

OFFICERS' Pulse

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Coverage.

The Hindu
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At a Glance & In Depth.

Polity and Social Issues
Economy
International Relations
Environment
Science and Tech
Culture



CURRENT AFFAIRS
WEEKLY
THE PULSE OF UPSC AT
YOUR FINGER TIPS.

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News @ a glance

POLITY

1) Chakmas and Hajongs

Who are Chakmas and Hajongs?

- Chakmas and Hajongs came to India from the Chittagong Hill Tracts in Bangladesh (formerly East Pakistan), having lost their homes and land to the Kaptai dam project (Karnaphuli river) in the mid-1960s.
- They also faced religious persecution.
- Chakmas are predominantly Buddhists, while Hajongs are Hindus.
- Chakmas are close to Bengali-Assamese; Hajongs speak a Tibeto-Burman tongue written in Assamese.

Background:

- Chakmas lost their land to the development of the Kaptai Dam on the Karnaphuli River, Bangladesh.
- Hajongs faced religious persecution as they were non-Muslims and did not speak Bengali.
- Thus they fled erstwhile Bangladesh in 1964-65 and came to India and settled in Arunachal Pradesh.
- In 2015, the Supreme Court directed the Centre to grant citizenship to Chakma and Hajongs who had migrated from Bangladesh in 1964-69.
- The order was passed while hearing a plea by the Committee for Citizenship Rights of the Chakmas.
- They did not directly come into the ambit of the Citizenship Amendment Act, 2019 (CAA) because Arunachal Pradesh is among the states exempted from the CAA since it has an inner line permit to regulate entry of outsiders.
- Currently, Chakmas and Hajongs are citizens by birth as per Section 3(1) of the Citizenship Act and the eligible portion of their population exercise the right to vote as citizens of India (they were given voting rights in 2004).

News in detail:

- The Chakmas and Hajongs do not have ration cards as the State government had seized those through an order on October 25, 1991.
- As a result, the two communities have been forced to buy rice at ₹29 per kg while other vulnerable sections have been paying ₹5 per kg as per the economic package announced by the State government
- This has resulted in starvation of members of the community who had legally become Indian citizens.
- Since the members of the communities have become legal citizens of India, denial of food violates the Right to Life guaranteed under Article 21 of the Constitution.

Why in News?

- A Delhi-based rights body has sought Prime Minister Narendra Modi's intervention in ensuring food for the Chakma and Hajong communities in Arunachal Pradesh who have allegedly not been included in the government's economic package.

2) AarogyaSetu app

About the app:

- The app has been developed by the **National Informatics Centre** under the **Ministry of Electronics & Information Technology (MeitY)**.
- The app — for pan-India use and available in 11 languages — was launched as the main **contact tracing technology** endorsed by the Central government.
- The app has become one of the most downloaded apps globally and has crossed the 75 million mark.
- The app has now added on functionalities such as donating to the PM CARES fund and hosting e-passes for essential services providers.

Working of App:

- While registering, the app collects a set of personal information such as phone number, current location and travel history.
- The information is uploaded to government servers, which then generates a unique digital identity for that user.
- When the Bluetooths of two Aarogya Setu users sniff each other out, this unique digital identity is exchanged along with the time and location of the meeting.
- When an app user tests positive, all unique digital identities in his or her records get an alert on the risk they face and instructions on self-isolation and next steps.
- According to the privacy policy of the app, it gives users a colour coding of green and yellow based on their self-assessment.
- The data of users who fall in the yellow category are uploaded to the server, while that of those in the green category is retained in the app.

Why in News?

- Recently, the government has made it mandatory for all central government officials to use the Aarogya Setu mobile app on their mobile phones.

Privacy concerns:

- While registering, the app collects a set of personal information such as name, sex, age, phone number, current location and travel history that is uploaded to government servers, which then generates a unique digital identity for that user.
- Since there is no legislation in detail how the online privacy of Indians is to be protected, AarogyaSetu users have little choice but to accept the privacy policy provided by the government.
- The policy goes into some detail on where and how long the data will be retained, but it leaves the language around who will have access to it vague.
- As per the policy persons carrying out medical and administrative interventions necessary in relation to COVID-19" will have access to the data.
- This suggests interdepartmental exchanges of people's personal information and is more excessive than countries like Singapore and even Israel.

- Beyond the legal loopholes, there are technical loopholes as well.
- The unique digital identity in AarogyaSetu is a static number, which increases the probability of identity breaches.
- The abundance of data collected is also potentially problematic.
- AarogyaSetu uses both Bluetooth as well as GPS reference points, which could be seen as overkill whereas other apps such as TraceTogether make do with Bluetooth.

3) Central Vigilance Commission

About CVC:

- The Central Vigilance Commission was set up by the Government in February, 1964 on the recommendations of the Committee on Prevention of Corruption, headed by **Shri K. Santhanam, to advise and guide Central Government agencies in the field of vigilance.**
- Central Vigilance Commission is the apex **vigilance institution, free of control from any executive authority**, monitoring all vigilance activity under the Central Government and advising various authorities in Central Government organizations in planning, executing, reviewing and reforming their vigilance work.
- The Commission was accorded the status of **independent statutory authority** through the Central Vigilance Commission Act, 2003.

Composition:

- Multi-member Commission consists of a **Central Vigilance Commissioner (Chairperson) and not more than two Vigilance Commissioners (Member).**
- The Central Vigilance Commissioner and the Vigilance Commissioners are **appointed by the President** on the recommendations of a Committee consisting of the Prime Minister (Chairperson), the Minister of Home Affairs (Member) and the **Leader of the Opposition in the House of the People (Member).**
- The term of office of the Central Vigilance Commissioner and the Vigilance Commissioners is **four years** from the date on which they enter their office or

till they attain the age of 65 years, whichever is earlier.

Powers and Functions:

- The Central Vigilance Commission shall have the following functions and powers, namely.-
- To inquire or cause an inquiry or investigation to be made on a reference made by the central Government wherein it is alleged that a public servant being an employee of the Central Government or a corporation, established by or under any Central Act, Government Company, society and any local authority owned or controlled by that Government, has committed an Offence under the Prevention of Corruption Act- 1988.
- To cause an inquiry or investigation to be made into any complaint against any official belonging to the, following category of officials, namely:-
- Group 'A' Officers of the Central Government; or such level of officers of the Corporations established by or under any Central Act,
- Government companies, societies and other local authorities, owned or controlled by the Central Government, wherein it is alleged that such official has committed an offence under the Prevention of Corruption Act, 1988;
- review the progress of applications pending with the competent authorities for sanction of prosecution under the Prevention of Corruption Act 1988;
- tender advice to the Central Government, corporations established by or under any Central Act, Government companies, societies and local authorities owned or controlled by the Central Government on

such matters as may be referred to it by that Government,

- Exercise superintendence over the vigilance administration of the various Ministries of the Central Government or corporations established by or under any Central Act, Government companies, societies and local authorities owned or controlled by that Government.

Limitations to CVC:

- CVC is not an investigating agency. The CVC either gets the investigation done through the CBI or through the Departmental Chief Vigilance Officers.
- Secondly, the CVC orders investigation into cases of officials of Central Government Departments/Companies/Organisations only.
- CVC is only an advisory body. Central Government Departments are free to either accept or reject CVC's advice in corruption cases.
- CVC does not have adequate resources compared with the number of complaints that it receives. It has a small strength of staff to deal with the cases.
- CVC does not have powers to register criminal cases. It deals only with vigilance or disciplinary cases.
- CVC has supervisory powers over CBI. However, CVC does not have the power to call for any file from CBI or to direct CBI to investigate any case in a particular manner.

Why in News?

- Retired bureaucrat Sanjay Kothari was sworn in as the next Central Vigilance Commissioner by President Ram Nath Kovind at an official oath-taking ceremony.

ENVIRONMENT

1) Bannerghatta Biological Park

About:



- Bengaluru Bannerghatta Biological Park (BBBP) was carved out of Bannerghatta National Park (BNP) in 2004.
- It is a popular tourist destination with a zoo, a pet corner, an animal rescue centre, a butterfly enclosure, an aquarium, a snake house and a safari park.
- It is the brainchild of the Zoo Authority of Karnataka, University of Agricultural Sciences and the Ashoka Trust for

Research in Ecology and Environment (ATREE).

- Champakadhama hills valley is inside the park.
- The park contains 3 types of forests: Scrub type (dry deciduous forests), southern tropical dry deciduous forests, and southern tropical moist mixed forests.

