community oriented courses besides General and Academic Courses at Secondary and Senior Secondary level.**
- It also offers **Elementary level Courses** through its Open Basic Education Programmes (OBE).
- Government of India has vested NIOS with the authority to **examine and certify** learners registered with it upto pre degree level courses whether Academic, Technical or Vocational.

6. Human Activities Responsible for Zoonoses

Why in News

According to the **UN Environment Programme (UNEP)**, **60% of human infectious diseases originate from animals.**

Key Points

- **Zoonoses**
 - It is the name given to **diseases transmitted from animals to humans.**
 - It is **based on the Greek words** for “animal” and “sickness”.
 - **Examples: Tuberculosis** (cattle), rabies (rabid dogs), **Ebola** (fruit bats), West Nile virus (infected mosquitoes), the **Zika virus** (infected Aedes species mosquito)–and the most recent - the novel coronavirus **Covid-19 (bat/pangolin).**
- **Data Related to Zoonoses**
 - On an average, **one new infectious disease emerges in humans every four months.**
 - A study by American researchers that was completed before the new coronavirus outbreak identifies **rodents, primates and bats as hosts of three-quarters of viruses transmitted to humans.**

- **Domestic animals** also carry about **50% of the zoonoses** identified.
- In 2016, the UNEP pointed out that **75% of all emerging infectious diseases** (such as Ebola, HIV, avian flu, Zika, or SARS) in humans are zoonotic (pertaining to zoonoses).
- According to it, these zoonotic diseases are **closely interlinked with the health of ecosystems**.
- **Deaths due to Zoonoses:** Beyond the current outbreak of coronavirus, the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)** estimates that zoonoses **kill some 700,000 people a year**.
- **Changed Ecosystems**
 - Zoonoses are opportunistic and thrive where there are changes in the **environment**, changes in **animal or human populations** that serve as hosts for certain pathogens, or **changes in the pathogen** (disease causing microorganisms), itself.
 - In the last century, a combination of **population growth and reduction in ecosystems and biodiversity** has culminated in unprecedented opportunities for pathogens to pass between animals and people.
- **Humans-led Changes in the Environment**
 - **By altering land use**—for settlement, agriculture, logging, extractive or other industries and their associated infrastructure—humans fragment and encroach into animal habitats.
 - **Destruction of natural buffer zones** that would normally separate humans from animals, thus creating opportunities for pathogens to spill over from wild animals to people.
 - **Climate change**—primarily the result of greenhouse gas emissions—exacerbates the situation. Changes in temperature, humidity and seasonality directly **affect the survival of microbes in the environment**.
 - **Proximity to different species** through wet markets (live animal market) or consumption of wild animals can also facilitate animal to human transmission.
 - **Resistance to Drugs:** One example of this is the emerging resistance of pathogens to antimicrobial drugs—such as antibiotics, antifungals, antiretrovirals and antimalarials—often resulting from the misuse of the drugs, either by people or in veterinary medicine.
 - **Domesticated animals** are often a “bridge” between pathogens from the wild and humans.

- **Global Action**

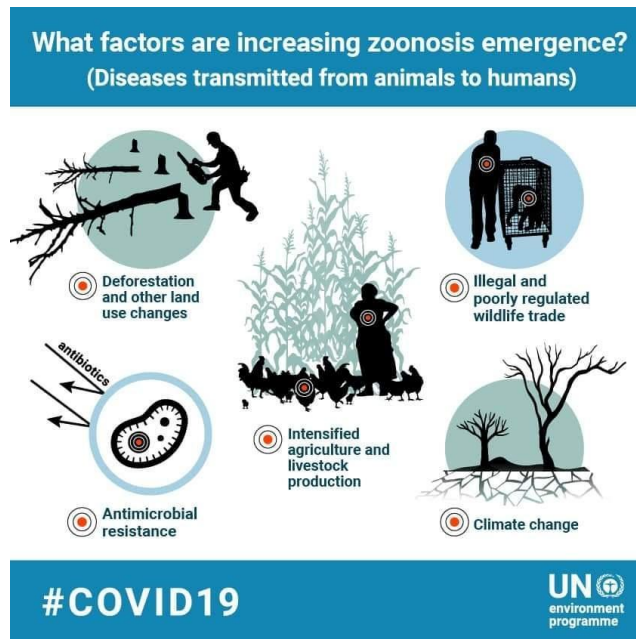
- UNEP, the UN Food and Agriculture Organization, and hundreds of partners across the planet have launched a 10-year effort to prevent, halt and **reverse the degradation of ecosystems worldwide**.
- **Known as the UN Decade on Ecosystem Restoration 2021-2030**, this globally-coordinated response to the loss and degradation of habitats will focus on building political will and capacity to restore humankind's relation with nature.

- **Suggestions**

- **Addressing** zoonotic disease emergence requires addressing its root cause—primarily, **the impact of human activities on ecosystems**.
- Ecosystems are inherently resilient and adaptable and, by supporting diverse species, they help to regulate diseases. **The more biodiverse an ecosystem is, the more difficult** it is for one pathogen to spread rapidly or dominate.
- There is a need to recognise the close relationships between human, animal and environmental health. It calls for collaborative, multisectoral, transdisciplinary and international efforts, as encapsulated by the **One Health approach**. At last, a **strong will** is necessary.

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

- IPBES is an **independent intergovernmental body** established to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- It was **established in Panama City (US)**, in April 2012.
- It is **not a United Nations body**.



7. Putting the SAGAR vision to the test (GS-2)

Context:

- India has been recently granted **observer status in the Indian Ocean Commission (IOC)**.

Background:

Indian Ocean Commission:

- The Indian Ocean Commission is an **intergovernmental organisation founded in 1982**. It is headquartered in Ebene, Mauritius.
- It comprises of five small-island states in the Western Indian Ocean: the **Comoros, Madagascar, Mauritius, Reunion** (a French department), and **Seychelles**.
- Over the years, the IOC has emerged as an active and trusted regional actor, working in and for the **Western Indian Ocean** and implementing a range of projects.

Details:

Maritime security in Indian Ocean:

- Despite the high-level counter-piracy presence of naval forces from the EU, the Combined Maritime Forces, and Independent Forces in the Indian Ocean region, **maritime crime is still prevalent in the region**.

- The counter-piracy response off the coast of Somalia delivered unprecedented regional and international cooperation in the domain of maritime security. However, it resulted in **multiple players, the duplication of actions, and regional dependence on international navies.**
- The countries in the region still face issues in policing and patrolling their often enormous Exclusive Economic Zones (EEZs).

IOC efforts:

Regional Maritime security architecture:

- The IOC has demonstrated leadership in the maritime security domain and has made impressive progress in the **design and implementation of a regional maritime security architecture in the Western Indian Ocean.**
- In 2012, the IOC, in collaboration with other regional organisations, launched **the MASE Programme to promote Maritime Security in Eastern and Southern Africa and Indian Ocean.**
- Under MASE, the IOC has established a mechanism for **surveillance and control of the Western Indian Ocean** with two regional centres.
 - The Regional Maritime Information Fusion Centre (RMIFC), based in Madagascar, and the Regional Coordination Operations Centre (RCOC), based in Seychelles.
 - The system is designed to **deepen maritime domain awareness** by monitoring maritime activities and promoting information sharing and exchange. Based on the information available there would be joint or jointly **coordinated interventions at sea.**

The multilateral maritime security architecture has produced a **sub-regional view** of maritime security problems and has resulted in local ownership of actions towards workable and sustainable solutions to improve maritime control and surveillance.

Promoting collaboration in the region:

- The IOC has wielded a disproportionate degree of convening power.
- In 2018 and 2019, serving as the Chair of the Contact Group on Piracy off the Coast of Somalia (CGPCS), the IOC held ministerial meetings on maritime security in the Western Indian Ocean, drawing state representations from the region plus major powers such as India, the EU, the U.S., the U.K., Australia, and Russia.
- These meetings resulted in formal declarations, **facilitated convergence** around common, sub-region-specific definitions of maritime security threats and the legal way of dealing with them.

Mutually beneficial association:

- Following a request from India, the IOC granted observer status to India at the Commission's 34th Council of Ministers.
- The involvement of India in IOC can be a mutually beneficial relationship for the IOC member nations and India.

India's interests:

Maritime security:

- As a **major stakeholder in the Indian Ocean with maritime security high on the agenda**, India has been pursuing its interests and tackling maritime security challenges in the region.
- Maritime security is a prominent feature of India's relations with Indian Ocean littoral states.
- India could use the **information available through the Regional Maritime Information Fusion centre** to increase its maritime awareness in the region and can supplement the capacity of India's own Information Fusion Centre.
- The maritime security architecture being propounded by the IOC presents workable and sustainable solutions to improve maritime control and surveillance. The regional coordination and local successes at curbing maritime threats will have **broader security dividends for the Indian Ocean space**.
- The regional maritime security architecture with support from naval powers like India can deliver an urgently needed **deterrent against unabating maritime crime at sea**.

Regional diplomacy:

- India has, till recently, limited itself to bilateral cooperation in the Indian Ocean region. The observer status in IOC offers an **opportunity for India to engage constructively with the member nations of IOC**.
- The membership would allow India to **strengthen its relations and influence in the strategic Indian Ocean region**.

IOC's interests:

- The IOC requires **support from regional actors like India**. Nearly all littoral states in the Western Indian Ocean need assistance in developing their maritime domain awareness and in **building capacity to patrol their EEZs**.
- With its observer status, India could extend its expertise to the region, **supplement the RMIFC through India's extensive satellite system** and establish links with its own Information Fusion Centre.

Way forward:

India's approach:

- India has repeatedly stated its strategic vision for the Indian Ocean based on **Security and Growth for All in the Region (SAGAR)** approach.
- India's SAGAR vision is intended to be **more consultative, democratic and equitable** in dealing with smaller but equally significant countries in the region.
- SAGAR seeks to differentiate India's leadership from the modus operandi of other regionally active major powers focussing on creating spheres of influence in the region. This will help reassure littoral states as India's maritime influence grows.

8. Grounding of Aircraft Affects Weather Forecasting

Why in News

Beginning mid-March, India began restricting incoming international flights into the country and by March 24 had imposed a total shutdown on domestic air travel as well to contain the spread of **Covid-19**.

- The grounding of India's civilian aircraft has strangled a key source of weather data that the **India Meteorological Department (IMD)** uses for its forecasts.
- Officials from the IMD, however, have clarified that India's annual monsoon forecast system is on track, with the first forecast scheduled to be issued in mid-April.
 - A major factor for gauging the performance of the monsoon is the **El Nino**, a warming of the ocean waters in the equatorial Pacific Ocean. This data is measured by observational data buoys located in the sea and relayed via satellite. This **data is not impacted so far**.

Key Points

- **Aviation and Weather Data:**
 - Aircraft **relay data about temperature and wind speed** in the upper atmosphere to meteorological agencies the world over and this is used in the dynamical models.
 - Input from aircraft is important for the dynamical models as it determines the **initial conditions** for these models.
 - Aviation-generated data is also helpful to warn of **developing thunderstorms or swings in temperatures** that often begin at the heights aircraft traverse.
- **Dynamical model:**
 - Dynamic models are generally models that contain or depend upon an **element of time, especially allowing for interactions between variables over time**.

- These stimulate the state of the atmosphere and oceans at a particular time and then extrapolate into the future using standard laws of physics.
- These models are run on **supercomputers** and are relied on to give weather forecasts three days, or even two weeks ahead.
- **IMD will move to traditional weather forecasting system:**
 - This year, the IMD will likely rely on its traditional statistical forecast system, the one developed on the basis of historical data.
 - However, even this will be difficult due to shortage of manpower in the Department owing to Covid-19.
 - The IMD issues its first forecast for the June-September monsoon in April and updates it in June.

India and Weather Forecasting Model

- **Traditional Model:**
 - **Until 2010**, the IMD used **only statistical models** to forecast the monsoon.
 - These **involved identifying climate parameters** linked to the performance of the monsoon. For example, the sea surface temperature gradient between North Atlantic and North Pacific, the volume of warm water in the equatorial Pacific, the Eurasian snow cover.
 - Their values in February and March are correlated to values of actual rainfall over a hundred years and then, using statistical techniques, extrapolated to forecast a particular year's monsoon.
 - This has, however, proved wrong and the **IMD missed its mark on forecasting** major droughts and rain-deficits particularly 2002, 2004 and 2006.
 - The IMD responded by finding new parameters but keeping the technique the same.
- **Dynamic Model:** IMD started testing a dynamical system around 2015.
 - This **simulates the weather at a chosen set of locations on a given day** – the land and ocean temperature, moisture, wind speeds at various heights, etc – and **powerful computers** calculate how these weather variables will change over days, weeks, months.
 - It's able to do this by solving physics equations that show how each of these weather variables is related to each other.
 - The IMD and several private weather agencies are increasingly relying on more sophisticated and high-resolution computer models to give localised forecasts, or warn farmers of changes in weather 10-15 days ahead.

- Rather than long-range forecasts that only give a broad tenuous picture of the likely performance of the monsoon, the shorter forecasts are far more reliable and help farmers make decisions about sowing.
- These models are also useful for **anticipating heat-wave or a cold-wave** and therefore useful to urban planners and government.
- Though meteorological agencies around the world are shifting to such techniques, they still aren't considered entirely reliable for forecasting the monsoon.
- Further, **India's dynamical model is still not as adept** as meteorologists want them to be, for **warning of a drought or extreme changes in monsoon rainfall**.

India Meteorological Department

- IMD was **established in 1875**.
- It is an agency of the **Ministry of Earth Sciences of the Government of India**.
- It is the principal agency responsible for **meteorological observations, weather forecasting and seismology**.

9. U.S. gives 'terrorist' label to white supremacist group

Context:

The Trump administration has designated an ultranationalist group based in Russia – the **Russian Imperial Movement** as a terrorist organisation.

Details:

- It is the first time the government has applied the label to a white supremacist group.
- The designation has been seen as an unusual move, as President Trump has previously been criticised for failure to do more about the threat of white supremacy.
- While the label of specially designated global terrorist has been frequently used for Islamist extremists, there have been growing concerns among U.S. officials about violent white supremacists with transnational links over the past five years.
 - In 2018, the White House added that threat to the government's National Strategy for Counterterrorism.

The authority for either the Treasury Department or the State Department to deem a group or an individual a specially designated global terrorist traces back to an executive order issued by President George W. Bush after the September 11, 2001, terrorist attacks.

President Donald Trump, in 2019, signed an executive order expanding that authority to cover groups that provide training for terrorists even if the groups are not directly linked to any attack.

To receive such a designation, a group must be a foreign organisation and must engage in terrorist activity that threatens the security of US nationals or the national security of the US.

Impact:

- The State Department's designation for the organisation, the Russian Imperial Movement, sets up the Treasury Department's Office of Foreign Assets Control to block any American property or assets belonging to the group.
- It will also bar Americans from financial dealings with the organisation and make it easier to ban its members from travelling to the U.S.
- The U.S. is also designating three of the group's leaders – Stanislav Anatolyevich Vorobyev, Denis Valliullovich Gariev and Nikolay Nikolayevich Trushchalov – as individual terrorists who will face similar sanctions.

Russian Imperial Movement (RIM):

- The RIM is an ultra-nationalist paramilitary group based in St Petersburg, where it has training camps, with alleged links to other white supremacist organisations. According to the US State Department, it is a terrorist group that provides paramilitary-style training to neo-Nazis and white supremacists.
- The RIM is not considered to be sponsored by the Russian government, although President Vladimir Putin has tolerated its activities and it has helped advance the Russian government's external goals by recruiting Russian fighters to aid pro-Russia separatists in eastern Ukraine.
- The group has also helped support neo-Nazi groups in Scandinavia.
- Although a Russian Imperial Movement member has visited the U.S., the organisation does not appear to have domestic members. It is not clear if the group has provided training to U.S.-based neo-Nazis.

10.Measures for Smooth Disbursal of Funds Under PMGKY

Why in News

Recently, the Ministry of Finance has tweaked **Prevention of Money Laundering (PML)** norms with the aim to make all inoperative bank accounts functional.

- This is to ensure that cash transfers by the government under the **COVID-19** relief package (Pradhan Mantri Garib Kalyan Yojana (PMGKY) scheme) reach beneficiaries.

Key Points

- As a part of the **Pradhan Mantri Garib Kalyan Yojana (PMGKY) scheme**, the government has decided to **transfer ₹500 per month for three months to the poor and vulnerable sections of the society** whose livelihood has been impacted due to the nationwide **lockdown**.
- The PML norms have been tweaked to ensure that beneficiaries are able to withdraw the money transferred to them by the government **without any problems or requirement of additional documentation**.
- The Rules have been amended in respect of
 - The **Pradhan Mantri Jan Dhan Yojana accounts**.
 - Basic savings account and small accounts.
 - Those accounts which have become inoperative due to various reasons including **Non-completion of Know Your Customer (KYC)** requirements or updation.
- **Accounts that may have become dysfunctional** due to non-operation in the account for the last two years have also been **made functional**.
- The Finance Ministry had also requested the **Ministry of Home Affairs for adequate security personnel at bank branches** and with the business correspondents
 - This is to maintain law and order, and social distancing, in view of the higher customer footfall expected for cash withdrawals after the transfers are made.

Money laundering

- It is the **concealing or disguising the identity of illegally obtained proceeds** so that they appear to have originated from legitimate sources.

Round Tripping of Funds

- Round tripping refers to money that leaves the country through various channels and makes its way back into the country often as foreign investment.
- This mostly involves black money and is allegedly often used for stock price manipulation.

Prevention of Money-Laundering Act

- **Prevention of Money-Laundering Act (PMLA), 2002** deals with money laundering and has three main objectives :
 - To prevent and control money laundering.
 - To provide for confiscation and seizure of property obtained from laundered money.
 - To deal with any other issue connected with money-laundering in India.

- Under the PMLA Act, the **Enforcement Directorate** is empowered to conduct a Money Laundering investigation.
- **PMLA (Amendment) Act, 2012**
 - Adds the concept of '**reporting entity**' which includes a banking company, financial institution, intermediary etc.
 - It prescribes **obligation of banking companies, financial institutions and intermediaries for**
 - **Verification and maintenance of records of the identity of all its clients** and also of all transactions.
 - Furnishing information of such transactions in prescribed form to the **Financial Intelligence Unit-India (FIU-IND)**.
 - It empowers the Director of FIU-IND to impose fine on banking company, financial institution or intermediary if they or any of its officers fails to comply with the provisions of the Act as indicated above.
 - PMLA, 2002 levied a fine up to Rs 5 lakh, but the amendment act has removed this upper limit.
 - It has provided for **provisional attachment and confiscation of property** of any person involved in such activities.

Financial Intelligence Unit-India

- FIU-IND is a **central, national agency** responsible for receiving, processing, analyzing and disseminating information relating to suspect financial transactions to enforcement agencies and foreign FIUs.
- It was set up in 2004.
- It is an **independent body** reporting directly to the Economic Intelligence Council (EIC) headed by the **Finance Minister**.

11. Preparing for SAARC 2.0 (GS-2)

Context:

- **Virtual summit** of the heads of member countries of the South Asian Association for Regional Cooperation (**SAARC**) to discuss a common strategy to tackle COVID-19.

Background:

- By taking the initiative for the virtual summit, **India showed diplomatic resilience and leadership** by trying to forge unity in the immediate neighbourhood in the war against COVID-19.

- The deliberations and the outcomes of the virtual summit reflected recognition of the serious challenge posed by COVID-19 and the **need for robust regional cooperation** to overcome it.
- This **innovative exercise in health diplomacy** has been appreciated worldwide and also replicated by other international organizations.

Steps taken:

- Though SAARC has been **dormant for several years due to regional tensions**, the fight against COVID-19 has been taken up by all the members in right earnest through a **series of tangible measures**.

Representation from all members:

- **All the eight member-states were represented in the virtual summit**, by the head of state or government, except Pakistan, pointing to the acceptance of the need to work together.
- All the heads readily **agreed to work together** to contain the virus, and shared their experiences and perspectives.

COVID-19 Emergency fund:

- India's proposal to launch a COVID-19 Emergency Fund has been **accepted by all the members except Pakistan**.
- India had made an initial contribution of \$10 million. Within days, all the countries, except Pakistan, contributed to it voluntarily, bringing the total contributions to \$18.8 million.
- Though it seems like a small amount, the **spirit of solidarity** behind it matters.
- The arguments that SAARC members have committed rather limited resources seem to neglect the fact that **SAARC countries have reported only 0.64% of the total cases worldwide**.

Operationalization of the emergency fund:

- The SAARC emergency fund has been operationalized.
- Notably, **the fund is controlled neither by India nor by the Secretariat**. Each contributing member-state is responsible for approval and disbursement of funds in response to requests received from others.
- This **decentralized approach** would reduce unnecessary steps and help forge more unity among the members.

Implementation of projects:

- India has received **requests for medical equipment, medicines and other supplies** from Bhutan, Nepal, Afghanistan, Maldives, Bangladesh and Sri Lanka.
- Many of the requests have already been accepted and action has been taken.

- **The quick decisions** being taken come as a welcome relief from the usual lackadaisical approach and delays which had characterized the organization.

Follow-up video-conference:

- A **follow-up video-conference of senior health officials** was arranged.
- Important issues ranging from specific protocols dealing with screening at entry points and contact tracing to online training capsules for emergency response teams were discussed.
- The major outcome is the decision to **enhance technical cooperation through a shared electronic platform** among the members. This would allow exchange of all useful **information among health professionals** through more informal means.

Significance:

Revival of SAARC:

- India's imaginative diplomacy has **leveraged the crisis to create a new mechanism for workable cooperation.**
- The cooperation among the member states will become stronger if the pandemic crisis deepens and if member-states see advantages in working together.

Challenges:

- To conclude that SAARC is now returning to an active phase of cooperation between all its member-states on a broad front may, however, be premature. There are still some **challenges to fully realize the potential of this regional organization.**

Pakistan hindering cooperation:

- Pakistan's decision to represent itself in the virtual summit by a representative of the Pakistani Prime Minister and the subsequent statement over Kashmir reflects the **lack of sincerity on the part of Pakistan in forging a united front with SAARC.**
- This is not something new given Pakistan's similar stance against India's proposal for SAARC. India's offer for a SAARC satellite, for regional transport agreement among SAARC countries have been vetoed by Pakistan.
- Pakistan, though claims to favour regional cooperation, seems to be working against it.

India's move towards BIMSTEC:

- Given the lack of progress in SAARC, **India has been shifting its focus towards increasing engagement in BIMSTEC.**

- India has invested a lot of political capital in strengthening **BIMSTEC as an alternative to SAARC.**

Conclusion:

- **India** has repeatedly stated that it has no preference for a specific organization or platform and is fully committed to the **cause of regional cooperation and connectivity.**
- India has little difficulty in cooperating with like-minded neighbours, as it showed by forging unity in the war against COVID-19.
- If Pakistan continues to hinder cooperation among the member states, India and its friendly neighbours need to start preparing themselves for **SAARC 2.0**, which would involve **informal, decentralized and need based cooperation without the burden for consensus among all the members.**

12. India lifts ban on export of hydroxychloroquine (GS-2)

Context:

India has rescinded its earlier ban on the export of malaria drug hydroxychloroquine (HCQ), which is now being used in countries such as the U.S. as a possible line of treatment for COVID-19.

Background:

- In a notification on March 25 2020, the government placed HCQ on a restricted items list, and then put a blanket ban on any export of the drug on April 4, 2020.

The Geo-Politics of Medical Aid:

- In view of the humanitarian aspects of the pandemic, it has been decided that India would licence paracetamol and HCQ in appropriate quantities to all her neighbouring countries who are dependent on India's capabilities.

- India's installed capacity of hydroxychloroquine active pharmaceutical ingredient: **40 tonnes**
- Capacity translates into **200 million** tablets (200 mg strength each) a year
- Domestic consumption is around **24 million** tablets a year (excess capacity, but need to factor in likely increase in domestic demand: IDMA)
- The country's overall pharmaceutical exports are worth **\$19 billion**



- Russia has delivered a planeload of medical supplies to the US as the New York healthcare system was overwhelmed due to a rapid rise in cases of the novel coronavirus.
- China too has been trying to use the crisis to its advantage by going on a PR offensive and using its production capacity to increase supplies of medical aid.
- It is being argued that India too could use this opportunity to up its pharma production.
- A conservative approach would give us the comfort of huge reserves of a limited relief drug, while an aggressive approach of rapid production and timely export could yield more positive results, diplomatically.
- The argument is being made that an outreach right now in the form of exports of HCQ could benefit India later on the form of access to an early vaccine, which could come from the US.

Hydroxychloroquine:

- India had approved the use of the anti-malarial drug, hydroxychloroquine, as a preventive medication for people at high risk, such as health workers and immediate contacts of a person who has tested positive for COVID-19.
- Chloroquine is basically an anti-malaria drug. It is a medication used to prevent and treat malaria in areas where malaria remains sensitive to chloroquine.
- Other uses include treatment of rheumatoid arthritis, lupus, and porphyria cutanea tarda.
- Hydroxychloroquine is an interferon blocker, and works by diminishing the immune system's response to viral infections.

- A hyperactive response by the immune system is said to be primarily responsible for pneumonia, also a fallout of a severe COVID-19 infection.
- It needs to be noted that the drug is yet to be proven as a cure for the novel coronavirus.

A study in France showed that Hydroxychloroquine alone or in combination with azithromycin appeared to reduce virus levels quicker prompting drug regulators in several countries including in India to approve the drug in restricted settings.

The Indian Council for Medical Research has also cleared HCQ to be used as prophylaxis, or preventive medication, by doctors, nurses and other health staff.

Hydroxychloroquine is known to have a variety of side-effects, and can in some cases harm the heart.

These dosages are also linked to instances of cardiac arrhythmia and liver damage. Wide usage may handicap people's ability to fight the infection.

13. Ten questions posed by the virus (GS-2)

Context:

- The article discusses the possible **impact of the pandemic on some basic principles which have defined humankind** in the recent past.

Details:

- The COVID-19 pandemic is reopening several questions that were considered resolved by the end of the last century.
- Human beings' life after the pandemic will be defined by questions on the prevailing organizing principles of humankind.

Utilitarian question:

- The pandemic has resurrected the **classic utilitarian question**. The debate over the importance of **economic health over public health** is an indication of the utilitarian approach.
 - Utilitarianism is a family of **consequentialist ethical theories** that promotes actions that maximize happiness and well-being for the affected individuals.

Accepting the death of a few for the revival of economic activity is a recurring theme in the western countries, given the large unemployment created due to the restrictions and lockdowns in place.

COVID-19 has been more fatal for the aged population and also people with health conditions. In some countries, the acceptance of their death is based on the principle of **social Darwinism** which propounds the survival of the fittest principle.

National priorities:

- Though the **U.S. is the pre-eminent military and economic superpower, it remains the most affected country in the world** and continues to struggle in its fight against the pandemic.
- The present crisis might push the countries to recognize the **need for enhanced attention on social infrastructure apart from the emphasis on security and weaponry.**
- There could be a new understanding of power and security.

Globalization:

- **All countries have tried to enforce border controls to stop the virus.** There has been very **limited cooperation** among the countries given the fact that most of them are concentrating on catering to the domestic needs.
- However, global cooperation and multinational governance continue to remain very important in the fight against the Pandemic. The supply of necessary equipment and products from the recovering countries can help control the situation in the affected countries.
- There is a **need for a new globalization where humanity takes precedence over economic benefits.**

Political system:

- China and Singapore showed that authoritarian measures worked well in limiting the spread of the pandemic. Germany showed that democratic and inclusive methods work too.
- Italy and the U.S. showed that individualism and markets can impede collective goals.
- There are questions regarding **whether democratic or authoritarian systems would find increasing acceptance.**

Market economy:

- **The last few decades have witnessed an increasing role for market economy** and decreasing role for the public sector in the economy. This was based on the assumption that a market economy improves efficiency and brings progress.
- However, the **pandemic has resulted in many reverses.** There has been the nationalization of all hospitals in Spain and there is the increasing call for nationalization of companies to meet the public health demands.

- The **uneven impact of the restriction on the rich and poor** also pose questions to the **negative impact of the market economy**.
- The pandemic might indicate the risk involved in the competition principle of market economy and may emphasize the **need for collectivization and cooperation**.

Idea of community:

- **Neoliberalism had made all human interactions transactional.**
- The COVID-19 crisis has **urged humans for community action.**
- The **idea of community and national priorities would have to change.** A sustainable organizing principle of humanity will require a conception of self-interest that is not immediate in terms of time or geography, rather should **work for the interest of all humanity not just for the present but also future generations.**

14. A different economic approach (GS-2)

Context:

- The article evaluates the **economic impact of the COVID-19 pandemic** and suggests correction in the present policy approaches to ensure a **balance between public health and economic health during the pandemic.**

Background:

- Given the **large population in India and the comparatively meagre healthcare resources**, India chose to go for an unprecedented 21-day national lockdown.
- This move has brought the economy to a near halt and would entail huge economic costs for India.
 - The lockdown will **reduce the gross value added (GVA)** during this period to near zero.
 - The **unorganized sector** accounts for more than 50% of the GVA and will **bear a disproportionate burden of the economic costs of the lockdown.** The suffering of the stranded migrant labourers is a strong indication of the higher burden shared by the unorganized sector.

Details:

Policy dilemma:

- There have been questions on whether the economic costs due to the lockdown are justified to save human lives. The core policy dilemma which needs to be addressed is **should public health matter more than economic health.**

- Given the fact that a prolonged lockdown will extract a huge economic cost, the economy cannot remain shut until a vaccine or drug becomes available.
- Therefore, the **policy objective must be to find ways of ensuring that the lockdown ends early without compromising on public health**. The author of the article discusses a few policy measures in this direction.

Aggressive testing and isolation:

- Combining large scale **testing for people and isolating the people tested positive** will make it unnecessary for the rest of the population to stay home and it will **allow the economy to restart without the risk of large scale spread of the disease**.
- However, for this strategy to work there are **certain preconditions** which must be satisfied.
 - **People must be tested in large numbers**. Even after ending the lockdown, testing of randomly selected people must go on in large numbers.
 - The success of this approach will also depend on eliminating the fears associated with isolation so that people obey strict quarantine. Such fears can be reduced only if isolation facilities are good.
 - The strategy calls for **fully operational hospitals to be constructed** in every district of the country in a matter of weeks.
 - This strategy will also require **huge funding from the governments**. Given the public health crisis, all resources must be used to ramp up healthcare capacities.

Concerns:

- There have been some questions regarding India's economic policies for fighting COVID-19. There are concerns that apart from being mostly **ineffective** they might also be severely **hampering economic opportunities**.

