

CURRENT AFFAIRS

Month of
APRIL-2020



Plot-1441, Opp. IOCL Petrol Pump, CRP Square, Bhubaneswar

Ph : 8093083555, 8984111101

Web : www.vanikias.com | E-mail : vaniksias@gmail.com

facebook  www.facebook.com/vanikias

PART-1



VANI IAS
Exclusive Coaching for UPSC/OPSC

Polity and Governance

Highlights

- ✧ Supreme Court Upholds Right to Discuss Covid-19
- ✧ Supreme Court on Free Testing of Covid-19
- ✧ Floor Test is Governor's Discretion: SC
- ✧ Restrictions on Court Hearings Lawful
- ✧ Centre Defines J&K Domicile Rules
- ✧ National Security Act, 1980
- ✧ Foreign Contribution to PM-CARES Fund
- ✧ Corporate Social Responsibility Expenditure
- ✧ Taxation and Other Laws (Relaxation of Certain Provisions) Ordinance, 2020
- ✧ State Disaster Response Funds
- ✧ MP's Salaries Cut and MPLADS Suspended
- ✧ Norms Relaxed under MPLAD Scheme
- ✧ Lockdown Extended
- ✧ ICMR Advises 'Pool Testing' of Covid-19
- ✧ Privacy Concern Over Aarogya Setu App
- ✧ Sahyog App: Survey of India
- ✧ School Education & Covid-19
- ✧ Bharat Padhe Online and YUKTI Portal: MHRD
- ✧ SAMADHAN Challenge
- ✧ Indian Migrants and Challenges
- ✧ National Investigation Agency
- ✧ Measures for Smooth Disbursal of Funds Under PMGKY
- ✧ Expert Panel Against Full Repeal of lockdown
- ✧ Neighboring Rights Law
- ✧ Covid-19 Impact on Measles Immunization Program
- ✧ Measures for Farmers' Welfare
- ✧ New Features Added to e-NAM
- ✧ Schemes for Electronic Manufacturing
- ✧ Women SHGs Fight Against Covid-19
- ✧ Deendayal Antyodaya Yojana-National Rural Livelihoods Mission
- ✧ Healthcare Institutions Face Cyber Threats

Supreme Court Upholds Right to Discuss Covid-19

Why in News

Recently, the Central government appealed in the Supreme Court that media outlets, in the **"larger interest of justice"**, should only publish or telecast anything on **Covid-19** after ascertaining the factual position from the government.

Key Points

- ⌚ According to the government, **"any deliberate or inaccurate"** reporting by the media, particularly web portals, in the midst of an unprecedented situation can have a **"serious and inevitable potential of causing panic in a larger section of the society"**.
- ⌚ The government blamed **"fake and misleading" messages** on social media **for creating widespread panic, which led to mass "barefoot" journeys of**

migrant workers from cities to their native villages in rural India.

Related Constitutional Provisions

- ⌚ **Article 19(1)(a)** of the Constitution of India states that, **"all citizens shall have the right to freedom of speech and expression"**.
- ⌚ The philosophy behind this Article lies in the Preamble of the Constitution, where a solemn resolve is made to secure to all its citizens, liberty of thought and expression.
- ⌚ The exercise of this right is, however, subject to **"reasonable restrictions"** for certain purposes being imposed under **Article 19(2)** of the Constitution of India.
- ⌚ These reasonable restrictions are imposed in the interests of the **sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence.**

- ⊙ The mass migration of the poor would defeat the preventive measures taken by the Central government to contain pandemic.
- ⌚ The Supreme court took a view **balancing free press** and the **need to avoid panic** in society during an unprecedented crisis.
- ⊙ The Court upheld the **right to free discussion about Covid-19**, and directed the media to refer to and publish the official version of the developments in order to avoid inaccuracies and large-scale panic.
- ⊙ It **ordered the government to start a daily bulletin on Covid-19 developments** through all media avenues in the next 24 hours.

Supreme Court on Free Testing of Covid-19

Why in News

The Supreme Court modified its April 8, 2020 order to clarify on free testing for Covid-19.

Key Points

- ⌚ Private labs would continue to **charge the Indian Council of Medical Research (ICMR) rates of up to 4,500** for tests from people who can afford to pay.
- ⌚ **Free testing for Covid-19** shall continue to be made available to the poor eligible under the **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana**.
- ⌚ Free testing would also be made available to any other category of **economically weaker sections of society as notified by the government from time to time**.
- ⌚ The Supreme Court directed the Ministry of Health & Family Welfare to identify beneficiaries among the weaker sections of society.
 - ⊙ This includes workers belonging to low income groups in the informal sectors and beneficiaries of **Direct Benefit Transfer** who can be made eligible for free testing.
- ⌚ It also directed the Ministry to issue **appropriate guidelines** in this regard within a week.

Ayushman Bharat Pradhan Mantri Jan Arogya

- ⌚ PM-JAY offers a sum insured of **Rs.5 lakh per family** for secondary care (which doesn't involve a super specialist) as well as tertiary care (which involves a super specialist).

- ⌚ It is an entitlement-based scheme that targets the beneficiaries as identified by latest **Socio-Economic Caste Census (SECC) data**.
 - ⊙ Once identified by the database, the beneficiary is considered insured and can walk into any empanelled hospital.
- ⌚ The **funding** for the scheme is shared – **60:40 for all states and UTs** with their own legislature, **90:10 in Northeast states and Jammu and Kashmir, Himachal and Uttarakhand** and **100% Central funding for UTs without legislature**.
- ⌚ Packaged rates (Rates that include everything so that each product or service is not charged for separately):
 - ⊙ They also mention the number of average days of hospitalization for a medical procedure and supporting documents that are needed.
 - ⊙ They are flexible, but hospitals can't charge the beneficiary once the rates are fixed.
- ⌚ **The National Health Agency** has been constituted as an autonomous entity under the Society Registration Act, 1860 for effective implementation of PM-JAY in alliance with state governments.
- ⌚ **The State Health Agency (SHA)** is the apex body of the State Government responsible for the implementation of AB PM-JAY in the State.

Floor Test is Governor's Discretion: SC

Why in News

Recently, the **Supreme Court of India** has held that a **Governor** can call for a **floor test** any time he/she objectively feels a government in power has **lost the confidence of the House** and is on shaky ground.

Key Highlights

- ⌚ The S.C. held that a **Governor can call for a trust vote (confidence motion)** if he/she has arrived at a prima facie opinion, based on objective material, that the incumbent State government has lost its majority in the Assembly.
 - ⊙ However, while **directing a trust vote**, the **Governor should not favour a particular political party**.

- ⌚ Timing of a trust vote may tilt the balance towards the party possessing a majority at the time the trust vote is directed.
- ⌚ Governor's power to call for a floor test is **not restricted only before the inception of a State government** immediately after elections, but **continues throughout its term**.
- ⌚ The SC has clarified that the **Governor's power of trust vote does not hamper any disqualification proceedings pending before the Speaker**.
- ⌚ A **Governor need not wait for the Speaker's decision** on the resignation of rebel Members of Legislative Assembly (MLAs) before calling for a trust vote.

Trust Vote

- ⌚ A **confidence motion** or a **vote of confidence** or a **trust vote**, is sought by the government in power on the floor of the House.
- ⌚ It **enables the elected representatives to determine if the Council of Ministers commanded the confidence** of the House.
- ⌚ The idea underlying the trust vote is to **uphold the political accountability of the elected government to the State legislature**.
- ⌚ **No-confidence motion:**
 - ⌚ A **no-confidence motion**, or **vote of no-confidence**, or a **no-trust vote**, can be **sought by any House member to express that they no longer have confidence in the government**.

Floor Test

- ⌚ It is a **term used for the test of the majority**. If there are **doubts against the Chief Minister (CM)** of a State, he/she can be **asked to prove the majority in the House**.
 - ⌚ In case of a **coalition government**, the **CM** may be **asked to move a vote of confidence and win a majority**.
- ⌚ In the **absence of a clear majority**, when there is more than one individual staking claim to form the government, the **Governor may call for a special session** to see who has the majority to form the government.
 - ⌚ Some legislators may be absent or choose not to vote. The numbers are then considered based only on those MLAs who were present to vote.

Constitutional Provisions Related to Governor

- ⌚ **Article 163:** It talks about the discretionary power of the governor.
- ⌚ **Article 256:** The executive power of the Union shall extend to the giving of such directions to a State as may appear to the Government of India to be necessary for that purpose.
- ⌚ **Article 257:** The executive power of the Union shall also extend to the giving of directions to a State as to the construction and maintenance of means of communication declared in the direction to be of national or military importance.
- ⌚ **Article 355:** It entrusts the duty upon the Union to protect the states against "external aggression" and "internal disturbance" to ensure that the government of every State is carried on in accordance with the provisions of the Constitution.
- ⌚ **Article 356:** In the event that a state government is unable to function according to constitutional provisions, the Central government can take direct control of the state machinery. The state's governor issues the proclamation, after obtaining the consent of the President of India.
- ⌚ **Article 357:** It deals with Exercise of legislative powers under Proclamation issued under Article 356 by the central government.

Restrictions on Court Hearings Lawful

Why in News

Recently, the Supreme Court held that all **restrictions imposed on people** from entering, attending or taking part in court hearings **are lawful in the wake of the Covid-19 pandemic**.

- ⌚ The court said these **restrictions were in tune with the social distancing norms** and best public health practices advocated to contain the Covid-19.

Key Points

- ⌚ **Duty vs Discretion:** The apex court invoked its extraordinary Constitutional powers under **Article 142** to step away from the **convention of open court hearings**. It further clarified that use of this extraordinary power was **not a matter of discretion but of duty**.

- ⌚ **Convention vs Public Health:** Although the open court system ensures transparency in administration of justice, scaling down of conventional operations was done to avoid congregation of a large number of people. The court made it clear **that public health takes precedence over conventions.**
- ⌚ **Cooperation and Participation:** The court said every individual and institution is expected to cooperate in the implementation of measures designed to reduce the transmission of the virus.
 - ⦿ It also argued courts at all levels respond to the call of social distancing and ensure that court premises do not contribute to the spread of virus.
- ⌚ **Covid-19 and Rule of Law:** Access to justice is fundamental to preserve the **rule of law** in the democracy envisaged by the Constitution of India. In the absence of access to justice, people are unable to have their voice heard, exercise their rights, challenge discrimination or hold decision-makers accountable.
 - ⦿ The challenges occasioned by the outbreak of Covid-19 have to be addressed **while preserving the constitutional commitment** to ensuring the delivery of and access to justice to those who seek it.

ICT and Delivery of Justice

- ⌚ **Guidelines:** The Supreme Court also issued the following **guidelines to streamline the use of Information and Communications Technology (ICT)** in effective delivery of Justice:
 - ⦿ **High Courts:** The High Courts to decide the modalities for the use of videoconferencing technologies in their respective States.
 - ⦿ **District Courts:** District courts in each State would adopt the mode of videoconferencing prescribed by the respective High Courts.
 - ⦿ **Helplines:** Helplines to be set up to receive and rectify technical complaints.
- ⌚ The **courts should make available video conferencing facilities** for litigants who do not have it or appoint an amicus curiae (friend of the court).
- ⌚ **Mutual Consent of Parties:** The court said in no case shall evidence be recorded without the mutual consent of both the parties by videoconferencing.
- ⌚ **Social Distancing:** If it is necessary to record evidence in a courtroom, the presiding officer shall ensure the social distancing to be followed.

Article 142

- ⌚ It provides **discretionary power to the Supreme Court** as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is **necessary for doing complete justice** in any cause or matter pending before it.
- ⌚ **Constructive Application:** In the early years of the evolution of Article 142, the general public and the lawyers both lauded the Supreme Court for its efforts to bring complete justice to various deprived sections of society or to protect the environment.
- ⌚ In the Union Carbide case, relating to the victims of the Bhopal gas tragedy, the Supreme Court placed itself above the laws made by the Parliament or the legislatures of the States by saying that, to do complete justice, it could even override the laws made by Parliament.
 - ⦿ However, in the **Supreme Court Bar Association v. Union of India**, the Supreme Court stated that **Article 142 could not be used to supplant the existing law, but only to supplement the law.**
- ⌚ **Cases of Judicial Overreach:** In recent years, there have been several judgments of the Supreme Court wherein it has been foraying into areas which had long been forbidden to the judiciary by reason of the doctrine of 'separation of powers', which is part of the basic structure of the Constitution. One such example is:
 - ⦿ **The ban on the sale of alcohol along national and state highways:** While the notification by the central government prohibited liquor stores along National Highways only, the Supreme Court put in place a ban on a distance of 500 metres by invoking Article 142.

Centre Defines J&K Domicile Rules

Why in News

Recently, the **Ministry of Home Affairs (MHA)** has issued the **Jammu and Kashmir Reorganisation (Adaptation of State Laws) Order, 2020.**

- ⌚ On 6th August 2019, the Centre **revoked J&K's special status under Article 370 and Article 35A of the Constitution** and **bifurcated it into the UTs of J&K and Ladakh.**

- ⊙ The two revoked constitutional provisions let the state legislature decide the ‘**permanent residents**’, prohibiting a non-J&K resident from buying property there and ensuring job reservation for its residents.
- ⌚ There are **12 States**, including Himachal Pradesh, where provisions of **special status** under **Article 371** apply.
- ⊙ The provisions pertain to **regulation of ownership and transfer of land** in order to conserve the limited resources available for development and to ensure that the State preserves its unique identity.

Key Highlights of Order

- ⌚ It amended 109 laws and repealed 29 laws of the erstwhile State and inserted the ‘**domicile**’ clause in the **Jammu and Kashmir Civil Services (Decentralisation and Recruitment) Act, 2010**.
- ⌚ The clause for ‘**permanent resident of the State**’ under the 2010 Act, has been substituted by ‘**Domicile**’ of the UT.
 - ⊙ The Act pertained to **employment in the civil services** comprising “district, divisional and State” cadre posts.
 - ⊙ Only permanent residents of J&K were eligible to apply for the gazetted and non-gazetted posts but **now non-domiciles can also apply** for these posts.
 - ⌚ The **domiciles will be eligible for the purposes of appointment to any post carrying a pay scale of not more than Level 4**.
 - ⊙ The **Level 4** post comprises positions such as gardeners, barbers, office peons and waterman and the highest rank in the category is that of a junior assistant.
 - ⌚ The **reservation for domiciles would not apply to Group A and Group B posts**, and like other UTs, recruitment would be done by the **Union Public Service Commission (UPSC)**.
- ⌚ **Criteria for Domiciles**
 - ⊙ Someone who has **resided for a period of 15 years** in the UT of J&K or
 - ⊙ Someone who has **studied for a period of seven years and appeared in Class 10th/12th examination** in an educational institution located in the UT of J&K or
 - ⊙ Someone who is **registered as a migrant by the Relief and Rehabilitation Commissioner (Migrants)**.
 - ⊙ **Children** of Central government officials, All India Services, PSUs, autonomous body of Centre, Public

Sector Banks, officials of statutory bodies, Central Universities, recognised research institutes of Centre who have served in J&K for a **total period of 10 years**.

- ⊙ **Children of such residents of J&K** who reside outside J&K in connection with their employment or business or other professional or vocational reasons but their parents **fulfil any of the conditions provided**.
- ⌚ The order also amended the **Jammu and Kashmir State Legislature Members’ Pension Act, 1984** which fixes the pension for former legislators and councillors.
 - ⊙ The notification **scraps all pension benefits** such as car, driver, accommodation, phones, electricity, medical facilities and rent-free accommodation to former J&K Chief Ministers.
- ⌚ The order has also made amendments to the **Public Safety Act (PSA) 1978** by removing a clause that prohibited J&K residents booked under the Act to be lodged in jails outside.
 - ⊙ **It changes the criteria for appointing the PSA advisory board** on the recommendation of a search committee headed by the Chief Secretary instead of the Chief Justice of the J&K High Court.
 - ⌘ The advisory board has a crucial role to play in release of detenues under the PSA.
 - ⊙ It also **bars sitting High Court judges to be made part of the board** without the Chief justice’s consultation.
 - ⊙ The order also **scraps a clause that deals with the power to regulate place and conditions of detention**.

Amendments

- ⌚ The **Ministry of Home Affairs** amended the **Jammu and Kashmir Reorganisation (Adaptation of State Laws) Order-2020**.
 - ⊙ The Order was issued by the Ministry on **31st March, 2020**.
- ⌚ **Protection to domiciles to “any post”** in the government including senior level positions in **Group A and Group B category**. This reserves all jobs in the Union Territory for only its domiciles.
 - ⊙ Earlier the protection to domiciles was **provided only in Group D** and entry level non-gazetted government posts. This opened all other government posts to anyone from the rest of the country.

- ⌚ The amended order also **removed the clause** that any person fulfilling the criteria of domicile eligibility will “deemed to be” a domicile. The **power to issue domicile certificates has been given to “tahsildar”**.

National Security Act, 1980

Why in News

The Indore district administration invoked the **National Security Act (NSA), 1980**, against four persons accused of instigating residents of a locality to pelt stones and chase away health workers who were in the locality to trace the contact history of a **Covid-19** patient.

About the National Security Act, 1980

- ⌚ The NSA is a **preventive detention law**.
 - ⊙ Preventive Detention involves the **detainment (containment) of a person in order to keep him/her from committing future crimes** and/or from escaping future prosecution.
 - ⊙ **Article 22 (3) (b) of the Constitution** allows for preventive detention and restriction on personal liberty for reasons of state security and public order.
 - ⊙ Further, **Article 22(4)** states that **no law providing for preventive detention** shall authorise the **detention of a person for a longer period than three months unless**:
 - ⌘ An Advisory Board reports sufficient cause for extended detention.
 - The **44th Amendment Act of 1978** has reduced the period of detention without obtaining the opinion of an advisory board from **three to two months**. However, this provision has not yet been brought into force, hence, the original period of three months still continues.
 - ⌘ Such a person is **detained in accordance with the provisions of any law made by the Parliament**.
- ⌚ History
 - ⊙ Preventive detention laws in India date back to early days of the colonial era when the **Bengal Regulation III of 1818** was enacted to empower the government to arrest anyone for defence or maintenance of public order without giving the person recourse to judicial proceedings.

- ⊙ A century later, the British government enacted the **Rowlatt Acts of 1919** that allowed confinement of a suspect without trial.
- ⊙ Post-independence, India got its first preventive detention rule when the government of Prime Minister Jawaharlal Nehru enacted the **Preventive Detention Act of 1950 (expired in 1969)**. The NSA is a close iteration of the 1950 Act.
- ⌚ Gives Power to the Government
 - ⊙ The NSA empowers the **Centre or a State government** to detain a person to prevent him from acting in any manner **prejudicial to national security**.
 - ⊙ The government can also detain a person to prevent him from **disrupting public order** or for **maintenance of supplies and services essential to the community**.
- ⌚ **Period of Confinement**: The maximum period for which one may be detained is **12 months**. But the term **can be extended** if the government finds fresh evidence.
- ⌚ **No Basic Rights to People Detained under the NSA**, including:
 - ⊙ The **right to be informed of the reason for the arrest** (Section 50 of the **Criminal Procedure Code -Cr.PC**).
 - ⌘ Under the NSA, a person could be kept in the dark about the reasons for his arrest for up to five days, and in exceptional circumstances upto ten days.
 - ⌘ Even when providing the grounds for arrest, the government can withhold information which it considers to be against public interest to disclose.
 - ⊙ Sections 56 and 76 of the Cr. PC also provides that **a person has to be produced before a court within 24 hours of arrest**.
 - ⊙ **Article 22(1) of the Constitution** says an arrested person cannot be denied the right to consult, and to be defended by, a legal practitioner of his choice.
 - ⌘ Under the NSA, the arrested person is not entitled to the aid of any legal practitioner in any matter connected with the proceedings before an advisory board, which is constituted by the government for dealing with NSA cases.