ATREE

- Ashoka Trust For Research In Ecology And The Environment (ATREE) is a global non-profit organisation.
- It is located in Bengaluru, Karnataka.
- It does interdisciplinary research on the conservation and sustainability which helps in policy formation

Why in the news?

- Bannerghatta Biological Park (BBP) has come out with a programme during the lockdown period for those looking for an opportunity to conserve wildlife and adopt animals at the zoo.
- The animal adoption initiative is part of the BBPs outreach programme as people are not able to visit the zoo due to the lockdown.

ECONOMY

1) Intellectual property rights

What are Intellectual property rights?

- Intellectual property rights are the rights given to persons over the **creations of their minds**. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time.
- Intellectual property rights are traditionally divided into **two main categories**:
- **Copyright and rights related to copyright**: i.e. rights granted to authors of literary and artistic works, and the rights of performers, producers of phonograms and broadcasting organizations. The main purpose of protection of copyright and related rights is to encourage and reward creative work.
- **Industrial property**: This includes:
 1. the protection of distinctive signs such as **trademarks** and **geographical indications**, and
 2. Industrial property protected primarily to stimulate innovation, design and the creation of technology. In this category fall **inventions** (protected by **patents**), **industrial designs** and **trade secrets**.
- Globally, Intellectual property rights are governed by two organizations: **WTO** (by its TRIPS agreement) & **WIPO**.

TRIPS

- The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the **World Trade Organization (WTO)**.
- The Agreement, which came into effect on 1 January 1995, is a comprehensive multilateral agreement on intellectual property.
- The TRIPS Agreement is often described as **one of the three “pillars” of the WTO**, the other two being trade in goods and trade in services.
- To facilitate the implementation of the TRIPS Agreement, the Council for TRIPS concluded with WIPO an **agreement on cooperation between WIPO and the WTO**, which came into force on 1 January 1996.

WIPO

- The World Intellectual Property Organization (WIPO) is a **United Nations specialized agency** which seeks to develop a balanced and accessible International Intellectual Property system.
- The origins of WIPO go back to 1883 and 1886 when the **Paris Convention** for the Protection of Industrial Property and the **Berne Convention** for the Protection of Literary and Artistic Works, respectively, were concluded.
- Both Conventions provided for the establishment of an "International Bureau". The two bureaus were united in 1893 and, in 1970, were replaced by the WIPO, by virtue of the WIPO Convention.
- It is headquartered in Geneva. Currently, the WIPO includes 193 member-states (including **India**).

Why in News?

- The US has released its Annual Special 301 Report.
- It is prepared annually by the **Office of the United States Trade Representative (USTR)** that identifies trade barriers to United States companies and products due to the intellectual property laws, such as copyright, patents and trademarks, in other countries.

Why is it important?

- The report says that India is on the **‘Priority Watch List’** of the USTR. Priority Watchlist countries are judged by the USTR as having serious intellectual property rights deficiencies that require increased USTR attention.
- In a warning to India and various other countries, the USTR said that governments should use **compulsory licenses** only in extremely limited circumstances and after making every effort to obtain authorisation from the patent owner on reasonable commercial terms and conditions.

Key terms

- A **copyright** protects original works of authorship including literary, dramatic, musical, and artistic works, such as

poetry, novels, movies, songs, computer software, and architecture.

- A **trademark** is a word, phrase, symbol, and/or design that identifies and distinguishes the source of the goods/services of one party from those of others. Some examples include brand names, slogans, and logos.
- A **geographical indication (GI)** is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must identify a product as originating in a given place.
- A **patent** is a right granted to an inventor by the government that permits the inventor to exclude others from making, selling or using the invention for a period of time. Patentable materials include machines, manufactured articles, industrial processes, and chemical compositions.
- **Industrial design** right is a form of intellectual property right which protects the visual design of objects. An industrial design consists of the creation of a shape, configuration or composition of pattern or color, containing aesthetic value.
- **Trade secrets** consist of information and can include a formula, pattern, compilation, program, device, method, technique or process. To meet the most common definition of a trade secret, it must be used in business, and give an opportunity to obtain an economic advantage over competitors who do not know or use it.
- **Compulsory licenses** are authorizations given to a third-party to make, use or sell a particular product or use a particular process which has been patented, without the need of the permission of the patent owner.
- This concept is recognised at both national as well as international levels, with express mention in both (Indian) Patent Act, 1970 and TRIPS Agreement. There are certain pre-requisite conditions which need to be fulfilled if a compulsory license is to be granted in favour of someone.

2) Index of Eight Core Industries

About ICI

- The monthly Index of Eight Core Industries (ICI) is a **production volume index**.
- The objective of the ICI is to provide an advance indication on production performance of industries of 'core' nature before the release of Index of Industrial Production (IIP) by the Central Statistics Office.
- These industries are likely to impact on general economic activities as well as industrial activities.
- The Eight Core Industries- **Electricity, steel, refinery products, crude oil, coal, cement, natural gas and fertilizers**- comprise 40.27 per cent of the weight of items included in the IIP.
- **Industry Weight (In percentage)**
 1. Petroleum & Refinery production - 28.04
 2. Electricity generation - 19.85
 3. Steel production - 17.92
 4. Coal production - 10.33
 5. Crude Oil production - 8.98
 6. Natural Gas production - 6.88
 7. Cement production - 5.37
 8. Fertilizers production - 2.63
- ICI is released by the **Office of Economic Advisor**, under the Ministry of Commerce and Industries. The base year of the ICI is **2011-12**.

Why in News?

- India's eight core sectors contracted by a record 6.5% in March, reflecting the early impact of the COVID-19 pandemic and the subsequent nationwide lockdown.
- The latest Index of Eight Core Industries data showed sectors including crude oil (-5.5%), natural gas (-15.2%), refinery products (-0.5%), fertilizers (-11.9%), steel (-13%), cement (-24.7%) and electricity (-7.2%) saw a contraction in output in the month, except coal which grew 4%.

3) GI Tag

About GI Tag

- A geographical indication (GI) is a sign used on products that have a **specific geographical origin** and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must

identify a product as originating in a given place.

- It is used for **agricultural, natural and manufactured goods**. Darjeeling tea became the first GI tagged product in India.
- The registration of GI is valid for **10 years** after which it needs to be renewed.

Legislations

- In India, GI is given under the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- The Act is administered by the **Controller General of Patents, Designs & Trademarks, GI (CGPDTM-India)** under the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry.
- India enacted its GI legislation to comply with India's obligations under the Trade-Related Aspects of Intellectual Property Rights (**TRIPS**) agreement.
- GI registration gives to the registered proprietor and its authorized users, the legal right to the exclusive use of the GI and also the right to obtain relief in case of its infringement.
- GI is a **collective intellectual property right** and is thus owned by all the

producers within the defined GI territory unlike intellectual properties like patent and trademark which are owned by an individual or a business entity.

Why in News?

- **Kashmir saffron**, which is cultivated and harvested in the **Karewa (highlands) of Jammu and Kashmir**, has been given the Geographical Indication (GI) tag by the Geographical Indications Registry.

Significance

- Iran is the largest producer of saffron and India is a close competitor. With the GI tag, Kashmir saffron would gain more prominence in the export market.
- Kashmir saffron is renowned globally as a spice. It rejuvenates health and is used in cosmetics and for medicinal purposes. It has been associated with traditional Kashmiri cuisine and represents the rich cultural heritage of the region.
- It is the **only saffron in the world** grown at an altitude of 1,600 m to 1,800 m AMSL (above mean sea level).

INTERNATIONAL RELATIONS

1) Yemen

What's in the news?



- Yemen's separatist group Southern Transitional Council (STC) announced that it would establish self-rule in areas under its control.
- The move threatens to renew conflict in the country.

2) Asian Development Bank

About ADB

- The Asian Development Bank (ADB) was founded in 1966 with the primary mission of fostering growth and cooperation among countries in the Asia-Pacific Region.
- It is headquartered in **Manila**, Philippines.
- At present, ADB comprises 68 members (including **India**)- of which 49 are from within Asia and the Pacific and 19 outside.
- The ADB was **modelled closely on the World Bank**, and has a similar weighted voting system where votes are distributed in proportion with members' capital subscriptions.
- The two largest shareholders of the ADB are the **US and Japan**.
- ADB is an official United Nations Observer.

Why in News?

- The Government of India has taken a \$1.5 billion loan from the Asian Development Bank to fund its immediate response to

COVID-19, both in terms of the health and socio-economic impacts.

- The bank is also in talks with the government to fund further stimulus measures, including support for Micro, Small & Medium Enterprises and for extending health services through public-private partnerships.