Economic package and policy measures by RBI:

- The government and RBI have taken several policy measures to reduce the economic impact of the lockdown.
- However, it should be noted that given the fact that lockdown is not a normal condition, the usual policy levers may not be effective in the current situation.
 - The loan moratoriums and cash transfers can help prevent bankruptcy and defaults for a few months and buy time on non-performing assets in banks. But they **cannot compensate for the GDP lost due to the economic shutdown**.
 - The liquidity and cash released by monetary and fiscal policies cannot get transmitted to the real sector during an economic shutdown.

Strict economic regulation:

- Given the reports of overpricing of essentials due to the sudden spike in demand and fears of shortage in the domestic market, the state has put several restrictions in place.
 - Several essential items like masks, sanitizers have been placed **under price controls**.
 - Though testing has been opened up even for the private labs, there are caps on the pricing of the tests.
 - There have been restrictions **placed on export of medicines and medical equipment** to other countries.

Such regulations, though well intended, have **removed the incentive for private players to ramp up their capacities**. This might only lead to lack of sufficient supply in the times of heightened demand.

Way forward:

Healthcare sector as the engine of economic growth:

- A more effective approach for economic revival would be to **funnel money into the healthcare sector**. If the public health sector can be the economy's main engine for six months, the public health versus economic health trade-off can be resolved.
- This would entail several advantages.
 - In the short term, it would **help prepare for higher number of cases of COVID-19**. The spread of COVID-19 will slow down.
 - Given the fact that it is currently the only sector that is still active, funnelling more resources here would **help create jobs**, including for low-skilled construction labourers. This will help ensure that the economic pain of combating the virus will reduce.
 - In the long term, if planned and executed smartly, this move can help **address the severe health infrastructure deficit in India**.

Alternatives to economic regulation:

- Though some of the economic regulations currently in place like price caps, export restrictions are well intended; the government should also **consider alternatives**.
 - In case of testing, the **government should fully subsidize testing** instead of price capping which entail several advantages.
 - At low prices, more people with symptoms will come forward to get tested.
 - **Private labs will quickly ramp up their capacities** if they don't have to worry about losses due to price capping.
 - Similarly, planned and phased **removal of restrictions on export of essential medicines and PPEs** can be beneficial for India's interest.

- Given the higher prices being offered by the foreign importers, there would be **incentives for the private sector enterprises** to ramp up their capacities. This will help cover up for the loss of exports due to the economic lockdown.
- This would incentivize the entry of new players into the market. The increased manufacturing, apart from helping **meet the domestic demands**, will also help **create employment opportunities in India**.
- **Private enterprise and technological innovations** will come up with innovation and improvements which augurs well for the Indian manufacturing sector.
- It will help **earn goodwill for India in the international community**.

15. Centre rolls out steps for women's safety (GS-2)

Why in News

Recently, the Union Minister of **Women and Child Development** had a **video-conference with** personnel associated with the Ministry. The purpose was to consider measures to protect women in distress during the lockdown.

- Nearly **1,000 people** joined the video conference live, including the staff members of
 - One Stop Centres.
 - Shelter homes for women in distress (such as Swadhar Greh, Ujjawala homes).
 - Working Women Hostels.

Key Points

- **Reasons Behind Holding the Conference**
 - **Rise in Crimes Against Women:** The **National Commission of Women** has recorded
 - A more than **two-fold rise in domestic violence and sexual assaults and**
 - A three-fold increase in cases of **police apathy** in the first week of lockdown since March 24, 2020.
 - **Call Taken by Various Organisations:** The **gender rights activists and the United Nations (UN)** have called for the need to boost helplines, psycho-social support and online counselling to support women in distress.

- **Instructions by the Ministry:** Officials of the ministry were asked to ensure that **One Stop Centre** are linked with local medical teams, police, NIMHANS, **National Legal Services Authority (NALSA)** to ensure that their **services are not impacted due to restrictions** on movement.
 - NIMHANS (National Institute of Mental Health and Neuro Sciences), Bangalore is a multidisciplinary institute for patient care and academic pursuit in the field of mental health and neurosciences.
- **Suggestions**
 - To **equip counsellors** across the country to deal with the unique problems faced by women.
 - Use of **digital governance** to ensure safety of women which must be replicated at the State-level and with Non-Government Organisation (NGOs) so that there is no deficit of either information or help.
 - Urged NGOs to try to ensure that every individual calls at least 10 women every day so that “women know that they are not alone”

One Stop Centre

- One stop centre is a **centrally sponsored scheme of the Ministry of Women and Child Development (MWCD)**. It is a subscheme of the **National Mission for Empowerment of Women**.
- One Stop Centres have been established **across the country to provide integrated support** and assistance under one roof to women affected by violence, both in private and public spaces.
- **Funding:** The scheme is funded through **Nirbhaya Fund and the central government provides 100% financial assistance** to the state governments /Union Territories administrations.
- **Auditing:** Audit is done as per **Comptroller & Auditor General of India** norms and social audit is also undertaken by civil society groups.
- **Services Provided by the One Stop Centres**
 - Emergency response and rescue services.
 - Medical assistance.
 - Assistance to women in lodging the FIR.
 - Psycho- social support and counselling.
 - Legal aid and counselling.
 - Shelter
 - Video conferencing facility.

Working Women Hostels scheme

- The Working Women Hostels scheme is implemented by **the Ministry of Women and Child Development**.
- It aims to ensure safe accommodation for women working away from their place of residence.
- **Provisions** :
- To provide **safety for working women**, a provision has been made to keep security guards and to install CCTV Cameras in Working Women Hostels.
- To provide **quality of stay for working women**, provision has been made to provide safe and affordable accommodation with clean and well-ventilated day care centres for the children of inmates, medical first-aid and providing washing machines and geysers/solar water heating systems.

Swadhar

- A Scheme for Women in Difficult Circumstances was launched by the Department of Women and Child Development in 2001-02. The scheme through the provisions of shelter, food, clothing, counseling, training, clinical and legal aid aims to rehabilitate women in difficult circumstances.

Ujjawala Home

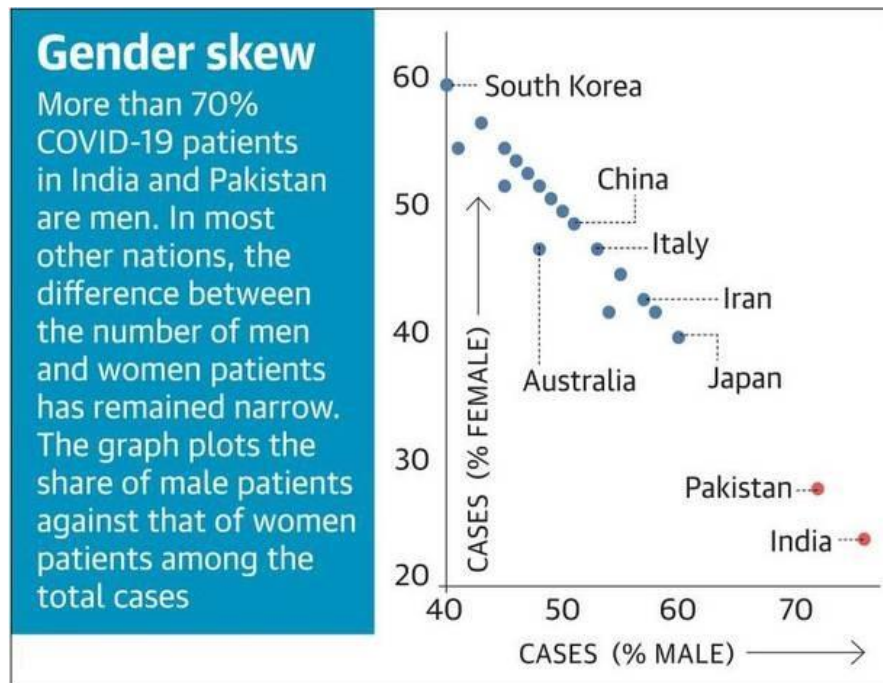
- A comprehensive scheme for prevention of trafficking and rescue, rehabilitation and re-integration of victims of trafficking for commercial sexual exploitation.

16. Virus hits both genders equally, except in 2 nations (GS-2)

Why in News

Recently, **GlobalHealth50/50** suggested that the **gender-split** of **Covid-19** cases in all countries is roughly 50-50, barring **two exceptions**: India and Pakistan.

- Men in India more than women likely to test positive for **COVID-19**.
- Another unusual exception was South Korea – the country that has conducted the maximum number of tests as a proportion of population – in that more women tested positive than men.
- GlobalHealth50/50 is an **independent research initiative** that tracks **gender and health**. It compiled data from almost 40 countries on Covid-19 cases.
- **Many countries**, including the United Kingdom and the United States, **do not have sex-segregated national data** while publicising data on cases and death rates.



Key Points

- **Data Analysis (% of men out of total cases):**
 - Greece- 55%
 - Italy- 53%
 - China- almost 51%(February data).
 - India- 76%
 - Pakistan- 72%
 - Germany- 50%
 - South Korea- 40% (more women positive)
- India has not shared national figures on Covid-19 mortality rates in men and women yet. However, on April 6, 2020, the Health Ministry said 76% of the confirmed cases in India were men.
- **Reasons:**
 - **Epidemiologists** have highlighted that in most countries men and women equally travelled **internationally**.
 - Indian case is **reflective of employment trends** also. There are **less working women** and very less are likely to travel internationally for work.

- India's wide disparity is more likely due to **sociological factors**.
- **Global research on coronavirus** so far has shown that **men are more likely to be harbouring additional ailments** like cardiovascular disease, diabetes and more likely to **smoke**.
 - These conditions make men even more vulnerable to the severe infection.
- The figure seems to be a statistical reflection of relatively low testing for the disease.
- With more testing and more infections detected, the male-female gap would likely narrow.

17. Financing the pandemic rescue package (GS-2)

Context

The priority for India is to ensure that it overcomes the COVID-19 pandemic and kick-starts GDP growth.

Financing strategy for the 1.7 lakh crores package

- Rather than fix the weaknesses in the macroeconomy: a high **fiscal deficit of 7.49%** and government indebtedness that was **69% of GDP in 2019**, the government wants to overcome the pandemic.
- When COVID-19 cases began to increase, the Government of India (GoI) swung into action by announcing a 21-day national lockdown and a **₹1.7-lakh crore (approximately \$22.59 billion) rescue package**.
- **Financing strategy:** Available in the **state disaster relief fund is ₹60,000 crore**, comprising ₹30,000 crore of the outstanding balance and the Central government's allocation of a similar amount for FY2021.
- Hence, the GoI needs to raise an **additional ₹1.1-lakh crore**, e., 65% of the rescue package outlay.
- Its financing **strategy should be** to raise long-term funds at **cost-effective rates**, with flexible repayment terms that allow it to take **tactical advantage** of market movements.
- Following are **some of the options** that the government can explore to raise the required amount.

1. GDP-linked bonds

- The GoI may issue listed, **Indian rupee-denominated**, 25-year **GDP-linked bonds** that are callable from, say, the fifth year.

- **What GDP-linked means?** The coupon (interest) on a GDP-linked bond is correlated to the GDP growth rate and is subject to a cap.
- The issuer, the GoI, is liable to pay a lower coupon during years of slower growth and vice-versa.
- The callable feature from the fifth year till maturity allows the GoI to effect partial repayments during high growth years and when it earns non-recurring revenues such as proceeds from disinvestment of public sector enterprises (PSEs).
- The listing of bonds provides investors an exit option.
- **Examples from the world:** Costa Rica, Bulgaria and Bosnia-Herzegovina issued the first pure GDP-linked bonds in the 1990s.
- Argentina and Greece issued warrant-like instruments similar to GDP-linked bonds in 2005 and 2012 respectively. India could learn from their experience.
- **Timely GDP data is a prerequisite:** Publishing reliable and timely GDP data is a prerequisite for the successful issue of GDP-linked bonds, which the GoI may use to part-finance the COVID-19 rescue package and to diversify its borrowing sources.

2. Streamlining PSEs

- The **15 largest non-financial central PSEs** (CPSEs) in the S&P BSE CPSE index contributed approximately 75% of the GoI's **₹48,256.41 crore** dividend income from PSEs in FY2020.
- The Union Budget projected PSE dividends to increase by **25% to ₹65,746.96 crore in FY2021**.
- This milestone is **unlikely to be achieved** in the current environment.
- The 15 CPSEs have accumulated sizeable **non-core assets** including financial investments, loans, cash and bank deposits in excess of their operating requirements, and real estate.
- The **return on these assets** (excluding real estate) is around **200 basis points lower** than the returns on their core businesses.
- These CPSEs owe the **government ₹25,904 crore as of end-March 2019**.
- These non-core assets must be **monetised to repay statutory dues** and upstream dividends to GoI.
- **Formation of HOLDCO:** While loans and excess cash and bank deposits may be monetised within three months, streamlining investments and selling real estate is a **time-consuming process**.
- It is imperative for the GoI to form a PSE and public sector bank **holding company ('Holdco')** along the lines of Singapore's Temasek Holdings and Malaysia's Khazanah Nasional Berhad.
- The Holdco will enable PSEs to **monetise their non-core assets** at remunerative prices, maximise their enterprise value and focus on their core businesses.
- The **₹30,168 crore** loans that CPSEs have extended to employees, vendors and associates may be securitised or refinanced, with CPSEs guaranteeing loans extended to weak counterparties.

- **Excess liquidity with PSEs:** It is essential that businesses maintain liquidity, especially during a downturn. However, the outstanding cash and bank deposits of the 15 CPSEs (₹64,253 crore) is in excess of their operating requirements.
- CPSEs must determine the cash they require to meet, say, **six months of operating expenses** and use the **excess cash** to repay statutory dues and upstream dividends to the GoI.
- Banks must extend to CPSEs **committed lines of credit** that the latter may draw down during exigencies.
- **Financial investments of PSEs be transferred to HOLDCO:** The 15 CPSEs have accumulated **₹93,562 crore financial investments** comprising listed and unlisted debt, equity and mutual fund units.
- These exclude investments in associates and joint ventures.
- The CPSEs ought to transfer these investments to Holdco, which can manage the portfolio and transfer the returns to the original investors.
- **Real estate holdings of PSEs:** One important non-core asset, whose value is likely to exceed the combined value of other non-core assets, is the real estate holdings of PSEs.
- In September 2018, the GoI identified properties of nine PSEs (Air India, Pawan Hans, Hindustan Fluorocarbons, Hindustan Newsprint, Bharat Pumps & Compressors, Scooters India, Bridge and Roof Co, Hindustan Prefab, and Projects & Development India) to be divested.
- The GoI must mandate all PSEs and government departments to **transfer their non-core properties to Holdco**, which can opportunistically sell these properties and transfer the proceeds to the owners.

Refrain from asking RBI to pay more dividend

- The Reserve Bank of India (RBI) has allocated ₹1 lakh crore to **carry out long-term repo operations** in tranches and has reduced the repo rates by 75 basis points to 4.4% to help banks augment their liquidity in the wake of the pandemic.
- Recognising the RBI's liquidity requirements, the GoI must refrain from asking the RBI to pay more dividends that it can viably pay.
- During the five years ending on June 30, 2019, the RBI paid the GoI 100% of its net disposable income, with its FY2019 dividends more than trebling to ₹1.76 lakh crore from ₹50,000 crore in FY2018.
- The Bimal Jalan panel constituted in 2019 to review the RBI's economic capital framework opined that the RBI may pay interim dividends only under exceptional circumstances and that unrealised gains in the valuation of RBI's assets ought to be used as risk buffers against market risks and may not be paid as dividends.

Conclusion

The Bimal Jalan panel recommendation must be adhered to in letter and spirit. The GoI may finance the COVID-19 rescue package by issuing GDP-linked bonds, tapping PSEs' excess liquidity and monetising non-core assets.

18. Needed, greater decentralisation of power

Introduction

- The COVID- 19 pandemic has hit humanity very badly leading to a health and economic crisis in India. At this juncture, managing the pandemic is very crucial to avert casualties. In India we have a federal setup where the onus is on both the central and state Governments to take brisk measures.
- The state Governments in particular, have installed a series of measures to combat the onslaught of COVID-19.
 - The delivery of health care largely rests with the States, health being a state subject.
 - Even before the Union government invoked the Disaster Management Act, 2005, many State governments triggered the Epidemic Diseases Act, 1897.

These actions may not be perfect but the start has been made.

- Some of them have even disproportionately trenched upon basic civil liberties.

But these decisions were communicated to the public with clarity and consideration, helping, in the process, to lay out a broad framework for the nation.

In doing so, they have **acted not merely as “laboratories of democracy”**, to paraphrase the former U.S. Supreme Court Justice Louis Brandeis, but also as founts of reasoned authority.

Equally, though, as much as State governments have taken up positions of leadership, they have repeatedly found themselves throttled by the limitations.

Stifled by limitations

- One, they are not able to structure their welfare packages due to limited access to funds.
- Two, the states are unable to make swift payments for the purchase of health-care apparatus such as ventilators and personal protective equipment because of red tape.
- Three, the immense disruption of supply chains not only of essential goods and services but also of other systems of production and distribution, which has placed States in a position of grave economic uncertainty.

Division of powers

The Seventh Schedule to the Constitution divides responsibilities between Centre and the states.

- The Union government is tasked with matters of national importance, such as foreign affairs, defence, and airways.

- States take the responsibilities concerning public health and sanitation, agriculture, public order, and police. In these domains, the States' power is plenary.

This federal architecture is fortified by a bicameral Parliament.

- A House of the People [Lok Sabha] comprising directly elected representatives and
- A Council of States [Rajya Sabha] comprising members elected by the legislatures of the States.

Financial Autonomy

In formulating this scheme of equal partnership, the framers were conscious of a need to make States financially autonomous. To that end they divided the power to tax between the two layers of government to ensure that the authority of the Union and the States did not overlap.

- Therefore, the **Centre**, for example, was accorded the power to tax all income other than agricultural income and to levy indirect taxes in the form of customs and excise duties.
- The sole power to tax the sale of goods and the entry of goods into a State was vested in the **State governments**.
- The underlying rationale was simple: States had to be guaranteed fiscal dominion to enable them to mould their policies according to the needs of their people.

Despite this plainly drawn arrangement, the Union has repeatedly displayed a desire to treat States, as the Supreme Court said in **S.R. Bommai v. Union of India**, as mere "**appendages of the Centre**". Read more on the S.R. Bommai Case.

- Time and again, efforts have been made to centralize financial and administrative power, to take away from the States their ability to act independently and freely.

Attempts to provide more funds to the states

- The Central Govt. accepted the recommendations of the 14th Finance Commission to increase the share of the States in total tax revenues from 32% to 42%.
- But gains made by the States have been entirely offset by a simultaneous decline in share of grants and by a concomitant increase in the States' own contribution towards expenditures on centrally sponsored schemes.

Other measures that have proved to be damaging

- The creation of a **Goods and Services Tax regime** which, far from achieving its core purpose of uniformity, has made the very survival of the States dependent on the grace of the Union.
- The Union government has also introduced a slew of **legislation as money bills**, in a bid to bypass the Rajya Sabha's sanction.
- Similarly, the role of the **Governors** has been weaponized to consolidate political power.
- The most egregious among the moves made is the gutting of Article 370 and the division of **Jammu and Kashmir** into two Union Territories without securing consent from the State Legislative Assembly.

Conclusion

- These limitations demonstrate an urgent need to decentralize administration, where States – and local bodies are allowed greater managerial freedom and the Union government will command less but coordinate more.
- Thus, a crisis of the kind that COVID-19 has wrought will show us that India needs greater decentralisation of power; that administration through a single central executive unit is unsuited to its diverse and heterogeneous polity.

19. Charting a Common Minimum Relief Programme in times of pandemic

Issue:

The economic pandemic that is likely to succeed COVID-19 threatens to be as large in scale if not larger than the public health crisis that we continue to battle.

Categories and the areas of concern that the government needs to address in a Common Minimum Relief Programme:

1) Economic upheaval

- Daily wage earners, labourers and migrant workers are at the greatest risk of economic and social insecurity. They face widespread economic upheaval and geographic displacement. The sheer importance of a social security net in helping them tide over this predicted period of unemployment and privation cannot be overstated.
- Among several other pertinent concerns is also providing them protection against evictions.
- Most importantly, the unorganised sector (be they registered or unregistered) must be covered by a robust cash and food distribution system. This concern is extremely legitimate and urgent given that over 80% of the population is currently employed in the unorganised sector.

- There should be a uniform mechanism for the dispersal of both income support as well as essential items such as rice, wheat, millets, medicines, water and anything else that these families will require.

2) Farmers left in the lurch

- Given the vital role agriculture plays both in the economy and in ensuring staples for every single citizen, the resulting crisis is likely to have a widespread negative impact on food security nationwide.
 - Farmers are in dire need of immediate support.
 - Due to the lockdown, the ensuing unavailability of seasonal labour and lack of clarity on procuring arrangements, agencies and prices, the farmer is left in the lurch.
 - They also face the wrath of unseasonal and inclement weather.

To ensure the problem doesn't become cyclical, the government needs to make immediate arrangements for ensuring the availability of fertilisers, pesticides, other inputs (including access to lines of credit) for the planting of the next kharif crop as well.

Supply chain disruptions need to be addressed head on instead of in an ad-hoc manner if mass panic is to be avoided post the lockdown.

- Supply chain disruptions for fast moving consumer goods due to unavailability of labour, difficulty in transporting goods across borders during the lockdown is leading to a shortage of foodstuffs and other essential items.
- This in turn is leading to massive hoarding, black marketing and runaway inflation.

Medium and Small-Scale Enterprises need a clear buffer strategy for survival.

- There are currently close to 4.25 crore registered MSMEs which contribute 29% to India's GDP (or nearly 61 lakh crores) and these have been hit hardest by the COVID-19 crisis imperilling, in turn, the livelihood of crores.
- The government must lay out an action plan, including a financial package, to fortify this sector.

3) Protection to the middle class

- The middle class, facing growing vulnerability, needs to be protected. Owing to the inevitable economic crisis, middle class (as a percentage of the population) is likely to be diminished in size unless immediate action is taken.
 - Companies and employers are cutting salaries and even declaring layoffs to cope with this time.
 - This is aggravated by unjustifiably high petrol, diesel and gas prices.

The twin strategy of increased EMIs (as a result of deferment) and the lowered interest rates on all small savings schemes (as also by the SBI) hitting at the hard earned savings of the elderly, pensioners, professionals and women, have had the exact opposite of a desired impact.

- They have reduced the value of savings while simultaneously increasing debt obligations.
- A long-term plan for economic revival is needed if the middle class is to emerge stronger on the other side of this crisis.

Two obvious solutions could be considered:

- Nyay, the Minimum Income Guarantee Programme was devised for times exactly like these. It will give much needed security – both financial and mental – to those who have no other sources of income due to the lockdown. The Central government must devise and implement this scheme, at least as a temporary measure.
- The other measure is to strengthen our manufacture and production policies by an extensive financial package with an impetus to and focus on local manufacturing.

Conclusion:

- The government should publish and execute a road map that provides forward guidance and economic clarity, especially to those at the margins.
- While States will come up with varying measures for support and relief, the Centre must lead this effort to ensure uniformity, optimisation and coordination amongst States of varying economic capability.
- Every crisis offers opportunities. Manufacturing strategies must be redrawn to reduce dependence on foreign manufacturing, to create new jobs and boost exports.

20. Scarcity of drugs, devices imminent, govt. warned (GS-2)

Context:

- **Concerns raised by the Department of Pharmaceuticals** over the likely shortage of medicines and medical devices.

Background:

- The Department of Pharmaceuticals has been entrusted with ensuring the **seamless production and distribution of critical life-saving medicines** in the wake of the lockdown to contain the COVID-19 pandemic.

Details:

- **Production units engaged in making essential commodities, including medicines, vaccines, masks and their ancillaries** had been **exempted from the restrictions** imposed as per the three-week national lockdown.
- However, still, the drug and medical device manufacturers are **functioning at only 20%-30% capacity** on an average during the lockdown.
- There are **multiple factors** responsible for the problems being faced by pharma firms in the country.
- **Unavailability of labour:**
 - Reverse migration of labour
 - Local workers are not reporting to work due to lack of public transport, fear of police action and family and local community pressure.
- The **unavailability** of transport and courier services:
 - The **restrictions on movement** have left many trucks stranded on highways.
 - Even drivers who are not stranded are **unwilling to take up work** due to the fear of ill treatment by the police, stoppage of vehicles on State, district and city borders, and lack of food and diesel on the route.
 - **The courier services are not fully functional** in metro cities as well as Tier 1 and Tier 2 cities. Courier services are crucial in ensuring movement of medicines and medical devices.
- **The closure of ancillary industries:**
 -
 - Despite repeated requests from the Department of Pharmaceuticals and the Home Ministry's directions, **the ancillary industries are not being considered essential by local administrations** and the police and continue to impose restrictions on their mobility and production.
 - Ancillary suppliers of inputs, including packaging material, excipients (required for tablets and capsules manufacturing), utility consumables like briquettes/gases (required to run boilers) and spare parts are not able to operate/supply due to restrictions.

Concerns:

- The Department of Pharmaceuticals has raised concerns that if the production does not reach the pre-lockdown level soon, it could lead to countrywide shortages of medicines and medical devices in the coming weeks.

Way forward:

- There is the need to **take immediate steps** to help drug makers resume production under the current lockdown.

- There are suggestions to allow the pharma industry to **ferry back their contractual workers from their native places** to mark for the labour shortage.
- **State and district administrations need to be sensitised** and nudged to be proactive to fulfil the need for pharma units to function fully. The state governments need to ensure such production work continues.
- Truck drivers with commercial licences must be allowed to move with or without a vehicle by treating it as a 'pass' during the lockdown. There is a dire need to **address the apprehensions of these drivers and also motivate/incentivise the truck drivers**.
- The courier services need to be made fully functional with appropriate safeguards.

21. Team India and winning the pandemic battle (GS-2)

The question staring at India and the world amidst the global pandemic is if there is an early timeline for return to normalcy or will we have to wait for years to regain the vigour and the vitality of life as before in a reconnected world. The editorial throws light upon how the ability to quell the epidemic is linked to political will and professional skill shaping a multi-sectoral response.

Self-reliance is the way:

- Globalisation lies shredded as the French and German officials are seen protesting at the Americans, seizing shipments of masks that they had ordered from China, in what is being called "guerre des masques" (war of the masks).
- There will be a need for **scientific and economic cooperation with the rest of the world**, but self-reliance is the key.
- From panning a **staged release from the lockdown** to India has to **developing domestic capacity for medical equipment**, India should chart its own strategy.

Focus on health services:

- It must be ensured that the health-care system provides **timely and competent care to all** who need.
- Primary health-care facilities, district hospitals, public and private tertiary care institutions have to **gear up with equipment and augment human resources** drawn both from trainees and retirees.
 - Considering the higher risk to older health-care providers, the **first line of care should be formed by younger staff members** who will have milder effects even if infected.

- This will prevent attrition of the health workforce due to exhaustion or illness.

Temporary hospitals for treatment and isolation facilities for persons on quarantine may **need to be set up at short notice**.

Industry must produce essential medical equipment and drugs to meet the needs and, if capacity permits, assist other countries.

Moving forward:

- Whether there are already infected cases that will spread outdoors after the lockdown will be gauged by clinical criteria (syndromic surveillance) and testing (using viral or antibody tests as indicated).
- The involvement of designated volunteers and community-based organisations can greatly enhance case detection, isolation, counselling, severity-based care and social support.
- Potentially favourable factors for India are the younger age profile and a higher rural proportion of our population compared to China, Europe, the United States or other highly affected countries whose populations are older, urban and highly mobile.
 - However, this enjoins India to energetically **protect the elderly and rural segments of the population**.
 - Restricting urban to rural movement to essential goods and essential needs, for at least six weeks after the lockdown ends, will help.

The **health, nutrition and financial security of the poor must be ensured**.

Essential **economic activity** can be **resumed in stages**.

There would be a need for greater level of testing to detect both asymptomatic and symptomatic persons who have been infected, through random population sampling in different parts of the country.

- **Testing capacity must be quickly increased** to meet this mapping mandate.
- **Hotspots should be identified**, based on numbers of self-referred symptomatic cases, persons identified on home visits and population survey results.
- These should be **ring fenced, with intense search for contacts** and active spreaders, with further localised lockdown, as needed.

Conclusion:

- Even if some factors favour India, the country's ability to quell the epidemic will depend on how well political will and professional skill can shape a coherent, countrywide multi-sectoral response.

- Full support is needed from the other sections of the government and the citizens.
- Everyone has to be on their toes, avoiding a poor health system response, supply chain delays and social distancing violations.
 - The **older staff members can provide supervisory support.**

22. 'Indian labourers in GCC countries in dire need of help'

Context:

- Issue of **Indian labourers in Gulf Co-operation Council countries.**

Background:

- Currently, there are nearly **8 million Indian immigrants in GCC**, of which nearly 2.1 million are from Kerala. Uttar Pradesh, Bihar, Bengal and Punjab also have high number of emigrants in this region.
- **Most of these migrants are low and semi-skilled labourers** who are at the bottom of the pyramid in their host countries.

Details:

- In the wake of the COVID-19 spread, the situation of Indian immigrants is very precarious.
 - Nurses, small businessmen, labourers have been **infected in significant numbers.**
 - In Kuwait 530 of its 993 confirmed cases are Indians. Indian localities have been quarantined. In Dubai, more than 500 Indians have been infected. Similar situations have been reported from Qatar too.

Concerns:

Health profile of the migrants:

- The **mostly low and semi-skilled labourers have often reported multiple ailments** like diabetes, blood pressure, cholesterol and even kidney, liver problems and cancer.
- Since medicines are very expensive in Gulf countries, migrants often procure their medication from India and stockpile for three to four months. With the **current restrictions** in place, there are **reports of acute shortage of medicines** among the Indian community.

Access to healthcare:

- Most Indian migrants in the GCC countries are at the bottom of the pyramid in their host countries and have **limited access to healthcare**.
- The **Gulf countries lack broad-based healthcare facilities** to accommodate a high number of patients.
- The migrants are struggling for their safety and survival.

Lifestyle of the migrants:

- Most of the migrant labourers are single men living in **congested labour camps**, using common toilets, rooms etc. Their **living conditions do not allow social distancing**.
- In such scenarios, the risk of spread is even higher, making the migrants very **vulnerable to the pandemic**.