Criticism Against the NSA Act

- ⌚ **No Record of Detentions under the NSA**: The National

Crime Records Bureau (NCRB), which collects and analyses crime data in the country, does not include cases under the NSA in its data as no FIRs are registered. Hence, no figures are available for the exact number of detentions under the NSA.

- ⌚ In recent cases, different State governments have invoked the stringent provisions of the NSA to detain citizens for questionable offences.
- ⌚ Some experts argue that the governments sometimes use the NSA as an **extra-judicial power**.
- ⌚ NSA has come under wide criticism for its **misuse by the authorities**. Experts describe the validity of the Act even during peacetime as **‘anachronism’**.

Way Forward

- ⌚ It needs to be noted that the Act is 40 years old. Changes are required to ensure that the Act is not used arbitrarily. Arbitrary use of the Act hampers democracy and basic rights of an individual.
- ⌚ Even, the Supreme Court has held that the law of preventive detention has to be strictly construed and meticulous compliance with the procedural safeguards, is mandatory and vital.

Foreign Contribution to PM-CARES Fund

Why in News

Recently, the Central Government has decided to accept contributions from abroad, irrespective of the nationalities, to the **Prime Minister’s Citizen Assistance and Relief in Emergency Situations (PM-CARES) Fund**.

Key Points

- ⌚ Now the **foreign governments, NGOs, and nationals** can contribute to the Fund.
- ⌚ The move is a **major policy change** as in the **past 16 years India has not accepted any foreign aid**.
 - ⊙ In 2018, the government refused to accept foreign aid to flood-ravaged Kerala since it was following the **disaster aid policy** set in December 2004.
 - ⊙ After a tsunami hit India in **December 2004**, the government felt that it could cope up on its own. Since then, India has followed the policy of not accepting aid from foreign governments.

- ⌚ It has been said that the contribution to **PM-CARES is not “aid”** and the **foreign contribution is “only” applicable to the PM-CARES fund** and not any other fund like the **Prime Minister’s National Relief Fund**.

PM-CARES Fund

- ⌚ PM-CARES was **set up as a public charitable trust** with the trust deed registered on March 27, 2020.
 - ⊙ It is **meant for supporting relief or assistance** of any kind **relating to a public health emergency** or any other kind of emergency, **calamity or distress**, either man-made or natural.
 - ⊙ It includes the **creation or upgradation of healthcare or pharmaceutical facilities, funding relevant research** or any other type of support.
- ⌚ **Composition of PM-CARES:**
 - ⊙ **Prime Minister as chairperson**
 - ⊙ Defence Minister, Home Minister, Finance Minister
 - ⊙ **Three trustees** nominated by the Prime Minister “who shall be eminent persons in the field of research, health, science, social work, law, public administration and philanthropy”.
- ⌚ Donations to fund can avail **100% tax exemption**.
- ⌚ PM-CARES is different from the **Prime Minister’s National Relief Fund (PMNRF)**.

Corporate Social Responsibility Expenditure

Why in News

The **Ministry of Commerce and Industry** has clarified that the contributions to the Chief Minister’s Relief Fund or the State relief fund will not qualify as **Corporate Social Responsibility (CSR)** expenditure, while any donation to the **PM CARES Fund** will.

Key Points

- ⌚ The Chief Minister’s Relief Fund or State Relief Fund for **Covid-19 is not included in Schedule VII of the Companies Act, 2013**, and therefore any contribution to such funds shall not qualify as admissible CSR expenditure.

- ⊙ Schedule VII of the Companies Act, 2013 provides the list of activities that can be included in CSR.
- ⌚ Some political parties criticised this saying it is **discriminatory** and goes **against the constitutional principle of federalism**.
- ⌚ However, **donations to the State Disaster Management Authority to combat Covid-19** can be counted as admissible CSR expenditure.

Corporate Social Responsibility

- ⌚ The term in general can be referred to as a corporate initiative to assess and take responsibility for the **company's effects on the environment and impact on social welfare**.
- ⌚ In India, the concept of CSR is governed by **clause 135 of the Companies Act, 2013**.
- ⌚ **India is the first country in the world to mandate CSR spending along with a framework to identify potential CSR activities**.
- ⌚ The CSR provisions within the Act is applicable to companies with an annual turnover of **1,000 crore and more, or a net worth of Rs. 500 crore and more, or a net profit of Rs. 5 crore and more**.
- ⌚ The Act requires companies to set up a **CSR committee** which shall recommend a Corporate Social Responsibility Policy to the Board of Directors and also monitor the same from time to time.
- ⌚ The Act encourages companies to spend **2% of their average net profit in the previous three years** on CSR activities.
- ⌚ The indicative activities, which can be undertaken by a company under CSR, have been specified under **Schedule VII of the Act**. The activities include:
 - ⊙ Eradicating extreme hunger and poverty.
 - ⊙ Promotion of education, gender equality and empowering women.
 - ⊙ Combating Human Immunodeficiency Virus, Acquired Immune Deficiency Syndrome and other diseases.
 - ⊙ Ensuring environmental sustainability.
 - ⊙ Contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government for socio-economic development and relief funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women, etc.

Taxation and Other Laws (Relaxation of Certain Provisions) Ordinance, 2020

Why in News

Recently, the government has promulgated the 'Taxation and Other Laws (Relaxation of Certain Provisions) Ordinance, 2020'.

Key Points

- ⌚ The Ordinance brings into effect various tax compliance related measures announced on 24th March 2020 in the wake of **Covid-19** pandemic.
- ⌚ The government has extended the deadline for filing income tax, last dates for making investments in instruments such as **National Savings Certificates, Public Provident Fund** for claiming income tax benefits, etc.
- ⌚ The last date for **linking PAN with biometric ID Aadhaar** has been extended by three months to 30th June.
- ⌚ The Ordinance has also amended the provisions of the Income-tax Act to provide the **same tax treatment to the Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM-CARES Fund) as available to the Prime Minister's National Relief Fund (PMNRF)**.
 - ⊙ The donation made to the PM-CARES Fund shall be eligible for 100% deduction under section 80G of the I-T Act.
 - ⊙ The government has set up the PM-CARES Fund to deal with any kind of emergency or distress situation like posed by the **Covid-19 pandemic**.
 - ⊙ PMNRF was **instituted in 1948 by then Prime Minister Jawaharlal Nehru, to assist displaced persons from Pakistan**.
 - ⌘ The fund is currently used primarily to tackle **natural calamities** like floods, cyclones and earthquakes.
 - ⌘ The fund is also used to help with **medical treatment** like kidney transplantation, cancer treatment and acid attack.

Ordinance

- ⌚ Ordinance is a **decree or law promulgated by a state or national government** without the consent of the legislature.

- ⌚ **Article 123** of the Constitution of India grants the **President** certain law-making powers to promulgate ordinances when either of the **two Houses of Parliament is not in session**.
- ⌚ The fundamental reason for bestowing the executive with the power to issue ordinance according to Pandit H N Kunzru (involved in framing the Indian Constitution), was **“to deal with situations where an emergency in the country necessitated urgent action.”**
- ⌚ There are **three limitations** with regard to the ordinance making power of the executive. They are:
 - ⦿ The President can only promulgate an ordinance when **either of the two Houses of Parliament is not in session**.
 - ⦿ The President cannot promulgate an ordinance unless **he is satisfied that there are circumstances that require taking ‘immediate action’**.
 - ⦿ Ordinances must be **approved by Parliament within six weeks of reassembling or they shall cease to operate**. They will also cease to operate in case **resolutions disapproving the ordinance** are passed by both the Houses.

State Disaster Response Funds

Why in News

Recently, the Ministry of Home Affairs issued an order authorising the States to use **State Disaster Response Funds (SDRF)** to provide “for temporary accommodation, food, clothing, medical care, etc.” to homeless people, including the stranded migrant labourers.

- ⌚ The government has decided to **treat Covid-19 as a “notified disaster”**.

Key Points

- ⌚ SDRF has been constituted under the **Disaster Management Act, 2005**.
- ⌚ It is the **primary fund available with the State governments for responses to notified disasters** to meet expenditure for providing immediate relief.
- ⌚ The **Centre contributes 75% of the SDRF allocation for general category States and Union Territories and 90% for special category States and Union Territories** (northeastern States, Sikkim, Uttarakhand, Himachal Pradesh, Jammu and Kashmir).

- ⌚ The **annual Central contribution is released in two equal installments** as per the recommendation of the **Finance Commission**.
- ⌚ **Disaster (s) covered under SDRF:** Cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, frost and cold waves.
- ⌚ A State Government **may use up to 10% of the funds available under the SDRF** for providing immediate relief to the victims of natural disasters that they consider to be **‘disasters’ within the local context** in the State and which are not included in the notified list of disasters of the Ministry of Home Affairs.

MP’s Salaries Cut and MPLADS Suspended

Why in News

Recently, the Union Cabinet has approved an **ordinance to amend the Salaries, Allowances and Pension of Members of Parliament Act, 1954**.

- ⌚ It will **cut the salaries** of Members of Parliament (**MPs**) by **30%**, effective from 1st April 2020.
- ⌚ Apart from this, it has been decided to **suspend the Members of Parliament Local Area Development Scheme (MPLADS) funds for two financial years (2020-21 to 2021-22)**.
- ⌚ The saved amount will go to the **Consolidated Fund of India** to fight the **Covid-19 pandemic**.

Key Points

- ⌚ **30% Salary Cut**
 - ⦿ It is applicable to **all MPs**, including the **Prime Minister** and the **Council of Ministers**, for the financial year 2020-2021.
 - ⦿ The **President** and **Vice-President** of India along with all the **State Governors**, have also decided on their own to take a 30% salary cut.
 - ⦿ However, the amendment will **only cut MPs’ salaries, not allowances or the pensions** of ex-MPs.
 - ⦿ According to the pay hike in 2018, each MP draws a monthly salary of 1 lakh, 70,000 as constituency allowance and 60,000 for running office besides other perks.
- ⌚ **Suspension of MPLADS**

- ⊙ The amount saved from the scheme would be **around 8,000 crore** and will be redirected to the Consolidation Fund.
- ⊙ Many MPs had **already pledged to use their MPLADS funds** for efforts to combat the **coronavirus** pandemic.
- ⊙ 74 Rajya Sabha members had contributed a total of 100 crore, and 265 Lok Sabha members had given a total of 265 crore.
- ⌚ Currently, the **Lok Sabha** has **542 members** while the **Rajya Sabha** has a strength of **245 members, including 12 nominated**.
- ⌚ The **comprehensive decision** was taken to convey the message of **social responsibility** of the MPs.
- ⌚ **Other Previous Measures**
 - ⊙ The **employees of the central government** have already given **one day's salary** on their own. However, it is **not clear** if they will face a **pay cut** or not.
 - ⊙ State government of **Telangana** had already announced **salary cuts at all levels** on 30th March.
 - ⊙ Government has announced **various other measures** including the **Pradhan Mantri Garib Kalyan Yojana**.
 - ⌚ The salary cut has been **supported** throughout the country. However, the suspension of MPLADS has been **criticised** on the grounds that it is a **disservice to the constituents** and will undermine the role and functions of the MPs. It is the **centralisation of funds** which goes **against federalism**.

Government Accounts

⌚ **Consolidated Fund**

- ⊙ It was constituted under **Article 266 (1)** of the Constitution of India.
- ⊙ It is made up of:
 - ⌘ All **revenues** received by the Government by way of **taxes** (Income Tax, Central Excise, Customs and other receipts) and all **non-tax revenues**.
 - ⌘ All **loans** raised by the Government by issue of Public notifications, treasury bills (internal debt) and from foreign governments and international institutions (external debt).

- ⊙ **All government expenditures are incurred** from this fund and no amount can be withdrawn from the Fund without **authorization from the Parliament**.
- ⊙ **Each state** can have its own Consolidated Fund of the state with similar provisions.
- ⊙ The **Comptroller and Auditor General of India** audits the fund and reports to the relevant legislatures on the management.
- ⌚ **Contingency Fund**
 - ⊙ It was constituted under the **Article 267 (1)** of the Indian Constitution.
 - ⊙ Its **corpus is 500 crores**.
 - ⊙ It is **used for meeting unforeseen expenditure**.
 - ⊙ **Each state** can have its own Contingency Fund of the state with similar provisions.
- ⌚ **Public Account**
 - ⊙ It was constituted under **Article 266 (2)** of the Indian Constitution.
 - ⊙ The **transactions** under this account relate to debt **other than those included in the Consolidated Fund of India**.
 - ⊙ The receipts under Public Account do not constitute normal receipts of Government hence Parliamentary authorization for payments is not required.
 - ⊙ **Every state can have their own similar accounts**.

Norms Relaxed under MPLAD Scheme

Why in News

- The government has provided for **“one-time exemption in furnishing of utilization certificate” for release of the first installment, and exemption from furnishing of audit certificate for release of the second installment** under the Members of Parliament Local Area Development (**MPLAD**) Scheme.
- ⌚ This exemption is **applicable only for the financial year 2020-21**.
 - ⌚ The exemption is **for the Members of Parliament (MPs) who have decided to contribute for Covid-19**.

- ⌚ The **latest announcement comes after allowing a one-time dispensation** under the Scheme to allow MPs to recommend funds for purchase of medical testing and screening equipment for government hospitals and dispensaries in the wake of Covid-19.
- ⌚ Each year under MPLADS, MPs **receive Rs 5 crore in two installments** of Rs 2.5 crore each. Funds under MPLADS are **non-lapsable**.
 - ⊙ Lok Sabha MPs have to recommend the district authorities projects in their Lok Sabha constituencies, while Rajya Sabha MPs have to spend it in the state that has elected them to the House.
 - ⊙ Under the MPLADS rules, an MP **can donate a maximum of Rs 1 crore to a trust** or a public fund.

Members of Parliament

Local Area Development Scheme

- ⌚ It was announced in **December 1993** and initially came under the control of the Ministry of Rural Development. Later, in October 1994, it was transferred to the **Ministry of Statistics and Programme Implementation**.
- ⌚ The 1st Guidelines were issued in February 1994, covering the concept, implementation and monitoring of the Scheme.
- ⌚ Objective:
 - ⊙ To enable MPs to recommend works of developmental nature with emphasis on the creation of durable community assets based on the locally felt needs to be taken up in their Constituencies.
 - ⌘ Lok Sabha Members can recommend works within their constituencies and elected Members of Rajya Sabha can recommend works within the State they are elected from.
 - ⌘ Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.
 - ⊙ To create durable assets of national priorities viz. drinking water, primary education, public health, sanitation and roads, etc.
- ⌚ It is a **Central Sector Scheme**. The annual MPLADS fund entitlement per MP constituency is 5 crore.

Lockdown Extended

Why in News

The **National Disaster Management Authority (NDMA)** issued an order directing the Chairman of the **National Executive Committee**, that lockdown measures be continued to be implemented in all parts of the country till May 3, 2020.

- ⌚ The order has been issued under the **Disaster Management (DM) Act, 2005**.
- ⌚ The **DM Act, 2005** is a national law that **empowers the Central Government to declare the entire country or part of it as affected by a disaster** and to make plans for mitigation to reduce “risks, impacts and effects” of the disaster.
 - ⊙ **Covid-19** has been declared as a **national disaster**.

National Executive Committee

- ⌚ A National Executive Committee (NEC) is constituted under **Section 8 of the DM Act, 2005** to assist the National Disaster Management Authority in the performance of its functions.
 - ⌚ Union Home secretary is its **ex-officio chairperson**.
 - ⌚ NEC has been given the responsibility to act as the **coordinating and monitoring body for disaster management**, to prepare a National Plan, monitor the implementation of National Policy etc.

National Disaster Management Authority

- ⌚ NDMA is the **apex statutory body** for disaster management in India, under the **Ministry of Home Affairs**.
- ⌚ The NDMA was formally constituted on 27th September 2006, in accordance with the **Disaster Management Act, 2005** with the **Prime Minister as its Chairperson** and nine other members, and one such member to be designated as Vice-Chairperson.
- ⌚ **Mandate:** Its primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response. It is also the apex body to lay down policies, plans and guidelines for disaster management to ensure timely and effective response to disasters.
- ⌚ **Vision:** To build a safer and disaster resilient India by a holistic, proactive, technology driven and sustainable

development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation.

ICMR Advises 'Pool Testing' of Covid-19

Why in News

The **Indian Council of Medical Research (ICMR)** has advised the feasibility of using **pooled samples** for molecular testing of **Covid-19** citing the **rise of cases in India**.

- ⌚ The advisory also stated that it is important to increase the number of tests being done in laboratories in India.

Pool Testing

- ⌚ A pooled testing algorithm involves the **Polymerase Chain Reaction (PCR)** screening of a specimen pool comprising **multiple individual patient specimens**, followed by **individual testing (pool de-convolution)** only if a **pool screens positive**.
- ⌚ As all individual samples in a negative pool are regarded as negative, it results in **substantial cost savings** when a large proportion of pools tests negative.
- ⌚ This method is effective in two ways. First, it **increases the capacity of testing** and second, it **saves a lot of resources — time, cost and manpower**.

Advisory

- ⌚ **Maximum Number of Samples:** Pooling of more than 5 samples is not recommended to avoid the effect of **dilution leading to false negatives**.
- ⌚ **Pooling & Positivity Rates:** The ICMR has suggested **three different approaches** based on the **percentage of positive cases**. These are:
 - ⌚ Pooling of samples should be done only in areas with **low prevalence of Covid-19** (initially using a proxy of low positivity of <2% from the existing data).
 - ⌚ In areas with **positivity of 2-5%**, sample pooling for PCR screening may be considered only in community survey or surveillance among asymptomatic individuals, strictly excluding pooling samples of individuals with known contact with confirmed cases, Health Care Workers (in direct contact with care of COVID-19 patients). Sample

from such individuals should be directly tested without pooling.

- ⌚ Pooling of samples is **not recommended** in areas or populations with **positivity rates of >5% for Covid-19**.

Privacy Concern Over Aarogya Setu App

Why in News

Recently, legal experts raised concerns over the privacy policy of **Aarogya Setu app**, launched by the government, to allow people to assess if they are at a risk of contracting **Covid-19**.

- ⌚ There is a need for clarity on how the data collected by the app can be stored and used by the government.