3) BRICS

About BRICS

- BRICS brings together five major emerging economies- **China, Brazil, Russia, India and South Africa**. It comprises 43% of the world population, having 30% of the world GDP and a 17% share in world trade.
- The grouping was formalised during the first meeting of **BRIC** (Brazil, Russia, India and China) Foreign Ministers on the margins of the UNGA in New York in September 2006. South Africa was added to the grouping in 2011 creating "BRICS".
- BRICS cooperation is aimed at complementing and strengthening existing bilateral and multilateral relations among member countries.
- The **Chairship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- Cooperation among members is predicated on three levels or "tracks" of interaction, namely:
 - 1) **Track I:** Formal diplomatic engagement between the national governments
 - 2) **Track II:** Engagement through government-affiliated institutions, e.g. state-owned enterprises and business councils
 - 3) **Track III:** Civil society and "people-to-people" engagement.

Significant developments of BRICS:

- **New Development Bank**
- The NDB created by the BRICS countries formally came into existence at the Ufa Summit (Russia) in 2015.
- It was established with the objective of financing infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, complementing the efforts of

multilateral and regional financial institutions toward global growth and development.

- In 2018, the NDB received **observer status** in the UN General Assembly.
- The five member nations – Brazil, Russia, India, China and South Africa – have an **equal shareholding in the NDB**.
- Voting power of each member is equal to the number of its subscribed shares in capital stock.
- All members of the United Nations could be members of the bank, however the share of the BRICS nations can never be less than **55% of voting power**.
- **Contingency Reserve**
- The BRICS Contingent Reserve Arrangement (CRA) is a framework for the provision of support through liquidity and precautionary instruments in response to actual or potential short-term balance of payments pressures.

Why in News?

- During a videoconference of Foreign Ministers of the BRICS group, India's External Affairs Minister S. Jaishankar said that member countries of the BRICS group should assist private entrepreneurs to help them deal with the economic fallout of the COVID-19 pandemic.

4) Pitch Black

Exercise Pitch Black

- It is a **biennial** warfare exercise hosted by the **Royal Australian Air Force (RAAF)**.
- The exercise is an opportunity to interact with forces from across the globe.
- The Indian Air Force participated for the first time ever in Exercise Pitch Black 2018.

Why in News?

- Australia has informed India that Exercise Pitch Black 2020 — scheduled from July 27 to August 14 has been cancelled due to the COVID-19 situation.

- The next edition of Pitch Black is scheduled for 2022.

Similar exercise

- The defence and strategic engagement with Australia has steadily gone up in recent years especially on the bilateral front with naval cooperation at the forefront.
- The bilateral naval exercise **AUSINDEX** early last year saw participation of the largest Australian contingent ever to India with over 1,000 personnel.

5) Office of the High Commissioner for Human Rights

About OHCHR

- The Office of the High Commissioner for Human Rights (OHCHR) is the **leading UN entity on human rights**, headquartered in Geneva, Switzerland.
- The office was established by the UN General Assembly in 1993 in the wake of the **1993 World Conference on Human Rights**.
- OHCHR is led by the **High Commissioner for Human Rights**, the principal human rights official of the UN.
- The General Assembly of the UN entrusted the OHCHR with a **unique mandate to promote and protect all human rights** established in the UN Charter and in international human rights laws and treaties.

Why in News?

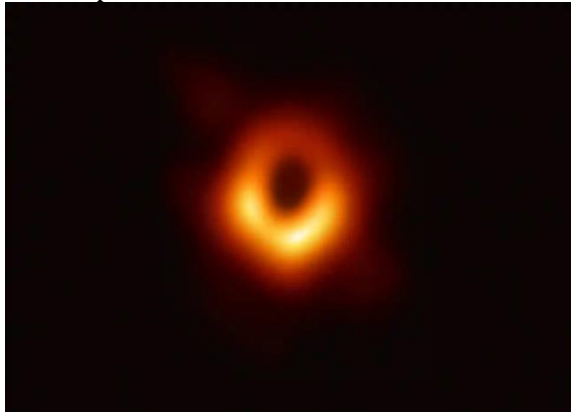
- UN High Commissioner for Human Rights Michelle Bachelet called on countries to refrain from violating fundamental rights in the name of fighting the novel coronavirus pandemic.
- She warned that emergency powers should not be a weapon governments can wield to quash dissent, control the population, and even perpetuate their time in power.

SCIENCE AND TECHNOLOGY

1) First merger of two black holes with unequal masses detected

What Is a Black Hole?

- A black hole is a place in space where gravity pulls so much that **even light cannot get out**.
- The gravity is so strong because matter has been squeezed into a tiny space.
- This can happen when a star is dying.
- Because no light can get out, they are **normally invisible**.
- Space telescopes with special tools can help find black holes.



- Astronomers captured the first image of a black hole in April, 2019, with the help of the **Event Horizon telescope (EHT)**.

What is LIGO?

- LIGO (**Laser Interferometer Gravitational-wave Observatory**) is the world's **largest gravitational wave observatory**.
- LIGO detectors use laser interferometry to **measure the distortions in space-time** occurring between stationary, hanging masses (mirrors) caused by passing gravitational waves.
- The project operates three gravitational-wave (GW) detectors: Two are at Hanford in the state of Washington and one is at Livingston in Louisiana of the USA.
- They were joined by the European **Virgo (Italy)** detector in 2017.
- The **Japanese** detector, **KAGRA**, or Kamioka Gravitational-wave Detector, is expected to join the international network soon.

LIGO-India

- In collaboration with LIGO, a gravitational wave detector is being set up in India.
- The LIGO India project is expected to join the international network in a first science run in **2025**.
- LIGO India will come up in **Maharashtra**, near Aundha in **Hingoli** district.
- The proposed LIGO-India project aims to move one **Advanced LIGO** detector from Hanford to India.

Why in News?

- For the first time since it started functioning, the gravitational wave observatories at LIGO scientific collaboration have detected a merger of two unequal-mass black holes.

More in the News

- The event, dubbed **GW190412**, was detected nearly a year ago, almost five years after the first ever detection of gravitational wave signals by these powerful detectors.
- Subsequent analysis of the signal coming from the violent merger showed that it involved two black holes of unequal masses coalescing, one of which was some 30 times the mass of the Sun and the other which had a mass nearly 8 times the solar mass.

2) BCG vaccine

About BCG vaccine

- The **Bacille Calmette-Guérin (BCG)** vaccine has existed for 80 years and is one of the most widely used of all current vaccines.
- It is the live weakened form of **mycobacterium bovis** -- the causative agent of tuberculosis in **cattle** -- related to **mycobacterium tuberculosis (Mtb)**, the **bacteria** which causes tuberculosis in **humans**.
- BCG vaccine has a documented protective effect against **meningitis** and **disseminated TB in children**.

Meningitis

- Meningitis is an **inflammation** of the **meninges**.
- The meninges are the three membranes that cover the **brain and spinal cord**.

- Meningitis can occur when fluid surrounding the meninges becomes infected.

Disseminated tuberculosis

- Disseminated tuberculosis occurs when **TB bacilli spread throughout the body** via the bloodstream as the immune system cannot contain them in the lung.
- This leads to tuberculosis in a number of organs other than the lungs, such as the meninges, abdominal lymph nodes, liver, spleen, bones and joints.

- It does not prevent primary infection and, more importantly, does not prevent reactivation of latent pulmonary infection, the principal source of bacillary spread in the community.
- The impact of BCG vaccination on transmission of Mtb is therefore limited.

What is a randomized controlled trial?

- They are the most reliable method available for **testing new treatments**.
- The scientific design of a randomized controlled trial is as follows:
 - **Randomized:** The researchers decide randomly as to which participants in the trial receive the new treatment and which receive a placebo, or fake treatment.
 - **Controlled:** The trial uses a control group for comparison or reference. In the control group, the participants do not receive the new treatment but instead receive a placebo or reference treatment.

BCG in India

- The BCG vaccine is **part of India's universal immunisation programme** and administered to millions of children at birth or soon after it.
- India, with the world's highest TB burden, introduced BCG mass immunisation in 1948.

Why in News?

- The World Health Organization (WHO) highlighted a few critical issues over the use of the BCG vaccine for COVID-19.
- They underscore the importance of randomised controlled trials of the vaccine to understand its safety and efficacy before using it on healthcare workers.