Way forward:

- The Indian migrant labourers in GCC countries are in need of **urgent assistance**.
- The immediate task for the Indian government is to chart out a strategy for the **safe evacuation of emigrants**, with a particular emphasis on those immigrants without visa documents and their dependants who are mostly elderly, women, children and unemployed persons. Subsequently, the governments should work on their **rehabilitation in the home society**.
- There have also been calls from Indian associations particularly in Dubai, to hire and convert Indian schools into isolation wards. India can **help the GCC countries with their efforts against COVID-19** with higher efforts directed towards the Indian population.

Kerala's case:

Replacement migrants:

- Approximately 21 lakh keralites work outside the country. The mass exodus of Keralites over the years has led to a situation where Kerala needs migrants from other parts of the country.
- Around **30 lakh inter-State migrants have migrated to Kerala for work opportunities**. They are referred to as the replacement migrants.

Disruption due to the pandemic:

- Under the current lockdown situation, the internal migrants have been protected and guarded in Kerala. Kerala is providing accommodation, medication and food for these migrants.

- Some of the replacement migrants are expected to leave when the lockdown is eased. It also remains to be seen whether the workers who had left before will return.
- Given some incidents of protests in guest workers' pockets there seems to be an increasing **resentment against immigrant labourers in Kerala**.
- In the post-pandemic grim scenario, if there is a **reverse migration of the Kerala migrants** that might also have an impact on the prospects of internal migrants in Kerala.
- Given the fact that these migrant workers are strong building blocks of Kerala's society, the **prevailing uncertainty is not good for Kerala**.

23. Privacy concerns during a pandemic (GS-2)

Context:

- The article examines the concerns regarding the government's policies and measures employed during the pandemic.

Background:

- The world finds itself in the midst of a grave public health crisis. This has necessitated the government, which is best placed to tackle the COVID-19 pandemic, to take extraordinary actions.
 - Imposition of a nationwide lockdown, enforcement of strict norms of physical distancing and restriction of movement.

Technological solutions:

- The state's response to the pandemic has mainly involved the following measures.
 - The state has created a list of persons suspected to be infected with COVID-19.
 - There have been extensive measures to ensure **geo-fencing and use of drone imagery** to monitor compliance by quarantined individuals.
 - Use of **contact-tracing smartphone applications**, such as AarogyaSetu.

Concerns:

- Though the measures employed by the state seem reasonable, the methods used in implementing them **overlook important concerns relating to the rights to human dignity and privacy**.

Publicizing of data:

- In creating a list of infected persons, the state seeks to utilise people's personal health data. Though the **Epidemic Diseases Act of 1897** allows the state to do so,

the state does not have the power to publicize such **sensitive information**. This amounts to **breach of the right to privacy of an individual**.

- Such publicizing also leads to other unintended consequences. Medical experts are of the view that the stigma attached to the disease has led to an increase in morbidity and mortality rates, since many with COVID-19 or flu-like symptoms have refused to go to hospitals.

Rule of law:

- The use of geo-fencing and drone technologies is **unsanctioned under any existing law**.
- While cell-phone based surveillance might be plausible under the Telegraph Act of 1885, there have been **no orders authorising** such surveillance as per the procedure established by law.

Use of drones:

- Contrary to regulations made under the Aircraft Act of 1934, the drones deployed also do not appear to possess any visible registration or licensing. Indeed, many of the models are simply not permitted for use in India.

Concerns regarding AarogyaSetu:

- AarogyaSetu, the contact-tracing application has been extensively employed in limiting the spread of the infection.
- There have been concerns regarding the use of AarogyaSetu.
 - Contrary to best practices, details of the application's technical architecture and its source code have not been made public.
 - The programme is **not backed by legislation**. In the **absence of a data protection law** and the lack of a statutory framework backing the use of the app, there is a lack of restriction on the agencies using the data generated by the app users.
 - AarogyaSetu may amount to a **technological invasion into personal privacy**, in a bid to achieve a larger social purpose.
 - There have been reports of employees of both private and public institutions being compelled to download the application.

Limitless powers to the state:

- With the pandemic being an existential threat to humanity and the paramount need to save lives, it can be tempting in such circumstances to argue that the executive's powers are limitless.
- The author argues that such an argument is not only wrong but also dangerous because such **limitless powers to the government are prone to overreach**.

- There are also the concerns that the temporary measures imposed may develop to become a 'new normal' even after the crisis has passed. Such conditions may severely **impact the civil rights of the citizens**.

Conclusion:

- The Supreme Court's judgment in **S. Puttaswamy v. Union of India (2017)** is a landmark judgment upholding the **fundamental right to privacy**. The observations made in the Judgment can help in the prevailing circumstances.
 - The **right to privacy is not absolute**. There exist circumstances in which the right can be legitimately curtailed. However, any such restriction must be tested against the requirements of **legality, necessity and the doctrine of proportionality**.

As per the above observation, the following conditions must be fulfilled.

- **Appropriate legislation** to back any restriction being imposed by the government.
- Restrictions must be in **pursuance of a legitimate aim**.
- There should be a **rational relationship between the purpose and the restriction** imposed.
- Restrictions must be the "**least restrictive**" measure available to achieve an objective.

24. COVID-19 and immunity (GS-2/3)

Context:

- The article analyses the **relation between the immune response and related complications** in COVID-19.

Background:

- COVID-19 has affected over 1.5 million globally and killed more than 100,000 people.
- **The nCoV-19 is not different from other influenza viruses, or even the coronaviruses responsible for the common cold. The Human immune system has a predictable response. However, it is the degree to which this response is tolerated by the human body that determines mortality rates.**

Details:

Mode of infection:

- Viral particles enter the body **through the nose, eyes or mouth**.

- Breathing carries some of these particles to the lower respiratory tract where the **spike proteins of the coronavirus lock into epithelial cells** that line the respiratory tract as well as those in the air sacs in the lungs.
- SARS-CoV-2's spike proteins **gain entry into the cells by unlocking the ACE2 protein.**
- The viruses **hijack the cell's machinery**, replicate and multiply and infect adjoining cells.

Immune system's response:

- **Viruses have antigens**, and the spotting of this **activates the immune system** of the body into action by **producing antibodies.**
- The signals generated to trigger a class of chemicals called **cytokines and chemokines**, which **alert the immune system** to deploy different kinds of cells that specialise in destroying viral particles.

Intensifying immune response:

- Given the fact that SARS-CoV-2 virus can **penetrate deeper into the human body**, the subsequent immune response and duration of it is also longer.
- Cytokines and chemokines trigger **inflammation in the cells.** In the nose and upper regions of the respiratory system, inflammation **produces mucus** and a runny nose to trap viral particles. The inflammation of the sinuses causes headache, and the inflammation of the hypothalamus glands results in fever.
- The inflammation **triggers a fluid build-up in the lungs.** The fluids also contain the residue of a **host of specialised cells, including T cells that damage many of the body's own cells** as well as the viral particles.
- As more air sacs are infected, the lungs find it harder to perform their core job of extracting oxygen from the air, and eventually, this aggravates **breathlessness.**
- The inflammation and fluid build-up can lead to pneumonia.
- **Massive levels of cytokines can cause extensive lung damage** and a condition called Acute Respiratory Distress Syndrome. It can cause organ damage to not only the lungs but also the **kidneys and heart.**
- If the infection is acute, it can also lead to a **depletion of the frontline white blood corpuscles** tasked with fighting the infection and making the **body vulnerable to other secondary infections**, which may lead to death.

Correlation between Immune response and mortality:

- It is the reaction of the body in trying to combat the virus that ends up being fatal to the humans.
- Mortality statistics globally suggest that **men are twice more likely than women to succumb to a COVID-19 infection.** This can be attributed to the fact

that **women have a better-regulated immune response than men** in pathogenic infections.

- **Estrogen** is said to be an immune-system modulator and the ability to deal with a pregnancy primes women to better deal with infections.
- The different kinds of drugs, deployed to treat serious COVID-19 infection work in some way to moderate the immune system's aggressive defence.

Vulnerability of the elderly:

- The elderly, especially those with existing health conditions such as diabetes and cardiovascular disease, have an **inherent malfunctioning in the immune system**.

Vulnerability of the children:

- So far there have been few deaths reported in children from COVID-19.
- Given that children's immunity systems are still maturing and learning to adapt to different kinds of infectious agents, the **relative immunity to COVID-19 needs better understanding**.

25. COVID-19 and the crumbling world order (GS-2)

Failure of the world order and global institutions

- The contemporary global order and institutions were a **hegemonic exercise** meant to deal with **isolated political and military crises** and not serve humanity at large.
- COVID-19 has exposed this as well as the worst **nativist tendencies** of the global leadership in the face of a major crisis.
- That the United Nations Security Council took so long to meet (that too inconclusively) to discuss the pandemic is a ringing testimony to the UN's insignificance.

Failure of regional groupings

- Regional institutions haven't fared any better.
- Prime Minister Narendra Modi's SAARC initiative, curiously resurrecting a practically dead institution, was short-lived.
- **The EU**, the most progressive post-national regional arrangement, stood clueless when the virus spread like wildfire in Europe.
- Its member states **turned inward** for solutions: self-help, not regional coordination, was their first instinct. Brussels is the loser.

What these failures indicate?

- These failures are indicative of a deeper malaise: the global institutional framework is **unrepresentative**, a pawn in the hands of the **great powers, cash-strapped**, and its agenda is focused on high-table security issues.
- The global institutional architecture of the 1940s cannot help humanity face the challenges of the 2020s.
- **What can be the solutions?** Nothing less than a **new social contract** between states and the international system can save our future.

Factors that will help China come out stronger from the pandemic

- Reports indicate that China has now managed the outbreak of COVID-19, and its industrial **production is recovering** even as that of every other country is taking a hit.
- The oil price slump will make its recovery even faster.
- When the greatest military power found itself in denial mode and the members of the EU were looking after their own interests, China appeared to use its manufacturing power to its geopolitical advantage.
- Beijing has offered medical aid and expertise to those in need; it has increased cooperation with its arch-rival Japan.
- This will aid Beijing's claims to global leadership, **push Huawei 5G trials** as a side bargain, and showcase how the **Belt and Road Initiative** is the future of global connectivity.
- COVID-19 will further push the international system into a world with Chinese characteristics.

Implications for globalisation: the rise of protectionism and hypernationalism

- Neoliberal economic globalisation will have taken a **major beating in the wake of the pandemic**.
- Economists are warning of a global recession.
- **How the world reacted?** The first instinct of every major economy was to **close borders, look inwards** and
- The pre-existing structural weakness of the global order and the COVID-19 shock will further feed states' protectionist tendencies fueled by hypernationalism.
- A more inclusive global political and economic order is unlikely any time soon, if ever.
- Instead, as former National Security Adviser Shivshankar Menon warns, "**we are headed for a poorer, meaner, and smaller world.**"
- **How this epidemic impact big corporations?** The ability of big corporations to dictate the production, stocks, supply chains and backup plans will be limited by increased state intervention to avoid unpredictable supply sources, avoid geopolitically sensitive zones, and national demands for emergency reserves.
- The profits of big corporations will reduce, and the **demand for stability** will increase.

- **Will the world after Covid-19 be more balance?** State intervention in economic matters and protectionism are the easy way out, and that's precisely what states will do once the crisis is over.
- It would be a return of the 'Licence Raj' through the backdoor, not a push **for inclusive and responsible globalisation** with its associated political benefits.

Will post-Covid-19 world lead to some positive controls?

- Rise of state-led models: With the severe beating that globalisation has taken, **state-led models of globalisation** and economic development would be preferred over (big) corporates-led globalisation.
- Will this enable some positive controls over the inherent deficiencies of globalisation? We will have to wait and see.
- **The relation between capitalists and the states:** But the more important question is whether the state has any incentive to take on big capital.
- Given the symbiotic relationship between the state and big capital, states have become used to protecting the interests of their corporations, often at the cost of the general public.
- **States preferred capital over health:** Consider, for instance, that the first response of many Western states was to protect their capital markets than be concerned about public health.

Rise of racism in post-Covid-19 world

- Yet another undesirable outcome of the pandemic would be a spike in various forms of discrimination.
- Globally, societies could become more self-seeking and inward-looking leading to further pushback against liberal policies regarding migration and refugees.
- **Implications for world trade:** New questions are likely to be asked about the source of goods. More stringent imposition of phytosanitary measures by advanced states on products emanating from the less developed countries might become the new normal.
- Lockdowns and travel restrictions could potentially legitimise **the rhetoric around border walls** in more conservative countries.
- Tragically, therefore, while one answer to global pandemics is political globalisation, COVID-19 might further limit it.

Conclusion

The world order needs to wake up to new reality take measures to avoid the above listed undesired fallouts that could emerge in the post-Covid-19 world, and before that there is an urgent need for the global coalition to deal with the pandemic.

26. The script of disruption and a new order

Context:

- COVID-19 is set to drastically **alter geopolitics and human society**.
- The COVID-19 pandemic is unprecedented and has led to radical uncertainty. COVID-19 would change the world and reshape the human society.

Changes in global relations:

Threat of Deglobalization:

- The pandemic will impact human values and conduct.
- The diminution in human values could have a negative impact on the concept of an international community. Each nation would tend to look inwards, concentrating on its narrowly defined national interests rather than looking for cooperation and collaboration with other countries.

International Institutions under fire:

- Existing international institutions such as the **United Nations, the United Nations Security Council and the World Health Organization (WHO)** are being blamed of having failed to measure up to the challenge posed by the pandemic.
 - The UN Security Council has not been able to take any concrete action in dealing with the situation.
 - WHO has been blamed of being China-centric. WHO's underestimation and inaction during the initial phase could have amplified the pandemic to such large scales.
 - The UN and other global organizations have not been able to ensure a common vision or approach among the many nations. They have failed to ensure cooperation and collaboration among its members.

That prestigious global institutions are under attack, even in such critical times, speaks about the mood prevailing across the world.

Economic shock:

- Given the disruption in the global economy, the World Bank has predicted negative growth for most nations. India's growth forecast for the current fiscal year has been estimated at 1.5% to 2.8%.
- **Globalization, global trade and global value chains have been a major cohesive force in integrating the world.** Contraction of the economy and the loss of millions of jobs across all segments will complicate the situation.

China's dominance:

- Far-reaching changes due to the pandemic can be anticipated in the realm of geo-economics and geopolitics.

Geo-economical change:

- China, which is already one of the most prominent nations of the world and an important player in international institutions, could grow even stronger.
- China is considered indispensable as the world's supplier of manufactured goods.
- China now seeks to benefit from its early recovery from the pandemic to take advantage of the problems of the rest of the world, by **using its manufacturing capability to its geo-economic advantage**.
- The current pandemic could hollow out the financial viability of many companies, institutions and banks across the world. There are reports of China's intentions to acquire financial assets and stakes in banks and companies across the world, taking advantage of the scaled-down value of their assets.
- China is poised to **dominate the global economy**.

Geo-political changes:

- By **offering medical aid and other essential supplies** to several Asian and African countries during the current pandemic threat, China would gain a geopolitical advantage by its action.
- China with its **Belt and Road Initiative**, which seeks to combine regional connectivity alongside gaining a virtual economic and substantial stranglehold across Asia, is ostensibly preparing the way for a **China-centric multilateral globalisation framework**.

Anti-China sentiments:

- There have been calls for holding China responsible for its mismanagement of the epidemic and failure to inform the world of the threat of COVID-19.
- Given the threat of Chinese take-over of fragile firms and banks, the clamour against China's hostile takeover bids is becoming stronger. Several countries, apart from India, such as Australia and Germany, have begun to restrict Chinese foreign direct investment in companies and financial institutions in their countries, recognising the inherent danger of a possible Chinese hostile takeover of their critical assets.

A faltering West:

- COVID-19 would effectively **change the existing global order** that has existed since the late 1940s. The geopolitical fallout of this pandemic could be the **decreased dominance of the west**.

- The U.S. has been weakened economically and politically due to COVID-19. The U.S.'s capacity to play a critical role in world affairs seems to have diminished. The United States will be compelled to cede ground to the rising Chinese power.
- The Brexit came as a body blow to the EU. Europe too has been badly affected by the pandemic. Germany which has played a major role in promoting EU is turning inwards. Both France and a post-Brexit United Kingdom will also be focusing more on domestic issues. Europe, in the short and medium term, will prove incapable of defining and defending its common interests, leaving it with very little influence in world affairs.

West Asia:

- In West Asia, both Saudi Arabia and Iran are set to face difficult times.
- The **oil price meltdown** will aggravate an already difficult situation across the region.
- Given Israel's non-dependency on oil and it being relatively less impacted due to the pandemic, it might emerge stronger out of the pandemic.

Effect on India:

- The economic downturn might reduce India's room for manoeuvring in global affairs.
- The **increasing Chinese investment in South Asia** could see its influence grow in the South Asian region and diminish India's influence in the region.
- India's leverage in West Asia will suffer due to the declining oil prices.
- The **large Indian expatriate community in West Asia** would be severely affected and may seek repatriation back to India. This would substantially reduce the inflow of foreign funds to India from the region.

Changes in human society:

- There would be **fundamental alterations in governance and political management**.
- The **role of the state** as an enforcer of public good will become greatly enhanced. The limits on the role of the state would reduce. Various legislations of yesteryears which were perceived to be anachronistic in a modern democratic set-up would find increased use.
- Many nations are showing a willingness to sacrifice personal liberties in favour of greater state control. Post COVID-19, the world may have to pay a heavy price in terms of loss of liberty. An **omnipotent state** could well become a reality.

27. Accessing justice online (GS-2)

Context:

- The article discusses the need for an e-court system and the steps to be taken to ensure the setting up of a practical framework for e-courts.

Background:

- In the light of the national lockdown, the Indian courts also are under lockdown, thus severely restricting the citizen's access to justice for this period.

Issue of timely justice:

- The Judiciary is also plagued by the complete **inability of the conventional court system to deliver timely justice**. The average time for case disposal in India is comparatively much more extensive than in other countries.
- The issue of **delay in justice delivery** shakes the very foundation of the **principle of the rule of law** on which the entire Constitution rests on.

Kerala example:

- The Kerala High Court has been conducting **proceedings through video conferencing** and also **live-streaming** the proceedings.
- The judges conducted the hearing from their homes.
- The advocates concerned and law officers also participated in the proceedings from their respective offices.
- Nearly 30 urgent matters were taken up for hearing, including bail applications and writ petitions, and were disposed of.

Details:

- The **use of technology** apart from dealing with the present crisis posed by the Pandemic can provide the Judiciary with an avenue to address the problem of delayed justice too.
- **The use of technology in Judiciary has enormous potential, and the Kerala example needs to be institutionalized and eternalized.**

Way forward:

Framework for e-courts:

- The government must establish a **task force consisting of judges, technologists, court administrators**, skill developers and system analysts to draw up a blueprint for institutionalizing e-courts.
- The task force would take up the responsibility of establishing **hardware, software and IT systems for the e-courts**. It would establish appropriate e-filing

systems and procedures. It would work towards **creating skill training** and recognition for paralegals, help advocates and others to help access the system.

- Once the blueprint is ready, the High Courts may refer the same to the Rule Committee of the High Court to frame appropriate rules to operationalize the e-court system.

Creating awareness among the stakeholders:

- The lack of information and awareness among the general populace might pose a significant inhibition in the adoption of the e-court systems.
- The next logical step after the preparation of the e-court framework is to **create awareness among the relevant stakeholders**. The **Legal Services Authorities Act of 1987** and the officers functioning under them can play a huge role in this direction.
- Appropriate information about the system needs to be provided comprehensively at the grassroots levels and **made available online in as many Indian languages** as possible. This could be a massive step in creating awareness.
- There is a need for **initial handholding of the stakeholders** and **appropriate incentives** to deepen the adoption of e-court systems.

Addressing implementational challenges:

- However, well-intended a scheme may be, it becomes ineffective without **proper implementation and accountability provisions**.
- Given the **digital divide in society**, some people would find it difficult to access the e-court system. Hence a system must be set in place for the applicant to lodge online complaints with the Legal Services Authorities who can then ensure accountability and effective implementation.
- The local panchayat, municipal or corporation office, or any NGO can assist the complainant to make these online complaints to the Legal Services Authority if the complainant is unable to do so directly.
- The officers under the Legal Services Authorities Act may then be authorized to hear the complaints online and to direct delivery of redress to the aggrieved complainant in accordance with the law in a time-bound manner.

Significance:

Access to justice:

- **E-courts will not only enable easier access to courts, but all increase the access to justice**. The e-courts system will enable the Judiciary to shorten the case disposal time, thus ensuring **timely justice**.

Lessen the burden on Judiciary:

- The e-court system, apart from increasing the access to justice, can also simultaneously reduce the burden on conventional courts. Given the current situation of **the low judge: population ratio** in India, the **more efficient e-court system** will enable the Judiciary to more effectively use its scarce resources.

Data generation:

- The e-court system would enable the **generation of large and easy to use database**. This could help provide useful **insights to policymaking**. The advent of technologies like **big data and artificial intelligence** can help use the extensive database to come up with effective policies, frameworks and schemes.

28. The pandemic and the contours of a health response (GS-2)

Context:

- COVID-19 pandemic and the necessary state health response.

Background: India is facing the **worst public health crisis in its independent history**.

- The rapid spread of the disease, apart from leading to a health challenge, has also posed multiple other challenges before the people and the government. The lockdown measures in place to contain the spread have led to economic and social challenges of an unprecedented nature.
- India's response has been to restrict the entry and quarantine international travellers and impose a 21-day national lockdown. The government has further extended the lockdown period.

Details:

Strategy for post lockdown phase:

- The extension of the national clampdown is a much needed step to stem the tide of rising infection levels. Though the lockdown measures help confine the pool of infected persons to their homes, the aftermath of the lockdown when they will start moving out will pose enormous challenges.
- Central and State Governments should plan to adopt a public health approach to address the situation and use the time during the lockdown to ready strategies and tools for the post lockdown phase.
- **Prevention, care and support** are the only strategies that will succeed in mitigating the current crisis.
- This will need a carefully **planned public health approach** that identifies the risks based on evidence and pro-actively intervenes to mitigate them.

Prevention measures:

Isolation:

- The foremost task is to identify people who returned from abroad in the last two months and who have turned symptomatic. They need to be immediately quarantined either in their homes or in community care centres identified by the State and district authorities.
 - Civil society could help organize and manage the care centres.

Testing:

- There should be **increased testing** to identify infected people and subsequent contact **tracing** to help identify possible infections. Doubtful cases should be placed in quarantine. This will help prevent rapid spread of the disease.
- Apart from the current RT-PCR viral tests which are expensive and time consuming, there is a need to **ensure that rapid testing is introduced on a large scale** in the country.
- Rapid test kits should be made available in care centres. As these test kits become available in large quantities at a lower cost, **community-level testing** can be introduced to enable people to check their COVID-19 status. This measure will help in normalizing the disease in the community and lift the stigma and fear surrounding COVID-19.

Social distancing and sanitation measures:

- Routine **sanitation in public places** will also help limit the possibility of spread of the disease.
- **Strict social distancing** norms should be followed.
- A few cities have ordered the **wearing of masks** as compulsory in public places. This could be extended to the whole country. People could make use of home-made masks in case of non-availability of sufficient face masks in the country.

Care measures:

- There is a need to **ensure there are COVID-19 specific hospitals** in all parts of the country with at least one such hospital in each district. The public health system should prepare itself for a spike in number of cases with sufficient availability of hospital beds. The **private hospitals could also be used** if the situation demands.
- **Only the serious cases** among the quarantined **should be referred to hospitals for treatment**. The intermediate step of quarantine will help check the huge rush of patients even with minor symptoms to hospitals which could choke the health-care facilities. The health care system should focus attention on the more serious and needy cases of emergency medical care.
- The government should focus on **supplying essential resources to the health care system**. This could involve the availability of sufficient **medicines**,

ventilators and personal protective equipment (PPE) including gloves and face masks to the medical personnel.

- The administration should ensure the **production activity in the pharmaceutical sector** remains unaffected by the lockdown measures and support it to ensure sufficient medicinal supplies.
- The government should plan for the ventilator demand and mobilize its resources along with the private sector to help ensure sufficient availability.
- **For PPE supplies, community organisations can be mobilised** to procure and supply such equipment to complement government efforts.

Support measures:

Counselling:

- As the number of patients starts increasing in hospitals, **counselling services for patients and members of their families** would be of utmost necessity.
 - Notably, **trained counsellors** in care centres and hospitals can relieve the huge pressure on doctors and nursing staff and will make a huge difference to the quality of care to infected persons.

Large number of counsellors can be mobilized at short notice from existing national programmes and communities which have the necessary experience in counselling.

Community support:

- **Families of infected persons face a challenging task.** Until they show symptoms of COVID-19, they need to remain in isolation and at the same time, look after their wards who are admitted in care centres and hospitals. They might also have to **face stigmatization** in the locality or neighbourhood.
- **Local communities can help provide support** to the families of infected persons.
 - In metropolitan cities, resident welfare associations and mohalla committees can play such a role. In the smaller towns and villages, local communities can provide supporting services.

Socio-economic support:

- The lockdown has led to large-scale migration of daily wage earners and construction workers from metropolitan cities. Many of them are stranded in shelter camps across the country. The loss of employment is a **huge socio-economic problem** for this vulnerable section.
- The **government should ensure sufficient support** for the migrant labourers and poor people. It should ensure **both food and economic security and also provide shelter** wherever necessary for them.
- **Community involvement** can ensure that the benefits governments are announcing actually reach the needy and those who deserve them.

- Community-based organisations should also help in **mobilising Corporate Social Responsibility (CSR) funds** for mitigating the misery of migrant families.

Conclusion:

- Until a preventive vaccine or a therapeutic drug has been found, the threat of increasing cases cannot be ruled out.
- Only a **measured public health approach with community participation** will help the government in ensuring a sustained response against COVID-19.

29. Cease the distractions, seize the moment

Context

The Government recently has issued two ordinances:

- One, an amendment to the **Members of Parliament Act, 1954**, which will reduce the allowances and pension by 30 per cent with effect from April 1, 2020. The reduction will be applicable for a year.
- Two, the MP Local Area Development Scheme (MPLADS) fund has been suspended for two years (2020-22), and the money will be given to the Consolidated Fund of India.

These measures are purportedly to save costs as the nation tackles the COVID-19 pandemic.

Salary break up

- The MPs receive a basic salary of Rs 1 lakh and several allowances, including a constituency allowance of Rs 70,000 and a secretarial cost for office expense of Rs 60,000.
- This means there would be a 30% cut in per month salary and the constituency allowances which amounts to savings of less than ₹5 crore per month.
- The cut in sumptuary allowances for ministers results in a total savings of ₹25,000 per month.
- These are cosmetic measures and are immaterial for the Central Government.

On the contrary, the United Kingdom has increased the allowance for Members of Parliament by £10,000 to help them manage extra costs of working from home.

The real issue is, are our parliamentarians performing their constitutional roles during the crisis?

Managing the pandemic will require due deliberations and discussions

- During the crisis, Members of Parliament should be **deliberating on the actions and policies** to be taken to manage the epidemic, and the costs and consequences of various alternatives.
- They should also be trying to **figure out ways to have committee meetings and even the meetings of the full House through alternate mechanisms** such as video-conferencing.

Examples

- **The U.K. has also implemented a lockdown**, its Parliament is connecting all Members through video-conferencing (by April 15) so that the session can resume virtually on April 21 after the Easter break.
 - The British Parliament has created a page on its website tracking all government orders related to the pandemic, and its Secondary Legislation Scrutiny Committee is scrutinising the orders.

The New Zealand Parliament has formed an Epidemic Response Committee that will examine the government's management of the epidemic. This committee and other select committees are meeting through video-conference.

Other parliaments are also working to fulfil their role as oversight bodies.

Parliament absent

- After the Janata Curfew, the Indian Parliament was adjourned.
 - A week before Janata Curfew, even as the crisis was unfolding, the Parliament was debating the establishment of a Sanskrit University and an Ayurveda institute, and that of regulatory boards for aircraft, Indian Systems of Medicine and Homoeopathy.
 - The Finance Bill was passed without any discussion.

There was no discussion on the possible implications of the coronavirus epidemic and policy measures to tackle it – this was also the week when the Prime Minister made the first televised speech to the nation on the issue.

Since then, the **Parliament has not held committee meetings**. There have been no official statements regarding the possibility of holding these through video-conference.

Thus, the **government's actions are going unchecked**. In brief, the Parliament has abdicated its role as the elected body that checks the work of the government on behalf of citizens.

The Good move on MPLADS

- The cancellation of MPLADS for two years, on the other hand, is a welcome move. In financial terms, there are savings of nearly ₹4,000 crore per year.
- While this is not insignificant, the larger benefit is that this will help Members of Parliament focus on their roles as national legislators.

- MPLADS creates several issues of accountability and jurisdiction.
- It violates the principle of separation of powers, both horizontally across different organs of state, and vertically across different levels of governance.

Scope for reform

The current crisis provides several opportunities for reform.

- For example, the **Parliament should explore how technology can be used to improve its efficiency.**
- Much of the daily paper work such as filing questions and other interventions have been digitised while protocols and infrastructure may be needed if meetings have to be held through **secure video-conferencing.**
- Other issues such as **pay and allowances** for Members of Parliament need to be discussed.
- The Members of Parliament should be provided with **office space and research staff.** They should be compensated in line with their duties as national legislators.
 - For example, the pay (₹1 lakh per month) and allowances (₹1.3 lakh per month) pale in comparison to that of U.S. Senators (pay \$174,000 per annum plus allowances over \$3 million per annum).

At the same time, hidden perks such as **housing in central Delhi** must be made transparent – few democracies provide housing for legislators or civil servants; they are paid well and expected to find housing on their own.

Conclusion

- Therefore, in the future, public debates on issues that impact the working of our legislature should be taken up and at the same time we need to hold the executive accountable.

30. WHO funding halted over handling of corona virus

Context

- US President Donald Trump has instructed his administration to halt funding to the World Health Organization (WHO) over its handling of the coronavirus pandemic.

Where does WHO get its funding from?

It is funded by a large number of countries, philanthropic organisations, United Nations organisations, etc.

- According to information uploaded by WHO, **voluntary donations** from member states (such as the US) contribute 35.41%, **assessed contributions** are

15.66%, **philanthropic organisations** account for 9.33%, UN organisations contribute about 8.1%; the rest comes from myriad sources.

- The US contributes almost 15% of the WHO's total funding and almost 31% of the member states' donations, the largest chunk in both cases.
- India contributes 1% of member states' donations.
- Countries decide how much they pay and may also choose not to.

What does the WHO do with its funds?

The WHO is involved in various programmes.