Aarogya Setu App

- ⌚ It has been launched by the **Ministry of Electronics and Information Technology**.
- ⌚ It will help people in **identifying the risk of getting affected by the CoronaVirus**.
- ⌚ It will calculate risk based on the **user's interaction with others**, using cutting edge **Bluetooth technology, algorithms and artificial intelligence**.
- ⌚ Once installed in a smartphone, the app detects other nearby devices with Aarogya Setu installed.
- ⌚ The App will help the Government take necessary timely steps for assessing risk of spread of Covid-19 infection and ensuring isolation where required.

Key Issues

- ⌚ There is not enough information available on **what data will be collected, how long will it be stored and what uses it will be put to**.
- ⌚ No specification on the issue of **how the government will use data if the data gets shared with the government of India**.
- ⌚ On the data retention part, the app's privacy policy specifies only the data available on the app and does not specify for **how long the Government of India will retain server side data**.
- ⌚ Additionally, there was also a **question of proportionality** with the app and whether it will be as effective as envisaged in containing the Covid-19 outbreak.

- ⌚ India's situation is different from countries like Singapore, where a good number of people have smartphones.
- ⌚ In India compared to its population, smartphone users are very less which means very few people will be able to download the app.

Way Forward

- ⌚ The app's privacy policy needs detailed clarification on data collection, its storage and uses.
- ⌚ The Government of India must specify how it will deal with the app's data and how long it will retain the server side data.
- ⌚ According to the **Supreme Court** in the **Puttaswamy judgement(2017)**, the **right to privacy** is a **fundamental right** and it is necessary to protect personal data as an essential facet of informational privacy.

Sahyog App: Survey of India

Why in News

The Survey of India (SoI) has developed an **e-platform** that will collect geotagged information on the nation's critical infrastructure in order to help the **Government and public health agencies take critical decisions** in response to the current **Covid-19 pandemic situation**.

- ⌚ To support this platform, a **mobile application called Sahyog** has also been created. This app will help collect location specific data with the help of community workers.

Survey of India

- ⌚ It is the National Survey and Mapping Organization of the country **under the Department of Science & Technology**.
- ⌚ It was **established in 1767** and is the **oldest scientific department** of the Government of India.
- ⌚ It is **headquartered at Dehradun, Uttarakhand**.
- ⌚ The Survey of India acts as adviser to the Government of India on all survey matters, viz Geodesy, Photogrammetry, Mapping and Map Reproduction.
 - ⊙ **Geodesy** is the science of accurately measuring and understanding the Earth's geometric shape, orientation in space and gravity field.
 - ⊙ **Photogrammetry** is the science of making measurements from photographs.

Key Points

- ⌚ **Swift Solution:** Data collection by formal land survey is a lengthy and time taking process but the **mobile app can help crowdsource data quickly**.
- ⌚ **Complement Arogya Setu App:** This will **complement** the recently launched **Arogya Setu App** that helps trace the contacts of those who may have been infected by Covid-19.
- ⌚ **Relevant Information:** Information regarding biomedical waste disposals, containment areas, available hospitals for Covid-19 cases, **ICMR (Indian Council of Medical Research)** testing laboratories and quarantine camps will be integrated on this platform with their latitudinal and longitudinal parameters. This could be customised to a variety of '**Covid-related applications**' such as healthcare facilities, infection clusters and disaster management
- ⌚ **Data Localisation:** Data collected using Sahyog application will be used for creating various applications for everyone's usage and would facilitate building a **dataset that remains inside India**.
- ⌚ **Support System:** The data fed by the volunteers working on the ground such as the **ASHA (Accredited Social Health Activist)** and **Anganwadi workers** will lead to a good support system for the government and doctors on ground.
- ⌚ **Health Delivery System:** This will **strengthen the public health delivery system** of the central and state governments by providing necessary information support to workers dealing with the challenges of health, socio-economic distress and livelihood changes.
- ⌚ **Integration on Single Platform:** A lot of geospatial data about locations of fire services, banquet halls etc. is already present with the Government which was not **integrated in a single platform**. This is a step in that direction.

School Education & Covid-19

Why in News

The **lockdown** due to the **Covid-19 pandemic** has led to closing of educational institutes like schools, colleges and coaching institutions.

- ⌚ The educational institutes are thus switching to **e-learning**.

- ⌚ The Centre is also planning to start the next year **virtually**.
 - ⊙ Many schools have been shut since early March due to the pandemic, even before the countrywide lockdown.

Key Points

- ⌚ Different e-learning Techniques Being Used
 - ⊙ **YouTube, Zoom app and Google Classroom** are being used by some institutions.
 - ⊙ The **Kendriya Vidyalaya Sangathan** has deployed its **SWAYAM Prabha portal** which has lectures on **DTH (direct-to-home)** and online, to help students.
 - ⊙ Few states are **trying to tap Doordarshan** to remove access barriers.
- ⌚ **e-learning** poses a **challenge** to teachers, students and their parents over **technology and access** that is why the **effectiveness** of the instructors (teachers) can **not be analysed** and also not every student is joining the virtual classes.
- ⌚ **Challenges**
 - ⊙ All of the students do not have laptops or tablet computers.
 - ⊙ Teachers are apprehensive about students using smartphones because of distracting apps.
 - ⊙ Teachers or even some institutions too might have technical constraints
 - ⊙ Parents are finding it difficult to adjust to the online system.
 - ⊙ Most of the subjects like beauty culture, fashion design and tailoring, office management, travel and tourism, web design etc need practical learning so it is difficult to teach them from a distance.
- ⌚ **Suggestions**
 - ⊙ Online classes offered as live teaching can be sustained only with a mix of activities, worksheets and interactive sessions.
 - ⊙ Teachers should have a structured plan which does not suffocate or burden them and also keep the students involved.
 - ⊙ All institutions will have to chalk out an infrastructure plan which can be used in such a crisis.
 - ⊙ Teachers need to be considerate about how children feel or what they are going through these days so an understanding should be developed.

⌚ Classes in Distance Mode

- ⊙ The new academic calendar will begin as usual in April for classes 9 to 12.
 - ⌘ For the examinations at halt this year, it has been decided that the **Central Board of Secondary Education (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**.
- ⊙ **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 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.

SWAYAM Prabha

- ⌚ It is an initiative of the **Ministry of Human Resources Development** to provide **32 High Quality Educational Channels** through DTH across the length and breadth of the country on 24X7 basis.
- ⌚ It has **curriculum-based course content** covering diverse disciplines.
- ⌚ This is primarily **aimed** at making **quality learning resources** accessible to remote areas where internet availability is still a challenge.
- ⌚ The DTH channels are using the **GSAT-15 satellite** for programme telecasts.

Digital Infrastructure for Knowledge Sharing

- ⌚ It was launched by the **Ministry of Human Resource Development (MHRD) in 2017**.
- ⌚ It provides for 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.

Bharat Padhe Online and YUKTI Portal: MHRD

Why in News

Recently, the **Ministry of Human Resource Development (HRD)** has launched **two new initiatives** - **Bharat Padhe Online Campaign** and **YUKTI web-portal** - for improving and monitoring the online education ecosystem in India.

Bharat Padhe Online

- ⌚ 'Bharat Padhe Online' is a **week-long campaign upto 16th April, 2020** for crowdsourcing of ideas for **improving the online education ecosystem of India**.
- ⌚ It aims to invite all the best brains in India to share suggestions/solutions directly with the HRD Ministry to overcome constraints of online education while promoting the available digital education platforms.
- ⌚ **Students and teachers are the main target audience in it.**

YUKTI Portal

- ⌚ **YUKTI (Young India Combating Covid with Knowledge, Technology and Innovation)** is a unique portal and dashboard **to monitor and record the efforts and initiatives of MHRD**.
- ⌚ It will also cover the **various initiatives and efforts of the institutions in academics, research especially related to Covid-19**.
- ⌚ It will allow **various institutions to share their strategies for various challenges** arising due to unprecedented situation of Covid-19.
- ⌚ The portal will also establish a **two-way communication channel** between the Ministry of HRD and the

institutions so that the Ministry can provide the necessary support system to the institutions.

- ⌚ This portal will help in **addressing critical issues** related to student promotion policies, placements related challenges and physical and mental well-being of students in these challenging times.
- ⌚ **Objectives:** The portal will give inputs for better planning and will enable it to monitor effectively its activities for coming six months.
- ⌚ It aims to fulfil the goals of the Ministry in the wake of Covid-19 to keep the academic community healthy, both physically & mentally and to enable a continuous high-quality learning environment for learners.

SAMADHAN Challenge

Why in News

Recently, a **mega online challenge, SAMADHAN** has been launched to test the ability of students to innovate.

- ⌚ The **Innovation Cell of the Ministry of Human Resources Development** and **All India Council for Technical Education (AICTE)** has launched it in collaboration with **Forge** and **InnovatioCuris** (an organisation on healthcare expertise).

Key Points

- ⌚ Under the challenge, the **participating students will search and develop measures** against **Corona-virus**.
- ⌚ The challenge will **inspire students and faculty** for novel experiments and discoveries providing a strong baseline of experimentation.
- ⌚ The newly developed measures can be **made available to the government agencies, health services, hospitals** and other services for the quick solution of such **epidemics**.
- ⌚ The challenge will also **create awareness among citizens and motivate** them to face challenges, prevent crises and help them get livelihood.
- ⌚ The **success of this program** depends on the **effectiveness of the ideas** of participating contestants with ability to find solutions, technically and commercially.

Indian Migrants and Challenges

Why in News

Recently, the **Covid-19** lockdown has led to an exodus of migrant workers from cities to rural areas and threw the spotlight on the vast number of Indians who live outside their home states.

Internal Migrants

(Movement of People Within a Country)

- ⌚ Internal migrants in India are a vast and heterogeneous population. They are of three traits (in general):
 - ⊙ they predominantly **migrate from villages to cities**;
 - ⊙ they are **low-income populations who work in the informal sector**;
 - ⊙ they have **not permanently relocated their families to the city**. Instead, they circulate between villages and cities several times a year.

Key Points

- ⌚ **Reasons for Migration**
 - ⊙ Lakhs of migrant workers were rendered jobless as urban areas were shut due to lockdown.
 - ⊙ Night shelters run by local authorities began overflowing, and supplies started dwindling.
 - ⊙ These migrants were left with no choice but to head towards their hometowns.
- ⌚ Governments are of the view that the **migration crisis** is purely as a consequence of the challenges of Covid-19. However, some experts argue that there are some structural inadequacies in public understanding of **circular rural-urban migrants**.
 - ⊙ Circular migration is the temporary and usually repetitive movement of a migrant worker between home and host areas, typically for the purpose of employment.
- ⌚ **Structural Inadequacies**
 - ⊙ The first is an **inability to recognise the size and importance of these communities**.
 - ⊙ The second is **inability to correctly count such migrants** because of the informal conditions in which they live and work and their shuttling between their villages and cities.
 - ⊙ These inadequacies have real costs, rendering **governments ill-prepared to anticipate the responses of migrant communities** at crucial moments.

- ⊙ It is being said that the **policymakers were unprepared for the speed and desperation** with which these migrants attempted to return home following the lockdown order.

- ⌚ The Supreme Court has stated that the migrants be treated in a humane manner, including by providing them with enough food, water, beds and supplies as well as psychosocial counselling in shelters that are run by volunteers and not security forces.

Way Forward

- ⌚ **Recognition of circular migrants as part of India's urban population.**
 - ⊙ It might compel authorities to at least consider how proposed policies might impact these communities.
 - ⊙ At present, such ex-ante awareness would have allowed the government to decide whether to target scarce resources towards enabling safe return or keep migrants in destination cities.
- ⌚ Relaxing the restrictions that prevent migrants from accessing vital benefits such as food rations in their destination cities. Reconfiguring the domicile-centric public distribution system can help migrants.
- ⌚ Prioritising dedicated transport options for migrants to prevent overcrowding, especially along high-intensity migration corridors.
- ⌚ Special Measures should also take into account the particular situation of migrant women, who are among those most economically vulnerable and impacted by the situation.

National Investigation Agency

The National Investigation Agency (NIA) was constituted under the **National Investigation Agency (NIA) Act, 2008**.

- ⌚ **Headquarters:** New Delhi
- ⌚ It is a central agency to **investigate and prosecute offenses** related to terrorism and certain other Act **post-2008 Mumbai terror attacks** such as:
 - ⊙ Affecting the **sovereignty, security, and integrity of India**, security of State, friendly relations with foreign States.
 - ⊙ Against **atomic and nuclear facilities**.
 - ⊙ Smuggling in High-Quality **Counterfeit Indian Currency**.

- ⌚ It **implements international treaties, agreements, conventions and resolutions** of the United Nations, its agencies, and other international organisations.
- ⌚ Its objective is also to **combat terror in India**. It acts as the **Central Counter-Terrorism Law Enforcement Agency**.
 - ⊙ Assist all States and other investigating agencies in the investigation of **terrorist cases**.
 - ⊙ **Build a database** of all terrorist-related information and share the database available with the States and other agencies.
 - ⊙ Study and analyse laws relating to terrorism in other countries and regularly **evaluate the adequacy of existing laws** in India and propose changes as and when necessary.
 - ⊙ To execute in-depth professional investigation of **scheduled offences** using the latest scientific methods of investigation.

Scheduled Offences

- ⌚ The schedule to the Act specifies a **list of offences** which are to be investigated and prosecuted by the NIA.
- ⌚ These include offences under Acts such as the **Atomic Energy Act, 1962, and the Unlawful Activities Prevention Act, 1967**.

Mandate of NIA

- ⌚ The cases are assigned to the NIA by the Central Government in accordance with **section VI of the NIA Act, 2008**.
- ⌚ The investigation of the cases is done by the Agency **independently**.
- ⌚ After investigation, the cases are placed before the **NIA Special Court**.
- ⌚ It is empowered to deal **with terror-related crimes across states without special permission from the states**.

Recent Amendments

- ⌚ The various features of the NIA (Amendment) ACT, 2019 are:
 - ⊙ It applied the provisions of the NIA Act **also to persons who commit a scheduled offence beyond India** against Indian citizens or affecting the interest of India.
 - ⊙ It provided that the officers of the NIA shall have the similar powers, duties, privies, and liabilities

being exercised by the **police officers in connection with the investigation of offences**, not only in India but also outside India.

- ⊙ It empowered the central government, with respect to a scheduled offence committed outside India, to direct the NIA to register the case and take up investigation as if **such offence had taken place in India**.
- ⊙ It provided that the central government and the state governments may designate **Sessions Courts as Special Courts for conducting the trial of offences** under the NIA Act.
- ⊙ It inserted certain new offences in the **Schedule of the NIA Act**. Consequently, the NIA is also empowered to probe the offences related to
 - ⌘ human trafficking,
 - ⌘ counterfeit currency or banknotes,
 - ⌘ manufacture or sale of prohibited arms,
 - ⌘ cyber-terrorism and
 - ⌘ explosive substances.

Issues in the Recent Amendments

- ⌚ Under schedule VII of the Constitution, the maintenance of **public order and police forces are matters of state list**.
 - ⊙ However, **Criminal law forms part of the concurrent list** and national security comes under the domains of the union list.
- ⌚ The Central government gets the authority to have the NIA take over the investigation of crimes, which involve allegations of human trafficking, offences under the Explosives Act, and certain offences under the Arms Act.
 - ⊙ However, **not every criminal offence in the above act is a threat to national security and sovereignty** and consequently, states have the competence to deal with the same.
- ⌚ The Amendment Bill puts **Section 66F of the Information Technology Act, 2000** into the Schedule listing offences. It deals with **cyber terrorism**.
 - ⊙ But India **does not have a data protection act** and there is **no definition of cyber terrorism**.
- ⌚ The amendment to the NIA Act also gives the agency authority to investigate crimes committed by persons which are against Indian citizens or **“affecting the interest of India”**.

- ⌚ However, the term “affecting the interest of India” is **undefined** and can be **misused by governments** to curb freedom of speech and expression.
- ⌚ Further, the laws, under which the NIA has the authority to investigate, themselves **do not mention** “affecting the interest of India” as an offence.

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 (PMJDY) 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.

Pradhan Mantri Jan Dhan Yojana

- ⌚ PMJDY is also known as the **National Mission on Financial Inclusion** was launched in **2014** to bring financial inclusion in India with important features like zero balance account, insurance cover, direct benefit transfers, overdraft/loan.

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**.

Expert Panel Against Full Repeal of lockdown

Why in News

An **expert committee's report** to the government has suggested that **14th April, 2020** is **not the right time to fully withdraw the 21-days nationwide lockdown**.

- ⌚ The committee was asked to look into the strategy to ease the lockdown restrictions.

21 Days Lockdown

- ⌚ The period of 21 days was chosen due to **public health/epidemiological significance** and it is **supported by scientific data**.
 - ⊙ The calculations are based on the **estimated incubation period of the virus** in a human host.
 - ⊙ The 21-day quarantine value is derived from interpretations of outbreak data from past and present epidemics and pandemics. For example, the cases of **Spanish Flu** and **Ebola**.
- ⌚ **Explanation:**
 - ⊙ In epidemiological terms, **14 days** are of the **initial incubation period** and adding another week, i.e. 21 days is to ensure that residual infection dies out.
 - ⊙ It is estimated that being a **new strain of coronavirus**, its **median incubation period** (the

time between the entry of virus to the onset of symptoms/disease) falls within the period of 14 days.

- ⊙ According to a recent study the median incubation period for Covid-19 is **just over five days** and 97.5% of people who develop symptoms will do so **within 11.5 days** of infection.
- ⊙ So, the current period of active monitoring (14 days) recommended by the **U.S. Centers for Disease Control and Prevention** is well supported by the evidence.

Key Points

- ⌚ **Restrictions on large-scale movement of people** across International and State boundaries is **critical** and should be kept there unless and until the situation gets under control in every State.
- ⌚ The major concern is that a **prolonged and stringent lockdown** will lead to **economic hardships, famine and law and order issues**, which may undermine the objectives of both the lockdown and health management.
- ⌚ The committee suggested a **withdrawal strategy** which should be **gradual, phased and calibrated** so that it is ensured that the caseload is kept below the capacity of the health-care systems.
- ⌚ Such a phased approach should be **operationalized at the revenue district level**.

Suggestions

- ⌚ All states should fasten up **preparatory work for the predicted and rapid rise of Covid-19 cases** as they are expected to exceed the local capacity in some cities.
- ⌚ **No relaxation in speedy production and procurement** of test kits, ventilators, PPEs for health-care personnel and masks.
- ⌚ Centre should **release funds and create a national coordination mechanism** to distribute them on a need basis.
- ⌚ Centre should ensure effective **coordination between the States and logistics operators**.
- ⌚ **Supporting the agricultural sector** in production, marketing, storage, and transport.
- ⌚ **Ensuring continuation of modern technological leaps**, like rapid innovations and practices which are being introduced in education, judiciary, local

business, telemedicine, among others, **even after the lockdown ends.**

Neighboring Rights Law

Why in News

The **French competition regulator has asked Google to negotiate with publishers and news agencies** the remuneration due to them **under the law relating to neighboring rights.**

- ⌚ The French regulator has announced that Google must **start paying media for sharing their content**, as its practices had caused serious harm to the press sector.
- ⌚ The order is an **interim decision**. Though the order is only for the French press, it has global ramifications for Google and the press, as it can set a legal precedent and shape the discourse around the economics of news on the net.
- ⌚ The neighboring rights law that came into force on 24th July, 2019 in France aims to set the conditions for a balanced negotiation between publishers, news agencies and digital platforms, in order to redefine, in favour of press publishers and news agencies, the sharing of the value between these actors.