3) COVID-19: The tests reveal all

Important timelines and symptoms characteristic of COVID-19 infection:

- After exposure to SARS-CoV-2, the **incubation period is typically 5 to 6 days** but it can range from 2 to 14 days.
- In the **first week**, only **viral RNA and antigen particles** will be present.
- During the **second to third weeks**, the **initial antibody response** in the form of **IgM** will be seen which may be present for another 2 weeks.
- **IgG antibody response will appear after 2 weeks** in the blood and provides **long term immunity**.
- From the available literature, the COVID-19 infection will be **asymptomatic/mild in 81%, severe in 14% and critical in 5%** of cases as shown.
- But the infection can be transmitted from persons through droplets, even from those with mild symptoms or asymptomatic carriers.

Two major types of tests

1) Antigen test

- The antigen test is the diagnostic test for COVID-19 in which the viral RNA is directly identified by real time reverse transcriptase polymerase chain reaction (rRT-PCR).
- This is an extremely sensitive test to identify whether someone is currently infected and active.

2) Antibody test

- The antibody test is to identify the immune response to earlier infection.
- By identifying the type of antibody positivity (IgM or IgG or both or none) we can determine whether the individual had exposure to infection or not, still has active infection or has developed long-term immunity.

Best diagnostic test to identify an active COVID-19 infection:

- The rRT-PCR antigen test is the best diagnostic test to identify if someone is currently infected and active with SARS-CoV-2.

How is it performed?

- In this, a nasopharyngeal (nasal) or oropharyngeal (mouth) **swab** is taken and sent in a cold storage box to the central laboratory, where the **viral RNA is converted to complementary DNA (cDNA)** using reverse transcriptase, and

amplified following the addition of a **primer and fluorescent dye** and DNA building enzymes.

- A positive test will be indicated by the **raise in fluorescence**.
- Depending on the equipment and method used, the time taken may vary between a few hours to a day to get the reports.

Positives and negatives

- This test is very **sensitive and specific** and can detect even if a single viral RNA particle is present in the swab.
- **False negative** (negative test when the patient is actually COVID-19 positive) may be obtained in some cases due to **improper swab sampling, prolonged time to get samples to the lab causing degradation of RNA**.

Best test to identify if a person had exposure (with or without symptoms) to COVID-19 and their immunity response?

- The **test for antibodies** will give information on whether a person had exposure to SARS-CoV-2 at any point in time and whether immunity has developed.
- When exposed to SARS-CoV-2 our immune system will form proteins called antibodies to neutralize the virus, initially antibody response will be IgM and long-term durable response will be IgG. Presence of IgG antibody alone will indicate development immunity.

Issues with currently available point of care (POC) rapid testing kit (COVID-19 antibody test)

- Though it is **quick (under 15 minutes)** and it can be **done by anyone without much training** the currently available POC rapid testing kits have been brought into the market **without quality assurance by the regulatory authorities** of the countries in which they were manufactured and they **lack the validation process**.
- Several of the testing kits have been fast-tracked due to increasing demand, hence lacking in quality, with **variable sensitivity from 30% to 80%**.
- The main concerns raised by several European countries and India are that these kits are showing a **higher percentage of false negative reports**

(i.e. results of the test are negative while the patient is COVID-19-positive).

4) Vitamin C

About Vitamin C:

- Vitamin C or Ascorbic acid is a **water-soluble essential nutrient**.
- Being water soluble, it is **not stored in the body** and requires daily intake.

Daily requirement:

- The daily requirement of Vitamin c is **90mg in adult males**,
- **75mg for females** which increases to **120 mg in pregnancy**.
- Smokers require additional 35 mg since smoking depletes Vitamin C.

Source of Vitamin C :

- Fruits, especially citrus fruits, and vegetables.

Benefits of Vitamin C:

- It is a **powerful antioxidant** with an important role in controlling infections and promoting healing of wounds.
- It has numerous functions such as **synthesis of collagen** (important component of bones, cartilage, nervous system, immune system etc) **chemical messengers** in the brain and hormones.

Deficiency of Vitamin C

- Deficiency of Vitamin C is called **scurvy**.
- It manifested with **bleeding gums, delayed wound healing, skin spots, hair loss and anaemia**.
- Heat destroys Vitamin C. So **prolonged cooking and leaching of the water can reduce the intake of Vitamin**.

Vitamin C for therapy:

- Vitamin C is the nutrient connected with the immune system. It is often prescribed in **short courses to promote wound healing and for faster recovery from infections, including cold**.
- Large doses of Vitamin C called megadoses are popular to improve immunity and promote wound healing.

Arguments against administering large dose vitamin C

- Though the body can cope with high dose by reducing the absorption and increasing the oxalate loss in urine, in some people the oxalate can get deposited in the kidneys resulting in kidney failure. This is likely in patients with intestinal disorders and pre-existing kidney disease.

Why in the news?

- Large doses of intravenous Vitamin C are being tried in COVID-19 critical patients on ventilators in China.
- The U.S. is planning to try a combination of Vitamin C, Vitamin D, Zinc and Hydroxychloroquine for prevention.

PIB ANALYSIS

1) Ruhdaar



About the Ruhdaar ventilator:

- The ventilator can be used to control the basic parameters such as tidal volume, Breaths per Minute, and Inspiratory: Expiratory Ratio.
- It can also monitor pressure continuously during its operation.
- It costs around Rs. 10,000 and that the cost will be much lower when it goes for mass production.

Significance:

- This invention will solve the problem of the ventilator, which is the primary requirement to treat COVID-19 patients, as the high-end ventilators used in hospitals cost in lakhs of rupees.

Importance of ventilators:

- According to the Health Ministry, among those getting infected, around 80% will experience only mild illness, around 15% will need oxygen support and the remaining 5% who get critical or severe will need ventilators.
- Ventilators are thus an important component of the medical infrastructure required for treating infected patients, providing critical breathing support to those falling critically ill.
- The government has been adopting a two-pronged approach, augmenting domestic manufacturing capacity as well as scouting across the world for medical supplies.

Why in News?

- A team of engineering students from IIT Bombay, NIT Srinagar and Islamic University of Science & Technology (IUST), Awantipora, Pulwama, Jammu and Kashmir has come up with a low-cost ventilator using locally available materials.

2) SVAMITVA Scheme

About:

- SVAMITVA scheme is a collaborative effort of the **Ministry of Panchayati Raj**, State Panchayati Raj Departments, State Revenue Departments and **Survey of India**.
- The program is currently being implemented in **six states - Haryana, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand**.
- It aims to provide an integrated property validation solution for rural India, engaging the latest Drone Surveying technology, for demarcating the inhabitant land in rural areas.
- Under this, mapping of rural housing land can be done using the latest survey methods and drones.
- This scheme will help in streamlining planning and revenue collection in rural areas and ensuring clarity on property rights.
- This will also help in resolving property related disputes.
- The scheme will enable creation of better-quality Gram Panchayat Development Plans (GPDPs), leveraging the maps created under this programme.

Why in News?

- Union Minister of Rural Development & Panchayati Raj issued guidelines regarding the SVAMITVA scheme, a new initiative of the Ministry of Panchayati Raj.

3) National Infrastructure Pipeline (NIP)

What is the National Infrastructure Pipeline?

- NIP is a first-of-its-kind, whole-of-government exercise to provide world-class infrastructure across the country, and improve the quality of life for all citizens.
- It aims to improve project preparation, attract investments (both domestic and foreign) into infrastructure, and will be crucial for the target of becoming a \$5 trillion economy by FY 2025.

- The NIP project database would be made available on the India Investment Grid (IIG).
- All the prospective investors will be able to access updated project-level information on the grid

Why in News?

- The Task Force on National Infrastructure Pipeline (NIP) has recently submitted its Final Report on NIP for FY 2019-25.

Final Report of NIP Task Force: Key Highlights

- The final report projects a total infrastructure investment worth Rs 111 lakh crore during the financial period 2020-25.
- According to the Report, sectors such as energy (24%), roads (18%), urban (17%) and railways (12%) amount to around 71% of the projected infrastructure investments.
- The centre (39 per cent) and state (40 per cent) are expected to have an almost equal share in implementing the projects, the private sector has 21 per cent share.
- The final report highlights and identifies recent trends in infrastructure in India along with global trends.
- It also reports the progress, deficit and challenges faced by the sector.
- The final report also highlights reforms that are required to scale up infrastructure investments in various sectors throughout the country.
- It also suggested the ways and means of financing the National Infrastructure Pipeline through deepening Corporate Bond markets, including Municipal Bonds and setting up of development financial Institutions for the infrastructure sector.

4) Kisan Sabha App

Why in News?