- For example, in 2018-19, 19.36% (about \$1 bn) was spent on polio eradication, 8.77% on increasing access to essential health and nutrition services, 7% on vaccine preventable diseases and about 4.36% on prevention and control of outbreaks.
- The African countries received \$1.6 bn for WHO projects; and South East Asia (including India) received \$375 mn.
- India is a member state of the WHO South East Asia Region. The Americas received \$62.2 mn for WHO projects. That is where most of WHO funding comes from and the least of it goes.

How does WHO prioritise spending?

- The annual programme of work is passed by **WHO's decision-making body, the World Health Assembly**.
- It is attended by delegates from all member states and focuses on a specific health agenda prepared by the Executive Board.
- The main functions of the Assembly, held annually in Geneva, are to determine WHO policies, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget.
- The decision on which country gets **how much depends on the situation in the countries**.

What is the basis of criticism the WHO faces from various countries?

- While most countries **closed down air travel at the first stage**, the WHO for a long time took a stand against travel and trade restrictions on China. On January 30, WHO Director General Dr Tedros Adhanom Ghebreyesus said the **WHO opposed such an idea**.
- The International Health Regulations (2005) Emergency Committee urged countries to be prepared, but the **Committee did not recommend any travel or trade restriction** based on the current information available.
- According to senior officials in the National Centre for Disease Control, in January when cases were piling up in China, there was a meeting in Delhi in

which WHO officials brushed aside government concerns saying “there is no human to human transmission”.

Trump, at a White House news conference, said the WHO had “failed in its basic duty and it must be held accountable.” He said the group had promoted China’s “disinformation” about the virus that likely led to a wider outbreak of the virus than otherwise would have occurred.

Concerns

- Halting funding at a crucial time will not only impact the functioning of the global body but also hurt humanity.
- Many low and middle-income countries that look up to WHO for guidance and advice, and even for essentials such as testing kits and masks, will be badly hit for no fault of theirs.
- When solidarity and unmitigated support from every member-state is necessary to win the war against the virus, withholding funding will not be in the best interest of any country, the U.S. included.

WHO has guided the immunization programmes in several countries

- It has been at the forefront of the fight against several diseases, with notable successes such as eradicating **smallpox** globally and eliminating **polio** in several parts of the world.
- It has helped draw up agendas on **mental health**.
- It has persuaded its members to sign landmark conventions on **tobacco-control**.
- In the past three decades, the WHO has helped nations frame strategies during outbreaks such as **Zika, Ebola and HIV/AIDS**.
- The agency’s role in developing a vaccine against Ebola, in fact, illuminates one of its key advantages – no other health outfit can bring together scientists, industry, regulators and governments during a public health emergency as rapidly as the WHO.

This means the global agency’s decades-long work in low and middle-income countries and its robust understanding of a variety of cultural contexts mean that an empowered WHO holds the key to protecting the interests of the poor and most vulnerable countries during the pandemic.

Conclusion

- Therefore, blaming and withholding WHO funding can have disastrous outcomes.
- The right step would be to address failures due to lapse or other reasons, not in the mid of the pandemic but once the issue settles.

31. NHRC asks Centre to protect rights

Why in News

The **National Human Rights Commission (NHRC)** has asked the Centre to issue an advisory to all States and Union Territories to **implement the ongoing lockdown without violating the human rights of the public.**

- Previously, the NHRC has also asked the Ministry of Home Affairs to **address the concerns of the mentally ill people** on the streets during the lockdown to check the spread of the novel coronavirus.

Key Points

- In order to effectively implement the lock down guidelines, the **public servants**, sometimes under tremendous pressure, **tend to deal with the people**, especially the ill-informed poor labourers, **in a very harsh manner** undermining their rights.
- The **NHRC** through an advisory wants to ensure that the public servants behave in a sensible manner with the people, particularly belonging to vulnerable sections, **respecting human rights relating to their life, liberty and dignity.**
- It has said that In the meantime necessary directions may be issued by the Ministry to all the States and Union Territories, to ensure that **persons suffering from any kind of mental ailments under their jurisdiction are provided with proper counselling** towards necessary precautions for their personal care and protection from the virus and **not deprived of basic amenities** like food, shelter and medical care etc.

National Human Rights Commission

- **Statutory Body:** NHRC was established on 12th October, 1993. The statute under which it is established is the **Protection of Human Rights Act (PHRA), 1993** as amended by the Protection of Human Rights (Amendment) Act, 2006.
 - The PHRA Act also provides for the creation of a State Human Rights Commission at the state level.
- **In Line with Paris Principles:** **Paris Principles** were adopted for the promotion and protection of human rights in October 1991, and were endorsed by the General Assembly of the United Nations in 1993.
- **Watchdog of Human Rights in the country:** The NHRC is an embodiment of India's concern for the promotion and protection of human rights.
 - **Section 2(1)(d) of the PHRA defines Human Rights** as the rights relating to **life, liberty, equality and dignity of the individual** guaranteed by the Constitution or embodied in the International Covenants and enforceable by courts in India.

- **Composition:** The commission is a multi-member body consisting of a chairman and four members. The **chairman is a retired Chief Justice of India.**
- **Appointment:** The chairman and members are **appointed by the President on the recommendations of a six-member committee** consisting of the Prime Minister as its head, the Speaker of the Lok Sabha, the Deputy Chairman of the Rajya Sabha, leaders of the Opposition in both the Houses of Parliament and the Union Home Minister.
- **Tenure:** The chairman and members **hold office for a term of five years or until they attain the age of 70 years**, whichever is earlier. After their tenure, the chairman and members are **not eligible for further employment under the Central or a state government.**
 - The **President can remove the chairman or any member** from the office under some circumstances.
- **Role and Function**
 - It has all the **powers of a civil court** and its proceedings have a judicial character.
 - It is empowered to **utilise the services of any officer or investigation agency** of the Central government or any state government for the purpose of investigating complaints of human rights violation.
 - It can **look into a matter within one year of its occurrence**, i.e the Commission is not empowered to inquire into any matter after the expiry of one year from the date on which the act constituting violation of human rights is alleged to have been committed.
 - The **functions of the commission are mainly recommendatory in nature.** It has no power to punish the violators of human rights, nor to award any relief including monetary relief to the victim. Its **recommendations are not binding on the concerned government or authority.** But, it should be informed about the action taken on its recommendations within one month.
 - It has **limited role, powers and jurisdiction with respect to the violation of human rights by the members of the armed forces.**
 - It is **not empowered to act when human rights violations through private parties take place.**

32. Virtual reality (GS-2)

Context:

The COVID-19 pandemic has contributed to the understanding of the myriad ways in which available technologies have not been put to better use, and presented people with multiple opportunities to harness these devices, techniques and methods to get on with

life in the time of lockdown. The Editorial explains how Telemedicine can help reach patients where access to medical care is difficult.

Use of Technology:

- Technology remains one of the very few devices left to fight COVID-19 with.
- It is clear that technology will serve humanity at one of its darkest moments; whether it is using state-of-the-art technology in the discovery of cures or vaccines, or traditional technology services to enhance health care and consultations, or even tools that keep people at home occupied/productive.
- Among the primary uses is telemedicine, rendered inevitable now, due to a freeze on movement.
- **Telemedicine** refers to the practice of caring for patients remotely when the provider and patient are not physically present with each other. Modern technology has enabled doctors to consult patients by using video-conferencing tools.

Details:

- Telemedicine Society of India has for long been battling to use the technology in its complete arc to reach remote areas in India.
- It was way back in 2000 that telemedicine was first employed in India, but the progress has been excruciatingly slow, until the pandemic.
- The medical community was only held back by the lack of legislation to enable tele consultations. For, no sooner was the policy announced than hospitals and clinicians hurried to jump onto the bandwagon, advertising contact information for patients.
- The Centre's recent guidelines allowing for widespread use of telemedicine services came as an encouragement for the telehealth crusaders in the country.
- This move finds consonance with the rest of the world where several nations have deployed telemedicine to reach people who have been unable to come to hospital, to reduce footfalls in hospitals, and to even provide medical and mental health counselling to countless people.

Advantages:

- The advantages are peculiar in the current context, when putting distance between people is paramount.
- Tele consultations are of paramount importance when health care professionals and patients may have to be quarantined.
- The advancement of telecommunication capabilities over the years has made the transmission of images and sound files (heart and lung sounds, coughs) faster and simpler.

- Pilot telemedicine experiments in ophthalmology and psychiatry have proven to be of immense benefit to the communities.

Concerns:

- Confidential medical information can be leaked through faulty electronic systems.
- Virtual clinical treatment decreases human interaction among healthcare professionals and patients and that increases the risk of error in clinical services.
- Low quality of health informatics records, like, X-ray or other images, clinical progress reports, etc. run the risk of faulty clinical treatment.
- Low internet speed or server problems may come in the way of effective diagnosis, prescription and treatment.

Conclusion:

Telemedicine's time is finally here. While unleashing the full potential of telemedicine to help people, experts and government agencies must be mindful of the possible inadequacies of the medium, and securing sensitive medical information; such cognisance should guide the use of the technology. Telemedicine system requires tough legal regulation to prevent unauthorized and illegal service providers in this sector.

33. A virus, social democracy, and dividends for Kerala

Context:

- A range of responses in battling the COVID-19 pandemic, being seen at the national and subnational levels reveal not only existing inequalities but also the political and institutional capacity of governments to respond.
- In case of India, the Central government ordered a lockdown but it is States that are actually implementing measures, both in containing the spread and addressing the welfare consequences of the lockdown.
- A government's capacity to respond to a cascading crisis such as the COVID-19 pandemic relies on a very fragile chain of mobilising financial and societal resources, getting state actors to fulfil directives, coordinating across multiple authorities and jurisdictions and maybe, most importantly, getting citizens to comply.
- **An effective response begins with programmatic decision-making.**
- The editorial talks about **Kerala's response in battling the COVID-19 Pandemic.**

Details:

- **Kerala was primed to be a hotspot** owing to its:
 - Population density.

- Deep connections to the global economy.
- High international mobility of its citizens.

It was the first state with a recorded case of coronavirus.

Though Kerala once led the country in active cases, it now ranks 10th of all States and the total number of active cases has been declining and is below the number of recovered cases.

- It is also worth noting that it is the **state that has done the most aggressive testing in India.**

Flattening the curve - Why does Kerala stand out in India and internationally?

- Kerala has not only flattened the curve but also has rolled out a comprehensive ₹20,000 crore economic package before the Centre even declared the lockdown.
- The current crisis underscores the comparative advantages of social democracy.
 - Taming a pandemic and rapidly building out a massive and tailored safety net is fundamentally about the relation of the state to its citizens.
 - From its first Assembly election in 1957, through alternating coalitions of Communist and Congress-led governments, iterated cycles of social mobilisation and state responses have forged what is in effect a robust social democracy.
 - Social democracies are built on an encompassing social pact with a political commitment to providing basic welfare and broad-based opportunity to all citizens.

In Kerala, various movements not only nurtured a strong sense of social citizenship but also drove reforms that have incrementally strengthened the legal and institutional capacity for public action.

- The social pact itself emerged from recurrent episodes of popular mobilisation – from the temple entry movement of the 1930s, to the peasant and workers' movements in the 1950s and 1960s, a mass literacy movement in the 1980s, the Kerala Sasthra Sahithya Parishad (KSSP)-led movement for people's decentralised planning in the 1990s, and, most recently, various gender and environmental movements.

The emphasis on rights-based welfare has been driven by and in turn has reinforced a vibrant, organised civil society which demands continuous accountability from front-line state actors.

Constant demand-side pressure of a highly mobilised civil society and a competitive party system has pressured all governments in Kerala, regardless of the party in power, to deliver public services and to constantly expand the social safety net, in particular a public health system that is the best in India.

The pressure has also fuelled Kerala's push over the last two decades to empower local government.

- Nowhere in India are local governments as resourced and as capable as in Kerala.

Finally, all of this ties into the greatest asset of any deep democracy, that is the generalised trust that comes from a State that has a wide and deep institutional surface area, and that on balance treats people not as subjects or clients, but as rights-bearing citizens.

So how has this built-up capacity translated into both flattening the curve and putting broad and effective welfare measures in place?

- From the moment of the first reported case in Kerala, Chief Minister convened a State response team that coordinated 18 different functional teams, held daily press conferences and communicated constantly with the public. Kerala's social compact demanded no less.
- Not only did the CM directly appeal to Malayalees' sense of citizenship by declaring that the response was less an enforcement issue than about people's participation, but also pointedly reminded the public that the virus does not discriminate, destigmatising the pandemic.
- **The government was able to leverage a broad and dense health-care system that despite the recent growth of private health services, has maintained a robust public presence.**
 - Kerala's public health-care workers are also of course highly unionised and organised.
 - From the outset the government lay emphasis on protecting the health of first responders.

The government **activated an already highly mobilised civil society**. As the cases multiplied, the government called on two lakh volunteers to go door to door, identifying those at risk and those in need.

- A State embedded in civil society – the women's empowerment **Kudumbasree movement** being a case in point – was in a good position to co-produce effective interventions, from organising contact tracing to delivering three lakh meals a day through Kudumbasree community kitchens.

In the given situation, the key has been the **capacity of state actors and civil society partners to coordinate their efforts at the level of panchayats, districts and municipalities**.

A recent survey in 10 Indian cities by Bengaluru non-governmental organisation Janaagraha, shows that Malayalees have extremely **high levels of trust** in both their institutions and locally elected local representatives.

This, more than anything, points to the robust nature of Kerala's social compact.

Conclusion:

- This brutal, unpredictable, external shock is laying bare the most essential as well as the most complicated challenges of democratic citizenship. In moments like these, the authoritarian temptation for some is irresistible.
- At a time when questions were being raised about India's democracy, it is important to be reminded that Kerala has managed the crisis with the most resolve, the most compassion and the best results of any large State in India.
- The state has done it precisely, by **building on legacies of egalitarianism, social rights and public trust.**

34. The U.S. freeze on WHO (GS-2)

Context:

- The U.S. halting its funding of the World Health Organization (WHO).

Background:

- The U.S. President has criticized World Health Organization (WHO) for its handling of the COVID-19 Pandemic and has alleged that the organisation was "very China centric".
- The **WHO has been accused of mismanaging the COVID-19 crisis** and failing to vet information and share it in a timely and transparent manner.
- The U.S. president has halted funding to the WHO pending a review.

Details:

The World Health Organization:

- WHO is a **United Nations agency created in 1948** to coordinate and direct the UN's **global health efforts.**
- It is headquartered in Geneva.
- The WHO plays a crucial role in the domain of public health.
 - Given the many public health efforts going around the world, it helps co-ordinate such efforts.
 - It **collects data, reports, evidences, best practices and shares the same among the global community** thus helping enhance the effectiveness of such efforts. It processes available medical information and compiles and provides resource to everyone.
 - It also provides **important guidelines** regarding travel restrictions and patient care, which serves as an important source for medical professionals.

Criticism of WHO's handling of the Pandemic:

Failed to live up to its expectations:

- The **main role of the WHO is to monitor world health situation** and prevent health outbreaks. In this respect it has definitely failed to live up to its responsibilities.
- The WHO took time till the middle of January to suggest human-to-human transmission of the virus, toeing the China line for the first few weeks.
- Despite various reports from other countries on the high human to human transmission of the COVID-19, the **WHO delayed declaring it as a Public Health Emergency of International Concern** which could have helped the countries prepare for a possible large scale spread of the disease.
- The WHO failed to be proactive and had **repeatedly claimed that the situation seemed to be in control**.
- Only after global spread and things went out of control did the WHO declare COVID-19 as a pandemic. It **failed to alert the global community**.

Sided with Chinese:

- The initial reports about COVID-19 were suppressed by China. The Whistle blower doctor was arrested on charges on spreading rumours. China failed to inform the other countries of the seriousness of the epidemic.
- WHO ignored important reports on the transmission of the disease and even **condemned efforts from other countries to ban air travel from China**.
- It is in this respect that the WHO has been blamed for siding with China.

Counter arguments:

- Several public health academics have argued that the U.S. president's criticism of the organisation is misplaced.

Previous role:

- The WHO has done commendably well previously. Its **handling of SARS, ebola, polio** etc is an example.

Low budget:

- The WHO budget is low. This makes it **ill-equipped to effectively fulfil its wide mandate and responsibilities**.

Concerns in WHO functioning:

- The context in which WHO functions limits its effectiveness.
 - WHO has **no authority over its 194-member countries** and, as is typical for UN agencies, depends on member contributions to carry out its work.

- As is often the case with UN agencies, WHO is not immune to **political motivations** and an inertia that often comes with **large bureaucracies**.

Limitations of a multilateral body:

- WHO is a multilateral body charged with global health. It is **only as good as its member nations**.
 - Some countries are stepping back from responsibility under the WHO framework.
 - A few governments have also reduced their budgetary support to the WHO, which has forced the WHO to mobilize private contributions to support its activities. This is not a good development for a multilateral organizations mandated to play a crucial role.
 - WHO is dependent on countries for giving information. It is possible that China could have given wrong information to WHO.

Pandemic unprecedented:

- The **present COVID-19 Pandemic is unprecedented** when compared to previous pandemics like the Spanish flu. The increased movement and interactions among human beings with increased globalization has led to the unprecedented spread of the disease.

Concerns about the halting of funding by U.S.:

- The **S. is the WHO's largest contributor**. For the 2018 and 2019 biennium, the U.S. contributed about 20% of WHO's budget. The funding freeze is highly likely to negatively **impact WHO's functioning** for a short while at least, given the significant contribution the U.S. makes.
- The major share of the U.S. programmatic funding went towards polio eradication (\$158 million), increasing access to essential health and human services (\$100 million) and vaccine-preventable disease (\$44 million). The fund freeze can **undermine previous progress in public health**.

Conclusion:

- WHO would have to work with its partners to **fill any financial gaps** that arise to ensure that its work continues uninterrupted.

35. 'If WHO has limitations, these have been imposed on it by nations' (GS-2)

Context:

- The World Health Organization (WHO) is facing criticism over its initial response to the COVID-19 pandemic and a funding cut from the United States.

- Shashi Tharoor, a former Under Secretary General of the United Nations, in an interview, has analyzed the situation.

Challenges faced by WHO:

- Even though the WHO's response to the pandemic has been less than satisfactory, it would not be right to blame the WHO alone given the challenges faced by the organization.

Lack of autonomy:

- One of the **institutional challenges** for a UN body like WHO is that it tends to be **obliged to its most powerful member states** due to the following reasons:
 - The head of the organization of most UN agencies is **elected with the support of powerful member states**. As a result he/she does not enjoy independence and autonomy.
 - The present Director General of WHO is a former Ethiopian health minister. Generally, the WHO Director General used to be someone from the medical community, but this time around, a politician helped by Chinese support, has been selected to the top post of the WHO.
 - **The powerful member states contribute a major share of the organization's budget.**

The powerful member states expect UN agencies to be bound to their interests for the most part. This leads to a lack of enough independence and autonomy for these agencies and thus **impacts their functionality and effectiveness**.

Dependant on member nations:

- WHO, like many other UN agencies, is mainly dependent on member nation contributions for its budgetary expenses. **The WHO has a wide mandate and responsibilities, and the lack of sufficient resources and budget limits its operations.**
- WHO and most UN agencies are reliant on the information they receive from member states as the organization itself cannot afford to set up a parallel base in the countries.
 - Even in the case of the current COVID-19, the principal fault may be with China and not the WHO for the lack of appropriate and timely information on the pandemic.

Concerns:

Funding cut:

- The **U.S. contributes a substantial amount to the WHO budget**. The recent decision to withhold funding would severely limit the WHO's ability to act in these critical times.

Fall of multilateralism:

- There has been an increasing trend of countries turning inward. There are definite signs of a **resurgence of national sovereignty over multilateralism**.
- This will **impede collaboration** and throw up more barriers in the global efforts and subsequently limit the effectiveness of such efforts.

Way forward:

- WHO is part of the United Nations framework and is one of its specialized agencies. Given the important role played by it, it needs to be strengthened further.

Recognition of the limitations:

- The pandemic has brought about an **awareness of the limitations of global institutions**.
- The WHO has limitations. There is a need to recognise that these are limitations that governments have imposed upon it given that it is still dependent on member states.

Reforms:

Increased autonomy:

- The world needs institutions of **greater independence** for everyone's collective interest. There is a need to reform the existing institutions, to give them that independence.
- The policy to have a **single, non-renewable term** for maybe six or seven years, rather than two terms of five which is the normal practice, might give the elected leaders of these organizations the authority to take certain independent actions.

Increased transparency:

- There is a need for **increased transparency in its functioning**.
- There should be better **information flow between the WHO and its member nations**. All members should have access to authentic and timely information.

Increased funding:

- Given the inadequate budgetary support, there is a need for increased funding. This can come through **compulsory state support** or could come through private sector funding. International institutions, like the World Bank, need to support WHO through sufficient budgets.

Involving experts:

- The specialized agencies of the UN like WHO should have a **higher representation of the medical community**. They should **also involve scientists and experts across disciplines** to work together.

India's role:

- India must play a role in defying the current impulse of inward looking and drawing away from multilateralism. India should **play a leading role in reviving and reforming the international organization**.
- **India's call for strengthening the WHO in the recently held virtual G-20 summit** is a move in this direction.

Conclusion:

- The world needs to be more ready next time around to face such pandemics. A multilateral organization would play a pivotal role in leading the fight against global issues like a pandemic.
- **Multilateralism should strengthen and not fall at this crucial juncture.**

36. Blood banks running on low reserves, seek urgent help (GS-2)

Why in News

Due to **Covid-19 lockdown** hospitals across India are **facing acute shortage of blood** and have started contacting individual blood donors to meet the demand.

Key Points

- Hospitals are calling listed donors and those with rare blood groups to come in and donate.
- The **Indian Red Cross Society Blood Bank** has also noted that there is a drop in blood collection. The crisis is such that there is a shortage of the most **commonly seen B-positive blood group**.
- According to the **World Health Organization (WHO)** recommendation, **blood requirement of 1% of a country's population** be used as an estimate of its **blood needs**.
 - By this measure, **India was short of 1.9 million units of blood** as per data presented to the Lok Sabha **in 2018**.
- **Worst Hit Due to Blood Shortage:**

- Patients requiring **dialysis, having blood disorders, and pregnant women** are the worst hit due to blood shortage.
- Patients from **small cities and villages** are also the worst hit.

▪ **Thalassemics Fearful**

- Thalassemia patients need repeated blood transfusions to survive. Many thalassemics take blood for their transfusions from the Indian Red Cross Society Blood Bank, whose camps are being cancelled.
- According to the **National Blood Transfusion Council**, there are 2,023 blood banks in India, which receive 78% of their blood supply from voluntary donors.

Issues Involved

- Due to lockdown **blood banks collection camps are cancelled.**
- **Donors are hesitant to travel** to hospitals to donate blood amid strict lockdown.
 - Also, **donor passes had not been made** by some hospitals, which is adding to the problem.
- **Transportation almost closed** due to lockdown.

Government Initiative

- The **Health Ministry** has asked hospitals to start working on **ensuring sufficient stock of blood for transfusion** by promoting voluntary blood donors and utilising various services like mobile blood collection vans with the help of the Indian Red Cross Society.
- It has asked the Indian Red Cross Society to **send mobile blood collection vans to the premises of regular blood donors** to facilitate them for blood donation.

Thalassemia

- It is a **blood disorder passed down through families (inherited)** in which the body makes an **abnormal form or inadequate amount of hemoglobin.**
- Thalassemia is caused by mutations in the gene that make hemoglobin.
- The disorder results in large numbers of red blood cells being destroyed, which leads to **anemia.**
- Hemoglobin is the protein in red blood cells that carries oxygen.

Indian Red Cross Society

- Indian Red Cross Society (IRCS) was established in 1920 under the **Indian Red Cross Society Act.**

- The **President of India is the President** and the **Union Health Minister is the Chairman of the Society**.
- The Indian Red Cross is a **voluntary humanitarian organization** providing relief in times of disasters/emergencies and promotes health & care of the vulnerable people and communities.
- The **Mission** of the Indian Red Cross is to inspire, encourage and initiate at all times all forms of humanitarian activities so that human suffering can be minimized and even prevented and thus contribute to creating more congenial climate for peace.
- It is a leading member of the largest independent humanitarian organization in the world, the **International Red Cross & Red Crescent Movement**.
- The movement has three main components,
 - International Committee of Red Cross (ICRC),
 - 192 National Societies and International Federation of Red Cross
 - Red Crescent Societies.

National Blood Transfusion Council

- The National Blood Transfusion Council (NBTC) was constituted in **1996 under the Ministry of Health and Family Welfare**.
- **Objective: To promote voluntary blood donation, ensure safe blood transfusion, provide infrastructure to blood centres, develop human resources and formulate and implement the Blood Policy.**
- NBTC is the **apex body** in relation to all matters pertaining to **operation of blood centres**.
- The NBTC is the central body that coordinates the State Blood Transfusion Councils (SBTCs) and also ensures involvement of other Ministries and other health programmes for various activities related to **Blood Transfusion Services (BTS)**.

37.Social Vaccine

Why in News

The Union Health Minister has recently asserted that **lockdowns** and **social distancing** are the most effective “**social vaccines**” available to fight the **pandemic (Covid-19)**.

Key Points

- **Social Vaccine**

- It is a metaphor for a **series of social and behavioural measures** that governments can use to **raise public consciousness about unhealthy situations**.
- This is made possible through social mobilisation.
 - **Social mobilisation** is a process whereby people are organized in order to enable them to collectively think and act upon their development.
 - It can **empower populations** to resist unhealthy practices, increase resilience, and foster advocacy for change. This can ultimately **drive political will** to take action in the interests of society.
- A social vaccine **addresses barriers and facilitators of behaviour change** (attitudinal, social, cultural, or economic) and supplements **Information, Education, and Communication (IEC)** with targeted **Social and Behaviour Change Communication (SBCC)** strategies.
 - **SBCC** is the strategic use of communication approaches to promote changes in knowledge, attitudes, norms, beliefs and behaviors.
- **Effectiveness of a social vaccine during Pandemic**
 - When applied to pandemics, the effectiveness of a social vaccine is **determined by the extent of dissemination and uptake of accurate information** about personal infection risk and methods to reduce the risk.
 - **Uganda and Thailand used SBCC strategies effectively during the HIV/AIDS pandemic** to bring down the incidence of HIV infection, **before Highly Active Antiretroviral Treatment (HAART) was introduced** in 1995.
 - These countries demonstrated how an effective social vaccine helped **“flatten the curve”** till effective treatments were discovered that dramatically reduced mortality, viral loads and infection transmission.
- **Social Vaccine amidst Covid-19**
 - The skills and experiences from controlling HIV/AIDS pandemic can be innovatively adapted for the current pandemic.
 - **Use of IEC and SBCC strategies:**
 - Maintaining physical distancing in social situations and wearing cloth masks or facial coverings in public by 100% of people is key to preventing infection along with regular disinfection of oneself and one’s surroundings.
 - **People are more likely to practise these behaviours if all leaders (without exception) promote them** publicly and consistently, the whole community believes

in their importance, and if proper information, support, and materials are available and accessible.

- **Building trust** is key if government-imposed mitigation strategies are to be embraced by the population.
- **Practising Social Mobilisation**
 - This will make people to hold leaders accountable to invest in: rapidly scaling-up testing; meeting the basic needs of vulnerable sections; not communalising or politicising the pandemic; providing adequate Personal Protective Equipment (PPE) to front-line workers in health, etc. and not compromising the privacy and dignity of infected individuals.

Role of Social Vaccine in Controlling HIV/AIDS Pandemic

- **Outbreak of the Disease:** The **Human Immunodeficiency Virus (HIV)** that causes the **Acquired Immune Deficiency Syndrome (AIDS)** is believed to have made the zoonotic jump through chimpanzees on humans in Africa as early as the 1920s, but the HIV/AIDS epidemic was detected in 1981 and was a pandemic by 1985.
- **Panic Situation:** The cause was unknown (till 1984) and diagnostic tests were unavailable (till 1985). Since there was no treatment, a diagnosis of HIV infection was a death sentence.
- **Impact**
 - **Widespread fears** of infection rendered many infected people homeless and unemployed. Many were denied access to care.
 - **Stigma, discrimination and violence** towards infected individuals, their families, social groups (sex-workers, gay men, drug users, truck drivers, migrants), and even health workers, were common.
 - **Conspiracy theories, misinformation and unproven remedies** were widely propagated.
 - **The unpreparedness of health systems**, societal prejudices and socio-economic inequities were starkly exposed.
- **Use of Social Vaccine**
 - Reducing HIV transmission centred on acknowledging that everybody was potentially infected – even those apparently healthy – and that infection occurred predominantly through sexual transmission and intravenous drug use.
 - The **core preventive messages** involved being faithful to one sexual partner or having safe sex, etc. These measures conflicted with prevailing cultural, social, religious, behavioural and legal norms.

- However, IEC and SBCC activities targeted (and partnered) individuals, families, community leaders, and social and health systems to change attitudes and behaviours. Religious and community leaders were key change agents.
 - Thailand used humour to defuse social taboos about publicly discussing sex.
 - Coercive or punitive methods acted counter-productive in controlling HIV/AIDS.
- These strategies and advocacy against stigma and discrimination were also successfully adapted in India.

Way Forward

- There is still no biomedical vaccine for HIV/AIDS. Considering the limited efficacy and uptake of influenza vaccines, vaccines for SARS-CoV-2/Covid-19 may not provide a panacea.
- Effective treatments to reduce deaths with Covid-19 may emerge, but till then, and even afterwards, **a social vaccine is needed.**
- A social vaccine **can build societal immunity** to the devastating effects of future pandemics by the lessons learned about addressing the root causes, and our responses to the current one.

38. Implement Aarogya Setu, but only through law (GS-2)

Context:

- Aarogya Setu, contact tracing app in India.

Background:

Threat of spurt in cases:

- Despite the possibility of the lockdown being lifted in the coming days, the threat of COVID-19 will continue.
- Studies say that there will be multiple **waves of infection following the first wave.**
- To protect large swathes of the population from possible exposure to infection, the **movement of individuals will have to be regulated.** The government will have to ensure **epidemic surveillance.**

Aarogya setu app:

- Governments around the world are using contact-tracing as a means to **improve their situational awareness to manage the COVID-19 pandemic.** The Indian Government's Aarogya Setu App follows the same trajectory.

- The **Aarogya Setu app** is designed to **enable users who have come in contact with COVID-19 positive patients to be notified, traced and suitably supported.**

Concerns:

- There have been legitimate concerns regarding several aspects of the app:

Data protection:

- The app has been criticized for **not complying with data protection principles** of data minimisation, purpose limitation, transparency and accountability, all of which are crucial to protecting the **privacy of its users.**

Data minimization:

- There are concerns about Aarogya Setu's **use of location data via GPS trails in addition to Bluetooth.**
- This deviates from "**privacy-focused global standards**", which are restricted to Bluetooth-based technology, which can match devices by not revealing the exact location. Bluetooth is preferred from a privacy-respecting perspective.