Neighboring Rights

- ⌚ According to the **World Intellectual Property Organization (WIPO)**, related rights, also referred to as neighboring rights, **protect the legal interests of certain persons and legal entities that contribute to making works available to the public or that produce subject matter which, while not qualifying as works under the copyright systems of all countries**, contains sufficient creativity or technical and organizational skill to justify recognition of a copyright-like property right.
- ⌚ **Traditionally**, related rights have been granted to **three categories of beneficiaries**:
 - ⊙ Performers (actors/musicians);
 - ⊙ Producers of sound recordings (also referred to as phonograms); and
 - ⊙ Broadcasting organizations.

Protection in India

- ⌚ The **Copyright Act, 1957** protects original literary, dramatic, musical and artistic works and cinematograph films and sound recordings from unauthorized uses.

Unlike the case with patents, **copyright protects the expressions and not the ideas**. There is no copyright in an idea.

- ⊙ Copyright is a right given by the law to creators of literary, dramatic, musical and artistic works and producers of cinematograph films and sound recordings. In fact, it is a bundle of rights including, inter alia, rights of reproduction, communication to the public, adaptation and translation of the work.
- ⊙ Copyright is an **Intellectual Property Right (IPR)**.
 - ⌘ Intellectual Property Rights (IPR) are the rights given to persons over the creations of their minds: inventions, literary and artistic works, and symbols, names and images used in commerce.
 - ⌘ Other IPRs include trademarks, **geographical indications**, industrial designs, patents, etc.
- ⌚ Copyright as provided by the Indian Copyright Act is valid only within the borders of the country. To secure protection to Indian works in foreign countries, **India has become a member of the following international conventions on copyright and neighbouring (related) rights**:
 - ⊙ Berne Convention for the Protection of Literary and Artistic works, 1886.
 - ⊙ Universal Copyright Convention (Revised in 1971).
 - ⊙ Convention for the Protection of Producers of Phonograms against Unauthorised Duplication of their Phonograms, 1971.
 - ⊙ Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties, 1979.
 - ⊙ Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, 1995.

Covid-19 Impact on Measles Immunization Program

Why in News

According to the **United Nations (UN)**, due to the **Covid-19 pandemic, measles immunisation campaigns have been delayed** in 24 countries and will be canceled in 13 other countries.

- ⌚ The reason being that the **healthcare workers are required to deal with the pandemic** in countries where healthcare systems are inadequate.

Key Points

- ⌚ The **coronavirus pandemic**, which has necessitated many prevention measures including strict lockdowns, **has kept infants from getting routine immunisation services** from some other diseases such as polio, yellow fever and cholera.
- ⌚ Mexico, Bolivia, Lebanon, Nepal, Chile, etc. have delayed their immunisation campaigns.
- ⌚ Currently, Nigeria, Ukraine, Democratic Republic of Congo (DRC), Kazakhstan, etc. are **amid measles outbreak**.
- ⌚ According to a report in the journal Nature, the **reproduction number for measles**, which is the number of people who get infected by an individual who has the disease, **is somewhere between 12-18**, which **makes measles the most contagious virus known**.
- ⌚ According to the **World Health Organization (WHO)**, mass immunisation drives and routine vaccination for children are the key public health strategies against the Measles. Therefore, delaying the campaigns affects these strategies, potentially putting the life of thousands of children at risk.
- ⌚ The WHO released an **interim guideline** for carrying out immunisation activities during Covid-19 on 26th March, 2020.
 - ⊙ It says if immunisation activities are negatively impacted during the pandemic, respective countries will need to design strategies for delivering “catch-up” vaccines after the outbreak subsides. Implementing this will require strategies to **track and follow-up with individuals who missed getting vaccinated**, assessing immunity gaps and re-establishing community demand.
 - ⊙ Further, it has advised that **mass immunisation campaigns** be “**temporarily suspended**” in light of the Covid-19 pandemic and that countries should monitor the necessity of delaying these campaigns at regular intervals.

Measles

- ⌚ **Measles** is a **highly contagious viral disease** and despite the availability of a vaccine against it, it remains to be a **leading cause of death among young children globally**.
- ⌚ The disease is **transmitted via droplets** released from the nose, mouth or throat of infected persons.

- ⌚ The **initial symptoms** occur **10-12 days after contracting the infection** and include high fever, a runny nose, bloodshot eyes and the appearance of white spots on the inside of the mouth.
- ⌚ **Some of the most serious complications** arising out of the disease include **blindness, encephalitis (brain swelling), severe diarrhea, dehydration and severe respiratory infections such as pneumonia**.
- ⌚ The disease is **common in parts of Africa and Asia** and is more likely among poorly nourished children, especially those who are **deficient in vitamin A**.
- ⌚ Measles **claimed 140,000 lives in 2018**, mostly of children and babies.
- ⌚ The **measles vaccine has been in use since the 1960s**. It is safe, effective and inexpensive.
- ⌚ As per the WHO, reaching all children with 2 doses of measles vaccine, either alone, or in a measles-rubella (MR), measles-mumps-rubella (MMR), or measles-mumps-rubella-varicella (MMRV) combination, should be the standard for all national immunization programmes.
 - ⊙ In **India**, the first dose of measles vaccine was introduced in the 1990s.
 - ⊙ India introduced the second dose from 2010 onwards. India was one of the last countries to add a second dose of measles vaccine.
- ⌚ In 2019, **Sri Lanka** became the fifth country in the **WHO southeast Asia region to eliminate measles**. The other countries in the region which have eliminated measles in their geographical area are **Bhutan, Maldives, DPR Korea and Timor-Leste**.

Measures for Farmers' Welfare

Why in News

The Government has taken up measures to protect the farmers facing obstacles during the lockdown due to Covid-19.

Measures for Fruit and Vegetable Farmers

- ⌚ Fruit and Vegetable Farmers have been **among the hardest hit by the lockdown**. They are facing major losses due to **obstacles in harvesting and marketing their perishable produce**.
- ⌚ The Central Government has directed all the States and Union Territories to implement the **Market**

Intervention Scheme (MIS) to ensure remunerative prices to farmers for perishable crops.

- ⌚ It has also begun a **train service to transport perishable agricultural and horticultural commodities** to markets due to the obstacles in road transport.
 - ⦿ According to the Ministry of Agriculture & Farmers' Welfare **50 trains have been deployed for this purpose.**

Market Intervention Scheme

- ⌚ It is implemented by the **Department of Agriculture & Cooperation, Ministry of Agriculture & Farmers' Welfare.**
- ⌚ **Objective:** To provide remunerative prices to the farmers in case of excess of production and fall in prices.
- ⌚ The MIS is an ad-hoc scheme under which include **horticultural commodities and other agricultural commodities.**
 - ⦿ These commodities are perishable in nature and which are **not covered under the minimum price support scheme.**
- ⌚ Further, the MIS is implemented on the specific requests of the **State Government/UT Administrations willing to share the loss with the Central Government on a 50:50 basis** (75:25 in case of North-Eastern States).

Measures for Pulses and Oilseeds Farmers

- ⌚ Farmers, mostly in dry-land areas, have been complaining that **market prices** for toor and urad dal, chickpeas and soybean are **far below the Minimum Support Prices (MSP)** in many mandis, with trading disrupted by the lockdown.
 - ⦿ The **MSP** is the **rate at which the government buys grains from farmers.**
 - ⦿ It is fixed on the recommendations of the **Commission for Agricultural Costs and Prices (CACP).**
- ⌚ The Centre has extended the procurement window for its **Price Support Scheme (PSS)** up to 90 days from the date of commencement of the scheme in each State.
- ⌚ The **PSS** is operationalised on the State governments' request when the prices fall **below the minimum support price (MSP).**
- ⌚ The **National Agricultural Cooperative Marketing Federation of India Limited (NAFED)** and other

agencies procure pulses and oilseeds under the scheme at the MSP.

- ⦿ The procurement of pulses will also aid in the implementation of the Centre's promise to provide 1 kg of pulses per month to all families with ration cards for the 3 months as part of a **Covid-19 relief package (Pradhan Mantri Garib Kalyan Yojana).**

National Agricultural Cooperative Marketing Federation of India Limited

- ⌚ It is registered under the **Multi State Cooperative Societies Act, 2002.**
- ⌚ It was set up in **1958** with the objective to **promote Cooperative marketing of Agricultural Produce to benefit the farmers.**
- ⌚ **Agricultural farmers are the members** of the General Body of NAFED, who participate in the decision making process of NAFED.

New Features Added to e-NAM

Why in News

Recently, the **Ministry of Agriculture and Farmers' Welfare** has launched three new features of the **National Agriculture Market (e-NAM)** Platform.

- ⌚ The new features will strengthen agriculture marketing by **reducing farmers' need to physically go to wholesale mandis** for selling their harvested produce.
- ⌚ It is an important move at a time when there is a critical need to **decongest mandis** to effectively fight against **Covid-19.**

Key Points

- ⌚ **Integration of Negotiable Warehouse Receipt System (e-NWRs) Module with e-NAM**
 - ⦿ Under it, a **warehouse trading module with a payment feature** is launched.
 - ⦿ It will enable small and marginal farmers to directly trade their stored produce from selected **Warehousing Development and Regulatory Authority (WDRA) registered warehouses** which are declared deemed market by the State.
 - ⦿ Farmers will be able to place their produce in **WDRA accredited warehouses.**

⌘ Telangana (14 warehouses) and Andhra Pradesh (23 warehouses) have already declared designated warehouses as deemed markets.

⊙ **Benefits:**

- ⌘ Depositor can save the logistics expenses and will have better income.
- ⌘ Farmers can sell the produce across the Nation at better price without the hassle of going to mandi.
- ⌘ Farmers with their produce in WDRA accredited warehouses can avail the benefit of pledge loan, if required.
- ⌘ Price stabilization by matching supply and demand through time and place utility.

⌚ **FPO trading Module**

- ⊙ It will enable **Farmer Producers' Organisations (FPOs)** to upload the picture of their produce and quality parameters from their premise/collection centres for bidding.
- ⊙ Distant bidders can visualise the produce before bidding by seeing the pictures and quality.
- ⊙ After successful bidding, FPOs can deliver the produce from their premises or by bringing it to mandi.

⊙ **Benefits:**

- ⌘ This will decongest mandis and also reduce the hassle.
- ⌘ This will help FPOs by reducing logistics costs and enhance their bargaining power.
- ⌘ Facilitates FPOs to avail online payment facility with ease of doing business.

⌚ **Launch of Logistic Module**

- ⊙ A provision has been made for **linking large logistic aggregator** platforms providing choices to users.
 - ⌘ Presently, e-NAM provides a database of **individual transporters** to the traders.
- ⊙ Traders will be able to use the link to navigate to the logistics provider's website and select appropriate services.
- ⊙ With these additions, more than 3,75,000 number of trucks from large logistic providers would be added for logistic purposes.
- ⊙ **Benefits:**
 - ⌘ This will help in seamless transportation of agri-produce.
 - ⌘ This will promote inter-state trade by providing online transport facilities for distant buyers.

e-NAM

- ⌚ It was launched on 14th April 2016 as a **pan-India electronic trade portal** linking **Agricultural Produce Market Committees (APMCs)** across the States.
- ⌚ It provides for contactless remote bidding and mobile-based anytime payment for which traders do not need to either visit mandis or banks for the same.
- ⌚ Already 585 mandis in 16 States and 2 Union Territories have been integrated on e-NAM portal and will be soon expanded to cover additional 415 mandis, which will take the total number of e-NAM mandis to 1,000.

Negotiable Warehouse Receipt System

- ⌚ It was launched in **2011** by the **Ministry of Consumer Affairs, Food & Public Distribution**.
- ⌚ Farmers can **seek loans from banks against the warehouse receipts** issued to them against their storage.
- ⌚ These **receipts issued by the warehouses registered with the WDRA** would become a fully negotiable instrument backed by a Central legislation.
- ⌚ The **Electronic Negotiable Warehouse Receipt (e-NWR) System** was launched in **2017**.

Warehousing Development and Regulatory Authority

- ⌚ It was constituted on 26th October 2010 under the **Warehousing (Development and Regulation) Act, 2007**.
- ⌚ It is a **statutory authority** under the Department of Food and Public Distribution, Government of India.
- ⌚ It is headquartered in **New Delhi**.
- ⌚ The Act provides for the establishment of the WDRA to exercise the powers conferred on it and to perform the functions assigned to it under the Act, Rules and Regulations for the development and regulation of warehouses, negotiability of warehouse receipts and promote orderly growth of the warehousing business in the country.

Schemes for Electronic Manufacturing

Why in News

Recently, the government notified **three schemes** involving total incentives of around **Rs. 48,000 crore** for electronics manufacturing.

- ⌚ **The schemes are expected to:**
 - ⦿ Attract Rs. 1 lakh crore investment in the sector.
 - ⦿ Boost local electronics manufacturing and generate manufacturing revenue potential of Rs. 10 lakh crore by 2025.
 - ⦿ Create 20 lakh direct and indirect jobs by 2025.

Production Linked Incentive Scheme

- ⌚ The scheme proposes a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain including **electronic components and semiconductor packaging**.
- ⌚ Under the scheme, electronic manufacturing companies will get an **incentive of 4 to 6% on incremental sales (over base year) of goods manufactured in India** and covered under target segments, to **eligible companies over a period of next 5 years**.
- ⌚ The scheme shall only be applicable for target segments namely mobile phones and specified electronic components.
- ⌚ The government estimates that with the PLI scheme, domestic value addition for mobile phones is expected to rise to 35-40% by 2025 from the current level of 20-25% and generate additional 8 lakh jobs, both direct and indirect.
 - ⦿ The production of mobile phones in the country has surged eight-times in the last four years from around Rs. 18,900 crore in 2014-15 to Rs. 1.7 lakh crore in 2018-19.

Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors

- ⌚ Under the scheme, a **financial incentive of 25% of capital expenditure** has been approved by the Union Cabinet for the **manufacturing of goods that constitute the supply chain of an electronic product**.
- ⌚ The SPECS notified for manufacturing of electronics components and semiconductors has a budget outlay of Rs 3,285 crore spread over a period of eight years.
- ⌚ The government estimates that push for manufacturing of electronics components and electronic chips will create around **6 lakh direct and indirect jobs**.

Modified Electronics Manufacturing Clusters Scheme

- ⌚ The **EMC 2.0** has a total incentive outlay of Rs 3,762.25 crore spread over a period of 8 years with an objective

to create 10 lakh direct and indirect jobs under the scheme.

- ⌚ It will provide **financial assistance up to 50% of the project cost** subject to a ceiling of Rs 70 crore per 100 acres of land for setting up of Electronics Manufacturing Cluster projects.
- ⌚ Electronic manufacturing clusters to be set up under the scheme will be spread in an **area of 200 acres across India and 100 acres in North East part of the country**.

Women SHGs Fight Against Covid-19

Why in News

Women members of around 63 lakh **Self Help Groups (SHGs)** across the country formed under the **Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development** are contributing in every possible way to contain the spread of **Covid-19**.

Key Points

- ⌚ All **State Rural Livelihoods Missions (SRLMs)** have been made aware of the various aspects of the disease including the need to maintain personal hygiene, social distancing etc. through **Audio Visual (AV) Information, Education and Communication (IEC) material and advisories**.
- ⌚ SRLMs are using all the information to ensure that the correct message is communicated to the community by various means like telephone calls, wall writings, pamphlets/fliers, social media, etc.
- ⌚ **Important Interventions by SRLMs:**
 - ⦿ **Bihar SRLM (JEEViKA):**
 - ⌘ Utilizing **Mobile Vaani** Platform to spread awareness among the community through voice messages and answering queries on Covid-19.
 - ⌘ **Mobile Vaani (MV)** is a mobile-based voice media platform for underserved areas in India whereby users generate content in their own local dialect through an **Interactive Voice Response System (IVRS)**.
 - ⦿ **Uttar Pradesh SRLM (Prerna):**
 - ⌘ Use of **rangolis** and markings such as lines and circles to re-emphasise the need for '**social distancing**'.

- ⌘ Wall paintings to spread key messages about Covid prevention.
- ⌚ **Jharkhand SRML:**
 - ⌘ Initiated **Didi helpline**, which helps migrant labourers by providing them verified information 24 hours.
- ⌚ **Kerala SRML:**
 - ⌘ Dispelling the widespread fake news causing panic through its **WhatsApp groups** and propagating only the right information.

Deendayal Antyodaya Yojana-National Rural Livelihoods Mission

It was launched by the **Ministry of Rural Development** in **2011**. It **aims** at creating **efficient and effective institutional platforms** for the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services.

- ⌚ NRLM has set out with an agenda to cover 7 crore rural poor households, across 600 districts, 6000 blocks, 2.5 lakh Gram Panchayats and 6 lakh villages in the country **through self-managed SHGs and institutions and support** them for livelihoods collectives in a period of 8-10 years.
- ⌚ **Salient Features:**
 - ⌚ It lays **special emphasis on targeting the poorest of the poor and the most vulnerable communities (i.e. Antyodaya)** and their financial inclusion.
 - ⌚ Innovative projects under **National Rural Economic Transformation Project (NRETP)**: To pilot alternate channels of financial inclusion, creating value chains around rural products, introduce innovative models in livelihoods promotion and access to finance and scale-up initiatives on digital finance and livelihood interventions.
 - ⌚ DAY-NRLM provides for mutually beneficial working relationships and formal platforms for consultations between **Panchayati Raj Institutions (PRIs)** and **Community Based Organizations (CBOs)**.
 - ⌚ NRLM has also **developed an activity map to facilitate convergence in different areas of interventions** where NRLM institutions and PRIs could work together which has been disseminated to all SRLMs.

Healthcare Institutions Face Cyber Threats

Why in News

The **International Criminal Police Organisation (Interpol)** has warned member countries that **cyber-criminals 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 are 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.



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.

⌚ **Prevention and Mitigation efforts are crucial** to stop the attacks.

- ⦿ Interpol continues to stand by its member countries and provide any assistance necessary to ensure vital healthcare systems remain untouched and the criminal targeting them are 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 **email spoofing**, where a suspect operating from a remote location would send a mail that would appear as if it came from a known person.

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.
- ⌚ Those are as follows
 - ⦿ **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.