- The Council of Scientific and Industrial Research-Central Road Research Institute (CSIR-CRRI) has launched the Kisan Sabha App to connect farmers to the supply chain and freight transportation Management System.

Aim and significance:

- Kisan Sabha aims to provide the most economical and timely logistics support to the farmers.

- It increases their profit margins by minimizing the interference of middlemen and directly connecting them with the institutional buyers.
- It will also help in providing the best market rates of crops by comparing prices from nearest mandis, booking of freight vehicle at the cheapest possible cost, thereby giving maximum benefit to the farmers

Key Features:

- The portal connects the various stakeholders like farmers, transporters, Service providers (like pesticides/ fertilizer/ dealers, cold store and warehouse owner), mandi dealers, customers (like big retail outlets, online stores, institutional buyers) and other related entities for an effective solution.
- The portal acts as a single stop for every entity related to agriculture, be they a farmer who needs better price for the crops or mandi dealer who wants to connect to more farmers or truckers who invariably go empty from the mandis.

Rationale behind the launching of the App:

- In the present situation of COVID 19 pandemic, farmers are looking for help in their harvest reaching the market, seed/ fertilizer procurement for next season crop etc.
- A robust supply chain management is urgently required to facilitate the timely delivery of the product at the best possible prices.
- The overall agriculture market is not well organized and a lot of produce gets wasted or is being sold at very low rates.
- Based on this current prevailing situation, the Kisan Sabha App was developed.

About the CSIR-CRRI:

- It was established in 1950 as a constituent laboratory of India's Council of Scientific and Industrial Research.
- The CRRI is located in New Delhi and conducts research and development in the areas of design, construction, maintenance and management of roads and airport runways.

News in Depth

AIR NEWS

1) Petersberg Climate Dialogue

About:

- The first virtual Climate Dialogue, of Petersburg Climate Dialogue has been hosted by Germany.
- Since 2010 to provide a forum for informal high-level political discussions, focusing both on international climate negotiations and the advancement of climate action.



- The dialogue saw participation from Ministers and representatives of about 30 countries.
- Representing India in the first virtual Petersberg Climate Dialogue, Minister for Environment, Forest and Climate Change Prakash Javadekar stressed on the issue of climate finance and the world must think of adopting more sustainable consumption patterns in line with requirement of sustainable lifestyles, as was first mooted by Prime Minister Narendra Modi during Paris COP.
- He mentioned that India's Nationally Determined Contributions spanning a ten-year time frame are ambitious and are also compliant with the temperature goal of the Paris Agreement.

Why in News?

- Union Minister for Environment, Prakash Javadekar represented India in the first virtual Petersberg Climate Dialogue.

2) Mid-Day Meal Scheme

About Mid Day Meal Scheme

- The Mid Day Meal Scheme comes under the Ministry of HRD. It was launched in the year 1995 as a centrally sponsored scheme.
- The scheme provides that every child within the age group of six to fourteen years studying in classes I to VIII who enrolls and attends the school, shall be provided hot cooked meal having nutritional standards of 450 calories and 12 gm of protein for primary (I- V class) and 700 calories and 20 gm protein for upper primary (VI-VIII class), free of charge every day except on school holidays.
- The scheme covers all government and government aided schools and also Madarsa and Maqtabs supported under the Samagra Shiksha Abhiyan.

Samagra Shiksha Abhiyan

- It is an overarching programme launched in 2018 for the school education sector extending from pre-school to class 12.
- It has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.
- It subsumed the three schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

Why in News?

- Government has announced around 11 % increase in annual central allocation of cooking cost under Mid-day meal scheme to 8,100 crore rupees in view of the situation arising out of COVID-19.

THE HINDU EDITORIALS

1) At the edge of a new nuclear arms race



Context:

- Concerns have been raised that China might be conducting nuclear tests with low yields at its Lop Nur test site as per the report issued by the US.
- This is in violation of its Comprehensive Nuclear Test Ban Treaty (CTBT) undertakings.
- Inconsistent with 'zero yield' understanding underlying the CTBT the report also claims that Russia too has conducted nuclear weapons experiments that produced nuclear yield.
- With growing rivalry among the major powers the report is a likely harbinger of a new nuclear arms race despite China and Russia rejecting the claims of the report.

What do we know about CTBT?

- The treaty bans globally with legal binding provisions on nuclear explosive testing.
- On 10th September 1996 the treaty was adopted by the United Nations General Assembly.
- Unfortunately the treaty has not entered into force as it says that the treaty will enter into force 180 days after the 44 states listed in Annex 2 of the treaty have ratified it.
- The states that participated in the CTBT's negotiations between 1994 and 1996 and possessed nuclear power reactors or research reactors at that time are in the "Annex 2 states".

- To date only 36 states have ratified the treaty of the 44 listed countries.
- The countries that have signed but not ratified the treaty are China, Egypt, Iran, Israel and the U.S.
- Three countries who have not signed the treaty are North Korea, India and Pakistan.

Why is CTBT so important?

- The CTBT is the last barrier on the way to develop nuclear weapons.
- It curbs the development of new nuclear weapons and the improvement of existing nuclear weapon designs.
- When the Treaty enters into force it provides a legally binding norm against nuclear testing.
- The treaty also helps prevent human suffering and environmental damages caused by nuclear testing.

What is the criticism?

- The idea of defining the "comprehensive test ban" as a "zero yield" test ban is brought up by the US.
- That would prohibit supercritical hydro-nuclear tests but not sub critical hydrodynamic nuclear tests.
- The CTBT prohibition of all parties from carrying out any nuclear weapon test explosion or any other nuclear explosion are neither defined nor elaborated.
- Article 14 of the treaty which is regarding the entry-into force provisions are yet another controversy.
- India announced its decision to withdraw from the negotiations in June 1996 after its proposals for anchoring the CTBT in a disarmament framework did not find acceptance.
- India protested the provisions as according to it it attempted a violation of a country's sovereign right to decide if it wanted to join a treaty but was ignored.

How are the current political conditions?

- The strategic competition among major powers is back as the U.S identifies Russia and China as rivals than in 1990s.
- The US has embarked on a 30 year nuclear modernisation plan which could go up over the years as its Nuclear

Posture Review asserts that the US faces new nuclear threats because of Russia and China's increasing reliance on nuclear weapons.

- The U.S's growth in technological lead particularly in missile defence and conventional global precision strike capabilities has been a concern to Russia and China.
- The U.S has already indicated that it doesn't plan to extend the New Strategic Arms Reduction Treaty (New START) limits U.S and Russian arsenals which will expire in 2021.

Conclusion

- New rivalries have already emerged with the resumption of nuclear testing which may signal the demise of the ill fated CTBT marking the beginnings of a new nuclear arms race and it is high time to bring the treaty back to force to ensure world peace.

2) A Big Deal



Context:

- Facebook will acquire a 9.99 per cent stake in Jio Platforms limited, the holding company of Reliance Jio, for \$5.7 billion as announced by both Reliance Industries and Facebook.
- It will reduce the debt burden of the Reliance group which is something the oil to telecom conglomerate has been actively working towards.

What are the benefits of the deal?

- The various arms of Reliance and Facebook's platforms such as WhatsApp is expected to benefit from the synergies created by partnerships.
- To enable customers to access the local kirana stores using WhatsApp, combining both offline and online retail is the core

idea to create an ecosystem around JioMart.

- This will help connect millions of local businesses with end consumers.
- It will provide them a seamless online transaction experience and could radically alter the country's retail landscape.

How can the overall ecosystem be benefitted?

- The success of Virtual reality and Internet of Things will depend on access to 5G with a strategic partnership with India's largest telecom operator.
- Jio has sought the approval of the Telecom Authority of India (Trai) for 5G trials as it has developed its own end-to-end 5G technology.
- It may help in deepening financial inclusion as 400 million users of WhatsApp, may leverage Facebook's Whatsapp pay-UPI platform.
- This deal could be a step further for experimenting crypto-based payments and blockchain technology on a large scale in India because of Facebook's Libra cryptocurrency service.
- It will support the Govt's data localisation policies in the past.
- This partnership may allow Facebook to develop a better relationship with 'key decision-makers' in the face of such shaky relations.

What are the concerns over this deal?

- A significant part of Reliance's new commerce strategy is to create an ecosystem and engaging consumers with them has become a way of life for most retail majors across the world and with this deal JioMart could become a one-stop-shop for e-commerce, social media consumption, instant messaging, and also digital payments.
- This raises concerns over the market structure and its implications for consumer welfare.
- The question on net neutrality with the possibility of preferential treatment being granted is also raised as the Telecom Regulatory Authority of India had banned Facebook's Free Basics programme from India in 2016.
- There are apprehensions over the enormous amounts of data that will be

collected by these entities, especially when India still does not have a personal data protection law.