Purpose limitation:

- According to the app's privacy policy, the personal data of its users is allowed for disclosure to the government to provide it with the necessary details for carrying out medical and administrative interventions necessary in relation to COVID-19. The privacy policy does not exactly state the grounds for disclosure of user's data. Such **vague articulation weakens the app's purpose limitation.**
- The app's privacy policy does not specify which departments or ministry or officials will have access to data. This lack of specificity adds to the **concerns of overreach.**
- In China, a similar phone app was started as a voluntary service for informing users of their potential exposure to infected persons, but soon began to be used as an e-pass for allowing access to public transport. There are concerns that India might follow the same.

Lack of transparency:

- According to the privacy policy, the government is at a liberty to revise the terms of the privacy policy at its discretion without notifying its users. The existing users of the app could be subject to changed service terms without their informed consent.
- The **fluid terms of service** affects the transparency and accountability of the system.

State surveillance:

- Given the fundamental transformation in the role of the state in regulating society in the present crisis situation, there are concerns that the app could lead to an **increased risk of institutionalised surveillance of individuals**.
- The design of the app raises concerns of the dangers of its misuse to carry out surveillance of users.
- **India lacks a comprehensive data protection or surveillance law.**

Threat to fundamental rights:

Freedom of movement:

- Some reports suggest that the government is considering using the app as a criterion for **restricting users' movement**.

Right to life:

- The potential restriction on freedom of movement will have considerable impact on an **individual's access to basic government benefits and services**, thus endangering citizens' right to life.
- The resultant impact will be disproportionately higher on the most vulnerable sections of the society.
- There are also the **risks of misidentification** (or a false-positive) which could unfairly impact people's civil liberties.

Right to autonomy and privacy:

- Citizens may be forced to download the app to be able to access basic amenities and services. Citizens could be forced to **give up their right to autonomy and privacy in exchange for government benefits**.

Arguments in favour of the app:

International experience:

- Similar contact tracing apps in countries such as China, Singapore and Taiwan have been a major contributing factor in their success in limiting the spread of the coronavirus pandemic.
- The **utility of such contact tracing** has been proved beyond doubt by the experience in these nations.

Safety features:

- The app's privacy policy says that the data would be used by the Government of India in **anonymized, aggregated datasets as per international best practices**.
- The government has repeatedly insisted that all the data collected by the app would reside within the device locally and **only in certain conditions (exceptions) the information could be uploaded to a cloud server**.

Unprecedented situation:

- The world is passing through an unprecedented public health emergency – the spread of the novel coronavirus has infected more than 2 million people and claimed more than 1,50,00 lives.
- The **rapid spread and severity of the coronavirus have shattered our assumptions** about politics, society, economics and international relations. It has raised certain ethical and philosophical questions. These **unprecedented times require changed perspectives with respect to privacy norms as well.**

Post lockdown phase:

- Once the lockdown is lifted, the risk of increased infections will increase exponentially and the app could not only **help its users** plan their commute, route of travel or place of travel as per the risk involved but also **help the government** in contact tracing.

Utility of the app:

- The data generated by the app's users (in aggregated, anonymized form) would play a role in **aiding the government make policy interventions**: specifically, managing the eventual removal of the ongoing lockdown.
- These datasets could help generate reports, heat maps, and other statistical visualisations for the purpose of **monitoring the pandemic.**

Way forward:

Statutory backing:

- The concerns of mass surveillance, disproportionate restrictions of fundamental rights, and privacy concerns impose several limitations on fundamental rights.
- As per the settled **legal principle** that any **limitation of fundamental rights must be implemented only through a law** pursuing legitimate state interest, it is imperative that the Aarogya Setu app is implemented only through law.
- Such a law will not only **subject government actions to limitations** but will also facilitate its constitutional scrutiny.

Adopting international best practice:

- The **TraceTogether app framework (Singapore)** is touted as being a fine balance between privacy rights and public health needs and could act as a guiding light to India's own efforts in this direction.
 - In Singapore, the ministry of health has access to data of its contact-tracing app and decision-making powers. The law also clearly states the purpose of the data as directed towards disease control and spread.

39. The occasion to revisit the sovereign's role (GS-2)

Paradigm shift due to Covid-19

- We are **unlikely to return to pre-coronavirus homeostasis** after the war against it is won.
- No section or sector is going to remain untouched and unaltered by the devastation the **novel coronavirus** is now unleashing.
- Its annihilation in the **near future** is not on the cards.
- Vaccines are going to be slow in coming; therefore, its taming is not immediate.
- The **second wave of an outbreak** is a realistic probability.
- **Unlike the other threats:** Unlike other threats to humanity such as global warming and nuclear armageddon, **this threat is now**, not in the future.
- It is here simultaneously for everyone, not for someone else and somewhere else; its casualties are around us, not in faraway battlefields or polar regions and coastal areas.
- No country can rescue another; it is each one fending for itself.

Possibility of a deep recession in the world

- If the lockdown continues, the world economy will contract by as much as **6%** according to the International Monetary Fund.
- If it is not extended, the loss of human lives could be of unacceptable proportions.
- The global community will be fortunate if it does not spiral into depression.
- Both **demand and supply contractions** are likely to be severe.
- They are not going to be short-lived. Political systems, economic architectures and cultural mores are on trial.

Time to build a new paradigm

- Work patterns, production and distribution practices are up for
- Denial and wishing away unpleasant, yet probable, realities by governments, global organisations and public intellectuals will only compound **economic, social, political and human costs**.
- **Build a new paradigm:** We must now be quick in seizing lessons from the present crisis and get ready to embark on measures to build a new paradigm of life, work and governance.

Role of state in focus once again

- The **enlarged economic role of the state** in the aftermath of the Second World War came under major assault since the 1980s.
- Leaders who asked 'where is society?' rode to power on the promise of cutting down the government's role.

- Systems that were alternatives to capitalism fell out of favour.
- Entrepreneurs heading unicorns and 'soonicorn' have become the new demigods.
- **Minimum governance** became the mantra.
- India too without much consideration joined this creed.
- **Role of state in focus:** But COVID-19 is beginning to challenge the **political economy of this creed**.
- Very soon the full scores of the performance of state and non-state actors in the COVID-19 stress test will be available across the globe.
- The Indian state will also have to give answers as far as its report card is concerned.

How the state's role declined in India?

- India embarked on the path of reducing the role of the state, initially, with such caveats as '**safety net**' and '**reform with a human face**'.
- Gradually, those caveats fell by the wayside.
- The Indian state's role in health care, education, creation and maintenance of infrastructure and delivery of welfare has shrunk or become nominal, half-hearted, inefficient, and dysfunctional.
- Of course, it is true that it did not give a great account of itself in these sectors even before the **1991 departure**.
- Disappointment with the **dismal performance in its economic and administrative functions** in the backdrop of a changing global ideological ecosystem encouraged a sharp de facto downsizing of the Indian state's role.
- **Acceptance among the upper section of society:** Its **retreat from vital functions** and abdication of its social responsibility have gained acceptance and legitimacy among the articulate **upwardly mobile**.
- While retreat and abdication found influential and forceful evangelists, the **selective retreat had few advocates**.
- This departure, however, was not vigorously interrogated.
- Supporters of the departure, on the other hand, had little engagement in giving shape to the new policy.
- Nor did they worry about calibrating the architecture of the emerging role for the state.
- As a result, 'private sector' became the new holy cow in place of the 'state sector'.
- What made matters worse is the culture of a simplistic and shallow discourse of public policy that took hold in civil society.
- It mindlessly privileges the agenda of corporates. It transacts in the idiom of stock exchanges and international rating agencies.

Who is affected due to declined role of the state?

- Today, those who bear the brunt of the consequences of shrunken and unresponsive state are the **farmer and farm labour, the migrant worker, the unemployed**, those in the unorganised sector, the rural poor, and the small entrepreneur.

- They are paying the highest price for the necessary but unbearable lockdown.
- They are either stranded far away from home or confined to their homes with no work and incomes, unsupported by the state.
- **Underfunded public health systems** are unable to serve them.
- But the dominant strand of public discourse is out of its depth. It has no time for these concerns.
- Worse, this discourse can be gamed from time to time.
- And the alternative discourse is **too feeble** to draw the attention of the government to the grave **implications of COVID-19 for the weak in our society**.

State's responsibility towards the marginalised

- The state's **first responsibility is marginalised**.
- The marginalised are also the **crucial part of our economy**. They lubricate its wheels and generate demand.
- **Demand-side needs to be revived:** Announcing stimulus packages that address the supply side alone without beefing up the demand side will be self-defeating to corporates.
- Prioritising the needs of corporate entities will lead to convulsions in our body politic in the wake of COVID-19.
- The state is in danger of **forfeiting legitimacy** if it does not ensure the survival and revival of the marginalised sections.

Time to revisit the political economy of the Indian state and its role

- The country should begin a vigorous discourse on redefining every aspect of its involvement in our **collective political, economic and social life**.
- The relation between the **state and economy**, its role in allocating resources and addressing **questions of inequality**, its duty to provide basic human needs, the extent of the market's role in providing services such as health, education, civic amenities needs to be revisited.
- The responsibility of the state and private enterprise towards deprived sections need urgent attention.
- **Re-examining the political structure:** We should re-examine the efficacy of our political structures too.
- The equation between citizens and government and what its implications are for individual freedom, privacy and national security.
- Also, the equation between the legislature and executive needs to be re-visited.
- **Financial powers:** The balance of administrative and financial power between provinces and the union on the one hand and provinces and local bodies on the other should be reconsidered.
- **Election of the representatives:** The way we elect our representatives to legislatures must also come under the lens.

- The issue of weakened **local authorities** and enfeebled legislatures need attention.
- For, they are at the coalface, delivering the state to the citizen.
- The way **legislatures** are elected and governments are made and unmade must be scrutinised.
- Our outrage at the power of big money in our electoral system **has not arrested its growth**.
- The role of serving and retired members of higher judiciary ought to be a part of the debate.
- We had an opportunity for intensive debate when the **Justice Venkatachaliah Commission** submitted its report in 2002 to review **the working of the Constitution**.

Conclusion

The opportunity that COVID-19 provides should not be squandered and must be utilised to have a fresh look at the various issues regarding our social, economic and political life. And states responsibility towards marginalised.

GS 3 : Economy, Science and Technology, Environment

1. Water Quality Improves in Yamuna

Why in News

According to a report by the **Delhi Pollution Control Committee (DPCC)**, the **quality of water in the river Yamuna has improved** along the Delhi stretch, compared to April 2019.

- DPCC, along with the **Central Pollution Control Board (CPCB)** carried out the study after being asked by a **National Green Tribunal (NGT)** appointed monitoring committee.
 - Earlier, **less air pollution and improved air quality** were also noticed in various cities.

Key Points

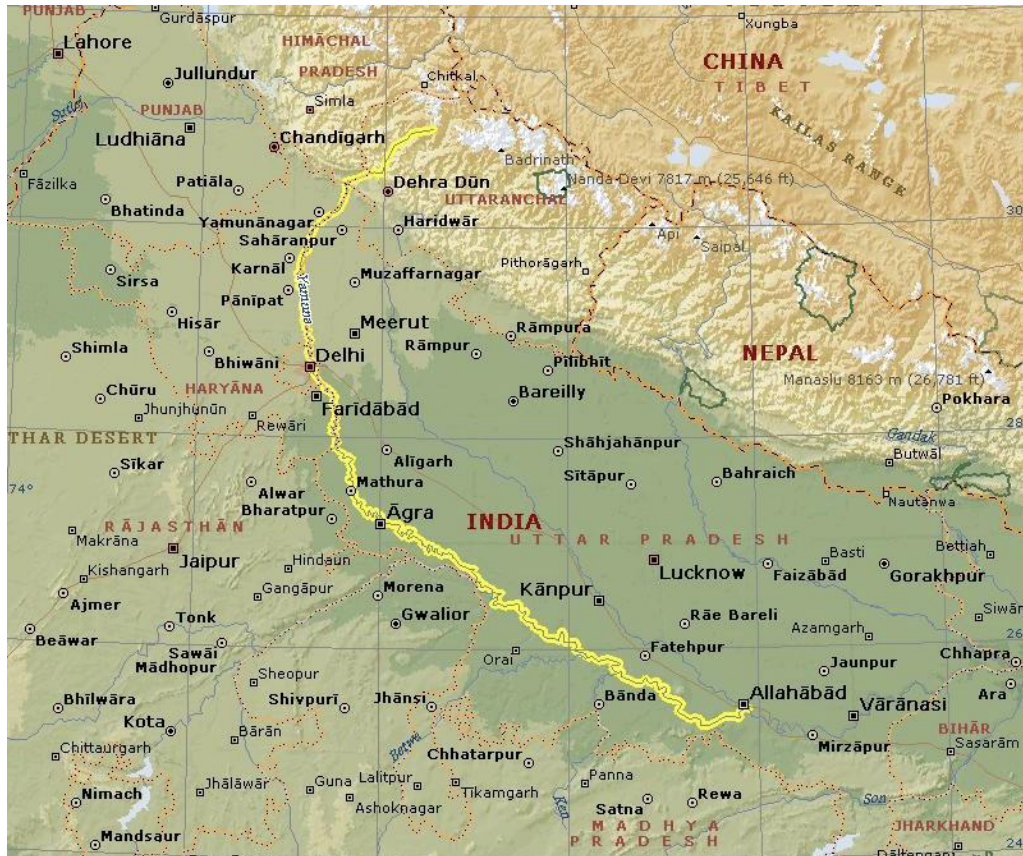
- **Data Analysis:**
 - DPCC collected **water samples from nine locations** along the Yamuna and **twenty locations of drains** and compared the different parameters with values from April 2019.
 - According to the report, the **pollution has reduced between 18% to 21%** at various places.
 - Five locations have shown **18%-33% reduction** in Biochemical Oxygen Demand (**BOD**) levels. The rest of the locations have shown slight to considerable increase in BOD levels.
 - Four of the nine locations where **dissolved oxygen (DO)** was **nil in 2019** showed **DO levels of 2.3-4.8 mg/l** in 2020.
- However, the **Yamuna has still not met** the “**water quality criteria**”.
- **Reasons:**
 - **Lockdown:** Earlier, a **Delhi Jal Board (DJB) report** had also highlighted the improved quality of water due to the **lockdown** (to curb the **Covid-19**).
 - **Increased Flow:** **Haryana has increased the discharge of water** which has also contributed to less pollution **due to dilution of fresh water**.

Biochemical Oxygen Demand

- It is the amount of **dissolved oxygen needed by microorganisms to decompose organic matter** (waste or pollutants) under **aerobic reaction** (in the presence of oxygen).
- The **more organic matter** there is (e.g., in sewage and polluted bodies of water), the **greater is the BOD**; and the **greater the BOD**, the **lower the amount of dissolved oxygen** available for higher animals such as fishes.
 - A **higher BOD level means that more oxygen is needed** to decompose a large quantity of organic matter present in the water.
 - So, a **higher value** of BOD means that the **water is more polluted**.
- The BOD is therefore a **reliable gauge of the organic pollution** of a water body.
- One of the main reasons for **treating wastewater prior to its discharge into a water resource** is to **lower its BOD** i.e. to reduce its need of oxygen and thereby lessen its demand from the streams, lakes, rivers, or estuaries into which it is released.
- **Dissolved Oxygen:**
 - It is the **amount of dissolved oxygen present in the water** which is needed for aquatic life to survive. The **quality of water increases with an increase in DO levels**.
 - A DO level of **5 mg/l or above** is the recommended level for **bathing in a river**.

Yamuna

- The river Yamuna, a **major tributary of river Ganges**, originates from the **Yamunotri glacier** near **Bandarpoonch peaks** in the **Mussoorie range of the lower Himalayas** at an **elevation of about 6387 meters above mean sea level** in **Uttarkashi district of Uttarakhand**.
- It **meets the Ganges** at the **Sangam (where Kumbh mela is held) in Prayagraj, Uttar Pradesh** after flowing through **Uttarakhand, Himachal Pradesh, Haryana and Delhi**.
- **Length:** 1376 km
- **Important Dam:** Lakhwar-Vyasi Dam (Uttarakhand), Tajewala Barrage Dam (Haryana) etc.
- **Important Tributaries:** Chambal, Sindh, Betwa and Ken.



2. The invisible face of the fallout

Context:

- Disproportionate impact of crises on women.

Details:

- While catastrophes affect people at large, the **economical, sociological and psychological impact on women** is profound.
- The **traditional gender role** that women play distinctly affects them in global crises as seen in numerous examples.

Indian Ocean tsunami:

- In the **2004 Indian Ocean tsunami**, the coastlines of countries in the region, including India, were affected and more than 2,00,000 people were killed or listed missing. Nearly a fourth of these were women.

- The **traditional 'care giver' role** that women play resulted in women staying at homes and getting stranded. Besides, women also **lack essential life skills** like swimming and climbing.
- During the recovery phase too when the homeless were placed in camps, reports suggested that women faced many difficulties like **abuse by men, hygiene challenges** in these camps due to inadequate sanitation facilities, etc.

United States scenario:

- The United States has a high incidence of tornadoes.
- **Families headed by women are affected the most** in times of a natural disaster like tornado.
 - Women often are engaged in sector-specific employment which when impacted result in unemployment.
 - Women are also engaged in post-calamity care, missing job opportunities.
 - Given the prevalence of **pay disparity between genders**, an economic slowdown in times of a disaster leaves women with **additional wage cuts**.

COVID-19 pandemic and gender crisis:

Women in health sector:

- According to World Health Organization data, around **70% of the world's health workers are women, 79% of nurses are women**. India has **million-plus accredited social health activist (ASHA) workers** who are an integral part of its health system.
- Health workers in general are **highly vulnerable** given the high transmissibility of the infection.
- There have also been reports on attacks while on duty thus impacting their professional safety.

Extra burden:

- Given the lockdown measures in place, entire families are now together within the limited space of their dwellings.
- As **traditional roleplay** is still prevalent in most sections of Indian society, the equal division of household responsibilities among couples is still not observed. Women face **substantial household work in addition to their work from home jobs**.

Domestic violence:

- The lower income groups are already facing job losses and anxiety is leading to alcohol consumption, domestic tensions and **violence against women**.
- There have been reports of increased domestic violence.

- According to 2015-16 National Family Health Survey, around 30% of women in the age group of 15 to 49 years face domestic violence. A recent report highlighted how the **National Commission for Women** has been receiving increased number of complaints.

Health impact:

- The crisis has led to an **increased mental pressure on women**, in turn affecting their physical well-being.
- Women are twice as likely to face depression when compared to men.
- **Hormone-induced depression** among women is a key concern. Premenstrual syndrome (PMS) among reproductive age groups, pregnancy-related depression conditions, postpartum depression (PPDs) among new mothers as well as premenopausal and menopausal symptoms are common in women, which interferes in their everyday life and relationships. The lockdown is adding more intensity to these conditions.
- These issues have **not received the necessary attention** and there is a **lack of awareness too**.

Way forward:

- The prevailing data indicates the **need to address the gender crisis during and after disasters**.

Focussed attention:

- Be it domestic violence, women's depression and anxiety-related matters, or their safety while at work, all these issues need to be addressed and responded to.
- Steps such as **roping in non-governmental organisations**, psychology students, teachers and volunteers and also **using technology platforms** would help speed action.
- The government can assign ASHA workers to specifically **address women's welfare** during this pandemic and consider **setting up exclusive** cells to quickly address women's health-related issues.

Domestic violence:

- Even in these disruptive times, women's safety should become a priority. There is a need for **timely and stern action against domestic violence**.
- The police could consider setting up exclusive cells to quickly address domestic violence and have helplines for accessibility.
- **Online counselling** for alcoholism in men can play an important role in addressing domestic violence.

Long term measures:

- It is important to develop a **culture of including women's safety in the planning phase of any crisis management plan.**
- There is a need to **change the stereotyping of women's role** in a society.

3. A shot of hope with a game changing vaccine (GS-2/3)

Social Vaccine

- A social vaccine is a metaphor for a series of social and behavioural measures that governments can use to raise public consciousness about unhealthy situations through social mobilisation.
- Social mobilisation can empower populations to resist unhealthy practices, increase resilience, and foster advocacy for change.
- This can drive political will to take action in the interests of society and hold governments accountable to address the social determinants of health by adopting progressive socio-economic policies and regulatory mechanisms that promote health equity and reduce vulnerability to disease.

How it helps?

- When applied to pandemics, the effectiveness of a social vaccine is determined by the extent of dissemination and uptake of accurate information about personal infection risk and methods to reduce the risk through consistent core messages disseminated through a variety of means.
- A social vaccine addresses barriers and facilitators of behaviour change, whether attitudinal, social, cultural, or economic, and supplements Information, Education, and Communication (IEC) with targeted Social and Behaviour Change Communication (SBCC) strategies.

Example

- Uganda and Thailand used these strategies effectively during the HIV/AIDS pandemic to bring down the incidence of HIV infection, before Highly Active Anti-Retroviral Treatment (HAART) was introduced in 1995.
- They demonstrated how an effective social vaccine helped "flatten the curve" till effective treatments were discovered that dramatically reduced mortality, viral loads and infection transmission.

Lessons from the HIV pandemic

1. Timeline of HIV/AIDS

- The Human Immunodeficiency Virus (HIV) that causes the Acquired Immune Deficiency Syndrome (AIDS) is believed to have made the zoonotic jump from

monkeys through chimpanzees to humans in Africa as early as the 1920s, but the HIV/AIDS epidemic was detected in 1981 and was a pandemic by 1985.

- From 1981 till 2018, around 74.9 (range: 58.3 to 98.1) million people worldwide were HIV-infected, and around 32.0 (range: 23.6 to 43.8) million died (43%, range: 41 to 45%) from AIDS-related illnesses.
- The early years of the HIV/AIDS pandemic were also a time of global panic. The cause was unknown (till 1984) and diagnostic tests were unavailable (till 1985). Since there was no treatment, a diagnosis of HIV infection was a death sentence.

2. The stigma of HIV/AIDS

- Widespread fears of contagion rendered many infected people homeless and unemployed. Many were denied access to care.
- Shame, discrimination and violence towards infected individuals, their families, social groups (sex-workers, gay men, drug users, truck drivers, migrants), and even health workers, were common.
- Criminalising sex-work and injecting drug use followed.
- Conspiracy theories, misinformation and unproven remedies were widely propagated.
- The blame game targeted world leaders and international agencies. The preparedness of health systems, societal prejudices and socio-economic inequities were starkly exposed.

3. Preventive strategy

- The core preventive messages involved being faithful to one sexual partner or 100% condom use during sexual intercourse outside stable relationships; resisting peer-pressure for risky behaviours, and harm reduction for intravenous drug use.
- These measures conflicted with prevailing cultural, social, religious, behavioural and legal norms.
- IEC and SBCC activities targeted (and partnered) individuals, families, community leaders, peer-led community networks and social and health systems to change attitudes and behaviours. Religious and community leaders were key change agents.
 - For example, the Catholic Church in Uganda did not initially support promoting condoms for safe sex since its use prevents life.
 - After large numbers of people died of AIDS, their tacit acknowledgment that their religion did not preclude the use of condoms to prevent death was an important turning point.

Thailand pioneered the effective use of social marketing of condoms for safe sex and used humour to defuse social taboos about publicly discussing sex.

These strategies and advocacy against stigma and discrimination were successfully adapted in India.

How it can work in the present scenario?

- The core infection-control messages are available from official sources.
 - Maintaining physical distancing in social situations (unless impossible) and
 - Wearing cloth masks or facial coverings in public (especially where distancing is impossible) by 100% of the people (and 100% of the time) is key to preventing infection along with regular disinfection of oneself and one's surroundings.

People are more likely to practise these behaviours if all leaders (without exception) promote them publicly and consistently, the whole community believes in their importance, and if proper information, support, and materials are available and accessible.

A social vaccine also requires people to hold leaders accountable to invest in:

- rapidly scaling-up testing;
- meeting the basic and economic needs of vulnerable sections;
- providing psychological support where needed;
- not communalising or politicising the pandemic;
- providing adequate Personal Protective Equipment (PPE) to front-line workers in health, sanitation, transport and other essential services; and
- not compromising the privacy and dignity of infected individuals and their families in the interest of public health.

Conclusion

- Coercive or punitive methods are invariably counter-productive, as was seen with HIV/AIDS.
- There is still no biomedical vaccine for HIV/AIDS. Considering the limited efficacy and uptake of influenza vaccines, vaccines for SARS-CoV-2/COVID-19 may not provide a panacea.
- Thus, the components of the social vaccine should be in place before relaxing or lifting the lockdown.

4. 'Preventing food shortages is high priority for South Asia' (GS-3)

Context:

- World Bank report on the impact of COVID-19 in the South Asia region.

Details:

- South Asia as a region has done **comparatively better in terms of containing the health impact of the novel coronavirus**. The World Bank has endorsed India's strict 40-day lockdown, which other South Asian countries have followed in varying degrees.
- However, the World Bank **report predicts a 'dire' situation for South Asia due to the economic impact** of the measures to counter the novel coronavirus pandemic.
- The restrictions on movement and lockdown measures have led to sharp **declines in exports**, and have disrupted global value chains. There has been a sharp decline in domestic tourism and hospitality services.
- Given the global nature of the crisis, the pandemic has also **deteriorated investment sentiment, and caused the reversal of capital flows from the developing economies**. There has also been the trend of **reduced remittances**.

Economic impact:

- The eight SAARC countries (Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Maldives and Sri Lanka) would experience their **worst economic performance in 40 years**, with at least half of them falling into a deep recession.
- The forecast for the South Asian economy in the WB report is in the range of 1.8% - 2.8%. The upper and lower bounds are based on two scenarios, one with a two-month lockdown of advanced economies, the other with a four-month lockdown of the economies. This would mark a **significant drop from the present growth rate** of 6.3%.
- The impact could be even bigger given the uncertainty over the lifting of the lockdown measures and reviving of economic activities. A prolonged lockdown of South Asian economies with an extended lockdown for three months and a more partial lockdown in subsequent quarters may cause negative growth for the region, with a **contraction** of about 1%.

Major Challenges:

Food security:

- Disruptions in the supply chain and panic buying can lead to price spikes.

- The **lockdown deprives the most vulnerable people of their income**. The loss of income of many informal workers due to lockdown can limit their ability to buy food. This can lead to **food shortages for the most vulnerable**.
- Most of the countries have resorted to the banning of food exports from their domestic territories. This could exacerbate the crisis by disrupting the food supply chains of the world.

Vulnerable sections:

- Containment of the pandemic is especially **challenging among slum dwellers, domestic migrant workers and refugees**. These sections bear a **higher burden of the economic impact** of lockdowns.

Migrant crisis:

- The pandemic will cause a global recession. This, along with the sharp drop in oil prices, will lead to high layoffs in the West Asian region. It is likely that migrant workers, especially in the Gulf countries, will return home after the lockdown restrictions are released.
- The **inbound reverse migrants** will need to find work at home and will indeed compete with domestic migrant workers.
- This will change the labour market and **add to the domestic migrant labour crisis in India**.

Decreased remittances:

- Most South Asian nations depend on migrant remittances. This plays a substantial role in the development of the nations. **India receives the largest amount of remittances in the world** and other economies in South Asia like Bangladesh and Pakistan are also dependant on migrant remittances.
- The **global recession and layoffs would impact the inward remittances**.

Loss of jobs:

- The WB report identifies the service sector as the worst hit. Tourism and hospitality sectors have come to a complete standstill and have resulted in **substantial pay cuts and job losses**.

Way forward:

Food security:

- The governments should focus on the aspect of food security along with health security.
- There is a need to **release the strategic food reserves** being held by government agencies.

Vulnerable sections:

- The government must ensure **sufficient distribution of food resources to the most vulnerable**. It has to be complemented with **temporary work programmes**.
- **Managing migrant returns** (both internal and external migrants) must be a major priority for the region.

Generating employment:

- The government must consider starting **temporary work programmes** to ensure income avenues for the vulnerable.
 - The temporary work programme could focus on food delivery, production of protective equipment, disinfection of public spaces and on the testing and tracing system.

Governments would have to consider new **ways to regenerate employment in the sector most affected by the current crisis**.

- Tourism will not return to normal till effective vaccines become widely available. However, there will be demand for safe tourism and health and wellness tourism. Governments and businesses may consider reevaluating their products and business models to adapt to the changed condition.

The government will have to **look at other prospective sectors to generate new employment** The government should consider policies to help such sectors grow.

- The post-pandemic era would witness higher demand for digital services like remote learning or other remote services and for delivery of e-commerce sales.

The government should create conditions under which the economy can be reopened and should play an **active role in job creation**.

5. New FDI rules may have unintended effects (GS-3)

Context:

- The **Ministry of Commerce** press note amending the FDI policy.

Details:

- The revised FDI policy makes prior government approval mandatory for FDI from countries which share a land border with India.
- The objective is to curb opportunistic takeovers or acquisitions due to the current COVID-19 pandemic. This is indeed a risk that has also been identified by other countries.

Concerns:

- **Though well intended**, the policy outlined in the press note released by the Department for Promotion of Industry and Internal Trade **may have some unintended consequences**.

Aimed at China:

- Given the fact that FDI restrictions were already applicable to Pakistan and Bangladesh and the fact that Myanmar, Bhutan, Nepal and Sri Lanka are not major investors in India, the new policy seems to be aimed at Chinese investors.
 - **China has been the fastest growing source of FDI since 2014**. The positive sentiment generated among industry players in China may well be punctured by the need for government approval.
 - This could lead to straining of the bilateral ties between the **two economic powerhouses of the world**.

Wide application:

- The amended FDI policy does not restrict its application to only the takeover of vulnerable companies. The amended policy makes every type of investment by Chinese investors subject to government approval. Such a **blanket application could create unintended problems**.
- The new policy does not distinguish between Greenfield and Brownfield investments.
 - The new rules may pose **obstacles to Greenfield investments** where Chinese investors bring fresh capital to establish new factories and generate employment in India.

The new policy does not distinguish between listed and unlisted companies. It also does not distinguish between the **different types of investors, such as industry players, financial institutions, or venture capital funds**.

- The restrictions on Venture capital funds may **impact the prospects of many start-ups** in the Indian market.