Economic Scenario

Highlights

- ⌘ *Impact of Covid-19 on Global Economy*
- ⌘ *World Economic Outlook Report: IMF*
- ⌘ *World Bank on India's Growth*
- ⌘ *Monetary Policy Report*
- ⌘ *Impact of Economic Slowdown Due to Covid-19*
- ⌘ *RBI's Measures to Fight Economic Disruptions*
- ⌘ *E-Way Bills During Lockdown*
- ⌘ *Core Sector Growth at 5.5%*
- ⌘ *Demand for MGNREGA Work Increased*
- ⌘ *Fundraising for Covid-19*
- ⌘ *Impact of Lockdown on Banks*
- ⌘ *EPFO Disbursed Claims*
- ⌘ *Fall in IHS Markit India Services Business Activity Index*
- ⌘ *Fraud Oversight Wing*
- ⌘ *NBFCs Face Moratorium Issue with Banks*
- ⌘ *Renewable Energy Certificates*
- ⌘ *Government Cuts Interest Rates on NSC, PPF*

Impact of Covid-19 on Global Economy

Why in News

Recently, the **United Nations Conference on Trade and Development (UNCTAD)** has observed that the economic uncertainty sparked by the **Covid-19** will likely cost the global economy \$1 trillion in 2020.

- ⌚ The observation is based on the **World Economic Situation and Prospects 2020** released by UNCTAD.

Key Observations

- ⌚ A **slowdown in the global economy to under 2%** for this year is envisaged which will probably cost in the order of \$1 trillion.
 - ⌚ **Worst possible scenario:** If the world economy grew at only 0.5% which would involve a \$2 trillion hit to **gross domestic product (GDP)**.
 - ⌚ **Best case scenario:** With moderate declines in private consumption, investment and exports and offsetting increases in government spending, global growth would fall to 1.2% in 2020.
- ⌚ **Global financial market is fluctuating** due to the **supply-chain interruptions from China** and **oil price uncertainty** among major producers.
- ⌚ **European economies** had already been performing extremely badly towards the end of 2019.

- ⌚ **Europe** is almost certain to go into **recession** over the coming months.
- ⌚ **German** economy is in a **fragile** state.
- ⌚ **Italian** economy and other parts of the **European periphery** are also facing very **serious stresses** right now.
- ⌚ Many parts of the **Latin American** region are also vulnerable.
- ⌚ **Argentina** in particular will be struggling as a consequence of the knock-on effects of this pandemic.
- ⌚ The **least developed countries** whose economies are driven by the **sale of raw materials** will also face hard consequences.
- ⌚ Heavily-indebted **developing countries**, particularly **commodity exporters**, face a particular threat due to the **weaker export returns linked to a stronger US dollar**.
- ⌚ The likelihood of a **stronger dollar** as investors seek safe-havens for their money and the almost certain **rise in commodity prices** as the global economy slows down, means that commodity exporters are particularly **vulnerable**.

Suggestions

- ⌚ A series of **dedicated policy responses and institutional reforms** are needed to prevent a localized health scare from turning into a global economic meltdown.

- ⌚ Governments need to **spend now in order to prevent more damaging meltdown** in the coming times.
 - ⊙ **Chinese** Government is likely to introduce **significant expansionary measures** – shorthand for increasing spending or tax cuts.
 - ⊙ The **US** government is in an election year and it needs to do **more than simply cutting taxes and reducing interest rates**.

United Nations Conference on Trade and Development

- ⌚ It was established in **1964** to promote development-friendly integration of developing countries into the world economy.
- ⌚ UNCTAD is a **permanent intergovernmental body** headquartered at **Geneva** in Switzerland.
- ⌚ Some of the **reports published by it are:**
 - ⊙ Trade and Development Report
 - ⊙ World Investment Report
 - ⊙ The Least Developed Countries Report
 - ⊙ Information and Economy Report
 - ⊙ Technology and Innovation Report
 - ⊙ Commodities and Development Report

World Economic Outlook Report: IMF

Why in News

Recently, the **International Monetary Fund (IMF)** has released its **World Economic Outlook (WEO)** report.

Key Points

- ⌚ The **Covid-19 pandemic** is having a severe effect on the world economy. As countries implement necessary **quarantines and social distancing** practices to contain Covid-19, the world has been put in a **Great Lockdown**.
 - ⊙ It is expected to cause a **-3% change (i.e., a contraction) in global output in 2020**, which is much worse than the **2008-09 financial crises**.
 - ⊙ **Case of India:** India's growth is **expected to dip to 1.9% in 2020 and rebound to 7.4% in 2021**.
- ⌚ **Growth Projections:**
 - ⊙ **Emerging Asia:**
 - ⌘ Emerging Asia is projected to be the only region that **grows in 2020, at a rate of 1.0%** - still more

than 5 percentage points below the previous decade's average.

- ⌘ **China is projected to grow at 1.2% in 2020 and 9.2% in 2021.**
- ⌘ Apart from **India's modest 1.9% in 2020, Indonesia is expected to grow at 0.5%**, while others in the region experience contractions.
- ⌚ **Advanced economies:**
 - ⊙ Advanced economies will have an **output change of -6.1% (i.e., a contraction) in 2020** followed by 4.5% in 2021.
 - ⊙ The **U.S. is projected to contract by 5.9%** in 2020 and grow by 4.7% 2021.
 - ⊙ The **Euro area, will contract by 7.5%** in 2020 and grow by 4.7% 2021.
- ⌚ **Impact on Global GDP:**
 - ⊙ The cumulative loss to global Gross Domestic Product (GDP) over 2020 and 2021 from the pandemic crisis could be around **9 trillion dollars**, greater than the economies of Japan and Germany, combined.
 - ⊙ Assuming that the pandemic fades in the second half of this year, with containment efforts gradually easing up, the **world economy is projected to grow at 5.8% in 2020** as economic activity normalizes, aided by policy.
 - ⊙ If the pandemic does not recede in the second half of 2020, global GDP would **fall an additional 3% in 2020**.
- ⌚ **Measures to combat the impact:**
 - ⊙ **Policymakers have to make targeted fiscal, monetary and financial sector interventions** to support impacted households and businesses.
 - ⊙ Fiscal measures **should be two-fold:**
 - ⌘ Cushioning the impact on the most-exposed households and businesses.
 - ⌘ Reducing firm closures, i.e., preserving economic relationships.
- ⌚ **Monetary stimulus** by large central banks and liquidity facilities to reduce systemic stress will help limit the shock, positioning the economy for a better recovery.
- ⌚ **Strong multilateral cooperation** is essential to overcome the effects of the pandemic, including to help financially constrained countries facing twin health and funding shocks, and for channeling aid to countries with weak healthcare systems.

International Monetary Fund

- ⌚ IMF is an organization working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.
- ⌚ Created in **1945**, the IMF is governed by and accountable to the **189 countries** that make up its near-global membership. **India** joined on December 27, 1945.
- ⌚ The IMF's **primary purpose** is to ensure the stability of the international monetary system—the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other.
 - ⌚ The Fund's mandate was updated in 2012 to include **all macroeconomic and financial sector issues** that bear on global stability.

World Economic Outlook

- ⌚ WEO is a survey by the IMF that is usually published **twice a year in the months of April and October**.
- ⌚ It analyzes and predicts **global economic developments** during the near and medium term.
- ⌚ In response to the growing demand for more frequent forecast updates, the WEO **Update is published in January and July** between the two main WEO publications released usually in April and October.

World Bank on India's Growth

Why in News

The **World Bank** has released the **South Asia Economic Focus report**. The report saw **India's growth at 1.5-2.8% in 2020-21** which is the **slowest since 1991 economic reforms**.

Key Points

- ⌚ The **South Asian region** has been estimated to **grow by 1.8-2.8% in 2020**, down from the 6.3%, projected six months ago.
- ⌚ For 2020-21, for India, estimated growth (1.5-2.8%) is lower than 4.1-5.4% estimated in October, 2019.
- ⌚ It estimated that **India will grow 4.8% to 5% in the 2019-20** fiscal year that ended on 31st March, 2020.

- ⌚ This is lower by 1.2-1% of the estimate made in October 2019.
- ⌚ India is **likely to record its worst growth performance in 2020-21 since the 1991 liberalisation** as the coronavirus outbreak severely disrupts the economy.
- ⌚ **Disruptions due to Coronavirus:**
 - ⌚ The Covid-19 outbreak came at a time when **India's economy was already slowing** due to persistent financial sector weaknesses.
 - ⌚ To contain it, the government imposed a lockdown, shutting factories and businesses, suspending flights, stopping trains and restricting mobility of goods and people.
 - ⌚ This resulted in **domestic supply and demand disruptions**.
- ⌚ **Impact:**
 - ⌚ A sharp growth deceleration in Financial Year-2021 (April 2020 to March 2021).
 - ⌚ The **services sector** will be particularly hit.
 - ⌚ A revival in domestic investment is likely to be delayed given enhanced risk aversion on a global scale, and renewed concerns about financial sector resilience.
- ⌚ Growth is expected to rebound to 5% in Fiscal year 2022 (2021-22) as the impact of Covid-19 dissipates, and due to fiscal and monetary policy support.
 - ⌚ India has set aside **just over 1% of Gross Domestic Product (GDP)** for programs to increase health sector spending and compensate the unemployed, with the bulk of the money going towards cash transfers, free food and gas cylinders, and interest-free loans.
- ⌚ **Suggestions by the World Bank:**
 - ⌚ India should focus on mitigating the spread of the disease, and to make sure that everybody has food.
 - ⌚ It should also focus on temporary jobs programmes, especially at the local levels. These initiatives should be supported.
 - ⌚ It should prevent bankruptcies, especially of a small and medium sized enterprise.
- ⌚ **World Bank's Support to India:**
 - ⌚ The World Bank has **approved USD 1 billion to India**, of which the first tranche has already been released to deal with the emergency in the health care sector.

- ⊙ The first tranche aims at delivering civilian diagnostic equipment, put in place additional capacity to deal with testing and make testing available that benefits the entire population.
- ⊙ It is also working with India on two additional operations, which are anticipated to be ready soon.
 - ⊗ These include, employment, banking and micro, small and medium enterprises sectors.

⌚ **Other international agencies that have made a similar growth estimates:**

- ⊙ **The Asian Development Bank (ADB)** sees India's economic growth decrease to 4% in the current fiscal.
- ⊙ **S&P Global Ratings** has estimated the GDP growth forecast for the country to 3.5% from a previous downgrade of 5.2%.
- ⊙ **Moody's Investors Service** has slashed its estimate of India's GDP growth during the 2020 calendar year to 2.5%, from an earlier estimate of 5.3%.

1991 Economic Reforms

- ⌚ In 1990-1991, Indian economy faced several uncertainties and strains. Inflation had increased to an annual rate of 17%.
- ⌚ The fiscal deficit reached a peak of 8.2% of GDP while revenue deficit reached to a height of 2.6% of GDP, **growth rate decelerated to about 1%** showing symptoms of recession and industrial production falling at low level.
- ⌚ The foreign exchange reserves of the **Reserve Bank of India (RBI)** had fallen to less than \$1 billion resulting in an unprecedented external debt crisis.
- ⌚ Hence, the **New Economic Policy** was introduced, which consisted of a gradual process of **easing out government controls of industrial deregulations and some import liberalization.**
 - ⊙ Significant changes in national policy with regards to Taxation, Industrial Licensing, Imports, Technology and Investment priorities were made.

South Asia Economic Focus

- ⌚ It is a **biannual economic update** presenting recent economic developments and a near-term economic outlook for South Asia.
- ⌚ It aims at providing important **background information and timely analysis of key indicators and economic and financial developments** of

relevance to **the World Bank Group operations** and interaction with counterparts in the region, particularly during annual and spring meetings.

- ⌚ This biannual series is prepared by the **Office of the Chief Economist for the South Asia region.**
- ⌚ It includes a Focus section presenting more in-depth analysis of an economic topic of relevance for stability, growth and prosperity in the region as well as country briefs covering **Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.**

Monetary Policy Report

Why in News

- ⌚ The **Reserve Bank of India (RBI)** has released its **Monetary Policy Report (MPR).**
- ⌚ The report follows the unscheduled **monetary policy**

uncertainties arising from the nationwide lockdown.

- ⊙ Since the review was conducted in end March, 2020, the early policy review, scheduled for April, 2020 was withdrawn.

Key Points

- ⌚ **Inflation**
 - ⊙ The **consumer price index (CPI)-based inflation**, had stayed elevated in the last few months. It is expected to **decrease during the course of the financial year.**
 - ⊙ **CPI inflation** is tentatively projected to ease from 4.8% in (Quarter) Q1 of 2020-21 to 4.4% in Q2, 2.7% in Q3 and 2.4% in Q4.
 - ⊗ This may be due to the prevailing high uncertainty.
 - Aggregate demand may weaken further than currently anticipated and ease core inflation further.
 - Supply bottlenecks could increase pressures more than expected.
 - ⊗ Estimates indicate that inflation could move in a **range of 3.6-3.8% assuming a normal monsoon and no major exogenous policy shocks.**
- ⌚ **The RBI monetary policy:**
 - ⊙ The **Repo Rate** was reduced by 75 basis points (bps) to 4.1%.

- ⊙ The **Cash Reserve Ratio** was reduced by 100 bps to 3%.
- ⌚ However, the RBI refrained from making any prediction on growth. Forecasts for real **Gross Domestic Product (GDP) growth** in India were not provided due to prevailing uncertainties due to **Covid-19**.
- ⌚ Improvements in inflation and growth are expected to emanate from monetary, fiscal and other policy measures and the early containment of Covid-19. However, there are uncertainties with these factors.
- ⌚ **Oil Price Drop**
 - ⊙ The sharp reduction in **international crude oil prices**, if sustained, could improve the country's terms of trade.
 - ⊙ However, the gain from this channel is **not expected to offset the impact of shutdown and loss of external demand**.
- ⌚ **Exchange Rates**
 - ⊙ The global financial market volatility caused by the uncertainty of macroeconomic impact of the Covid-19, as in February-March 2020, could exert pressure on the Indian rupee.
 - ⊙ **Should the rupee depreciate by 5%** from the baseline, inflation could increase by around 20 bps while GDP growth could be higher by about 15 bps through increased net exports.
 - ⊙ In contrast, **should Covid-19 normalise quickly**, strong capital flows could revive.
 - ⊙ **An appreciation of the rupee by 5%** could moderate inflation by around 20 bps and GDP growth by around 15 bps vis-a-vis the baseline.

Monetary Policy

- ⌚ The Reserve Bank of India (RBI) uses monetary policy to control **inflation, interest rates, supply of money and credit availability**.
- ⌚ The RBI has a government-constituted **Monetary Policy Committee (MPC)** which is tasked with framing monetary policy using tools like the **repo rate, reverse repo rate, bank rate, Cash Reserve Ratio (CRR)**.
- ⌚ The **repo rate**, also known as the policy rate, is the interest rate at which the RBI provides loans to banks.
- ⌚ The **reverse repo** is the rate at which commercial banks park their money with the central bank.
- ⌚ **Bank rate** is the rate charged by the RBI for lending funds to commercial banks.

- ⌚ **Cash Reserve Ratio:** Banks are required to hold a **certain proportion of their deposits in the form of cash**. This **minimum ratio** (that is the part of the total deposits to be held as cash) is stipulated by the RBI and is known as the CRR.

Impact of Economic Slowdown Due to Covid-19

Why in News

Amid the ongoing economic slowdown due to Covid-19 pandemic, the government is facing several challenges like:

- ⌚ **Fall in tax collections.**
- ⌚ Foreign investors sold over 1 lakh-crore securities in a month (March), for the first time in history.
- ⌚ Reserve Bank of India (RBI) has decided to shorten trading hours for foreign exchange and money markets products.

Fall in Tax Collections

- ⌚ **Direct Tax Collections**
 - ⊙ Direct tax is a tax paid directly by an individual or organization to the imposing entity. For example, income.
 - ⊙ The government's net direct tax collections have **missed the downward revised target** for 2019-20 by Rs. 1.42 lakh crore. The overall collection stood at Rs. 10.27 lakh crore.
 - ⊙ This is a **decline of over 8%** from previous year's receipts.
 - ⊙ The contraction in direct tax collections in a financial year has been witnessed after a **gap of 20 years**. The Centre's direct tax receipts had last seen a year-on-year decline in 1998-99, when collections recorded a contraction of 3.5% in that financial year.
- ⌚ **Indirect Tax Collections**
 - ⊙ **Indirect tax** is a tax collected by one entity in the supply chain and paid to the government, but it is passed on to the consumer as part of the purchase price of a good or service. GST is an indirect tax.
 - ⊙ The government has missed its **Goods and Services Tax (GST) collections target**.

- ⌚ The reasons that led to the fall in GST collections in March below the Rs1 lakh crore mark are:
 - ⌘ A drop of 7.8% in returns filing over last month.
 - ⌘ 4% fall over last year in domestic revenue.
 - ⌘ A sharp 23% fall in revenue from imports.

⌚ **Consequences**

- ⌚ The government is likely to miss its revised **fiscal deficit** target of 3.8% for 2019-20.
- ⌚ The government's fiscal deficit during April-February increased to 135.2% of the revised estimate for the fiscal year 2019-20.

Foreign Portfolio Investors Sell Securities

- ⌚ For the first time in the history of the Indian capital markets, **Foreign Portfolio Investors (FPIs)** have sold securities worth over 1 lakh crore in a single month (March 2020).

- ⌚ As per data from the **National Securities Depository Limited (NSDL):**

- ⌚ The cumulative net outflow from the debt and equity segments was pegged at 1.18 lakh crore in March.
- ⌚ This is more than double the previous high of 44,000 crore witnessed in June.

⌚ **Reason:**

- ⌚ According to market participants, the ongoing Covid-19 pandemic that has affected stocks worldwide is the primary reason for such record outflows as foreign investors move away from **riskier assets and emerging markets.**

⌚ **Impact of the sales on Sensex:**

- ⌚ Sensex registered its worst monthly fall in over 11 years.
- ⌚ In March, the Sensex lost a little over 23% which was the highest since October 2008 when it fell 23.89%.

- ⌚ However, buying by **Domestic Institutional Investors (DIIs)** has been acting as a strong counter force to the selling by foreign investors.

National Securities Depository Limited

- ⌚ The enactment of **Depositories Act in August 1996** paved the way for establishment of NSDL in August 1996.

- ⌚ It handles most of the securities held and settled in dematerialized form in the Indian capital market.

- ⌚ NSDL works to support the investors and brokers in the capital market of the country.
- ⌚ It aims at ensuring the safety and soundness of Indian marketplaces by developing settlement solutions that increase efficiency, minimize risk and reduce costs.

Domestic institutional investors

- ⌚ DIIs are those institutional investors which undertake investment in securities and other financial assets of the country they are based in.

⌚ **DIIs include:**

- ⌚ Banks.
- ⌚ Insurance companies.
- ⌚ Mutual funds.
- ⌚ Domestic financial institutions.

Shortening of Trading Hours

- ⌚ The RBI has decided to shorten trading hours for foreign exchange and money markets products in the light of challenges posed by lockdown imposed to curb the spread of coronavirus.
- ⌚ The shortened hours, from 10 am to 2 pm (earlier 9 am to 5 pm), will be in place from 7th-17th April, 2020.

⌚ The new hours will be applicable to:

- ⌚ Call/term money
 - ⌘ Call Money refers to the borrowing or lending of funds for 1 day.
 - ⌘ Term money refers to borrowing and lending of funds for a period of more than 14 days.
- ⌚ Market repo in g-secs.
- ⌚ Tri-party repo in g-secs.
- ⌚ Commercial Paper
 - ⌘ It is a short-term debt instrument issued by companies to raise funds generally for a time period up to one year.
- ⌚ Certificates of Deposit
 - ⌘ It is a product offered by banks and credit unions that provides an interest rate premium in exchange for the customer agreeing to leave a lump-sum deposit untouched for a predetermined period of time.
- ⌚ Repo in corporate bonds.
- ⌚ Foreign currency and rupee trades.