- This investment may give Facebook access to the 5G technology and telecom infrastructure that it needs.

Conclusion

- Such a big deal should not be passed without closely scrutinising as the future

of India's Internet economy is at stake and Regulatory bodies such as the Competition Commission of India and Telecom Regulatory Authority of India have a bigger role to play on the major issues that will arise from this deal.

3) Inclusive approach to combat climate change



Context:

- Any effective solution to mitigate climate change in India must take into account poverty, inadequate food distribution and lack of basic shelter as events like climate change do not happen in isolation, neither the repercussions of climate change affect only any particular section of society.

How is India's GDP falling?

- Sandwiched between Nicaragua and Namibia, India is ranked 129 of 189 countries in the global listing on the Human Development Index.
- To protect against events such as job loss that typically result from declining gross domestic product there is nearly no social security provided by the state or private insurance in India.
- The lack of social cushion provided by the state or private sector affects several aspects of the ecosystem we live within given that our GDP growth rate is currently steadily declining from eight per cent in 2016 to currently six per cent.
- It reduces the need for the rich and the poor to truly dismantle inequality in India.

How can it be a vicious cycle?

- It adversely affects livelihoods that distract individuals from being environmentally responsible as GDP decline severely aggravates environmental degradation.
- Poverty in existence can hardly help in saving the planet.
- There is death, ill health, and habitat destruction caused by environmental degradation and there is little money to treat ailments resulting from environmental degradation.
- This makes it a dangerous, vicious circle of economic and environmental degradation that feeds into each other as these translate into enormous costs for the economy as well.
- The measures to counter the impact on human life of this environmental degradation is inadequate like air pollution from burning fossil fuels currently costs about 5.4 per cent of India's GDP.

What are the positive steps taken by the government?

- To boost cleaner economic development India has kick-started several national programmes since 2010.

- Renewable energy, energy efficiency and clean transport among others have been the focus in the national programmes.
- Replacing over 700 million street and household lights with energy-saving and long-lasting LEDs, India has fared well in implementing energy efficiency policies by pushing solar energy.
- Regional climate strategies that offer important learnings for scalability and success have been developed by the state governments.

What are the sustainable solutions?

- Transitioning the existing coal-based power plants to renewable energy technologies.
- Transition to electric private and public vehicles.
- Identify the ecologically vulnerable zones, map them, and see what kind of protection can be given.
- Disaster preparedness.

Conclusion

- Climate change has proved that it plays a role in increasing extreme precipitation events as well as desertification and an inference can be made that there will be lands with massive rainfall or with no rain at all with each situation in need of its own set of solutions.

4) Vaccinating Policy



Context:

- The development of Covid-19 vaccines that can be used globally is a priority for ending the pandemic as the transmission of infection may quickly rebound if interventions are relaxed.
- Aggressive implementation of suppression strategies, such as case

identification, quarantine and isolation, contact tracing, and social distancing are the current response to the Covid-19 pandemic.

What is the Background?

- Three imperatives like Speed, Manufacture and Deployment at scale, and Global access should be guided in the development effort for vaccines.
- Once the market, balancing Intellectual Property (IP) regimes with public health interests remains the bigger challenge.

What is the role of India?

- India has been home to half a dozen major vaccine makers and is among the largest manufacturers of generic drugs and vaccines in the world.
- The country hosts vaccine makers against Polio, Meningitis, Pneumonia, Rotavirus, BCG, Measles, Mumps and Rubella, among other diseases.
- The state of art R & D facilities in the field of vaccines development like the Serum Institute of India is the world's largest vaccine maker by the number of doses produced and sold globally is hosted in India.

What are the related issues?

- With very sophisticated methods and a high level of knowledge, the production of vaccines requires high cost.
- The global pharmaceutical industry exercises Intellectual Property Rights (IPRs) like patents and passes on this cost (and leveraging huge profits) to final consumers in order to protect the initial investment.
- To provide patent protection under the WTO agreement on trade-related aspects of intellectual property (TRIPS) there is a further need that international trade agreements require countries with vaccine manufacturing capabilities.
- The global pharmaceutical industry establishes a monopoly over life-saving drugs due to these IPRs laws only and hence IP laws are required to promote innovation in the R&D of new medicine or vaccines.
- The patents are preventing competition and threatening both the affordability and the supply of new drugs at the cost of human lives.

What is the way forward?

- Reviving the World Health Organization's Global Influenza Surveillance and Response System which has remained largely defunct.
- Through Medicines patent pool allowing multiple manufacturers to supply new drugs and diagnostics at more affordable prices.
- Innovative finance mechanisms should be used to fund the development of Covid-19 vaccines.
- The International Finance Facility for Immunisation (IFFIm) raises funds with vaccine bonds which are launched with advanced market commitments, where donors make funding commitments to vaccine manufacturers and, in exchange,

companies sign a legally binding commitment to provide the vaccines at a price affordable to low-income and middle-income countries.

Conclusion

- India has decided to speed up vaccine trials following its conventional role of being a pharmacy to the world for which the Indian government can deploy the TRIPs-compliant tool of compulsory licensing to enable the vaccine to be produced by third-party manufacturers at affordable prices.

RSTV BIG-PICTURE

1) Restoring Global Supply chains



Context:

- One of the lessons to be learnt from the novel coronavirus pandemic is that nations should build supply chains inside the country, even US President Donald Trump stressed on this aspect.
- Trump's remarks assume significance amid the disruption in the supply chain and the World's dependence on other countries on items of basic necessities and pharmaceuticals, including anti-malarial drug Hydroxychloroquine that is cited by Trump as a viable therapeutic to the deadly COVID-19.

What is the impact on the global supply chain?

- Monopoly is never a good thing.
- This pandemic has shown that most of the countries are dependent on other countries to run their supply chains.
- More than 9 lakh companies operating in China- back offices, production centres etc.
- Supply disruption in China, visitors not keen to go into China.
- Indian festivals are dependent on China for most of the things.
- Cargo prices have gone up between countries- shows that the global supply chain has been affected.
- Spill over effect will be after a couple of months.
- Both demand and supply will be affected.

- Sectors which side the global supply chain like Transportation, financial are also facing a setback.
- All the consignments from China at the Bombay port are being fumigated and the cost and process is a lot.
- Many companies are not willing to take the supplies.
- Simultaneous lockdown of the global economy.

How can it be restored?

- Multilateral institutions should design a roadmap to consume.
- Start the production- India is the most viable country because of geography, labour force, virgin areas in the northeast, and industrial hubs in Gujarat etc.
- Both the government and private sector should come together.

What is the way forward?

- India- Labour laws improvement, fiscal incentive for companies, policy formulation etc.
- Factor reforms needed to take advantage of the situation.
- Indian companies should start getting production even for the domestic market.
- Trade associations should come along.
- Take advantage of booming stock markets. Identify the few sectors which can get investments. SEZs can play a better role.

Conclusion

- Japan postponed the Summer Olympics due to a pandemic. India put 1.3 billion people under lockdown. Inhabitants of the U.K. awoke to their first day in home confinement from the coronavirus. The World Health Organization warned the U.S. could become the new hub of the outbreak. President Donald Trump said he'd love to see the country reopen by Easter, just three weeks later.
- Hence, though things seem gloomy the economy can hold on for brighter beginnings.

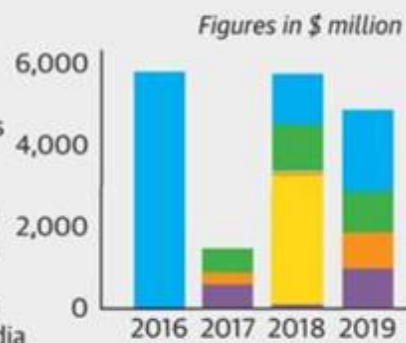
2) Reviewing Chinese FDI

China's economic footprint in India

Chinese investment in India increased from \$1.6 billion in 2014 to \$8 billion in 2017 according to a Brookings India report. The investments span a range of sectors with a significant share in the start-up space

INVESTMENT VALUE

The chart depicts the estimated value of China's investments in India since 2016 across various sectors such as infrastructure, consumer goods, energy, real estate and automobiles. The chart includes both actual and planned investments. Data sourced from Brookings India



Context:

- India is one of the latest countries to join the move to resist hostile business takeovers by China.
- Countries around the world have been tightening rules on foreign investments in critical sectors to ensure that their economies do not become vulnerable and exposed to foreign hands.
- As reports suggest that Beijing is on a buying spree owing to the coronavirus pandemic-induced economic downturn, the world as a whole, is reconsidering relations with China in the face of increased investment in critical sectors by Chinese state-owned enterprises.