Applicability with respect to certain funds:

- **Most investors in companies such as Zomato, Swiggy, Bigbasket, Makemytrip, Oyo, Ola and Snapdeal** are either **venture capital funds** registered in off-shore tax havens or **listed in stock exchanges in the U.S. or Hong Kong**.
- It would be extremely **difficult to attribute nationality to venture capital funds** or fix the ultimate beneficial ownership of listed companies down to founders of a certain nationality.
- The most visible Chinese investment in India, mostly in the Internet space, may not even come under the definitions of the new rules.

Will further drive down evaluations:

- The COVID-19 pandemic has and will definitely cause financial stress in many unlisted or private companies.
- Making government approval necessary for acquisitions in private companies by Chinese investors will only **reduce the number of potential investors available** and will drive down the valuation.

Consequences for the companies:

- Given the global nature of the crisis there has been a drastic outflow of foreign capital from the Indian economy and there are very little chances for foreign investment to revive in the medium term.
- There seems to be very little interest among the domestic investors too.
- The absence of an investor may **cause bankruptcy in the struggling companies and lead to job losses.**
 - A recent study notes that over half of the top 500 companies listed on the National Stock Exchange could find themselves strapped for cash to even make routine payments in the aftermath of the COVID-19 induced lockdown.
 - Majority of the firms could find themselves **in liquidity trouble, unless if promoters step in with equity or banks lend to them.**
 - There is a significant likelihood that at some companies will need to go for **cost rationalisation through measures such as salary cuts, payment deferrals or even job cuts.**

Future foreign investment:

- The abolishing of the Foreign Investment Promotion Board in 2017 helped boost India's image as a FDI friendly destination economy.
- The amended policy may have unintended consequences in the minds of foreign investors and might **disincentivize future investments.**

Conclusion:

- The Indian government could have **considered a more precise and focussed intervention** with respect to the new amendments in the FDI policy.
- The **Committee on Foreign Investment in the United States (CFIUS) framework** which allows or promotes FDI with **limited national security exceptions** to deal with genuine threats to national security or black swan events like the COVID-19 pandemic can act as a guiding light for India's own policy.

6.Liquidity Boost to NBFCs

Why in News

The **Reserve Bank of India (RBI)** has announced a host of measures to provide liquidity support to **Non Banking Financial Companies (NBFCs)**, apart from giving them certain benefits for loans extended to the commercial real estate sector.

Key Points

- **TLTRO 2.0**
 - The RBI would conduct **Targeted Long-term Repo Operations (TLTRO 2.0)** for an **aggregate amount of Rs 50,000 crore**, in installments of appropriate sizes.
 - The banks have to invest the funds availed under TLTRO 2.0, **in investment grade bonds, commercial paper, and non-convertible debentures of NBFCs.**
 - RBI stipulated that **small and mid-sized NBFCs and Micro Finance Institutions (MFIs)** should **receive at least 50% of these funds.**
 - The investments made by banks under this facility would be classified as '**Held-to-Maturity (HTM)**', even in excess of 25% of the total investment permitted to be included in the HTM portfolio.
 - Held to Maturity securities are securities that **companies purchase and intend to hold until they mature.**
 - This will help in **easing the liquidity problem faced by NBFCs and MFIs** to some extent.
 - NBFCs are facing liquidity pressure since banks have **not extended any repayment moratorium** to these entities even if NBFCs have to provide the same for their borrowers.
- **Refinance facility:** The RBI has also decided to provide a **special refinance facility of ₹50,000 crore to National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI) and National Housing Bank (NHB)** to enable them to meet sectoral credit needs. This would comprise:
 - 25,000 crore to NABARD for refinancing **Regional Rural Banks (RRBs)**, cooperative banks and Microfinance Institutions (MFIs).
 - 15,000 crore to SIDBI for on-lending/ refinancing.
 - 10,000 crore to NHB for supporting Housing Finance Companies (HFCs).

- **Extension of loans to the Real Estate Sector:** The RBI has allowed **extension of the loans** by NBFCs to **delayed commercial real estate projects by a year without restructuring.**

Targeted Long-term Repo Operations

- **LTRO** is a tool that lets banks **borrow one to three-year funds** from the RBI at the **repo rate**, by providing **government securities with similar or higher tenure as collateral.**
- It is called '**Targeted**' **LTRO** as in this case, the RBI wants banks opting for funds under this option to be **specifically invested in investment-grade bonds.**
- The **TLTRO** was introduced by the RBI to help companies, including financial institutions, manage their cash flow issues in the wake of the **Covid-19 outbreak.**

Note

- **Investment-grade bond:** It is a bond classification used to denote bonds that carry a **relatively low credit risk compared to other bonds.**
- **Commercial Paper (CP)** is a short-term debt instrument issued by companies to raise funds generally for a time period up to one year.
- **Non-convertible debentures:** The debentures which cannot be converted into shares.

National Housing Bank

- NHB is a statutory organization that was established on July 9, 1988 under the **National Housing Bank Act, 1987.**
- It is the apex level financial institution for the housing sector in the country and a **wholly owned subsidiary of the RBI.**
- NHB aims to facilitate the **promotion of Housing Finance Institutions** and provides financial and other support to such institutions.

Non-Banking Financial Company

- NBFC is a company registered under the **Companies Act, 1956.**
- It is engaged in the **business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities** issued by Government or local authority or **other marketable securities** of a like nature, leasing, hire-purchase, insurance business, chit business.
- But, it **does not include** any institution whose principal business is that of **agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property.**
- A non-banking institution which is a company and has principal business of receiving deposits under any scheme or arrangement in **one lump sum or in installments by**

way of contributions or in any other manner, is also a non-banking financial company (Residuary non-banking company).

- **Features of NBFCs**
 - NBFC cannot accept demand deposits.
 - NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself.
 - Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs.

7. A blueprint to revive the economy (GS-3)

The Editorial touches upon how saving lives and protecting livelihoods can be achieved through a smart lockdown and careful economic management. It gives the details of a carefully crafted economic proposal for consideration of the Indian government in the current situation where every sector of the economy in every nation has come to a screeching halt and the phrase 'Greater Depression', (being used by most of the economists) highlights the gravity of the humanitarian and economic crisis confronting the world today.

Details:

Demand, supply challenges:

First, it is important to diagnose the scale of the economic crisis accurately. The economic crisis needs a demand side and a supply side response.

- It is morally imperative that the miseries of the poor and vulnerable must be addressed immediately by providing money as well as food.
- The bottom half of all households (13 crore out of 26 crore families) must be given ₹5,000 per family in their bank account. This will cost a maximum of ₹65,000 crore.
 - The list of households and the bank details (largely Aadhaar-seeded) are available in the government's various schemes such as PMJAY and MGNREGA. Besides, the States have their 'below poverty line' lists.
 - Further, depending on the need, these families can be given ₹3,000 each. This will cost an additional ₹39,000 crore.

Scholars like Jean Dreze have observed that it is food that people need most urgently. India has far in excess of the buffer stock requirement.

- The government must universalise food distribution immediately, to remove identity requirements.

- It should work with State governments to rush supplies to every ration shop so that every family gets free grain.

For ensuring livelihood support, the district collectors should be given the freedom to start and expand works under MGNREGA.

- If work cannot be given for some reason, 10 days' wages every month should be paid to the registered MGNREGA workers until the scheme is resumed.
- Economists Amartya Sen, Raghuram Rajan and Abhijit Banerjee have also called for urgent implementation of these measures.

The next step is to resume commercial activities, which can be done by re-opening the economy gradually.

- The Central and State governments must work in tandem to identify COVID-19 hotspots, preferably at the level of the block/mandal and not just at the district level.
- This can be done with the help of public health experts and epidemiologists through strategic testing.

Planning ahead:

- Guidelines must be expanded to permit all economic activity (with a few exceptions) in non-hotspot areas.
- There is a need to at least, boost local economic activity.
- The new guidelines permit agricultural activity during the Rabi harvest season. This is a step in the right direction.
- Mass rapid transit as well as private transport must be gradually opened in non-hotspot areas, as availability of labour would be crucial for commercial and agricultural activities.
- Continuous testing and monitoring will be needed as new areas may turn into hotspots and hotspots may become non-hotspots.

Funding the revival:

- The other essential ingredient for resumption of economic activity is access to capital, especially working capital.
- The government must step in to provide credit guarantees that can incentivise banks to SMEs. Since,
 - a majority of the small and medium enterprises (SMEs) would have run out of cash and lost significant revenues.
 - no bank is likely to lend to them.
 - the Reserve Bank of India (RBI) has already instructed banks to issue a moratorium on loan obligations for three months. If needed, this can be extended.

For the formal sector, the idea is for the government to help formal sector businesses to keep workers on their payroll without resorting to retrenchment or lay-offs.

- The 2017-18 Economic Survey estimated, using the Employees' Provident Fund Organisation (EPFO) data set, that there are 40 million employees earning less than ₹15,000 per month who are employed in firms registered under the Goods and Services Tax (GST).
- The government could fund their employers to pay them for one or two months. This can be implemented using data from the EPFO and GST databases.

Capital must be made available liberally to sectors such as tourism and manufacturing, which need specific interventions.

India must do whatever it takes through export incentives and strategic use of foreign exchange reserves to capitalise on the export opportunity arising out of this crisis and stimulate exports dramatically over the next few years.

- Exports can be the key to jobs for hundreds of millions of skilled and unskilled workers, as it was during the boom years 2004-2010.

Fiscal stimulus measures on the demand and supply side must be supplemented by monetary stimulus from the RBI with re-designed measures such as moratorium, loan forgiveness, regulatory forbearance, revised NPA regulations and easing the cycle of credit flow.

Conclusion:

- It is estimated that the total fiscal package for revival and recovery will cost ₹5-6 lakh crore. That amount is available.
 - The Centre and the States have a total expenditure budget of over ₹70 lakh crore for 2020-21.
 - The Centre alone has budgeted to spend ₹4 lakh crore on capital expenditure this fiscal year. In a crisis, much of the capital expenditure may not be possible at all, and even if it is, must be deferred to the next fiscal year.
 - Besides, more savings can be identified by eliminating wasteful expenditure.

Further, the Centre can borrow money during times like this without crowding out private investment or pushing up interest rates.

As a final resort, the government can monetise part of additional deficit, otherwise known as printing money.

8. India to receive normal monsoon, forecasts IMD

Why in News

Recently, the **India Meteorological Department (IMD)** has observed that India will likely have a **normal monsoon**, with a **chance of above normal rain** in August and September, 2020.

Key Points

- **Every year, the IMD issues a two-stage forecast.**
 - The **first one in April** and the **second one in the last week of May**, which is a **more detailed forecast** and also illustrates how the monsoon will spread over the country.
- **Forecast**
 - The **June-September rainfall** accounts for **75% of the country's annual rainfall**.
 - Quantitatively, the monsoon seasonal rainfall is likely to be 100% of the **Long Period Average (LPA)** with a model error of $\pm 5\%$.
 - The LPA of the season rainfall over the country as a whole for the period 1961-2010 is 88 cm. IMD has **officially redefined the definition of 'normal' rainfall and reduced it by 1 cm to 88 cms.**
 - The **Indian Ocean Dipole**, a temperature anomaly in the ocean that can increase monsoon rain, is also **expected to be in a "neutral" state** during the monsoon.
 - According to the statistical model, there is a **41% forecast probability of a normal monsoon**.
- The expectation of excess rain comes from a forecast by the **dynamical model**, according to which, there is a **high probability (70%)** for the rainfall to be **above normal to excess**.
- **Comparison to 2019 Forecast**
 - In April, 2019, the IMD said that the monsoon would be **near normal** or a **slightly below normal**.
 - However, **India ended up with excess rainfall**, or the **maximum rainfall in a quarter century**, largely owing to torrential rain in August and September from the unusual warming in the Indian Ocean.

Models for Forecasting

- **Dynamical Model:** It is also called the **Monsoon Mission Coupled Forecast System**. It relies on the **supercomputers, mathematically simulating the physics of the ocean**

and the atmosphere.

- This model is better at forecasting the state of the weather a week or two in advance and is not yet considered reliable by meteorologists in forecasting the monsoon.
- **Statistical Model:** It takes into **consideration the global weather models** pointing to **negligible chances of El Nino**, a warming of the central equatorial Pacific which is associated with the drying up of monsoon rain. The **IMD relies on this model**.
- In **any given year**, there is a **33% chance of a normal monsoon** that's why there is **high confidence that the monsoon in 2020 would be normal**.

El Niño

- Under **normal conditions**, the **west tropical Pacific is warmer than its eastern basin**. The warmer area of the ocean is also a **source for convection** and is associated with **cloudiness and rainfall**.
- During El Nino years, the **warmth shifts to Central and East Tropical Pacific** and along with it, cloudiness and rainfall.
- El Nino has been **found to impact almost half the world triggering droughts in Australia, India, southern Africa and floods in Peru, Ecuador, the United States, the Gulf of Mexico, and the Colorado River basin**.
- However, there has been **no direct correlation between the ENSO (El Nino Southern Oscillation) events and the monsoon established yet**.
- **Other acronyms related to El Nino:**

- **Southern Oscillation Index**

- It gives an **indication of the development and intensity of El Nino or La Nina**.
- The **SOI is calculated on the basis of the atmospheric pressure differences between the South Pacific Ocean and Australia**.
- Sustained **positive SOI values** are indicative of **La Nina** conditions while **negative values** suggest **El Nino** conditions.

- **El Nino Southern Oscillation**

- It refers to the **oscillation between the El Nino and the La Nina**.
- **ENSO shifts irregularly back and forth between El Nino and La Niña every two to seven years**.

- Each phase triggers predictable disruptions of temperature, precipitation and winds disrupting large-scale air movements in the tropics, triggering a cascade of global side effects.

9. How pandemics have changed the world

Context:

Pandemics have had great influence in shaping human society and politics throughout history. From the Justinian Plague of the sixth century to the Spanish flu of the last century, pandemics have triggered the collapse of empires, weakened pre-eminent institutions, created social upheavals and brought down wars.

Which are the deadliest pandemics and how have they influenced the course of human history?

Justinian Plague

- One of the deadliest pandemics in recorded history broke out in the sixth century in Egypt and spread fast to Constantinople, which was the capital of the Eastern Roman (Byzantine) Empire.
- The plague was named after the then Byzantine Emperor Justinian.
- The outbreak, which spread from Constantinople to both the West and the East, had killed up to 25 to 100 million people.
- The plague hit Constantinople when the Byzantine Empire was at the pinnacle of its power under Justinian's reign. The Empire had conquered much of the historically Roman Mediterranean coast, including Italy, Rome and North Africa.
- The plague would come back in different waves, finally disappearing in AD 750, after weakening the empire substantially.
- As the Byzantine Army failed to recruit new soldiers and ensure military supplies to battlegrounds in the wake of the spread of the illness, their provinces came under attack. By the time the plague disappeared, the Empire had lost territories in Europe to the Germanic-speaking Franks and Egypt and Syria to the Arabs.

Black Death

- The Black Death, or pestilence, that hit Europe and Asia in the 14th century was the deadliest pandemic recorded in human history.
- It killed some 75 to 200 million people.
- The plague arrived in Europe in 1347, where up to 50% of the population died of the disease.

- In the words of Stanford historian Walter Scheidel, pandemics are one of the “four horsemen” that have flattened inequality. The other three are wars, revolutions and state failures.
- Black Death led to improved wages for serfs and agricultural labourers. Land became more abundant relative to labour [after the death of millions of working people].
- In parts of Europe, wages tripled as labour demand rose.
- The most significant impact of the Black Death was perhaps the weakening of the Catholic Church.
- The Church was as helpless as any other institution as the plague spread like wildfire across the continent, and this shook the people’s faith in the Church and the clergy. While the Church would continue to remain as a powerful institution, it would never regain the power and influence it had enjoyed before the outbreak of the plague.
- The Protestant Reformation in the 16th century would further weaken the Church.

Spanish Flu

- The Spanish Flu, which broke out during the last phase of the First World War, was the deadliest pandemic of the last century that killed up to 50 million people.
- One of the major impacts of the outbreak was on the result of the war.
- Though the flu hit both sides, the Germans and Austrians were affected so badly that the outbreak derailed their offensives.
- German General Erich Ludendorff in his memoir, wrote that the flu was one of the reasons for Germany’s defeat.
- Germany launched its Spring Offensive on the western front in March 1918. By June and July, the disease had weakened the German units. The Armistice, signed on November 11, 1918, ended the War. But the flu continued to ravage parts of the world for many more months.

COVID-19

- Despite it being too early to say how COVID-19 would change the world, the outbreak has seen countries, both democratic and dictatorial, imposing drastic restrictions on people’s movements.
- The western world lies exposed to the attack of the virus.
- Unemployment rate in the U.S. has shot up to the levels not seen since the end of the Second World War.
- Governments across the world, including the U.S. administration, are beefing up spending to stimulate an economy that shows signs of depression.
- Radical changes, good and bad, are already unfolding.

10. Economic liberalisation and its faults (GS-3)

Context:

- The authors of this article argue that the COVID-19 pandemic reveals how dependence on a **more liberalized economic model has proved to be counter-productive** and disastrous in the current scenario.

Background:

Change in industrial model of production:

- In the **late 1980s, transnational corporations started shifting their production base to developing countries**, especially Asia, in search of cheap labour and raw materials.
- Developed countries supported the move as it helped them shift the polluting and labour-intensive industries to other countries, while still retaining the ownership.
- Thus, the world witnessed the **development of global supply chains** in many products.

Changes in India:

- The **1991-92 Budget** speech of the then government marked the beginning of the **end of the 'Licence Raj' in India**. It marked a notable shift from a public sector-based economic model to a more private sector-led economic model.
- The Budget also announced the **reduction of import duties and paved the way for foreign-manufactured goods to flow into India**. Following this, most of the manufacturing sector was opened up to **foreign direct investment**.

Details:

Dominance of Chinese industries:

- Though many developing countries participated in the global production/value/supply chains, the **substantial value addition happened only in a few production hubs**, of which China emerged to be a major one. Manufacturing shifted from a decentralised production system spread across different counties to just a few locations.
- Notably, countries like **China** defied the logic of supply/value chains and **carried out backward integration and emerged as global manufacturing hubs** for certain products.
 - In the case of health products, China became the global supplier of active pharmaceutical ingredients (API), personal protective equipment (PPE), and medical devices diagnostics.

COVID-19 response:

- The **structural changes observed have had major implications in the COVID-19 response.**
- The **lack of domestic manufacturing base** has affected the ability of many governments, including that of developed countries, to put up an effective response against the crisis. This has led to the need for drastic measures in such countries.
 - The U.K. Prime Minister has asked the country's manufacturers to produce ventilators in order to provide care for critical COVID-19 patients.
 - The U.S. President invoked the **Defence Production Act of 1950** to ramp up N95 mask production. Under this legislation, the U.S. President can direct U.S. manufacturers to shift from their normal manufacturing activities to produce goods according to the directions of the government.
 - The French Health Minister has stated that the country may **nationalize vaccine companies** if necessary.
 - **Spain nationalized all its private hospitals.**
 - Israel and Chile issued **compulsory licences** to ensure that medicines are affordable.

Concerns:

For the developed economies:

Fallacy of privatization:

- The current state of affairs around the world including the most developed countries exposes the **poor state of preparedness and dependence on imports for essential goods** required to meet the challenge of any major disease outbreak.
- The lack of domestic industries and dependence on imports are a clear indication of the fact that though the **evolution of global value chains** has been a good development for the multinational companies, it need **not be good for the country in all circumstances.**
- This might indicate that the overwhelming objective of private sector-led economic growth has proved to be disastrous.

For India:

- In India, **economic liberalization has limited the government's capacity** in a few ways.

Lack of credible information:

- First, it incapacitated the government to respond to emergencies based on credible information.

- The dismantling of the 'Licence Raj' system resulted in the **elimination of channels of information for the government**, which is crucial to make informed policy choices.
- As part of the removal of the 'Licence Raj', the government stopped asking for information from the manufacturer to file the quantity of production of various products.
 - As a result, in the case of medicines, it took much effort and time for the government to gather information about stocks and the production capacity of pharmaceutical companies.
 - Similarly, there were difficulties in finding out India's production capacity of PPE, medical devices and diagnostics.

Undermined manufacturing capabilities:

- The logic and policies of economic liberalization have seriously undermined the manufacturing capabilities of health products in India.
- The **short-sighted policy measures**, with primary focus on enhancing profitability of the private sector, **allowed the import of raw materials from the cheapest sources rather than focussing on domestic resource base development**.
 - The API industry serves as a typical example of this mistake. China has been a dominant player in the API sector and has been able to sell its products at much lower prices owing to larger economies of scale. This has resulted in the **debasement of the domestic API industry in India**.
 - According to a report of the Confederation of Indian Industry (CII), **nearly 70% of India's API import is from China**. The CII report lists nearly 58 API where the dependence is 90% to 100%. The disruption in the supply of API due to the COVID-19 outbreak has **impacted the production** of not only medicines required for COVID-19 patients, but also of other essential medicines in India. This has also limited India's ability to export medicines which are in high demand globally.

High dependency:

- India is heavily **dependent on supplies of PPE, medical devices and diagnostic kits**.
 - The 100% **dependence on reagents**, an important chemical component for testing, is limiting the capacity of the government to expand testing. This dependence on imports affects the ability of Indian diagnostic companies to provide an affordable test.
 - There are only a **few domestic manufacturers** who can produce PPE and medical devices like ventilators.

The current restrictions in place have resulted in India not being able to get required quantities of test kits, PPE and parts of ventilators through importation pointing to the **inherent dangers of dependency**.

Effect on domestic industries:

- Keeping in line with the spirit of Liberalization, Privatization and Globalization (LPG) reforms, India's industrial policies have **largely neglected the interests of domestic production**. There seems to be very little attention on the idea of self-reliance.
- Also in the name of economic efficiency, **India allowed unconditional imports** without sufficient attention to the development of domestic industries.
- Global supply/production chains have not only **destroyed the manufacturing base in developed and developing countries** but have also **resulted in loss of jobs and poor working conditions** in these sectors.
 - Big companies with massive market power dictate the terms to smaller manufacturers down the value chain to produce cheaply.
 - Developing countries are **forced to ease their labour protection laws** to facilitate investment. People are forced to work in precarious working conditions without any social security net.

Conclusion:

- The current pandemic should lead the countries to **rethink and reevaluate the economic efficiency theory propounded by the LPG principle**. There should be the emphasis on an industrial policy that helps **maintain core capacity in essential products**.

11. Sacking by subterfuge

Context:

- The removal of Andhra Pradesh State Election Commissioner (SEC).

Background:

- In March 2020, days before the local body polls were to be held in Andhra Pradesh, the SEC postponed the elections, citing the COVID-19 outbreak. The state government claimed political reasons for the postponement.
- The State government approached the Supreme Court against the decision of the SEC, but the court declined to interfere.
- The State government got the **Governor to issue an ordinance to reduce the SEC's tenure** from five to three years, and **amend the criterion for holding that**

office from being an officer of the rank of Principal Secretary and above to one who had served as a High Court judge.

- This automatically rendered the current SEC's continuance in office invalid.

Concerns:

Misuse of power:

- Having **exhausted its legal remedy**, the state government should have waited for the ongoing fight against the Pandemic to be over. Instead, the state government decided to use the **ordinance route to remove the SEC from office**.

Legality of the move:

- There are several **Constitutional provisions** to safeguard the independence of the State Election Commission.
- The Constitution notes that the SEC may be **removed from the post only in the same manner as a High Court judge**, which needs a special majority concurrence from both the houses of the parliament and assent of the President. The Governor's ordinance based on the advice of the Council of Ministers hence has no legal right to terminate the SEC's tenure.
- Further, the Constitution, **under Article 243K, prohibits the variation of any condition of service to the detriment of any incumbent**. Even if the State government argues that a change of tenure does not amount to varying the conditions of service, the new norm can only apply to the successor SEC, and not the current SEC.
- It is a well-settled **principle in law that what cannot be done directly cannot be done indirectly**. The removal of an incumbent SEC through the subterfuge of changing the eligibility norms for an appointment may not survive judicial scrutiny.

Questionable judicial precedents:

- The State government seems to have gone by the legal opinion that cited **Aparmita Prasad Singh vs. State of UP (2007)** in which the Allahabad High Court ruled that cessation of tenure does not amount to removal, and upheld the State Election Commissioner's term being cut short.
- The Supreme Court though dismissed an appeal against the order, kept open the legal questions arising from the case.
- The judgment seems erroneous, as it gives a **free hand to the State government to remove an inconvenient election authority** by merely changing the tenure or retirement age.
- **If courts uphold such questionable practices, it would adversely affect the ability of the State Election Commission to conduct free and fair elections.**

12.SATYAM: Yoga Against Viruses

Why in News

Recently, the **Department of Science and Technology (DST)** has initiated the **Science and Technology of Yoga and Meditation (SATYAM)** programme.

- Under SATYAM, DST has **invited proposals to study appropriate intervention of yoga and meditation in fighting Covid-19** and similar kinds of viruses.

Key Points

- **Objective:** DST is encouraging scientists, clinicians and experienced practitioners of yoga and meditation, with a proven track record, to **submit concept notes on the proposal covering:**
 - Aims and objectives of proposed work.
 - Existing literature.
 - Methodology.
 - Expected outcome.
 - Budget requirement.
 - Details of host institutions along with detailed bio-data of the principal investigator with latest publications included in scientific journal databases.
- **Aim:**
 - To **provide assistance to society** in today's critical condition arising due to pandemic Covid-19.
 - This is a **need-based call**, therefore, proposed work should be completed within 6-12 months.
- **Dimensions of Covid:** Covid-19 usually has **three dimensions**, related to:
 - Stress (worry, sitting at home).
 - Respiratory.
 - Immune system.
- **Scientific Investigation:** The **effects of yoga and meditation on the life** of a person during such stressful times have to be **scientifically investigated**.
 - Sometimes, there is an **empirical correlation in the actions and the outcome**, but it needs to be understood scientifically.

- **Modern Tools:** All the participants are expected to work together **using the modern tools of life science and bio-sciences** to understand what works and what does not.
 - If something works then what is the efficacy and in what conditions does it work.
- **Holistic Target:** The **project may address** improving immunity, improving respiratory systems and interventions to overcome respiratory disorders and other dimensions like stress, anxiety and depression-related issues due to isolation, uncertainty and disruption in normal life.

Science and Technology of Yoga and Meditation Programme

- It was **conceptualized in 2015** by the DST under its **Cognitive Science Research Initiative (CSRI)**.
- **Aims:** To foster scientific research on the effects of yoga and meditation on physical & mental health and on cognitive functioning in healthy people as well as in patients with disorders.
- **Themes:**
 - Investigations on the effect of Yoga and Meditation on physical and mental health and well being.
 - Investigations on the effect of Yoga and Meditation on the body, brain, and mind in terms of basic processes and mechanisms.
- **Eligibility:**
 - Scientists/academicians with **research background in 'Yoga and Meditation'** and having regular positions are invited to participate in this initiative.
 - **Practitioners actively involved in yoga and meditation practices** are also encouraged to apply in collaboration with academic and research institutions of repute.
- **Project Duration:** The project is tenable for a maximum period of **three years**.

Cognitive Science Research Initiative

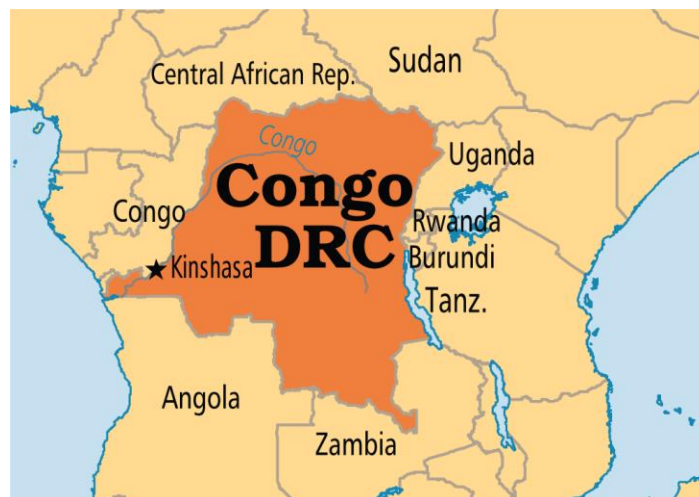
- DST initiated this as a **highly focused programme in 2008** during the **11th Five year plan**.
- The DSRI facilitates a platform to the scientific community to work for better solutions of challenges related with cognitive disorders and social issues through various psychological tools & batteries, early diagnosis & better therapies, intervention technologies and rehabilitation programmes.
- **Aim:**

- To foster scientific research in the interdisciplinary field of Cognitive Science for better understanding of Indian mind sets, languages and cognitive disorders etc.
- **CSRI revolutionizes research in various fields, such as:**
 - Nature and origins of mental disorders, of physiological, social and neuro-chemical origins.
 - Design of better learning tools and educational paradigm.
 - Design of better software technologies and artificial intelligence devices.
 - Streamlining of social policy formulation and analysis.
- **Activities Supported under CSRI:**
 - Individual R&D Projects.
 - Multi-centric Mega Projects.
 - Post Doctoral Fellowship.
 - Support for Schools, Training, Workshops, Conferences, etc.

13. Ebola Death in Democratic Republic of Congo

Why in News

According to the **World Health Organization (WHO)**, the Democratic Republic of Congo recorded a second **Ebola death** in days following more than seven weeks without a new case.



Key Points

- The Ebola outbreak has killed more than 2,200 people since August 2018. During this outbreak it **killed about two thirds of those it infected.**
- The cases appear when the **Democratic Republic of Congo** had been due to mark an end to the second-deadliest outbreak of the virus on record.
- **No clarity on contractions:** It is not yet clear how the new cases emerged. Neither there was any contact with other Ebola patients, nor the patient was a survivor of the virus which could have relapsed.
- **Flare-ups or one-off transmissions (sudden outburst) are common towards the end** of Ebola outbreaks, and a new case does not necessarily mean that the virus will spread out of control again.