RBI's Measures to Fight Economic Disruptions

Why in News

The Reserve Bank of India (RBI) has extended the realisation period of export proceeds and Ways and Means Advance (WMA) limit of state governments.

- ⌚ Further, the central bank has provided relief to the banking sector's capital requirements.
- ⌚ These steps have been taken to cushion the economic impact of the **coronavirus pandemic** and lockdown.
- ⌚ These steps have come after the **RBI recently cut repo rate by 75 basis points**.

Key Points

- ⌚ Extended the Realisation Period of Export Proceeds
 - ⌚ The time period for realisation and repatriation of export proceeds made up to or on July 31, 2020 has been **extended to 15 months** from the date of export.
 - ⌚ Earlier, the value of the goods or software exports made by exporters is required to be **realised fully and repatriated to the country within nine months from the date of exports**.
 - ⌚ The measure will enable exporters to realise their receipts, especially from Covid-19 affected countries, within the extended period, and also provide greater flexibility to exporters to negotiate future export contracts with buyers abroad.
 - ⌚ Export activities have been disrupted in the wake of the pandemic and lockdown in many countries.
- ⌚ **Increased Ways and Means Limit**
 - ⌚ RBI has **formed an advisory committee** to review the **Ways and Means limit** for State governments and Union Territories.
 - ⌚ Till the panel submits its report, the **RBI has increased the Ways and Means advances limit by 30%** for States and union territories.
 - ⌚ The revised limits will come into force with effect from April 1, 2020 and will be valid till September 30, 2020.
 - ⌚ Recently, the **Central Government has hiked Ways and Means Advance (WMA) limit** with the Reserve Bank of India (RBI) by 60%.

- ⌚ The 'Ways and Means Advances' is a scheme that helps meet mismatches in receipts and payments of the government. Under this scheme, a government can avail itself of immediate cash from the RBI.

⌚ Deferred Counter Cyclical Capital Buffer (CCyB)

- ⌚ The RBI has deferred the implementation of **Counter Cyclical Capital Buffer (CCyB)** for banks.
- ⌚ It has decided that it is not necessary to activate CCyB for a period of one year or earlier, as may be necessary.
- ⌚ **CCyB** is the **capital** to be kept by a bank **to meet business cycle related risks**.
 - ⌘ It is aimed to protect the banking sector against losses from changes in economic conditions like recession.
 - ⌘ This is an important theme of the **Basel III norms**.

Basel III Norms

- ⌚ Basel III is an internationally agreed set of measures developed by the **Basel Committee on Bank Supervision (BCBS)** in response to the financial crisis of 2007-09.
 - ⌚ It is a **committee under the Bank For International Settlements (Basel, Switzerland)**.
- ⌚ The measures aim to strengthen the regulation, supervision and risk management of banks.
- ⌚ BCBS members are committed to implementing and applying standards in their jurisdictions within the time frame established by the Committee.
- ⌚ Basel III measures are based on three pillars:
 - ⌚ **Pillar 1:** Improve the banking sector's ability to absorb ups and downs arising from financial and economic instability
 - ⌚ **Pillar 2:** Improve risk management ability and governance of banking sector
 - ⌚ **Pillar 3:** Strengthen banks' transparency and disclosures

E-Way Bills During Lockdown

Why in News

Recently, the transporters have raised concerns over potential penalties arising from expired electronic way (e-way) bills.

- ⌚ In a petition to the Ministry of Finance, a group of truckers pointed out that the e-way bills could not be extended by the transporters on account of closure of offices, godowns and unavailability of staff.
- ⌚ Truckers requested for the issue of immediate directions/guidelines to GST Commissioners (all States/UTs) to allow the vehicles in transit and goods not delivered to be exempted from any scrutiny or penal provisions to reach their destination smoothly, even if the e-way bill had expired.

Electronic Way Bill

- ⌚ E-Way Bill is a **compliance mechanism** wherein by way of a digital interface the person causing the movement of goods uploads the relevant information prior to the commencement of movement of goods and generates a **e-way bill on the GST portal**.
- ⌚ An electronic way bill or ‘e-way bill’ system offers the **technological framework to track intra-state as well as inter-state movements of goods of value exceeding Rs 50,000, for sales beyond 10 km** in the Goods and Services Tax (GST) regime.
- ⌚ When an e-way bill is generated, a **unique E-way Bill Number (EBN) is allocated** and is available to the supplier, recipient, and the transporter.
- ⌚ It was launched to
 - ⦿ Facilitate faster movement of goods.
 - ⦿ Improve the turnaround time of vehicles.
 - ⦿ Help the logistics industry by increasing the average distances travelled and reducing the travel time as well as costs.

E-Way Bill Rules

- ⌚ According to notified e-way bill rules, every supplier requires **prior online registration** on the e-way bill portal for the movement of goods.
- ⌚ **Tax officials** have the power to scrutinise the e-way bill at any point during transit to check tax evasion.
- ⌚ **Validity:**
 - ⦿ The rules also specify that the permits for conventional cargo (other than over-dimensional cargo) are **valid for one day for the movement of goods for 100 km**, and in the same proportion for the following days.

- ⦿ In general, validity of the **e-way bill cannot be extended but a commissioner may extend** the validity period only through issuing notification for certain categories of goods.

⌚ **Penalty for goods moved without generating a valid e-way bill:**

- ⦿ A fine of Rs 10,000 or amount of tax sought to be evaded, whichever is higher, may be imposed by tax authorities.

In such a situation, goods, and the vehicle transporting them, can be detained or seized.

- ⌚ An e-way bill can be regenerated by the transporter before expiry, but, **if the e-way bill has expired, the system won't allow regeneration linked to the same invoice.**

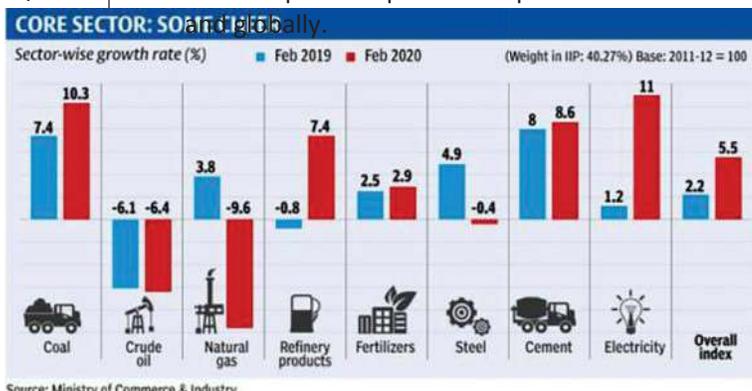
Core Sector Growth at 5.5%

Why in News

According to the data released by the **Ministry of Commerce and Industry**, the eight core sector industries recorded a growth of **5.5% in February, 2020** which is highest in 11-months.

Key Points

- ⌚ This spike is because of growth in **refinery products, electricity, fertiliser, cement and coal production**.
- ⌚ However, **crude oil, natural gas, and steel** recorded negative growth rate in February.
- ⌚ This was the **fourth consecutive month** when the index of eight core industries reported growth.
- ⌚ The outlook may not be very bright for March 2020, as the **lockdown to check the spread of Covid-19** has disrupted the production process in the country



Core Sector Industries

- ⌚ The **eight core sector industries** include coal, crude oil, natural gas, refinery products, fertiliser, steel, cement and electricity.
- ⌚ 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**.

| Industry | Weight (In %) |
|---------------------------------|---------------|
| Petroleum & Refinery production | 28.04 |
| Electricity generation | 19.85 |
| Steel production | 17.92 |
| Coal production | 10.33 |
| Crude Oil production | 8.98 |
| Natural Gas production | 6.88 |
| Cement production | 5.37 |
| Fertilizers production | 2.63 |

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** six weeks after the reference month ends, i.e a **lag of six weeks**.

The Base Year of the Index of Eight Core Industries has been revised from the year 2004-05 to 2011-12 from April, 2017.

Demand for MGNREGA Work Increased

Why in News

The demand for work by households under the **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** programme surged to a nine-year high in 2019-20.

Key Points

- ⌚ According to the MGNREGA official portal, 5.47 crore households sought MGNREGA works, **the highest since 2010-11**, when the number was 5.5 crore.
- ⌚ **More individuals too worked under MGNREGA in 2019-20**, with 7.86 crore employed at various sites across the country. This is the highest since 2012-13, when 7.97 crore individuals worked under this programme.
 - ⌚ The **disruption caused by the coronavirus lockdown**, however, may impact the final figure of the person days generated in March 2020.
- ⌚ The **gram panchayats not recording any MGNREGA expenditure has also declined**. This shows that more and more panchayats are using MGNREGA to provide unskilled work to the unemployed.
- ⌚ These new **MGNREGA figures coincide with the sharp fall in GDP growth rate** to 5% in 2019-20, the lowest in a decade.
- ⌚ The **demand for works under MGNREGA is surging despite the fact that wages have been flattening** in recent years.
 - ⌚ In 2019-20, average MGNREGA wage per day per person was Rs 182.09, barely Rs 3 higher than Rs 179.13 in 2018-19.
- ⌚ The data also showed that **263.73 crore person days** were generated during 2019-20, slightly lower than 267.96 crore in 2018-19 but significantly higher than the total person days generated during each financial year from 2012-13 to 2017-18.
- ⌚ During 2019-20, the Centre released Rs 72,162.13 crore for the MGNREGA, the **highest ever amount**, and substantially higher than the Rs 62,125.07 crore released in 2018-19.

Mahatma Gandhi National Rural Employment Guarantee Act, 2005

- ⌚ The Act aims at **enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage employment in a financial year to a rural household** whose **adult members** (at least 18 years of age) volunteer to do unskilled work.
- ⌚ The **central government bears the full cost of unskilled labour**, and 75% of the cost of material (the rest is borne by the states).
- ⌚ It is a demand-driven, social security and labour law that aims to enforce the **'right to work'**.

- ⌚ The **Ministry of Rural Development (MRD)**, Government of India in association with state governments, **monitors the implementation of the scheme.**
- ⌚ Agriculture and allied activities constitute more than 65% of the works taken up under the programme.
- ⌚ Social inclusion, gender parity, social security and equitable growth are the founding pillars of MGNREGA.

Fundraising for Covid-19

Why in News

Recently, the Government has hiked **Ways and Means Advance (WMA)** limit with the **Reserve Bank of India (RBI)** by 60%.

- ⌚ The WMA limit is proposed to be revised to 1.20 lakh crore and would be reviewed on a need basis (from 75,000 crore last year).
- ⌚ This is to compensate for the cash flow mismatch in Financial Year (FY) 21 expected from higher spending to combat the spread of **Covid-19**.

Ways and Means Advance scheme

- ⌚ It was **introduced in 1997** to meet mismatches in the receipts and payments of the government.
- ⌚ The government can avail of **immediate cash from the RBI**, if required. However, it has to **return the amount within 90 days**. Interest is charged at the existing repo rate.
- ⌚ If the WMA exceeds 90 days, it would be treated as an **overdraft** (the interest rate on overdrafts is 2 percentage points more than the repo rate).
- ⌚ The limits for WMAs are **decided by the government and RBI** mutually and are revised periodically.
- ⌚ A **higher limit provides the government flexibility** to raise funds from RBI without borrowing them from the market.

Key Points

- ⌚ The government has announced a **1.7 lakh crore package (Pradhan Mantri Garib Kalyan Yojana)** to provide income support, free food and other facilities to the poor to help them **during the 21-day national lockdown**.
- ⌚ The fundraising resources are **not only from the market, but also from institutions such as the RBI**.

- ⌚ The **Budget 2020-21** has pegged the Centre's net market borrowing, including government securities, treasury bills and post office life insurance fund at 5.36 lakh crore.
- ⌚ Out of **gross borrowings** of 7.8 lakh crore in FY21, the Centre has proposed to borrow 4.88 lakh crore, or 62.56%, in the first half of the fiscal, as against 62.25% in the previous fiscal.
- ⌚ In FY21, the Centre also plans to issue the **Debt Exchange Traded Fund** comprising government securities to widen the base of investors.
 - ⊙ This will enable **retail investors** who otherwise find it difficult to buy government bonds directly, take an exposure in this **risk free instrument**.

Exchange Traded Fund

- ⌚ It is a **basket of securities** that trade on an exchange, just like a stock.
- ⌚ ETF reflects the **composition of an Index**, like BSE Sensex. Its **trading value is based on the Net Asset Value (NAV) of the underlying stocks** (such as shares) that it represents.
- ⌚ ETF share prices **fluctuate all day** as it is bought and sold. This is different from mutual funds that only trade once a day after the market closes.
- ⌚ An ETF can **own hundreds or thousands of stocks across various industries**, or it could be isolated to one particular industry or sector.

Impact of Lockdown on Banks

Why in News

Banks are concerned about the **build up of Non-performing Assets (NPAs)** as the disruption caused to business operations and supply chains during the 21-day lockdown period will take time to repair.

- ⌚ This is **despite the fact that the Reserve Bank of India (RBI) has injected fresh liquidity** into the banking system and given banks leeway to deal with potential stress in loan accounts.

Concerns of Bankers

- ⌚ **Fresh NPAs**
 - ⊙ The 21-day period lockdown caused pain to lenders, especially in loan accounts from sectors including Micro, Small & Medium Enterprises

(MSMEs), airlines, real estate, auto dealers, gems and jewellery, metals among others.

- ⊙ Banks were **concerned about MSME loans and those extended to manufacturing sectors**, such as auto, steel, renewable energy, as those where fresh NPAs are looming.
- ⊙ According to the **RBI's financial stability report**, the share of large borrowers in scheduled commercial banks' total loan portfolios and their share in GNPA's was at 51.8% and 79.3% respectively, in September 2019.
- 🕒 **Problems Within Different Sectors**
 - ⊙ **Capital intensive sectors** such as aviation, real estate, consumer durables, and jewellery **may take a long time before there is a demand revival**.
 - ⊙ **Renewable power is struggling** because of **complete disruption of supply chains from China**, as a result of which they are way behind on project schedules and could face payment issues from their customers, the power discoms.
- 🕒 **Fear of Extended Lockdown:** Measures by the RBI will provide banks some relief during the next three months, but a buildup of bad loans looks inevitable. While moratorium provides temporary relief to borrowers and helps check the NPAs during that period, an extended lockdown is expected to have a significant adverse effect on the economy.
- 🕒 **Analysis By Different Rating Agencies**
 - ⊙ **Moody's Investors Service:** It expects deterioration in banks' asset quality due to disruption in economic activity. It has changed the outlook for Indian banking system to negative from stable.

Non-Performing Asset

- ⊙ NPA refers to a classification for loans or advances that are in **default or are in arrears** on scheduled payments of principal or interest.
- ⊙ In most cases, debt is classified as non-performing, when the loan payments have not been made for a **minimum period of 90 days**.
- ⊙ **Gross non-performing assets** are the sum of all the loans that have been defaulted by the individuals who have acquired loans from the financial institution.
- ⊙ **Net non-performing assets** are the amount that is realized after provision amount has been deducted from the gross non-performing assets.

- ⊙ **According to a report released by Crisil:** The asset classes will see continuing pressures on asset quality due to weaker profiles of borrowers and expectation of only a gradual economic recovery. In study of 35 sectors, both from manufacturing and services, there is a sharp variation in resilience in a post-Covid-19 landscape.
 - ⌘ **High Resilience Category:** Pharmaceuticals, telecom, Fast Moving Consumer Goods (FMCG), fertiliser, oil refineries, power & gas distribution and transmission are among the sectors comprising nearly 44% of the debt.
 - ⌘ **Moderate Resilience Category:** Another 52% debt is in sectors such as automobile manufacturers, power generators, roads and construction.
 - ⌘ **Least Resilient Category:** Around 4% of debt in sectors such as airlines, gems and jewellery, auto dealers and real estate, given the discretionary nature of goods and services, and weak balance sheets.

EPFO Disbursed Claims

Why in News

The **Employees' Provident Fund Organisation (EPFO)** has processed nearly **1.37 lakh claims** and **disbursed an amount of Rs 279.65 crore** since the launch of the online facility allowing advance withdrawal on **March 29, 2020**.

Key Points

- 🕒 The **scheme allowing advance withdrawal from EPF accounts** was notified in the wake of the **coronavirus pandemic**.
- 🕒 It **allows withdrawal not exceeding the basic wages and dearness allowances for three months or up to 75% of the PF balance**, whichever is less.
- 🕒 The Finance Minister — as part of the **Pradhan Mantri Garib Kalyan Yojana** — had said that the government will bear the **cost of the provident fund contributions, both of the employer and employees — 12% each — for the three months (April – June)** for those establishments which have up to **100 employees and 90% of whom are earning less than 15,000 per month as salary**.
- ⊙ The government also relaxed withdrawal conditions from EPF accounts.

Employees' Provident Fund Organisation (EPFO)

- ⌚ It is a **government organization** that manages **provident fund and pension accounts** for the **workforce engaged in the organized sector** in India.
- ⌚ It implements the **Employees' Provident Fund and Miscellaneous Provisions Act, 1952**.
 - ⊙ The Employees' Provident Fund and Miscellaneous Provisions Act, 1952 provides for the institution of provident funds for employees in factories and other establishments.
- ⌚ It is **administered by the Ministry of Labour & Employment**, Government of India.
- ⌚ It is **one of the World's largest Social Security Organisations** in terms of clientele and the volume of financial transactions undertaken.

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**.
 - ⊙ 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.

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.

Fraud Oversight Wing

Why in News

The Reserve Bank of India (RBI) is in the process of putting together an **exclusive wing for banking fraud oversight**.

- ⌚ This wing will have teams for meta-data processing and analysis, artificial intelligence analysis units, as well as proactive risk assessment cells.

Key Points

- ⌚ **Strength and Participation:** The banking fraud oversight wing may comprise **up to 600 officers** along with experts from the private sector.
- ⌚ The RBI would hire fresh people, including **industry veterans** to lead the teams.
- ⌚ **Training:**
 - ⊙ Experts from the **private sector working** in all these domains will be brought in to train the new members in the fraud oversight wing.
 - ⊙ These training sessions will be repeated **every year in the initial years**.
 - ⊙ These new teams will also be given training in the **latest technologies**, so that they can also **prevent another Yes Bank kind of event**.

Background

- ⌚ The RBI had been mulling ways to proactively detect such frauds after the loan fiasco at **Punjab National Bank**.
 - ⊙ The bank fraud to the tune of Rs 11,450 crore involving diamond merchant Nirav Modi. It came to light that the company, in connivance with retired employees of PNB, got at least 150 LoUs, allowing Nirav Modi Group to defraud the bank and many other banks who gave loans to him.
- ⌚ As part of that plan, the banking regulator in 2019 had moved to create a **separate cadre** of its own employees who would work in **regulation and oversight sections**.
- ⌚ However, the working conditions were very strict and anyone opting for that cadre **would not be allowed to leave for three years**. To overcome this problem, the RBI sought to create a fraud oversight wing.