What are the key points?

- FDI is allowed fewer than two modes - either through the automatic route, for which companies don't need government approval, or through the government route, for which companies need a go-ahead from the centre.
- An entity of a country, which shares a land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- A transfer of ownership in an FDI deal that benefits any country that shares a border with India will also need government approval.
- India shares land borders with Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar.
- Investors from countries not covered by the new policy only have to inform the RBI after a transaction rather than asking for prior permission from the relevant government department.

What are the impacts?

- The earlier FDI policy was limited to allowing only Bangladesh and Pakistan via the government route in all sectors.
- The revised rule has now brought companies from China under the government route filter.
- China's footprint in the Indian business space has been expanding rapidly, especially since 2014.

What are the Chinese investments in India?

- The net Chinese investment in India, which was \$1.6 billion in 2014, shot up five-folds to at least \$8 billion (Rs 60,800 crore) in the next three years — with a noticeable shift from state-driven to market-driven investment from the Chinese private sector.
- They neither account for all Chinese companies' acquisitions of stakes in the technology sector nor did investments from China route through third-party countries, such as Singapore.
- For instance, a \$ 504-million investment from the Singapore arm of the mobile firm Xiaomi would not figure in official statistics because of how investments are measured.
- It has been seen that the Chinese firms have escaped the kind of scrutiny in India that their investments have attracted in the West despite several high-profile investments and acquisitions.
- Another concern is that there is no clear separation between the Chinese state and private business. They work closely in pursuing many goals.

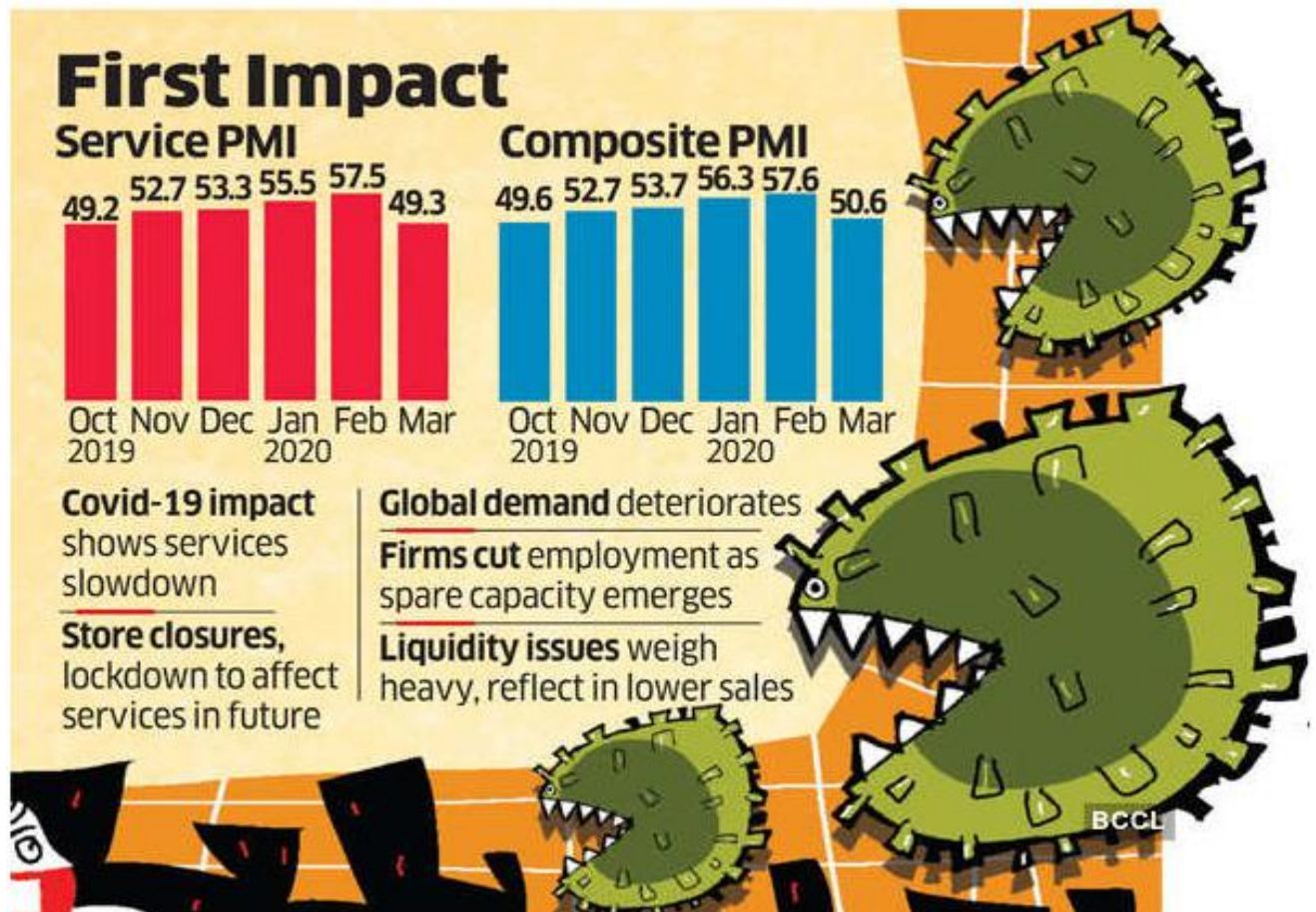
Conclusion

- It is interesting that the Chinese foreign ministry did not raise the issue at its regular briefing to avoid internationalising its objection to India's new FDI norms. It was left to the Chinese

embassy in New Delhi to critique the decision when it stated that the 'barriers set by Indian side for investors from specific countries violate WTO's principle of non-discrimination, and go against the

general trend of liberalisation and facilitation of trade and investment'.

3) Global World order post COVID-19



Context:

- The world is witnessing unprecedented times due to the coronavirus pandemic.
- Not even the best of minds are aware of the treatment or the prevention in terms of a vaccine or a medicine.
- These extraordinary happenings will definitely impact the world order.

What is the background?

- The lethal combination of an interconnected world and a deadly virus without a cure is taking humanity into uncharted waters.
- COVID-19 in all likelihood will fundamentally transform the world as we know it.

What are the possible changes with respect to China in the world?

- Far-reaching changes can also be anticipated in the realm of geo-economics and geopolitics. The world needs to prepare for a sea change.

- One nation, viz. China is presently seeking to take advantage of and benefit from the problems faced by the rest of the world in the wake of the epidemic.
- Negligence on the part of China: China remains totally unfazed by the stigma that the current world pandemic owes a great deal to its negligence.
- More importantly, it is seeking to convert its 'failure' into a significant opportunity.
- This is Sino-centrism at its best, or possibly its worst.
- China now seeks to benefit from the fact of its 'early recovery'.
- It wants to take advantage of the travails of the rest of the world, by using its manufacturing capability to its geo-economic advantage.
- Seeking geopolitical advantage: Simultaneously, it seeks to shift from being a Black Swan (responsible for the pandemic), to masquerade as a White

one, by offering medical aid and other palliatives to several Asian and African countries to meet their current pandemic threat.

- In turn, it seeks to gain a geopolitical advantage by this action.

What are the changes with respect to the role of the US and Europe?

- The geopolitical fallout of this pandemic could be still more serious.
- One distinct possibility is that COVID-19 would effectively put paid to the existing global order that has existed since the late 1940s.
- The United States which is already being touted in some circles as a 'failing' state will be compelled to cede ground.
- Weakened economically and politically after COVID-19 has ravaged the nation, the U.S.'s capacity to play a critical role in world affairs is certain to diminish.
- The main beneficiary of this geopolitical turnaround is likely to be China, a country that does not quite believe in playing by the rules of international conduct.
- Weakened Europe: Europe, in the short and medium-term, will prove incapable of defining and defending its common interests, let alone having any influence in world affairs.
- Role of Germany: Germany, which may still retain some of its present strength, is already turning insular.
- Both France and the post-Brexit United Kingdom will be out of the reckoning as of now.

What are the expected changes in India?

- In the meantime, the economic downturn greatly reduces India's room for manoeuvre.
- In South Asia, India faces the prospect of being isolated, with the Chinese juggernaut winning Beijing new friends and contacts across a region deeply impacted by the economic consequences of the COVID-19 pandemic.
- Likewise, India's leverage in West Asia — already greatly diminished — will suffer further.
- With oil prices going down and the Indian expatriate community (who are among the hardest hit by this downturn) out on a limb.