Ebola Virus Disease

- Ebola virus disease, formerly known as **Ebola haemorrhagic fever** was first discovered in **1976 near the Ebola River** in what is now the Democratic Republic of Congo. Since then, the virus has been infecting people from time to time, leading to outbreaks in several African countries.
- **Transmission: Fruit bats of the Pteropodidae family** are natural Ebola virus hosts.
 - **Animal to human transmission:** Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals such as fruit bats, chimpanzees, gorillas, monkeys, forest antelope or porcupines found ill or dead or in the rainforest.
 - **Human-to-human transmission:** Ebola spreads via direct contact (through broken skin or mucous membranes) with:
 - Blood or body fluids of a person who is sick with or has died from Ebola.
 - Objects that have been contaminated with body fluids (like blood, feces, vomit) from a person sick with Ebola or the body of a person who died from Ebola.
- **Incubation Period:** The incubation period, that is, the time interval from infection with the virus to onset of symptoms, is from 2 to 21 days.
 - A person infected with Ebola cannot spread the disease until they develop symptoms.
- **Symptoms:** Symptoms of Ebola can be sudden and include:
 - Fever
 - Fatigue

- Muscle pain
- Headache
- Sore throat
- Vomiting
- Diarrhoea
- Symptoms of impaired kidney and liver function
- In some cases, both internal and external bleeding
- **Diagnosis:** It can be difficult to clinically distinguish Ebola from other infectious diseases such as malaria, typhoid fever, and meningitis but confirmation that symptoms are caused by Ebola virus infection are made using the following diagnostic methods:
 - Antibody-capture Enzyme-linked Immunosorbent Assay (ELISA). It also tests **Acute Encephalitis Syndrome** and **Kyasanur Forest Disease**.
 - Antigen-capture detection tests
 - Serum neutralization test
 - Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) assay
 - Electron microscopy
 - Virus isolation by cell culture.
- **Vaccines:** An experimental Ebola vaccine, called **rVSV-ZEBOV** proved highly protective against EVD in a major trial in Guinea in 2015.
 - The rVSV-ZEBOV vaccine is being used in the ongoing 2018-2019 Ebola outbreak in DRC. Pregnant and breastfeeding women should have access to the vaccine under the same conditions as for the general population.
 - The public mistrust and militia attacks have prevented health workers from reaching some hard-hit areas for administering the vaccines.

14. Coronavirus: two vaccines enter human trials, 60 in pre-clinical stage (GS-3)

Context:

- Governments, top private players, academics and not-for-profit organisations are working to find a **COVID-19 vaccine**.

Details:

- According to the **Coalition for Epidemic Preparedness Innovations (CEPI)** the global COVID-19 vaccine R&D landscape includes 115 vaccine candidates, of which 78 are confirmed as active.
- According to the “**DRAFT landscape of COVID-19 candidate vaccines**” released by the **World Health Organization (WHO)**, two vaccines are currently being tested on humans.

Non-replicating viral vector vaccine:

- A non-replicating vector vaccine can be developed either **using a virus that is killed or a part of the virus**.
- Since it is not a complete virus or uses a killed virus, it **cannot replicate inside the host**.
- The antigens present in the vaccine **trigger human immune system** to produce antibodies, which help fight the disease.

Messenger RNA vaccine:

- In RNA vaccines, the **messenger RNA from the pathogen** is used.
- The messenger RNA gets **translated into antigenic protein** recognised by human immune cells and antibodies are produced.
- Given the fact that mRNA is a **highly unstable molecule**, it poses handling challenges. So the mRNA is encapsulated in a small ball of fat or lipid nanoparticle (LNP). This LNP acts as a delivery vehicle that helps the mRNA cross the host cell membrane and once inside the mRNA is released.

Vaccines from India:

- The vaccines being developed in India contains the **DNA plasmid vaccine** developed by Gujarat based Zydus Cadila and **Live Attenuated Virus vaccine** developed by the Serum Institute of India.

DNA plasmid vaccine:

- DNA vaccines are made by **taking genes from the pathogen and inserting it into the host's body with a vector**. The **host cells produce the protein of the viral gene** and this is recognised as a foreign antigenic protein by the host's immune system.
- DNA vaccines are comparatively **easy to make, transport, store and are cheaper**.

Live attenuated virus vaccine:

- It is created by **reducing the virulence of a pathogen or weakening it**, but still keeping it alive to trigger an immune response from the human body.

15. 'Post-pandemic period will see turnaround in job market' (GS-3)

Context:

- Likely **changes in the job market post the COVID-19 pandemic.**

Background:

- The pandemic has **badly affected the economy** and has led to large scale unemployment, mainly in the unorganized sector.
- The **organized sector has also been affected.** While start-ups and small to mid-sized companies have been badly hit by the crisis, the large cash-rich business houses are also facing the brunt owing to reduced demand conditions and lack of labour and hurdles in logistics.
- The **job market has slowed down** in the wake of the global pandemic.

Details:

- The analysts are predicting that a **new order will emerge in the job market** after the end of the current pandemic.

Medical and public health sector:

- Despite the current slowdown, essential services such as medical and public health continue to drive demand. Despite the slump in the sector, healthcare continues to be one of the foremost drivers of economic growth.
 - **Virtual medical tourism** could take off to provide psychological aid and faster therapeutic healing to patients.
 - **Microbiology and bio-technology segment jobs** are expected to grow. There would be renewed focus on research by pharmaceutical companies.
 - **Pharma and medical equipment companies** will likely witness a period of increased business.
- Several new jobs in the field of health and hygiene may come up.

Technology sector:

- Gaming, **Over-The-Top (OTT) services**, work-from-home virtual team, **project management software, e-commerce and edu-tech segments** are likely to witness a steady increase in business.
- The whole **digital and e-commerce segments may possibly become the new 'sunrise' sectors.**
- Several new jobs in the field of technology may come up.

Nature of employment:

- Though the companies will continue to have **full-time employees in their core areas** and across IT digital skills, online marketing and content writing, there will also be **increased demand for contract employees** across delivery services, fulfilment centres and contact centres.

16. Will COVID-19 affect the course of globalisation? (GS-2/3)

Globalisation

- It is the accelerated flow of goods, people, capital, information, and energy across borders, often enabled by technological developments. Over the past three decades, globalising trends were assumed to be the new normal.
1. Globalisation has two sides
 - On the positive side, the cross-border flow of people, goods, money and information creates new wealth and opportunity.
 - On the negative side, though, it can exacerbate global disparities, enable international terrorism and cross-border crime, and allow for the rapid spread of disease.
 - SARS outbreak in 2003
 - But compared to the start of this century, the cross-border movement of people has increased dramatically, and the speed of the spread of this novel coronavirus has been of an entirely different order.
 2. Stagnation in the Globalisation of goods and capital
 - With time, it has become increasingly apparent that not all countries, societies, and people were benefitting equally from globalisation, and that soon began to be reflected in national and international politics.
 - The United States' (US) sub-prime mortgage crisis of 2007-08, and its spillover to the eurozone, exacerbated national sentiment in Europe, which had previously been a model of international integration.
 - The assumption that **China's rise would result in similar development opportunities for others proved unfounded**. As one business leader cynically put it, "China, after climbing up the ladder, is kicking it out from under everyone else."

- In hindsight, the economically nationalist impulses of countries as different as the US (“America First”) and India (“Make in India”) were a natural consequence.

Slowbalisation

- A defining feature of the global economy since at least the 1970s has been globalisation—the bringing together of economies predominantly via more liberal trade flows.
- With time, the global volume of merchandise trade has slowed down dramatically.
- This means globalisation has given way to ‘**slowbalisation**’
 - It is the continued integration of the global economy via trade, financial and other flows but albeit at a significantly slower pace.
 - Globalisation has given way to a new era of sluggishness.

‘The Economist’ identified several key indicators of what it calls “slowbalisation.”

- The portion of trade as part of global GDP has fallen.
- Multinationals have seen a drop in their share of global profits.
- Foreign direct investment tumbled from 3.5 percent of global GDP in 2007 to 1.3 percent in 2018.

Thus, the coronavirus pandemic may further slowdown (or possibly even reverse) certain globalizing trends that had already decelerated.

Reorganization of the economy

- Add to slowbalisation, the trade wars and the WTO talks process coming to a grinding halt has shown that globalisation might be on the fall. Now, with this pandemic, there is another recognition of the vulnerability that global economic interdependence creates.
- So some countries are facing difficulties in getting medical supplies, some find their manufacturing can’t run as value chains are linked with China.
- **Countries will reconfigure their economies** to look at import substitution with a greater clarity now, as the perils and pitfalls of over-dependence on foreign supplies become clear.
- Import substitution, that had become a bad word, may be back in currency.

China’s manufacturing sector is back on track despite COVID-19

- Despite the coronavirus pandemic, manufacturing in China is showing an upward trend and factory activity has expanded.
- Other countries will remain in a lockdown phase for at least another two months.

- So, if the Chinese get this sort of a lead in getting their act together, they are going to consolidate their position in the global economy further.
 - One needs to look at two major events that took place in the last 20 years – the 9/11 attacks (which coincided with China joining the WTO) and the 2008-09 global recession.
 - After each of these episodes, China came out stronger and acted with alacrity, did all the pump-priming to stimulate the economy and enhance their global heft.

Therefore countries are going to be extremely wary of the superpower that China will become and would like to disengage. India will disengage too.

World Trade Organisation

- There are worse days ahead for the WTO. Trade rules have worked best when the global economy is booming and isn't facing a crisis. The last time serious discussions took place at WTO was in 2008.
- It's only going to get worse, because if countries need to bring their domestic industries back, they would need space for policy flexibility.
- And WTO will be redundant there – for instance, on the issue of subsidies for small industries, no country will like the WTO to be telling them what to do or what not to do.
- But if the WTO rules are junked, then it's a free-for-all situation. That's the problem. Then we go back to the situation of the 1930s when it was just brute economic strength that determined the economics.

Future course of action

- The first thing that will happen is countries will try to build themselves up.
 - In India, for instance, we can see the disruption that is taking place – almost 50% of our trade is directly linked with the Micro, Small and Medium Enterprises (MSMEs) sector as even large players have sub-contracted to the smaller producers.

There will almost certainly be calls for the re-nationalization of manufacturing, particularly for what are considered critical or essential goods.

This crisis has exposed the gaps in the health sector and social protection and the stimulus packages should focus on closing these gaps which will also help in achieving sustainable development goals. The priority will be to create jobs for those rendered jobless.

National governments will weigh the risks of contagious diseases against the benefits of ease of travel or may consider stronger safeguards.

- At the personal level, this new awareness of the risks associated with the free movement of people, there are some who may avoid future life, business or leisure plans that require crossing borders.

Conclusion

- Going forward, most economies, with the exception of China, are going to see a very different kind of dynamic as they will try to build up from where they would be in a few months' time and then think in terms of how to integrate themselves again with other countries.
- The project of globalisation is going to settle at a new normal and it will be a very different WTO and trade governance framework, with different kinds of regional and bilateral engagements.

17. Sequencing Novel Coronavirus

Why in News

India has shared **nine whole genome sequences of the novel coronavirus (SARS-CoV-2)** with the Global Initiative on Sharing All Influenza Data (GISAID).

- The **Indian Council of Medical Research (ICMR)** has allowed all national research laboratories to conduct testing for the novel coronavirus.

Global Initiative on Sharing All Influenza Data

- **GISAID** is a public platform started by the **World Health Organization (WHO)** in **2008** for countries to **share genome sequences**.
- The GISAID Initiative **promotes the international sharing** of all influenza virus sequences, related clinical and epidemiological data associated with human viruses, and geographical as well as species-specific data associated with avian and other animal viruses
 - This helps researchers understand **how the viruses evolve, spread and potentially become pandemics**.
- It actively **promotes the development of novel research tools** for the analysis of influenza data by helping developers to facilitate the integration or connection of their tools to analyze GISAID data.

Key Points

- So far, 3,086 sequences of the virus isolated from humans have been shared by **57 countries**.
 - With 621, the U.S. has shared the most number of sequences, followed by the U.K. (350), Belgium (253) and China (242).

- It has been found that a **spike protein of SARS-CoV-2** also known as 2019-nCoV, enables the virus to **enter and infect human cells**.
- **Sequencing the genome** of SARS-CoV-2 will help understand
 - where the virus came from.
 - if there are different strains circulating in India.
 - how the virus has spread.
- **Genome sequencing is figuring out the order of Deoxyribonucleic acid (DNA) nucleotides, or bases**, in a genome—the order of Adenine, Cytosine, Guanine, and Thymine that make up an organism's DNA.
- On April 2, 2020, the **Indian Council of Medical Research (ICMR)** allowed all national research laboratories including those under the Council of Scientific and Industrial Research (CSIR) to conduct testing for the novel coronavirus.
- According to CSIR
 - Both the **Centre for Cellular and Molecular Biology (CSIR-CCMB, Telangana)** and the **Institute of Genomics and Integrative Biology (CSIR-IGIB, New Delhi)** have already started sequencing the virus.
 - The CCMB has both **Biosafety Level (BSL)-2 and BSL-3 labs**.
 - The virus is isolated and deactivated in BSL-3 facility and sequenced in BSL-2 facility.
 - Besides sequencing, the virus will also be cultured (grown in cells).
 - Cell culture is the **maintenance and growth of the cells** in specially designed containers and under precise conditions of temperature, humidity, nutrition, and freedom from contamination.
 - This will help in studying the virus and will be useful while **testing vaccines and drugs**.

Biosafety levels

- BSL is used to identify the **protective measures needed in a laboratory setting** to protect workers, the environment, and the public.
- **Activities and projects conducted in biological laboratories** are categorized by biosafety level.
- The four biosafety levels are **BSL-1, BSL-2, BSL-3, and BSL-4, with BSL-4 being the highest (maximum) level of containment**.

The Council of Scientific and Industrial Research

- CSIR was established by the Government of India in **September 1942 as an autonomous body.**
- It is known for its cutting edge R&D knowledge base in diverse S&T areas.
- Council of Scientific and Industrial Research (CSIR) has been ranked first in **the Nature Ranking Index-2020.**
 - The Nature Index provides a close to real-time proxy of high-quality research output and collaboration at the institutional, national and regional level.

Indian Council of Medical Research

- ICMR is the apex body in India for the **formulation, coordination and promotion of biomedical research.**
- Its mandate is **to conduct, coordinate and implement medical research** for the benefit of the Society; translating medical innovations into products/processes and introducing them into the public health system.
- It is funded by the Government of India through the **Department of Health Research, Ministry of Health & Family Welfare.**

18. Healthcare Institutions Face Cyber Threats

Why in News

The **International Criminal Police Organisation (Interpol)** has warned member countries that **cybercriminals are attempting to target major hospitals** and other institutions on the front lines of the fight against **COVID-19 with ransomware.**

- The organisation also talked about recent changes in the pattern of crime.

Key Points

- In an **alert sent to 194 nations, including India,** Interpol said that the hospitals and institutions had become targets of ransomware attacks.
- Interpol's **Cybercrime Threat Response Team** had detected an **increase in the number of attempted ransomware attacks** against key organisations and infrastructure engaged in the virus response.
- Cybercriminals are using ransomware to hold hospitals and medical services digitally hostage, preventing them from **accessing vital files and systems until a ransom is paid.**
 - The attacks were designed to lock these institutions out of their critical systems in an attempt to **extort payments.**

- Locking hospitals out of their critical systems
 - Will delay the swift medical response required during these unprecedented times.
 - it could also directly lead to deaths.
- The ransomware appears to be spreading primarily via e-mails, often falsely claiming to **contain information or advice regarding the coronavirus from a government agency**, which encourages the recipient to click on an infected link or attachment.
- **Prevention and Mitigation efforts are crucial** to stopping the attacks.
- Interpol continues to stand by its member countries and provide any assistance necessary to ensure vital healthcare systems remain untouched and the criminals targeting them held accountable.
- Interpol also issued a **Purple Notice** to seek or provide information on modus operandi, objects, devices and concealment methods used by criminals.
- **Steps Taken by the Government**
 - Alerts received by the Government of India on the threat of ransomware/malware attacks have been communicated to the concerned departments.
 - Institutions and individuals have been appealed **not to open any mail or link on coronavirus data** or home remedies unless it is from a trusted source like a government agency.
 - They were also cautioned about a possibility of **e-mail spoofing**, where a suspect operating from a remote location would send a mail that would appear as if it came from a known person.

International Criminal Police Organization

- Interpol is an intergovernmental organization that helps **coordinate the police force of 194 member countries**.
- Each of the member countries hosts an interpol **National Central Bureau (NCB)**. This connects their national law enforcement with other countries and with the General Secretariat.
 - The **Central Bureau of Investigation (CBI)** is designated as the National Central Bureau of India.
 - The **General Secretariat** provides a range of expertise and services to the member countries.
- It is headquartered in **Lyon, France**

- **Interpol Notices** are **international requests** for cooperation or alerts allowing police in member countries to share critical crime-related information.



Changed Pattern of Crimes

- Interpol warned that with a majority of **people working from home** due to the pandemic, there was a change in the pattern of crimes.
- Following is the change
 - **Fraudulent trade** in personal protective equipment and anti-viral medicines,
 - individuals/businesses on reduced income becoming potential **targets of loan sharks (Persons who loan money at extremely high interest rates and often use threats of violence to collect debts).**
 - The lockdown period has made **business establishments/factories vulnerable to thefts.**
 - Since more people were at home, the number of burglaries had dropped. But thieves are increasingly targeting factories or business premises that were locked.
- **Domestic violence cases have risen** since the start of coronavirus-related quarantines, with reports showing women and children at greater risk of abuse.
- Recent weeks have seen increased **online activity by paedophiles** (persons who are sexually attracted to children) **seeking child sexual abuse material.**

- This is being intensified by a shortage of moderators who identify and remove offensive material from networks.

19. Fall in IHS Markit India Services Business Activity Index

Why in News

The IHS Markit India Services Business Activity Index (i.e Service Purchasing Managers' Index (PMI)) was at 49.3 in March, down from February's 85-month high of 57.5.

Key Points

- The Index is **compiled by IHS Markit** for more than 40 economies worldwide. IHS Markit is a global leader in information, analytics and solutions for the major industries and markets that drive economies worldwide.
- The fall implies contraction in India's **services sector activity** during March basically due to **COVID-19**.
 - The COVID-19 pandemic has reduced demand, particularly in overseas markets. Nationwide store closures and prohibition to leave the house weighed heavily on the services economy.
 - In PMI parlance, a print above 50 means expansion, while a score below that denotes contraction.
- The **Composite PMI Output Index** that maps both the manufacturing and services sector also fell to 50.6 in March, down 7 points from February's 57.6.
 - This signals a **sharp slowdown in private sector output growth** and brought an abrupt end to the recent strong upward-moving expansion trend.

Purchasing Managers' Index

- PMI is an index of the prevailing direction of **economic trends in the manufacturing and service sectors**.
- It consists of a diffusion index that summarizes whether **market conditions**, as viewed by purchasing managers, are expanding, staying the same, or contracting.
- The purpose of the PMI is to provide information about **current and future business conditions to company decision makers, analysts, and investors**.
- It is **different from the Index of Industrial Production (IIP)**, which also gauges the level of activity in the economy.

Index of Industrial Production

- The Index of Industrial Production (IIP) is an index which details out the growth of various sectors in an economy such as mineral mining, electricity, manufacturing, etc.
- It is compiled and published monthly by the **Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation.**
- The **Base Year of the Index of Eight Core Industries** has been revised from the year 2004-05 to 2011-12 from April, 2017.
 - The eight core industries comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP).
 - The eight Core Industries in decreasing order of their weightage: Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.

Difference between PMI and IIP

- IIP covers the **broader industrial sector compared to PMI.**
 - Index of Industrial Production (IIP) measures **growth in the industrial sector.**
 - IIP shows the **change in production volume** in major industrial sub sectors like manufacturing, mining and electricity.
 - Similarly, the IIP also gives **use based (capital goods, consumer goods etc) trends in industrial production.**
- **PMI is more dynamic compared to a standard industrial production index.**
 - The PMI senses dynamic trends because of the variable it uses for the construction of the index compared to **volume based production indicators like the IIP.**
 - For example, new orders under PMI show growth oriented positive trends and not just volume of past production that can be traced in an ordinary Index of Industrial Production.

20. Restructuring our food system for a healthy world (GS-3)

Context:

- The author of the article argues that the COVID-19 pandemic is a warning as well as an **opportunity for humans to analyse their food system and make changes for a healthier and more sustainable future.**

Background:

- Though there is no particular evidence, the past examples of similar epidemics and the origin of the disease from the wet market of Wuhan point to the **possibility of COVID-19 being a zoonotic disease.**

- Zoonotic disease means that the disease causing organism got transferred to humans from the animals.

Like SARS-CoV-2, **SARS too was believed to have spread from civet cats to human beings** in 2002. There are also similar theories about **Ebola and HIV**.

Details:

Animal Agriculture:

- Currently, livestock is one of the fastest growing agricultural sub-sectors in developing countries. Its **share of agricultural GDP is more than 33%** and is quickly increasing.
 - India has the world's largest livestock population, is the largest producer of buffalo meat and produces about a 100 billion eggs annually.

Animal agriculture is moving away from **backyard operations to larger industrial facilities** which aim to maximize production, while minimizing costs.

- This is referred to as **intensive animal farming or industrial livestock production** or factory farming.
- Agribusinesses keep livestock such as cattle, poultry, and fish at high stocking densities, at large scale. The **discovery of antibiotics and vaccines** facilitated raising livestock in larger numbers by reducing disease.

Concerns:

- There are concerns regarding the **sustainability or ethicality of intensive animal farming**. There are also debates over the **benefits and risks** of intensive animal farming.
- Industrializing animal agriculture comes at a **huge cost to the environment, animals and to human beings**.

Antibiotic resistance and health risks:

- According to the World Health Organization, the large volume of **antibiotics given to farm animals contributed to the development of antimicrobial-resistant bacteria**.
- Though the **Food Safety and Standards Authority of India (FSSAI)** lays down standards and regulations in the way the animals are to be kept and slaughtered, a majority of the standalone meat vendors do not follow the set standards.
- **The immunocompromised animals** are most likely to pass on an infection in the lack of proper safety standards.

Environmental impact:

Climate Change:

- Animal husbandry accounts for a large proportion of the agricultural sector's GHG emissions. It accounts for a large share of **methane emissions which has a high global warming potential**.
- Hence, unsustainable animal husbandry is contributing to the **climate change problem**.

Environmental pollution:

- The waste from animal farms and slaughterhouses are leading to **eutrophication and water pollution**.
- The environmental impact of industrial animal farming **also impacts human health** in an indirect way.

Efficiency of production:

- **Animal-based Foods are More Resource-Intensive than Plant-Based Foods.**
- Various scientific studies have pointed out that animal husbandry requires far more input resources than plant production.
 - Production of animal-based foods accounted for more than three-quarters of global agricultural land use in 2009, while only contributing 37 percent of total protein consumed by people in that year.
 - Animal based foods also have a **large water footprint**.

Because many animal-based foods rely on crops for feed, increased demand for animal-based foods **widens the food gap** relative to increased demand for plant-based foods.

Given the increasing demand for food and **decreasing per capita resource base**, there is a need for higher efficiency in food production, which animal based foods do not seem to cater to.

Welfare of animals:

- There is a complete lack of concern for animal welfare in the intensive animal farming. Animals are **injected with hormones to enhance growth and are under high stress** than those raised on pastures.

Challenges:

Protein deficiency:

- **India has a high rate of malnutrition** among children under the age of five. **Protein deficiency** is a major problem. India, like many other developing nations, is trying to combat this by encouraging meat production since they are a major source of protein.

Lack of land:

- The concerns associated with industrialized farming seem to suggest the need for more farm based farming practices, however, the **lack of sufficient land** may pose a challenge to such practices.
- It is worth noting that the paucity of space gave a boost to industrial agriculture.

Way forward:

- Given the concerns associated with industrialized animal farming and the challenges in changing this, there is a need to **rethink animal farming**.

Alternative sources of protein:

- India must explore the potential behind **plant and cultivated meats**.
 - **Plant-based meats are made from plants** and are cholesterol- and antibiotic-free, but taste and feel like meat.
 - Cultivated meat is produced by taking a small sample of animal cells and replicating them outside of the animal.

The resulting products have the **same nutritional qualities** of real meat, but **without the corresponding concerns associated with animal meat**.

- These are free from antibiotics, E. coli, salmonella, or animal waste.

Plant or cultivated meat foods represent an enormous opportunity to solve the problems of rampant malnutrition, land scarcity and inhumane factory farming of animals.

In the Western world, plant-based meats are already popular and two plant-based companies – the Impossible Foods and Beyond Meat – won the Champions of Earth award, the United Nation’s highest environmental honour.

Recognizing the interconnection:

- Advocates of animal rights have argued that within the welfare of animals, lies the welfare of people and rightly so.
- Many disease outbreaks show that within the welfare of animals lies the welfare of people.
- **India’s one health policy** rightly recognizes the interconnectedness between animal health and human health and prescribes appropriate steps in this direction.

Stricter regulation:

- It is important that the states, understanding the risk of zoonosis and antibiotic resistance, **ensure strict regulation and adherence to welfare standards in animal husbandry**.

Sustainable animal farming:

- Sustainable animal farming involves raising animals humanely, producing better products, providing a sustenance for farmers and also **ensuring minimal negative impact on environment**.
- Some **sustainable farming practices**:
 - Feed animals less human food. Around 70% of the grains used by developed countries are fed to animals.
 - Raise regionally appropriate animals.
 - Pasture-based livestock farming.

21. Pench tiger death raises COVID-19 fears (GS-3)

Why in News

Owing to a recent news report on a Tiger being infected with **Covid-19** in New York (Bronx Zoo), the Ministry of Environment, Forest and Climate Change has issued an advisory regarding the containing and management of Covid-19 in National Parks/Sanctuaries/Tiger Reserves.

- Also, a tiger in **Pench Tiger Reserve (Madhya Pradesh)** has died due to respiratory illness. The National Tiger Conservation Authority (NTCA) is investigating whether the tiger should be tested for the novel coronavirus disease.
- However, swabs from the throat and nose to test for **rhinotracheitis, a viral infection that afflicts cats and causes respiratory illness** were collected.

Key Points

- **Spread of Infection from humans to animals**
 - The Bronx Zoo case suggests that a zoo employee spread the virus to the tiger.
 - The virus came from an animal source and mutated; humans have since been infecting humans. Thus, it is **theoretically possible for the virus to mutate again** to survive in certain species after being transmitted by humans.
- **Advisory by the Ministry of Environment, Forest and Climate Change**
 - It has asked all **Chief Wildlife Wardens (CWLWs)** of all States/UTs to take immediate preventive measures to stop the transmission and spread of the virus from humans to animals and vice versa, in National Parks/Sanctuaries and Tiger Reserves.

- The CWLW is the **statutory authority under the Wildlife (Protection) Act, 1972** who heads the Wildlife Wing of a State Forest Department and exercises complete administrative control over Protected Areas (PAs) within a state.
- **Guidelines issued by the NTCA and CZA**
 - Both the Central Zoo Authority (CZA) and the NTCA have issued guidelines that require zoos to be on the “highest alert” and monitor animals on closed-circuit cameras 24/7 for “abnormal behaviour and symptoms.”
 - The CZA has also directed zookeepers to approach sick animals wearing personal protective equipment and isolate and quarantine them.

Central Zoo Authority

- The CZA is a **statutory body** whose main objective is to enforce minimum standards and norms for upkeep and health care of animals in Indian zoos. It was established in **1992**.
- Zoos are regulated as per the provisions of **Wildlife (Protection) Act, 1972** and are guided by the **National Zoo Policy, 1998**.

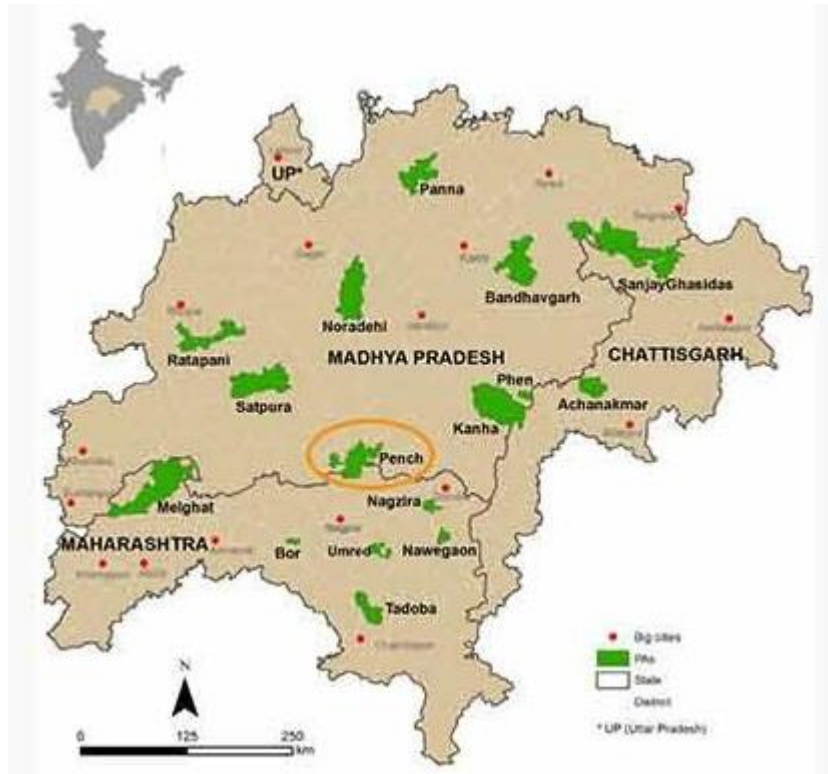
National Tiger Conservation Authority

- NTCA is a **statutory body** under the Ministry of Environment, Forests and Climate Change.
- It was **established in December, 2005** following the recommendations of the Tiger Task Force.
- It was constituted under enabling provisions of the Wildlife (Protection) Act, 1972, and amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it .

Pench Tiger Reserve

- Pench Tiger Reserve, **Seoni (Madhya Pradesh)** is one of the major Protected Areas of **Satpura-Maikal ranges** of the Central Highlands. It was **included in the Project Tiger in 1992-93**.
- It is among the sites notified as **Important Bird Areas** of India.
 - The IBA is a programme of Birdlife International which aims to identify, monitor and protect a global network of IBAs for conservation of the world’s birds and associated diversity.
- It has a **contiguous forest cover with Kanha Tiger Reserve and Pench Tiger Reserve (Maharashtra)**.
- The area of the Pench Tiger Reserve and the surrounding area is the real story area of **Rudyard Kipling's famous "The Jungle Book"**.

- The **forests** found in Pench Tiger Reserve are divided into **three parts**: southern tropical wet dry forest, southern tropical dry deciduous teak forest and southern tropical dry deciduous mixed forest.
- The **major Carnivores** are Tiger, leopard, wild cat, wild dog, hyena, jackal, fox, wolf, weasel, among the vegetarian species, Gaur, Nilgai, Sambar, Chital, Chasinga, Chinkara, Wild Pig etc. are prominent.
- There are a **lot of migratory birds** seen in the cold season. Among the migratory birds, Ruddy shelduck, Pintail, Whistling Teal and Vegtel etc are prominent.



22. Reducing farm distress during a pandemic (GS-3)

Context:

- The national lockdown and its **impact on agriculture**.