Yes Bank Case

- ⌚ Even though there were representatives of RBI on the Yes Bank board, it was difficult for them to flag the risk for they had never done a credit risk assessment task in their career so far.
- ⌚ **Steps Taken:**
 - ⊙ The RBI, on March 5, superseded the board of Yes Bank and placed it under immediate moratorium.
 - ⊙ Withdrawals from the bank were capped at Rs 50,000.
 - ⊙ RBI appointed the former State Bank of India (SBI) Chief Financial Officer as the bank's administrator.
- ⌚ **Reconstruction Plan:**
 - ⊙ RBI had suggested the possibility of SBI, India's largest bank, acquiring a 49% equity stake.
 - ⊙ SBI later committed to invest up to Rs 7,250 crore in Yes bank.

NBFCs Face Moratorium Issue with Banks

Why in News

Non-Banking Financial Companies (NBFCs) may face a tough time following the Reserve Bank of India's recent directive on providing a moratorium on repayment.

- ⌚ This is because though these entities are providing **moratoriums to their customers**, they still have to continue repaying banks and other borrowers.

Key Points

- ⌚ **Banks are not willing to offer any moratorium** on term loans taken by the NBFCs. This has put significant pressure on liquidity profiles of many NBFCs.
 - ⊙ A significant part of money disbursed by NBFCs is loan taken **from banks**.
 - ⊙ **Moratorium simply refers** to a legal authorisation to existing borrowers to defer or postpone their loan repayments for a predetermined period.
- ⌚ The Reserve Bank of India (RBI) had asked banks, co-operative banks and NBFCs to offer a **three-month moratorium on loan repayments by their customers** in the wake of the **Covid-19 pandemic** and the nationwide lockdown.
 - ⊙ The RBI has not specifically said NBFCs should not be given moratorium by banks.

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.
- ⊙ While a few banks are inclined to offer moratorium on NBFC loans, some of the big banks have ruled out any such facility.
- ⌚ The NBFCs have already been facing liquidity problems due to the **IL&FS and DHFL crises**.
- ⌚ Total bank loan outstandings to Non-Banking Financial Company (NBFC) sector were **Rs.7,37,198 crore as of January 31, 2020 showing a rise of 32.2 per cent** on a year-on-year basis.
 - ⊙ **Collections from customers have declined** due to the **lockdown**, closure of units and job losses.
 - ⊙ Almost **60% of NBFC borrowings** are from non-bank sources and require continuity in debt servicing.
 - ⊙ With minimal collections, NBFCs can only depend on their **cash reserves and any backup credit lines from banks**, if available for servicing such debt.

- ⊙ Debt service is the cash that is required to cover the repayment of interest and principal on a debt for a particular period.

⌚ Reserve Bank of India's (RBI) Move

- ⊙ The RBI has made available **Rs 1 lakh crore through its targeted long-term repo operations (TLTRO) window**.
 - ⊗ Corporates and government-owned financiers will also be interested in this window.
 - ⊗ Only higher rated NBFCs may end up benefiting.
- ⊙ **Industry chamber Assocham** has proposed a **special liquidity window for NBFCs**, but the RBI has not shown any inclination so far.

Renewable Energy Certificates

Why in News

Recently, sales of **Renewable Energy Certificates (RECs)** rose over 79% to 8.38 lakh units in March compared to 4.68 lakh in the same month a year ago **owing to good supply**.

Key Points

- ⌚ REC is a **market-based instrument to promote renewable sources of energy and development of the market in electricity**.
 - ⊙ One REC is created when **one megawatt hour of electricity** is generated from an **eligible renewable energy source**.
- ⌚ REC acts as a **tracking mechanism for solar, wind, and other green energies** as they flow into the power grid.
- ⌚ RECs go by many names, including **Green tag, Tradable Renewable Certificates (TRCs), Renewable Electricity Certificates, or Renewable Energy Credits**.
- ⌚ Under **Renewable Purchase Obligation (RPO)** bulk purchasers like discoms, open access consumers and capacitive users are required to buy a certain proportion of RECs. They can buy RECs from renewable energy producers.
 - ⊙ **RPO was instituted in 2011**. It is a mandate that requires **large power procurers to buy a predetermined fraction of their electricity from renewable sources**.
- ⌚ The **proportion** of renewable energy for utilities is **fixed by the central and state electricity regulatory commissions**.

- ⌚ In India, RECs are traded on **two power exchanges** — **Indian Energy Exchange (IEX)** and **Power Exchange of India (PXIL)**.
- ⌚ The price of RECs is **determined by market demand** and contained between the **‘floor price’ (minimum price)** and **‘forbearance price’ (maximum price)** specified by the **Central Electricity Regulatory Commission (CERC)**.

Central Electricity Regulatory Commission

- ⌚ It is a **regulator of the power sector** in India.
- ⌚ It intends to **promote competition, efficiency and economy in bulk power markets, improve the quality of supply, promote investments and advise the government on the removal of institutional barriers to bridge the demand supply gap.**
- ⌚ It is a **statutory body** functioning with **quasi-judicial status** under the **Electricity Act, 2003**.

Government Cuts Interest Rates on NSC, PPF

Why in News

Recently, the Government of India **slashed interest rates on small savings schemes**, including National Savings Certificate and Public Provident Fund **to counter the economic fallout of the coronavirus pandemic**.

- ⌚ **The move by the government has followed the Reserve Bank of India’s (RBI) recent 75 bps cut in its key interest rate.**
- ⌚ Interest rates for small savings schemes are **notified on a quarterly basis**.

Key Points

- ⌚ **In the case of the National Savings Certificate**, the government has brought down interest rates by **110 basis points (bps) to 6.8%**.

- ⌚ **Interest rates on Public Provident Funds (PPF)** for the quarter have been brought down by 80 bps to 7.1%.
- ⌚ Interest rates for **Kisan Vikas Patra** have slashed by 70 bps to 6.9%.

Decoding the Rate Cuts

- ⌚ The rate cut is in the line with RBI’s recent move to slash key interest rates.
- ⌚ Government’s decision is the **part of the Fiscal Policy which is a sister strategy to monetary policy (decided by the Central Bank)** used in different combinations to achieve the country’s economic goal.
- ⌚ **Small savings schemes are attractive because of higher interest rates and tax benefits**, and that hurts the mobilisation of bank deposits.
- ⌚ **It also affects the transmission of policy rate cuts**, which is why the RBI also advocated **rate rationalisation** on small saving.
- ⌚ The move will lead the nation into a **low-interest rate regime**.

Small Saving Scheme

- ⌚ The small savings scheme basket comprises 12 instruments.
- ⌚ It includes - National Saving Certificate (NSC), Public Provident Fund (PPF), Kisan Vikas Patra (KVP) and Sukanya Samriddhi Scheme.
- ⌚ It also includes Saving Deposit, Monthly Income Deposit, several time and recurring deposits.
- ⌚ The rates for small saving schemes are **announced quarterly**.
- ⌚ Theoretically the rate changes is based on yields of government securities of corresponding maturity. However, political factors also influence the rate change.
- ⌚ The **Shyamala Gopinath panel** constituted on the Small Saving Scheme had suggested a market-linked interest rate system for small savings schemes.

International Relations

Highlights

- ⌘ Globalisation & Covid-19
- ⌘ India-China: 70 Years of Diplomatic Relations
- ⌘ Talks on Oil Cut Deal at G-20
- ⌘ IMF Cancels Debt Payments
- ⌘ ADB Assures Covid-19 Support Package
- ⌘ Syrian Air Force Behind Chemical Attacks
- ⌘ Threat of Food Shortage: UN, FAO and WTO
- ⌘ India Moves WTO on US Tariffs
- ⌘ China at Top in Global Patent Race
- ⌘ India-Pak Tension Amidst Covid-19
- ⌘ ASEAN Summit on Covid-19
- ⌘ Chinese Trawlers in South China Sea
- ⌘ Operation Sanjeevani

Globalisation & Covid-19

Why in News

Global leaders have reached this consensus that the **pandemic Covid-19** and the crisis it has generated is a turning point in modern history.

- ⌚ The crisis offers the world an opportunity to **forge a new human-centric concept of globalisation.**

Key Points

- ⌚ The rapid worldwide spread of **Covid-19** has a lot to do with the **fallout of globalisation**, including the **travel industry, tourism**, and the neoliberal attack on **universal health care** which can be understood by the **examples of South Korea, Iran and Sri Lanka.**
- ⌚ **South Korea:**
 - ⌚ The transmission of the Covid-19 in South Korea is related to the Shincheonji Church of Jesus.
 - ⌚ This **cult facilitated the transmission** of the disease from Wuhan to South Korea because of **frequent travel among its followers.**
- ⌚ **Iran:**
 - ⌚ The coronavirus was introduced in Iran through **globalisation-triggered international alignment and incubated through political and religious processes.**
 - ⌚ **The economic sanctions imposed by the U.S. dominated western countries** compelled Iran to develop ties with China. Which in turn, made the **traders act as the carriers** of the viruses.

- ⌚ The **initial hub of disease transmission** in Iran was Qom, a **popular pilgrimage centre for Shiite Muslims** from where it reached the **Iranian Parliament**, having strong ties with Qom.

⌚ Sri Lanka & India:

- ⌚ Here the onset of the Covid-19 has a lot to do with **tourism and labour migration**, processes intimately connected with globalisation.
- ⌚ Both in **Sri Lanka and India**, the **first cases were reported among foreign tourists** from China and Italy respectively.
- ⌚ The **tour guides** became the **first set of local people exposed** to the disease triggering local transmissions.
- ⌚ Both Sri Lanka and Kerala in India have **large portions of their labour force employed overseas.**
- ⌚ **Returnees** from these overseas destinations have contributed to the upsurge in the Covid-19 epidemic in South Asian countries.

Challenges

- ⌚ The quarantine and social distancing processes may not be **totally effective** in so far as the migrant workers and their families are often in between two states, experiencing difficulties at both ends.
- ⌚ Both migrant workers and tourist guides already experience discrimination of various kinds because of their occupations and the risks involved and the quarantine has added to their misery.

Way Forward

- ⌚ The world needs to think **beyond social distancing and quarantining** the affected people and places.

Globalisation

- ⌚ It refers to the **economic, social, and political integration of nations**. It entails the spread of products, technology, information, and jobs across national borders and cultures.
- ⌚ In **economic terms**, it describes an **interdependence of nations** around the globe, fostered through free trade.
- ⌚ Globalisation can be further divided into subcategories based on its time frame and focus areas:
 - ⌚ **Globalization 1.0**
 - ⌘ It was **pre-World War I** globalization, which was launched by a historic drop in trade costs.
 - ⌘ This globalization came with almost no government support and was without global governance.
 - ⌚ **Globalization 2.0**
 - ⌘ It is the **post-World War II** phase where trade in goods was combined with complimentary domestic policies.
 - ⌘ The market was in charge of efficiency while the government was in charge of justice.
 - ⌘ It saw the establishment of institute-based, rule-based international governance, specifically the **United Nations (UN), International Monetary Fund (IMF), World Bank, World Trade Organisation (WTO, earlier GATT), International Labor Organization (ILO)**, etc.
 - ⌚ **Globalization 3.0**
 - ⌘ It created a new world of manufacturing in which high-tech was combined with low wages.
 - ⌘ This was achieved through the establishment of global supply chains as factories crossed international borders.
 - ⌘ It was variously called **New globalization, Hyper globalization, Global value chain evolution**.
 - ⌚ **Globalization 4.0**
 - ⌘ It is the latest stage of globalization which involves cutting-edge technologies like **artificial intelligence (AI)** that powers forward with the explosion of information technology.
 - ⌘ These technologies shrink distances, open up borders and minds and bring people all across the globe closer together.

- ⌚ Broader and deeper issues like **fallout from globalisation need to be analysed** and questioned.
- ⌚ In the recent **G20 video conference**, Indian Prime Minister stressed the world leaders to look at **humanitarian aspects to global challenges like pandemics, climate change and terrorism, not just economic ones**.
- ⌚ The world needs to redefine globalisation and make it more **human-centric instead of market and profit-oriented**.
- ⌚ There is a need to **devote special attention to the needs of less developed countries** as they might not contribute to the causes but face the severity of the situation far worse.

India-China: 70 Years of Diplomatic Relations

Why in News

India and China mark 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 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.
- ⊙ It was also agreed to establish a Joint Working Group (JWG) - to seek fair, reasonable and mutually acceptable solutions on the boundary question - and a Joint Economic Group (JEG).

🕒 **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 a 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 the 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 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 the 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 in India-China relations embody the great efforts of several generations.
- ⌚ Both nations **need to master the four keys of:**
 - ⊙ **Leading:** To reach consensus and guide the direction of the development of bilateral relations under the guidance of leaders from both nations.
 - ⊙ **Transmitting:** To transmit the leaders' consensus to all levels and translate it into tangible cooperation and outcomes.
 - ⊙ **Shaping:** To go beyond the mode of managing differences, shape bilateral relations actively, and accumulate positive momentum.
 - ⊙ **Integrating:** 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.

Talks on Oil Cut Deal at G-20

Why in News

Recently, at **G20** talks, top oil nations pushed to finalise a deal on oil cuts to lift prices slashed by the coronavirus crisis.

Key Points

- ⌚ Measures to curb the spread of the **coronavirus have destroyed demand for fuel** and driven down oil prices.
 - ⊙ It strained the budgets of oil producers and also affected the U.S. shale industry which is more vulnerable to low prices due to its high costs.

- ⌚ **Saudi Arabia and Russia and its allies (OPEC+ group)**, had forged a pact to curb crude production by the **equivalent of 10% of global supplies**.
- ⌚ They **also want other producers** including the United States and Canada to cut a further 5%.
 - ⦿ The **crisis in the oil market** has **pushed Russia and Saudi Arabia to patch up differences** after their hostile meeting in March, 2020.
 - ⦿ The **dispute over how best to tackle falling prices** led them to scrap their existing pact on production restraint that had helped balance the oil market for three years.
- ⌚ Russia and Saudi Arabia agreed that their cuts would both be calculated from an October 2018 baseline.
- ⌚ But **efforts to conclude the deal hit the buffers** when **Mexico said it would only cut output by a quarter of the amount** demanded by OPEC+.
- ⦿ Mexico also said that the US had offered to make extra U.S. cuts on Mexico's behalf.
- ⌚ The demand for oil has plunged by 30% and even an unprecedented cut of 15% made by the deal in global supplies would have little effect on prices.
- ⌚ The head of the **International Energy Agency** said **importing countries could offer some support to the market by making extra purchases** of crude for strategic reserves.
 - ⦿ The United States has said that it would help demand by opening its strategic reserve to store as much oil as possible.

OPEC +

- ⌚ The **non-OPEC countries which export crude oil** are termed as **OPEC + countries**.
- ⌚ OPEC + countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

Organization of the Petroleum Exporting Countries

- ⌚ It is a **permanent, intergovernmental organization**, created at the **Baghdad Conference** in 1960, by **Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela**.
- ⌚ It aims to **manage the supply of oil in an effort to set the price of oil in the world market**, in order to avoid fluctuations that might affect the economies of both producing and purchasing countries.

- ⌚ It is headquartered in **Vienna, Austria**.
- ⌚ OPEC membership is open to any country that is a substantial exporter of oil and which shares the ideals of the organization.
- ⌚ As of April 2020, OPEC has a total of 13 Member Countries viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, Republic of Congo, Angola, and Venezuela.

G-20

- ⌚ The G20 is an **informal group of 19 countries** and the **European Union**, with representatives of the **International Monetary Fund and the World Bank**.
- ⌚ The G20 membership comprises a **mix of the world's largest advanced and emerging economies**, representing about two-thirds of the world's population, 85% of global gross domestic product, 80% of global investment and over 75% of global trade.
- ⌚ The members of the G20 are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the European Union.
- ⌚ It does not have **any permanent secretariat or headquarters**.

IMF Cancels Debt Payments

Why in News

Recently, the **International Monetary Fund (IMF)** approved a \$500 million grant to cancel six months of debt payments for 25 of the world's most impoverished countries.

Key Points

- ⌚ This will provide grants to the poorest and most vulnerable member countries of the IMF to tackle the **Covid-19 pandemic**.
- ⌚ Many of these 25 countries have less than 50 critical care unit beds per country. They will be able to channel more of their scarce financial resources towards vital emergency medical and other relief efforts.
- ⌚ The money will come from the IMF's revamped **Catastrophe Containment and Relief Trust (CCRT)**

which will use recent pledges of **185 million from the United Kingdom** and **100 million from Japan**.

- ⌚ The IMF urged other donors to help replenish the trusts resources.
- ⌚ The IMF approved the immediate debt service relief for **19 African countries including Afghanistan, Haiti, Nepal, Solomon Islands, Tajikistan and Yemen**.

Catastrophe Containment and Relief Trust

- ⌚ The CCRT **allows the IMF to provide grants for debt relief for the poorest and most vulnerable countries hit by catastrophic natural disasters or public health disasters**.
- ⌚ The relief on debt service payments frees up additional resources to meet exceptional balance of payments needs created by the disaster and for containment and recovery.
- ⌚ It was established in February 2015 during the **Ebola outbreak** and modified in March 2020 in response to the Covid-19 pandemic.

International Monetary Fund (IMF)

- ⌚ The IMF came into existence after the **UN conference in Bretton Woods** in 1944.
- ⌚ The 44 countries at that conference sought to build a framework for economic cooperation to avoid a repetition of the competitive devaluations that had contributed to the **Great Depression of the 1930s**.
- ⌚ IMF currently has 189 member countries, each of **which has representation on the IMF's executive board** in proportion to its financial importance. The **most powerful countries in the global economy have the most voting power**.

Objective

- ⌚ Foster global monetary cooperation
- ⌚ Secure financial stability
- ⌚ Facilitate international trade
- ⌚ Promote high employment and sustainable economic growth
- ⌚ And reduce poverty around the world

Functions

- ⌚ **Provides Financial Assistance: To provide financial assistance to member countries with balance of payments problems, the IMF lends money to replenish international reserves, stabilize currencies and strengthen conditions for economic growth.**

Countries must embark on structural adjustment policies monitored by the IMF.

- ⌚ **IMF Surveillance:** It oversees the international monetary system and monitors the economic and financial policies of its 189 member countries. As part of this process, which takes place both at the global level and in individual countries, the IMF highlights possible risks to stability and advises on needed policy adjustments.
- ⌚ **Capacity Development:** It provides technical assistance and training to central banks, finance ministries, tax authorities, and other economic institutions. This helps countries raise public revenues, modernize banking systems, develop strong legal frameworks, improve governance, and enhance the reporting of macroeconomic and financial data. It also helps countries to make progress towards the **Sustainable Development Goals (SDGs)**.

ADB Assures Covid-19 Support Package

Why in News

The **Asian Development Bank (ADB)** has assured the **Ministry of Finance** of **USD 2.2 billion (about Rs 16,500 crore)** support to India in its fight against the Covid-19 pandemic.