- Reduction in remittances: Many of the latter may seek repatriation back to the host country, substantially reducing the inflow of foreign funds to India from the region.

Conclusion

- In the post-Covid-19 world, we are about to see many changes on the economic and geopolitical front. India should prepare itself for the emerging challenges on various fronts.

4) Impact of lockdown on women and children



Context:

- The COVID-19 crisis has a potentially far-reaching, long-term negative impact on women and children around the world.
- The impact is likely to be devastating especially for children, even though they appear to have less severe symptoms and lower mortality rates than other age groups.

What is the Background?

- More than 1.5 billion students are out of school.
- Widespread job and income loss and economic insecurity among families are likely to increase rates of child labor, sexual exploitation and child marriage.
- Stresses on families, particularly those living under quarantines and lockdowns, are increasing the incidence of domestic violence.

What are the impacts?

- The gendered and intersectional impact of any natural or human-made calamity, including COVID-19 plays out even in middle-class homes because 'working from home' is not the same for men and women.
- With domestic workers being laid off (so much haggling around paying them during lockdown!), women are relegated

to unending household chores because everyone is home all the time.

- In the meanwhile, physical distancing has little meaning for the laid off working class woman, who has to fill water at the crowded common tap, use public latrines or sell vegetables to make ends meet.
- Irrespective of who could pass on COVID-19 to whom, physical distancing within the home cannot be ensured by women alone, because of the husband's prerogative to have sex at will.
- A nurse, frontline health worker, policewoman and waste picker returning home from work is expected to cook, clean, and bathe the children, with little concern for her own rest or recreation, while simultaneously facing resentment for 'putting the family at risk'.
- The sudden lockdown has also temporarily separated families across districts. The return of the husband results in relief and rejoicing, whereas a wife who has lived on her own faces suspicion, and in dire cases, desertion.
- Men who are frustrated by the worsened financial situation could also leave the family and settle down elsewhere, thereby increasing the number of single mothers left to fend for their children.
- Since women are considered primary caregivers, the physical or emotional ailments of other family members become women's responsibility.
- Loss of wages, jobs, boredom, withdrawal from alcohol and other drugs, as well as lack of access to uninterrupted treatment of TB or psycho-social illnesses would have far-reaching consequences for the patient as well as for the women in the household.
- With public hospitals closing their OPDs, the poorest would have no access for acute or chronic ailments.
- In such situations women and adolescent girls from poor families who have the least access to health care, would suffer the most.
- Groups working for health rights in India such as the Jan Swasthya Abhiyan and Medico Friend Circle have expressed concern about the hierarchy in prioritising COVID-19 over other existing

illnesses, especially in the context of our dwindling public health services.

Conclusion

- Not only has the COVID-19 pandemic affected men and women differently, it has also affected unequally placed women differently. Therefore, only an approach that recognises the special needs and rights of marginalised and excluded people can have a meaningful and lasting impact on the wellbeing of all our people.

References

POLITY:

- 1) <https://www.thehindu.com/news/national/chakmas-hajongs-starving-in-arunachal-says-rights-body/article31447579.ece>
- <https://www.thehindu.com/news/national/who-are-chakmas/article19682129.ece>
- 2) <https://www.thehindu.com/sci-tech/technology/coronavirus-what-are-the-concerns-around-the-aarogyasetu-app/article31434768.ece>
- 3) <https://www.thehindu.com/news/national/sanjay-kothari-appointed-central-vigilance-commissioner/article31430459.ece>
- https://www.cvc.nic.in/sites/default/files/Powers%20and%20Functions%20of%20CVC_0.pdf
- <https://www.cvc.nic.in/faq>
- <https://www.cvc.nic.in/about/background>

Economy

- <https://www.wipo.int/about-wipo/en/history.html>
- https://www.wto.org/english/tratop_e/t_rips_e/tripfq_e.htm
- <http://www.arthapedia.in/index.php%3Ftitle%3DIndex%20of%20Eight%20Core%20Industries>
- <https://www.thehindu.com/todays-paper/tp-life/kashmir-saffron-gets-gi-tag/article31485701.ece>
- <http://www.ipindia.nic.in/act-1999.htm>
- <https://www.thehindu.com/todays-paper/march-core-sector-output-slumps-65/article31477598.ece>

Environment

- 1) <https://www.karnataka.com/bangalore/bannerghatta-national-park/>
- <https://bannerghattabiologicalpark.org>

IR

- <https://www.adb.org/about/history>
- <http://brics2016.gov.in/content/innerpage/about-us.php.php>
- <https://pib.gov.in/newsite/mainpage.aspx>

- <https://www.ohchr.org/EN/AboutUs/Pages/WhoWeAre.aspx>
- <https://www.thehindu.com/todays-paper/15-billion-adb-loan-to-fund-covid-response/article31458706.ece>
- <https://www.thehindu.com/todays-paper/tp-international/un-warns-of-a-human-rights-disaster/article31449401.ece>
- <https://www.thehindu.com/todays-paper/tp-national/australia-cancels-premier-air-exercise/article31440571.ece>
- <https://www.thehindu.com/todays-paper/tp-national/brics-should-help-entrepreneurs-india/article31458667.ece>

S&T

1. References

2. <https://www.thehindu.com/sci-tech/science/first-merger-of-two-black-holes-with-unequal-masses-detected/article31432887.ece/amp/>
1. <https://www.ligo.caltech.edu/page/learn-more>
2. <https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-a-black-hole-k4.html>
3. <https://www.thehindu.com/sci-tech/technology/how-will-india-contribute-to-ligo/article28621498.ece>
3. <https://www.thehindu.com/sci-tech/health/coronavirus-who-raises-concern-over-use-of-bcg-vaccine/article31485073.ece/amp/>
1. <https://economictimes.indiatimes.com/news/science/us-scientists-link-bcg-vaccination-with-fewer-covid-19-cases-indian-scientists-hopeful-but-cautious/articleshow/74931591.cms?from=mdr>
2. <https://www.who.int/biologicals/areas/vaccines/bcg/en/>
3. <https://bettercare.co.za/learn/childhood-tb/text/02.html#disseminated-tuberculosis>
4. <https://www.healthline.com/health/meningitis#symptoms>
5. <https://www.medicalnewstoday.com/articles/280574>
4. <https://www.thehindu.com/news/national/tamil-nadu/covid-19-the-tests-reveal-all/article31457890.ece>

5. <https://www.thehindu.com/news/national/tamil-nadu/will-vitamin-c-be-of-any-help/article31440044.ece>

Editorials

- <https://www.thehindu.com/opinion/lead/at-the-edge-of-a-new-nuclear-arms-race/article31439692.ece>
- <https://indianexpress.com/article/opinion/editorials/reliance-facebook-mukesh-ambani-jio-mark-zuckerberg-big-deal-4-6376337/>
- <https://www.climate-kic.org/opinion/transformational-policies-for-the-climate-challenge/>
- <https://www.thehindu.com/opinion/op-ed/a-task-for-south-asia/article31457045.ece>

PIB

- 1) <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1618375>
- 2) <https://pib.gov.in/PressReleasePage.aspx?PRID=1618735>
- 3) <https://pib.gov.in/PressReleasePage.aspx?PRID=1619236>
- <https://www.thehindu.com/business/Economy/nirmala-sitharaman-unveils-102-lakh-crore-of-infra-projects-for-next-5-years/article30442498.ece>
- 4) <https://pib.gov.in/PressReleasePage.aspx?PRID=1620086>
- <https://www.thehindubusinessline.com/news/science/csirs-kisan-sabha-app-to-connect-farmers-to-supply-chain/article31487870.ece>

AIR

- <http://newsonair.com/News?title=Prakash-Javadekar-stresses-on-climate-finance-in-first-virtual-Petersberg-Climate-Dialogue&id=386983>
- 2) <http://newsonair.com/News?title=Govt-decides-to-provide-Mid-day-meals-to-students-during-summer-vacation-in-wake-of-situation-arising-out-of-COVID-19&id=386997>
- <http://samagra.mhrd.gov.in/about.html>

RSTV

1. <https://www.youtube.com/watch?v=QuU3x4DTNjw>
2. <https://www.youtube.com/watch?v=gS3BsZXppTI>
3. <https://www.youtube.com/watch?v=EvQrGt3M2pU>
4. <https://www.youtube.com/watch?v=-bZMNqgwbMk>