Lockdown impact on rural economy:

- The economy has come to a complete halt in most of the informal and formal enterprises in urban areas. Apart from its evident effect on urban economy, **the lockdown is also likely to affect a large population in rural areas**.

- Even prior to the lockdown, the rural economy was **witnessing declining incomes**, both for casual workers and self-employed workers. Even the rural wages were declining in real terms. The **lockdown is only going to further hurt the rural economy**.
- The majority of the rural population is dependent on agriculture.

Lockdown impact on Agriculture:

Impact on supply chains:

- The restriction on movement and lockdown has led to the **breakdown of supply chains of agricultural produce** with no facilities for transportation of produce.
- This will affect the farmers involved in production of **fruits and vegetables**, which are **perishable goods and cannot be stored**.
- Over the last decade there has been a considerable increase in horticultural production with horticultural production exceeding food grain production. Farmers are likely to face **uncertain or no markets** for their produce. There have been media reports of some farmers destroying their produce due to lack of market.
- While the government has exempted operation of agricultural markets and mandis from the lockdown, government procurement is likely to be subdued.

Lack of labour:

- There will also be short-term impacts on food grains and other Rabi crops that were ready to be harvested at the beginning of April.
- It will be **difficult for farmers to harvest the agricultural produce** in the States of Punjab, Haryana and Uttar Pradesh in the **absence of migrant labourers**.
- Though harvesting may be postponed, it is difficult to do so beyond a week or a fortnight.
- **Labourers are also required for packing, processing, transporting and selling the produce**. 2020 is expected to register a record in the production of cereals, pulses, cotton and oilseeds. Most of these are labour-intensive crops and the absence of working labourers during the harvest and post-harvest season is likely to **affect agricultural activities**.

Reduced demand:

- The closure of restaurants, hotels and supermarkets has **reduced the demand for agricultural goods**.
- The **slowdown in the economy** domestically and the expected **recession worldwide** will contribute to lower demand for agricultural commodities.

Decline in prices:

- The **food price index of the Food and Agricultural Organization**, which registered a rising trend in food prices until January 2020, has a 1% decline in prices month-on-month in February 2020. This is likely to worsen further, particularly for cash crops.
 - **Commercial crop prices follow a similar pattern as other primary commodities**, particularly petroleum prices. With the sharp decline in petroleum prices, most of the commercial crops have seen a **downward pressure on prices**, which is likely to worsen in the coming months.

For food grains and other crops too, there is likely to be downward pressure on prices **due to declining demand**.

The real worry for farmers is going to be the decline in prices for the majority of agricultural produce.

Impact on agricultural income:

- Some of the short-term impact may **affect price realization by farmers**. The declining prices for the produce and the likely higher labour charges will adversely **affect the prospect of higher agricultural income**.
- It is the decline in prices which is likely to hurt the income of farmers in the long run more than the short-run supply disruptions and labour shortages.

Way forward:

- Given that agriculture will be affected due to **short-term disruptions and the long-term economic impact of the pandemic**, the government must help the farmers who are battling declining demand and lower prices through **state support**.

Enhanced state procurement under MSP scheme:

- As part of the economic package announced by the central government, for the next three months, 5 kg of free grains will be distributed in addition to what people are entitled to under the National Food Security Act.
- This would free up the FCI godowns. This can enable the **government to increase its procurement under the MSP scheme for the forthcoming Rabi crops**.

Ensuring remunerative income to farmers:

- The state should intervene and **assure remunerative incomes to farmers**.
- The government can help **reduce the input costs** through existing schemes of subsidies such as the fertilizer subsidy and through price reduction in petrol/diesel meant for agricultural purposes.

Direct Income support:

- For the immediate short-term, **farmers need to be compensated for the loss of income**. While **income transfers** may not be the best way of supporting the agricultural sector, given the criticality of the moment they are the best available instruments.
- The government can use the existing framework of the **PM-KISAN scheme**.
- Efforts should be made to not only **enhance the coverage monetarily** but also **include tenant farmers and wage labourers as well**.

Conclusion:

- The steps suggested are not only important for the survival of the agricultural sector but also for the overall economy which is expected to see a sharp slowdown and decline in demand.
- The **agricultural sector is important in the Indian context**. Given the large section of population it supports, a well functioning agricultural sector will help raise rural incomes and create demand, which can revive economic growth in India.

23. Safe forests, safe people(GS-3)

Introduction

- Scientific evidence and spread of virus across the world shows the invisible processes where pathogens originally found in wild animals were later transmitted to humans.
- Diseases of animal origin such as Ebola, HIV, Severe Acute Respiratory Syndrome, Middle East Respiratory Syndrome, bird flu and swine flu have raised alarm over potential pandemics in recent years, and the **COVID-19 pandemic** has confirmed the worst fears of scientists.
- The infection is assumed to have surfaced in a wet market that kept live animals in Wuhan, China. It highlights the following issues:
 - Wild Animals are hunted for food
 - Humans are clearing forests on a massive scale, mostly for farming
 - The wild species which harbored viruses came closer to domestic animals and humans

Examples

- The **Nipah Virus outbreak** was caused by rampant deforestation which resulted in fruit bats losing their forest habitat and venturing onto farms, where they spread the virus to pigs, which then jumped species to humans.
- **Hendra virus** is a virus that mainly infects large fruit bats (flying foxes) which can be passed on to horses.

- The **Kyasanur Forest disease** outbreak came after the encroachment of cattle and farms into Indian forests.
- Virus-carrying rodents can be spotted in deforested areas.

This underscores the value of maintaining viable ecosystems, and eliminating the need for wild bats to colonise human surroundings.

Deforestation a strong driver of infectious disease transmission

- There is concern about rising economic activity, such as road building and mining, cutting through forests, bringing more people in close contact with animals.
 - This means that infectious diseases which were once confined to wildlife have now spilled over to people in areas undergoing rapid forest clearing.
 - **Biodiversity in forests harmlessly retains dangerous viruses** and other pathogens among a vast pool of wild animals, away from people.

Many viruses exist harmlessly with their host animals in forests, because the animals have co-evolved with them. But humans can become unwitting hosts for pathogens when they venture into or change forest habitat.

What Government can and should learn?

Governments should stop viewing undisturbed landscapes as an impediment to economic growth.

- This should serve as a dire warning to the government that hasty permissions granted for new roads, dams, mines and power projects in already weakened forests can unleash more scourges.
- It would do well to roll back its dilution of the environmental clearance system, strengthen it with a mandate to the States, and leave protected areas to scientific experts.
- There is mounting evidence that environmental protection confers health protection.
- Pristine forests with diverse species keep viruses virtually bottled up, out of man's way. They should be left undisturbed.

Conclusion

- To protect national and global biosecurity, it is imperative that we protect our forests and keep forests intact.
- Therefore, the goal now is to deal with the trade in wildlife and deforestation which would help in arresting future outbreaks and also to better understand how these viruses might spread, and to potentially develop vaccines.

24. Geo-fencing app will be used to locate quarantine violators(GS-3)

Context:

The Centre is using powers under the Indian Telegraph Act to fetch information from telecom companies every 15 minutes to track COVID-19 cases across the country.

COVID-19 Quarantine Alert System (CQAS):

- The Department of Telecommunications (DoT) has shared a standard operating procedure (SOP) with all telecom service providers regarding the application called COVID-19 Quarantine Alert System (CQAS).
- The government has tested this application which triggers e-mails and SMS alerts to an authorised government agency if a person has jumped quarantine or escaped from isolation, based on the person's mobile phone's cell tower location.
- The CQAS will prepare a list of mobile numbers, segregating them on the basis of telecom service providers, and the location data provided by the companies will be run on the application to create geo-fencing.
- The "geo-fencing" is accurate by up to 300 m.

What is Geo-fencing?

- A geofence is a virtual perimeter for a real-world geographic area.
- Geofencing is a location-based service in which an app or other software uses GPS, RFID, Wi-Fi or cellular data to trigger a pre-programmed action when a mobile device or RFID tag enters or exits a virtual boundary set up around a geographical location, known as a geofence.

How does the application work?

- The system will collate phone data, including the device's location, on a common secured platform and alert the local agencies in case of a violation by COVID-19 patients under watch or in isolation.
- It is said that the location information is received periodically over a secure network for the authorised cases with due protection of the data received.

Details:

- The States have been asked to seek the approval of their Home Secretaries under the provisions of Section 5(2) of the Indian Telegraph Act, 1885, for the specified mobile phone numbers to request the DoT to provide information by email or SMS in case of violation of "geo-fencing".
- The particular provision under the Act, amended multiple times since 1885, authorises the State or the Centre to access information of a user's phone data in case of "occurrence of any public emergency or in the interest of the public safety."

- Kerala was one of the first States to use geo-fencing to track COVID-19 cases.

Addressing the privacy concerns:

- It said that the phone number should be deleted from the system after the period for which location monitoring is required is over.
- The data would be deleted four weeks from thereon.
- The data collected shall be used only for the purpose of Health Management in the context of COVID-19 and is strictly not for any other purposes. Any violation in this regard would attract penal provisions under the relevant laws.

Issues:

- The geo-fencing will only work if the quarantined person has a mobile phone from Airtel, Vodafone-Idea or Reliance Jio.
- “BSNL/MTNL” do not support location based services. BSNL and MTNL are government-owned.

25. March GST revenue drops below 1 lakh cr. (GS-3)

Why in News

Goods and Services Tax (GST) collections for March 2020 stood at 97,597 crore, dropping below the 1 lakh-crore mark after four months.

Key Points

- **GST Collected**
 - Of the total collections, central GST stood at 19,183 crore, State GST was at 25,601 crore and integrated GST at was 44,508 crore.
 - The government had settled 19,718 crore to CGST and 14,915 crore to SGST from IGST as regular settlement.
 - In addition, the Centre also apportioned unsettled balance IGST of 6,000 crore on an ad-hoc basis in a 50:50 ratio between the Centre and States.
- **Partial Impact of COVID-19:**
 - The March revenue collections are based on the business conducted in February.
 - The collections **do not take into account the full impact** of COVID-19 and the consequent shutdown of many business sectors in India.
 - It has been warned that **the revenues for the month of April 2020 are likely to dip much further.**

- **In Comparison to March 2019**
 - According to the Ministry of Finance, Gross GST revenue for March 2020 was **8% lower than that of March 2019.**
- **Fall in Collection from Imports**
 - Although GST revenue **from domestic transactions** dropped 4% in comparison with March 2019, there was a **23% fall in the tax collected on import of goods.**
 - Global trade was affected by COVID-19 in February itself.
- **Step Taken**
 - Small businesses have been allowed a **three-month deferment of GST payments** due to the COVID-19 situation.
 - There is a wider industry **demand for a moratorium on payments and reduction in rates.**

Goods and Services Tax

- GST is a **comprehensive, multi-stage, destination-based tax that is levied on every value addition.**
- GST is a comprehensive **Indirect Tax** which has replaced many Indirect Taxes in India.
- The Goods and Service Tax Act was passed in the Parliament on 29th March 2017 and came into effect on 1st July 2017
- Under the **GST council** and 101st constitutional amendment, the tax is levied **at every point of sale.**
- GST is categorized into CGST, SGST or IGST depending on whether the transaction is Intra-State or Inter-State.

Central Goods and Services Tax and State Goods and Services Tax

- CGST is a tax levied on **Intra State supplies of both goods and services by the Central Government** and is governed by the CGST Act. SGST is also levied on the same Intra State supply but will be governed by the State Government.
- This implies that both the **Central and the State governments** agree on combining their levies with an appropriate **proportion for revenue sharing between them.**
- However, it is clearly mentioned in Section 8 of the GST Act that the taxes be levied on all Intra-State supplies of goods and/or services but **the rate of tax shall not be exceeding 14%, each.**

Integrated Goods and Services Tax

- IGST is a tax levied on all **Inter-State supplies of goods and/or services** and is governed by the IGST Act.
- IGST is applicable on any supply of goods and/or services in **both cases of import into India and export from India.**

26. Why are oil prices in negative terrain? (GS-3)

Context:

- Prices of West Texas Intermediate (WTI), the American benchmark for crude oil, fell to less than zero on 20th April 2020 trade.
- The price of a barrel of WTI fell to minus \$37.63 a barrel. What this means is that sellers have to pay buyers to get rid of their crude.
- This is unprecedented in the oil market, even accounting for its notoriety for being volatile.

Why did prices fall like this?

- WTI oil is traded as futures contracts in the NYMEX (New York Mercantile Exchange) where traders buy and sell monthly futures.
 - The sellers of such futures will have to deliver a barrel of crude oil at the contracted price in the contracted month just as buyers will have to take delivery at the contracted date.
 - As with all trading in commodities, there's a huge speculative participation in oil futures trading too.
 - So speculators buy and sell contracts with no intention of taking delivery (in the case of buyers) or offering delivery (in the case of sellers) of the physical oil, on the contracted date.
 - These speculators have to unwind their positions on the contract expiry date. If they fail to do so, they will have to take physical delivery of the crude oil on the contracted date.
 - **The term Unwind Position refers to when a trader systematically closes out a trade.**

Speculators who did not want to take delivery in May proceeded to unwind their positions, leading to the massive fall in prices.

- It could be that these were financial speculators who never take physical delivery and hence closed their contracts.
- Or, these could also be delivery-based traders backing out as the bottom has fallen off demand for oil.

The bottomline is that prices fell as demand for oil is falling and the world, especially America, is running out of storage space.

May WTI futures prices went negative but June futures prices are still at \$20.43 a barrel. Why?

- Traders expect demand to recover by June as lockdowns are lifted across the world and economic activity resumes.
- Traders also expect that storage space may be created as existing inventory is drawn down.
- America is also talking of adding to their strategic storage by taking advantage of the low prices. This could create demand for oil.
- Finally, contract expiry for June contracts has given speculators more time to speculate.

What are contango trades in the oil market?

- Contango trades happen when traders anticipate a surge or rise in demand and value the commodity higher for the future.
- For instance, while May oil futures are negative and June is at \$20.43 a barrel, November futures for the same grade of oil have ended at a hefty \$31.66 a barrel.

Can the traders buy cheap oil now and store them for release in future when demand and prices rise?

- The traders are resorting to such a practice now.
- Such a practice became famous during Iraq's invasion of Kuwait in 1990 when a trader took massive positions at cheap prices ahead of the invasion and sold them when prices rose after the invasion.
- Oil was stored in tankers floating on the sea and unloaded at considerably higher prices. Traders are doing the same now.
- Year-long hiring contracts for VLCC (very large crude carriers) that can store up to 2 million barrels of oil are soaring through the roof.
 - According to a report in the Wall Street Journal, VLCC hiring charges for year-long contracts are now at \$72,500 a day, compared to \$30,500 a day, a year ago.

The prices of Brent grade are still at \$20.58 a barrel for May futures. What's the reason for the difference?

- Brent oil has traditionally quoted higher than WTI with the difference being about \$6-7 a barrel between the two.
- Brent is a superior grade produced in the North Sea off the British coast and is the accepted benchmark for this part of the world.
 - The market that it serves is considerably larger than that of the United States and demand is, therefore, higher.

Transporting oil from the U.S. to Asia is not economical thus limiting the scope for the WTI grade.

Refineries in Europe are configured for Brent rather than WTI.

Prices of Brent are therefore, always higher than that of WTI.

Importantly, unlike WTI futures on NYMEX, Brent futures traded in London can be settled by cash when the contract expires. In other words, a trader who has bought oil for May delivery is not forced to take physical delivery of the oil but can settle the contract in cash.

- This difference between WTI and Brent has ensured that Brent futures will not crash like that of WTI.

How is India benefiting from this price crash?

- The **oil import bill will fall sharply** this fiscal year, giving tremendous relief to the government on the external account front.
 - With merchandise exports from India badly hit due to the lockdown in the West, foreign exchange earnings are under pressure. With oil prices falling and foreign exchange outgo reducing, the pressure on the current account balance is off.
 - In fact, India may be looking at a positive balance in the current account if global economic recovery is quick and the exports recover.

India is quietly **building up its strategic reserves**, taking advantage of the cheap prices.

- India has a capacity to hold over 39 million barrels of oil at its strategic reserves in Visakhapatnam, Mangalore and Padur, near Udupi.
- These are underground salt caverns converted and built to store crude oil.

27. No 100% quota

Context:

Recently, a five-judge **Constitution Bench of the Supreme Court (SC)** held it **unconstitutional to provide 100% reservation for tribal teachers in schools located in Scheduled Areas** across the country.

Judgement:

- The Constitution Bench held that **100% reservation is discriminatory and impermissible**.
- It asserted that the **opportunity of public employment is not the prerogative of a few**.

- A 100% reservation to the Scheduled Tribes **has deprived Scheduled Castes and Other Backward Classes also of their due representation.** Hence would impinge upon **the right of open category.**
- The court referred to the **Indira Sawhney judgment**, which caps reservation at **50%.**

Details:

- The Andhra Pradesh (A.P) state government's original orders of 1986, and thereafter, subsequent orders in 2000, was because of its own rationale.
 - In January 2000, the then Governor of undivided Andhra Pradesh had passed an order giving 100% quota to ST candidates for teaching posts in scheduled areas.
 - The court therefore held that creation of 100 per cent reservation through the government order was **akin to making a new law** and **Schedule V only allows the Governor to not apply or apply a law to a scheduled area with modifications.** It does not allow the Governor to make a new law altogether.
 - The Supreme Court ruled that the **Governor's powers under para 5 of Schedule V are subject to the fundamental rights guaranteed under Part III of the Constitution.**
- It found that **there was chronic absenteeism among teachers who did not belong to those remote areas where the schools were located.**
- The state government's solution of drafting only members of the local tribes was not a viable solution.
 - It could have come up with other **incentives to ensure the attendance of teachers.**

Andhra Pradesh has a **local area system of recruitment to public services.** The President, under **Article 371D**, has issued orders that **a resident of a district/zone cannot apply to another district/zone for appointment.**

- Thus, the **100% quota deprived residents of the Scheduled Areas of any opportunity to apply for teaching posts.**

It is still a matter of debate whether the ceiling has innate sanctity, but it is clear that **wherever it is imperative that the 50% cap be breached, a special case must be made for it.**

However, attention must not be diverted from the fact that there is a continuing need for a significant quota for STs, especially those living in areas under the Fifth Schedule special dispensation.

In this backdrop, it is somewhat disappointing that courts tend to record obiter dicta advocating a revision of the list of SCs and STs.

- An orbiter dictum is a judge's expression of opinion uttered in court or in a written judgement, but not essential to the decision and therefore not legally binding as a precedent.

The power to amend the lists notified by the President is not in dispute. However, it is somewhat uncharitable to say that the advanced and affluent sections within SCs and STs are cornering all benefits and do not permit any trickle-down.

Significance of the Judgement:

- The SC is right in considering cent per cent reservation as **anathema to the constitutional scheme of equality** even if it is for the objective of providing representation to historically deprived sections.
- The verdict must **not** be considered as **against affirmative programmes** as such, but as a **caution against implementing them in a manner detrimental to the rest of society**.
 - 100% reservations is arbitrary and violative of provisions of **Articles 14 (equality before law), 15(1) (discrimination against citizens) and 16 (equal opportunity) of the Constitution**.
 - Equality of opportunity and pursuit of choice under **Article 51A cannot be deprived of unjustly and arbitrarily**.

Conclusion:

- Affirmative action loses its meaning if it does not leave the door slightly ajar for open competition.
- **Dr. B.R. Ambedkar** observed during the debate in the Constituent Assembly on the equality clause, that any **reservation normally ought to be for a minority of seats**. This is one of the points often urged in favour of the 50% cap imposed by the Court on total reservation, albeit with some allowance for relaxation in special circumstances.
- **"Citizens have equal rights, and the total exclusion of others by creating an opportunity for one class is not contemplated by the founding fathers of the Constitution of India,"** Justice Mishra.

28. Why pathogens travel in search of a host (GS-3)

Context:

- The increasing incidence and threat of zoonotic diseases.

Details:

- Scientific research has claimed that the **SARS-CoV-2 is zoonotic in nature**.

- Zoonosis is an infectious **disease that can be transmitted from animals to people** or, more specifically, a disease that normally exists in animals but that can spread to humans and cause illness.

The first possible source heard of in relation to the COVID-19 epidemic was the wet market in Wuhan, China.

- Given the similarity of SARS-CoV-2 to bat SARS-CoV-like coronaviruses, it is likely that **bats serve as reservoir hosts for many viruses**.
- The **Malayan pangolins** illegally imported into China also contain coronaviruses similar to SARS-CoV-2.

The SARS-CoV-2 seems to have **undergone recombination or mutation**. The changes in the genome occurred as a part of the **natural evolutionary process**.

Concerns:

Increasing incidence:

- According to the **United Nations Environment Programme (UNEP)**, **60% of all infectious diseases in humans are zoonotic**, and about 75% of all emerging infectious diseases are zoonotic in nature.
 - Ebola, bird flu, Middle East Respiratory Syndrome (MERS), Rift Valley fever, severe acute respiratory syndrome (SARS), West Nile virus, Zika virus disease, and COVID-19 are among the zoonoses that have emerged or re-emerged recently.

Growing evidence suggests that outbreaks or epidemic diseases **may become more frequent**.

Virus as the main pathogens:

- **Emerging pathogens are more likely to be viruses**, than any other kind – bacteria, parasites, fungi – and are more likely to have a broad host range. Viruses are comparatively **difficult to treat**.

Extensive mutation:

- In pristine ecosystems, all biological systems including human bodies have an inherent capacity for both resilience and adaptation to new hosts. But the current pace of change may be too fast for systems to adapt and achieve resilience.
- The pathogens, which are programmed to survive, **undergo extensive mutation and recombination** and in the process exploit multiple hosts.

Increasing antibiotic resistance of pathogens:

- The increasing antibiotic resistance is a major concern in the fight against these pathogens.
- Human immune systems are equally unprepared for **drug-resistant diseases**.

Risk of plant transmission:

- Apart from the animal-to-human transmission, there is also the **threat of transmission of diseases from the plant kingdom** as well.
- Human immune systems are equally unprepared for drug-resistant diseases that jump from plants to humans.
- Apart from affecting human health, it could also **disrupt food supply**.

Causes:

Habitat destruction:

- The major drivers for zoonotic disease emergence seem to be **changes in the environment**, usually as a result of human activities ranging from **land use change, increasing wildlife trade and destruction of wildlife habitats**.
 - Bat-associated viruses' emergence could be due to the loss of habitats of bats. The **Ebola outbreak in West Africa** was reportedly the result of forest losses leading to closer contacts between wildlife and human settlements.
 - **Forest fragmentation in North America led to increased risk of Lyme disease** in humans.

Human-induced environmental changes modify wildlife population structure and reduce biodiversity, resulting in new environmental conditions that favour particular hosts, vectors, and/or pathogens.

Livestock farming:

- Recent times have witnessed the **intensification of livestock farming**.
- The inevitable interaction between humans and livestock with wildlife exposes the human species to the risk of spillover of potential pathogens. For many zoonotic diseases or zoonoses, **livestock serve as an epidemiological bridge between wildlife and human infections**.
 - The emergence of **avian influenza** was linked to **intensive poultry farming**.
 - Japanese encephalitis was linked to irrigated rice production and pig farming in South East Asia.
 - The **Nipah virus** was linked to the **intensification of pig farming** and fruit production in Malaysia.

Climate change:

- **Changes in weather patterns and extreme weather events** affect the distribution areas of disease, pathogens and pests.
- **Increased temperature** will lead to increased incidence of diseases.

Changes in human behaviour:

- Changes in human behaviour, including **increased travel**, migration, **urbanisation**, and dietary and medical preferences, can also result in disease emergence and increased transmission.

Way forward:

Ecosystem integrity:

- Ecosystem integrity underlines human health and development.
- **Preserving ecosystem integrity** can help regulate diseases by supporting a diversity of species so that it is more difficult for one pathogen to spill over, amplify or dominate.
- There is a need for a strong global stewardship of **nature and biodiversity**.

'One Health' policy:

- According to the World Health Organization, 'One Health' is an approach to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to **achieve better public health outcomes**.
- This principle would be critical in controlling zoonoses and vector-borne diseases, combating antibiotic resistance. The concept would help manage risks and optimize interventions.

Preparing for future epidemics:

- The current COVID-19 pandemic underscores how unprepared humans are in fighting zoonotic diseases.
- There is a need to develop **sharper, reliable early warning systems** for diseases and increase Research and Development in the health sector which could ensure better **diagnosis and treatment techniques**.

29. At the edge of a new nuclear arms race

Context:

- A recent report by the U.S. State Department claimed that China has been carrying out nuclear testing against the provisions of the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

Background:

Partial Test-Ban Treaty (PTBT):

- The **ban on nuclear testing** is seen as a necessary first step towards **curbing the nuclear arms race**.

- In successful negotiations, a **Partial Test Ban Treaty (PTBT)** was concluded in **1963** banning underwater and atmospheric tests.
- However, this was not sufficient as the PTBT only drove testing underground and didn't decrease testing. **Cold War politics** led to continued testing by the nations, with the U.S. and Russia accounting for the most number of tests.

Comprehensive Nuclear-Test-Ban Treaty (CTBT):

- The **CTBT negotiations began in Geneva in 1994**.
- By 1994, global politics had changed dramatically. The Union of Soviet Socialist Republics, or the USSR, broke up. The Cold War had ended and the nuclear arms race between the erstwhile USSR and the U.S. was over. In 1991, Russia declared a unilateral moratorium on testing, followed by the U.S. in 1992.
- The negotiations over the CTBT were often contentious.
 - France and China continued testing, claiming that they had conducted far fewer tests and needed to validate new designs since the CTBT did not imply an end to nuclear deterrence.
 - France and the U.S. proposed a CTBT that would permit testing at a low threshold. Civil society and the non-nuclear weapon states reacted negatively to such an idea and it was dropped.
 - After India's proposals for anchoring the CTBT in a disarmament framework did not find acceptance, in June 1996, India announced its decision to withdraw from the negotiations.

Eventually, the idea of defining the **"comprehensive test ban"** as a **"zero yield"** test ban that would prohibit supercritical hydro-nuclear tests was accepted by the negotiating parties and adopted subsequently.

The CTBT was adopted by a majority vote and opened for signature.

The **Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO)**, the international organisation to verify the CTBT was established in Vienna. It runs an elaborate **verification system** built around a network of over 325 seismic, radionuclide, infrasound and hydroacoustic (underwater) monitoring stations.

Concerns with CTBT:

CTBT lacks legal authority:

- Of the 44 listed countries whose ratification is necessary for the treaty to enter into force as per the "entry-into-force" provisions, **only 36 have ratified the treaty** until now.
- China, Egypt, Iran, Israel and the U.S. have signed but not ratified. China maintains that it will only ratify it after the U.S. does.
- In addition, **North Korea, India and Pakistan are the three who have not signed**. All three have also **undertaken tests** after 1996; India and Pakistan in May 1998 and North Korea six times between 2006 and 2017.

- The CTBT has, therefore, not entered into force and lacks legal authority.

Unequal provisions:

- The current provisions of CTBT only appear to strengthen the **inequality in terms of nuclear arms possession between the haves and have-nots**.
- Though the best way to verify a comprehensive test ban would have been to permanently shut down all test sites, the idea was not acceptable to the nuclear weapon states.
- The treaty does not try to address the inequality by measures like disarmament. Despite well-intended proposals from some negotiating countries like India, the **CTBT could not anchor itself in a disarmament framework**.

Ineffective provisions:

- The idea of defining the “comprehensive test ban” as a “zero yield” test ban **only prohibited supercritical hydro-nuclear tests and not sub-critical hydrodynamic nuclear tests**. This served only U.S. interests and helped it secure unipolar supremacy.
- The CTBT prohibits all parties from carrying out any nuclear weapon test explosion or any other nuclear explosion **without clearly defining or elaborating the terms**.

Threat of a new nuclear arms race:

Changes in global politics and tensions:

- The U.S.’s unipolar moment seems to be ending with the **emergence of a multilateral order**.
- There would be a **strategic competition** among major powers. The U.S. now identifies Russia and China as challengers to its position.
- The U.S.’s tensions with China are already high with trade and technology disputes, militarisation in the South China Sea and most recently, with the novel coronavirus pandemic.
- The sanctions imposed on Russia by the U.S. and its allies, and its increasing isolation seem to be drawing Russia closer to China.
- The Cold War rivalry was already visible when the nuclear arms race began in the 1950s. **New rivalries in the global politics** may lead to a similar arms race in current times.

Arms race:

U.S.:

- The U.S.’s Nuclear Posture Review notes that the U.S. faces new nuclear threats because both Russia and China are increasing their reliance on nuclear weapons

and calls for expanding the role of nuclear weapons and maintaining a more usable and diversified nuclear arsenal.

- The U.S. administration has embarked on a **30-year modernisation plan for its nuclear arsenal**. It's readiness at its nuclear test sites (Nevada test site) is being enhanced to permit resumption of testing at six months notice.

Russia and China:

- Russia and China have been concerned about the U.S.'s growing technological lead particularly in missile defence and conventional global precision-strike capabilities and have begun **expanding their defence capabilities**.
- **Russia has been developing hypersonic delivery systems** while China has been working on a modernisation programme to enhance the survivability of its arsenal.
- Both Russia and China are investing heavily in **offensive cyber capabilities**.

Ineffectiveness of treaties:

- The **Intermediate-Range Nuclear Forces Treaty**, an arms control treaty between the United States and the Soviet Union, banning all of the land-based ballistic missiles, cruise missiles, and missile launchers in the short medium and intermediate-range has ended with both countries opting out of it.
- **The New Strategic Arms Reduction Treaty (New START)** limits U.S. and Russian arsenals but will expire in 2021 and the U.S. President has already indicated that the U.S. does not plan to extend it.
- The U.S. administration has expressed its desire to bring China into nuclear arms control talks. However, China has denied any such possibility by pointing to the fact that the U.S. and Russia still account for over 90% of the global nuclear arsenals.

U.S. claims:

- A report issued by the United States State Department on "**Adherence to and Compliance with Arms Control, Non-proliferation, and Disarmament Agreements and Commitments (Compliance Report)**" has raised concerns that China might be conducting nuclear tests with low yields at its Lop Nur test site, in violation of its Comprehensive Nuclear-Test-Ban Treaty (CTBT).
- The U.S. report also claims that Russia has conducted nuclear weapons experiments that produced a nuclear yield and were inconsistent with the 'zero yield' understanding underlying the CTBT.
- Russia and China have rejected the U.S.'s claims, but with growing rivalry among major powers, the report is a likely harbinger of a new nuclear arms race.
- **Resumption of nuclear testing may signal the end of CTBT, marking the beginnings of a new nuclear arms race.**