- ⌚ On **18th March, 2020**, ADB announced an **initial package of approximately USD 6.5 billion** to address the immediate needs of its **developing member countries, including India**, as they respond to the Covid-19.
- ⌚ The **World Bank** has approved a **\$1-billion assistance to help India** prevent, detect and respond to the outbreak, and strengthen its public health preparedness.

Key Points

- ⌚ **Background: Weakening global economic growth** is causing:
 - ⌚ Disruptions in India's trade and manufacturing supply chains.
 - ⌚ Slowdown in tourism and other economic activities.
 - ⌚ Strain on the large number of micro, small, and medium-sized enterprises.
 - ⌚ A negative impact on the livelihood of formal and informal labourers across the country, etc.

- ⌚ **ADB praised efforts of the Government:** ADB praised the Indian government's decisive response to the pandemic, including:
 - ⦿ A **national health emergency program**.
 - ⦿ **Tax and other relief measures** provided to businesses.
 - ⦿ **Rs 1.7 lakh crore economic relief package (Pradhan Mantri Garib Kalyan Yojana)**, which provides immediate income and consumption support to the poor, women and workers affected by the three-week nationwide lockdown.
- ⌚ **ADB's Support to India**
 - ⦿ It is now preparing **USD 2.2 billion in immediate assistance** in response to Covid-19 to the health sector to help alleviate the economic impact of the pandemic on the poor.
 - ⦿ ADB is also engaged with the **private sector to meet its financing needs** during this period.
 - ⦿ It is ready to provide **further financial assistance and policy advice** whenever the situation warrants.
 - ⦿ ADB is also planning to **consider all financing options available to meet India's needs**, to facilitate swift disbursement of ADB funds including emergency assistance, policy-based loans, and budget support.

Asian Development Bank

- ⌚ It is a **regional development bank** established on **19th December 1966**.
- ⌚ ADB has **68 members, 49 from within Asia**.
- ⌚ **Japan holds the largest proportion** of shares in ADB followed by the USA.
- ⌚ It aims to promote social and economic development in Asia.
- ⌚ ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty.
- ⌚ ADB is **headquartered at Manila, Philippines**.

Syrian Air Force Behind Chemical Attacks

Why in News

Recently, the **Organisation for the Prohibition of Chemical Weapons (OPCW)** has said that the Syrian air force carried out three chemical attacks on a village in **Syria's western Hama region** in 2017.

Key Points

- ⌚ The **OPCW Investigation and Identification Team (IIT)** was established by OPCW in 2018 to identify the perpetrators of illegal attacks.
 - ⦿ It concluded that the Syrian air force helicopter dropped bombs containing **poisonous chlorine and sarin nerve gas**
- ⌚ The Syrian government has denied using chemical weapons.

Organisation for the Prohibition of Chemical Weapons (OPCW)

- ⌚ It is an international organization established by the **Chemical Weapons Convention, 1997** to **implement and enforce the terms of the non-proliferation treaty**, which prohibits the use, stockpiling, or transfer of chemical weapons by signatory states.
- ⌚ The OPCW is **authorized to perform inspections** to verify that signatory states are complying with the convention.
 - ⦿ This includes a commitment to grant inspectors full access to chemical weapons sites.
- ⌚ The OPCW also **performs testing of sites and victims of suspected chemical weapons attacks**.
- ⌚ By the **2001 Relationship Agreement** between the OPCW and the United Nations, the OPCW reports on its inspections and other activities to the UN through the office of the Secretary General.
- ⌚ The OPCW was awarded the **Nobel Peace Prize in 2013**. Its headquarters are located in **the Hague, Netherlands**.

Chlorine gas

- ⌚ Chlorine is a choking agent. Its greenish-yellow clouds of gas cause shortness of breath, wheezing, respiratory failure, irritation in the eyes, vomiting, and sometimes death.

Sarin gas

- ⌚ Sarin is a chemical warfare agent classified as a **nerve agent**.
 - ⦿ They are similar to certain kinds of insecticides (insect killers) called organophosphates in terms of how they work and what kind of harmful effects they cause.
- ⌚ It was **originally developed in 1938 in Germany** as a pesticide.

⌚ Sarin is a clear, colorless, and tasteless liquid that has no odor in its pure form. However, sarin can evaporate into a vapor (gas) and spread into the environment. It is **also known as GB**.

Threat of Food Shortage: UN, FAO and WTO

Why in News

Recently, global agencies like the **United Nations (UN)**, **Food and Agriculture Organization (FAO)** and **World Trade Organisation (WTO)** have warned the world of **food shortage risk** worldwide if authorities fail to manage the **Covid-19** pandemic properly.

Key Points

⌚ Major Reasons

- ⊙ **Lockdowns:** Many governments around the world have put their populations on **lockdown** causing severe slow-downs in international trade and food supply chains.
- ⊙ **Travel restrictions:** Confinement orders and travel restrictions cause disruptions in agricultural production due to the unavailability of agricultural labour and the inability to get food to markets.
 - ⌘ Such disruptions result in the **spoilage of perishables** and **increasing food waste**.
- ⊙ **Food Availability:** Uncertainty about food availability can create a shortage on the global market.
- ⊙ **Fragile Supply Chains:** Panic buying by people for social isolation has already demonstrated the fragility of supply chains.

⌚ Suggestions

- ⊙ Every effort must be made to **ensure free trade flows** amidst this crisis to avoid food shortage(s) from developing.
- ⊙ When acting to protect the health and well-being of their citizens, countries should ensure that any **trade-related measures** do not disrupt the food supply chain.
- ⊙ There is a need to **protect employees** engaged in food production, processing and distribution, both for their own health and that of others, as well as to maintain food supply chains.
- ⊙ Efforts should be made for the **betterment of international cooperation**.

India Moves WTO on US Tariffs

Why in News

Under the **World Trade Organisation's (WTO's) safeguard agreement**, India has sought consultations with the US.

- ⌚ The consultation has been sought on **American authorities' decision to increase import duties on derivatives of steel and aluminium products**.

Key Points

⌚ WTO's Safeguard Agreement

- ⊙ The **Agreement on Safeguards ("SG Agreement")** sets forth the **rules for application of safeguard measures pursuant to Article XIX of General Agreement on Tariffs and Trade (GATT), 1994**.
- ⊙ Safeguard measures are defined as **"emergency" actions with respect to increased imports of particular products**, where such imports have **caused or threaten to cause serious injury to the importing member's domestic industry**.
- ⊙ As per its provisions, a WTO member country proposing to apply a safeguard measures shall provide adequate opportunity for **prior consultations** with those members having a **substantial interest as exporters of the product concerned**.
 - ⌘ This is with a view to exchanging views on the measure.

⌚ India's Stand:

- ⊙ India considers this measure of the US to be a **safeguard measure within a provision of the General Agreement on Tariffs and Trade 1994, and the Agreement on Safeguards**.
- ⊙ India has sought to exercise its right to consult on the specifics of the measures and its **right to determine appropriate trade compensation with the US**.

⌚ According to the WTO:

- ⊙ India reserves the **right to raise additional issues and make further factual and legal arguments**.
- ⊙ This should be without prejudice to any other remedies provided for under the understanding of rules and procedures governing the settlement of disputes and the covered agreements during the course of consultations.

- ⌚ India looks forward to receiving a prompt reply to its request from the US for a mutually convenient date and venue for the consultations.

General Agreement on Tariffs and Trade

- ⌚ It traces its origins to the **1944 Bretton Woods Conference**, which laid the foundations for the post-World War II financial system and established two key institutions, the **International Monetary Fund (IMF)** and the **World Bank**.
- ⌚ GATT, signed by **23 countries in Geneva in 1947**, came into force on **1st January, 1948** with the following purposes:
 - ⦿ To phase out the use of import quotas.
 - ⦿ To reduce tariffs on merchandise trade.
- ⌚ GATT became the **only multilateral instrument** governing international trade from 1948 until the **WTO was established in 1995**.

China at Top in Global Patent Race

Why in News

Recently, the **World Intellectual Property Organization (WIPO)** has highlighted that **China** has become the **biggest source of applications for international patents** in the world.

Key Points

- ⌚ **China has pushed the United States from the top position** which it has held since the global system was set up more than 40 years ago.
 - ⦿ The U.S. had filed the most applications in the world every year since the **Patent Cooperation Treaty (PCT)** system was set up in **1970**.
- ⌚ **China filed 58,990 applications** beating the **57,840 applications** filed by the **U.S.**
 - ⦿ China's figure was a **200-fold increase in just 20 years**.
 - ⦿ China's **success can be attributed** to the **deliberate strategy of advancing innovations** and to make the country's economy operate at a higher level of value.
- ⌚ In the current times, more than half of patent applications, **almost 52.4%**, come from **Asia**.
- ⌚ **Japan** is on the **third** rank followed by **Germany** and **South Korea**.

World Intellectual Property Organization

- ⌚ It is the **global forum for intellectual property (IP) services, policy, information and cooperation**.
- ⌚ It is a **self-funding** agency of the **United Nations**, with **193 member states**.
- ⌚ **Mission:** To lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all.
- ⌚ Its mandate, governing bodies and procedures are set out in the **WIPO Convention**, which **established WIPO in 1967**.
- ⌚ It is **headquartered at Geneva, Switzerland**.

Patent Cooperation Treaty

- ⌚ It is an **international treaty** with more than **150 Contracting States**.
- ⌚ It makes it possible to **seek patent protection** for an invention simultaneously in each of a large number of countries by filing an **international patent application**.
 - ⦿ Such an application may be filed by anyone who is a national or resident of a PCT Contracting State.
 - ⦿ It may generally be filed with the national patent office of the Contracting State or at the applicant's option, with the International Bureau of WIPO in Geneva.
 - ⦿ The granting of patents remains under the control of the national or regional patent Offices in what is called the **national phase**.
- ⌚ **PCT is used by:**
 - ⦿ **World's major corporations, research institutions and universities** when they seek international patent protection.
 - ⦿ **Small and medium sized enterprises (SMEs) and individual inventors**.

India-Pak Tension Amidst Covid-19

Why in News

Recently, India has said that the degree of seriousness of each **South Asian Association for Regional Cooperation (SAARC)** member-nation in collectively fighting the **Covid-19** pandemic can be gauged by their behaviour.

- ⌚ The statement is in clear reference to Pakistan’s opposition to India’s leadership in dealing with the crisis in the region.

Key Points

- ⌚ Pakistan has pledged to contribute \$3 million to **SAARC Covid-19 Emergency Fund**.
- ⌚ Pakistan has also demanded that any **initiative to deal with the situation must be brought under SAARC’s framework** and utilised in accordance with the SAARC charter.
 - ⌚ **Pakistan also boycotted a video conference of trade officials** of the SAARC members.
 - ⌚ It has said that these initiatives would only be effective if these are headed by the group’s secretariat and not by India.
- ⌚ India has maintained that **such initiatives** (formation of emergency fund) are **taken under extraordinary circumstances** which are **focused on jointly fighting** an issue or problem **without the limitations of procedural formalities**.
 - ⌚ **Each member nation** has the **right to decide on the timing, manner and implementation** of their SAARC Covid-19 Emergency Fund commitments.

India’s Role

- ⌚ India has **taken the lead role in taking preventive measures** against the **novel coronavirus** crisis in the region.
- ⌚ In March, India proposed an **Covid-19 Emergency Fund** in the **video conference of SAARC members on forming a joint strategy** to fight Covid-19.
 - ⌚ The Fund would be based on a **voluntary contribution** from all SAARC members.
 - ⌚ **Indian Prime Minister contributed \$10 million** to the fund.
 - ⌚ Following Indian lead ,subsequently, Nepal and Afghanistan (\$1 million each), Maldives (\$200,000), Bhutan (\$100,000), Bangladesh (\$1.5 million) and Sri Lanka (\$5 million) also pledged to contribute to the fund.
 - ⌚ The fund is used to **meet the cost of immediate actions** by any member and will be coordinated through foreign secretaries and embassies of the member countries.
- ⌚ India has also **extended assistance in materials and services to Afghanistan, Bangladesh, Bhutan, the**

Maldives (Operation Sanjeevani), Nepal and Sri Lanka keeping in mind their early commitments to the fund and serious behaviour.

South Asian Association for Regional Cooperation

- ⌚ It was **established on 8th December 1985** with the signing of the **SAARC Charter in Dhaka (Bangladesh)**.
- ⌚ It has 8 members: **Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka and Afghanistan**.
 - ⌚ **Afghanistan** became its **newest member** at the **13th annual summit in 2005**
- ⌚ The **Headquarters and Secretariat** are at **Kathmandu, Nepal**.
- ⌚ **Principles:**
 - ⌚ Respect for the principles of sovereign equality, territorial integrity, political independence, non-interference in the internal affairs of other States and mutual benefit.
 - ⌚ Such cooperation shall not be a substitute for bilateral and multilateral cooperation but shall complement them.
 - ⌚ Such cooperation shall not be inconsistent with bilateral and multilateral obligations.



ASEAN Summit on Covid-19

Why in News

Vietnam chaired the **Association of Southeast Asian Nations (ASEAN) summit held online**. The discussions pertained to the **impact of Covid-19 on southeast Asia**.

- ⌚ Leaders from China, Japan and South Korea also joined the summit.

Key Points

- ⌚ ASEAN leaders have warned of the crippling economic cost of Covid-19 and called for trade routes to reopen to protect jobs and food supplies, as well as the stockpiling of medical equipment.

- ⊙ The Covid-19 has ruined the region’s tourism and export-reliant economies.
- ⊙ Vietnam has urged Southeast Asian leaders to set up an **emergency fund to tackle the coronavirus**.
- ⌚ Existing Fears on the impact of Covid-19 on the Region:
 - ⊙ Limited testing in Indonesia has resulted in the lower number of cases – and under 400 deaths – for a country of 260 million.
 - ⊙ Health systems from Myanmar to Laos are widely believed to be missing the true scale of infections.
 - ⊙ A **recent surge in cases in Singapore** has raised fears the pandemic could rebound in places which had batted back the initial outbreak.
 - ⊙ The Thai economy, the second largest in ASEAN, is **expected to shrink by 5.3%** in 2020 – a 22-year low – with millions left jobless.

Association of Southeast Asian Nations

- ⌚ ASEAN is a **regional grouping** that promotes economic, political, and security cooperation.
- ⌚ It was established on **8 August 1967 in Bangkok, Thailand**, with the signing of the **ASEAN Declaration (Bangkok Declaration)** by the founding fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand.
- ⌚ **Ten members:** Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- ⌚ **Chairmanship of ASEAN rotates annually**, based on the alphabetical order of the English names of Member States.
- ⌚ ASEAN countries have a **total population of 650 million people and a combined Gross Domestic Product (GDP) of \$2.8 trillion**.
- ⌚ **ASEAN Secretariat** – Indonesia, Jakarta.



Chinese Trawlers in South China Sea

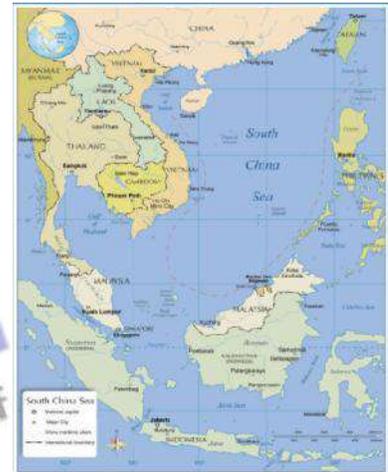
Why in News

Recently, the Chinese fishing fleets have been observed in the waters of the **South China Sea** which are internationally recognised as exclusively Indonesia’s to fish.

- ⌚ It raises the concerns of the fishermen in **Natuna Islands (Indonesia)**.

Key Points

- ⌚ The Chinese steel trawlers scrape the bottom of the sea and **destroy marine life, breaching the maritime borders**.
- ⌚ Since China is **India's 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

- ⌚ It 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.

Operation Sanjeevani

Why in News

Recently, **India supplied 6.2 tonnes of essential medicines to Maldives**, under **Operation Sanjeevani** as assistance in the fight against **Covid-19**.

Key Points

- ⌚ The medicines were delivered by an **Hercules C-130J-30 aircraft of Indian Air Force**.
- ⌚ The medicines **include influenza vaccines, antiviral drugs such as lopinavir and ritonavir** among others as well as consumables such as catheters, nebulisers, urine bags and infant feeding tubes.

- ⌚ Lopinavir and ritonavir have been used to treat patients with Covid-19 in some countries.
- ⌚ In March, India also dispatched a **14-member Army medical team to Maldives to set up a viral testing lab** there and **gifted 5.5 tonne of essential medicines**.

India’s Assistance to Maldives

- ⌚ **1988:** Under **Operation Cactus** the Indian Armed Forces helped the government of Maldives in the **neutralization of the coup attempt**.
- ⌚ **2004:** India helped Maldives **after the tsunami**.
- ⌚ **2014:** Under **Operation Neer**, India supplied drinking water to Maldives to deal with the drinking water crisis.
- ⌚ The two **Advanced Light Helicopters (ALH)** given by India to the Maldivian armed forces have been used in saving Maldivian lives.
 - ⌚ The Advanced Light Helicopter is a multi-role, new generation helicopter in the 5.5-ton weight class, indigenously designed and developed by **Hindustan Aeronautics Limited (HAL)**.

Relations Between the Two Countries

- ⌚ **History:** India and Maldives share ethnic, linguistic, cultural, religious and commercial links. India was **among the first to recognize Maldives** after its independence in 1965 and later established its mission at Male in 1972.
- ⌚ **Defence:** India provides the largest number of training opportunities for Maldivian National Defence Force (MNDF), meeting around 70% of their **defence training requirements**.
 - ⌚ **‘Ekuverin’** is a joint military exercise between India and Maldives.
- ⌚ **Disaster Management:** The Government of India has provided large-scale assistance to Maldives in the aftermath of the 2004 Indian Ocean tsunami and during the 2014 Male water crisis.
- ⌚ **Trade and Tourism:** India is Maldives’ 4th largest trade partner after UAE, China and Singapore. In 2018, India was the 5th largest source of tourist arrivals in Maldives.
 - ⌚ The Maldivian economy is heavily dependent on its tourism sector, which is the major source of foreign exchange earnings and government revenue.

Science and Technology

Highlights

- ⌘ Science of Covid-19 Spread
- ⌘ Covid-19 & Cytokine Storms
- ⌘ Kerala Gets Nod for Trial of Plasma Therapy
- ⌘ Coronavirus Infection Rate: The Lancet
- ⌘ Suggestions for Covid-19 and Lockdown Exit
- ⌘ Sequencing Novel Coronavirus
- ⌘ Ebola Death in Democratic Republic of Congo
- ⌘ Recovery Curve and Case Rate Curve
- ⌘ Test Positivity Rate
- ⌘ False Negative Tests: A Concern
- ⌘ Fight Against Covid-19
- ⌘ SATYAM: Yoga Against Viruses
- ⌘ Effect of BCG Vaccine on Covid-19

Science of Covid-19 Spread

Why in News

The **novel coronavirus (SARS-CoV-2)** has already left a large footprint and is still spreading itself. Fighting this **pandemic** needs an understanding of how it works and spreads and preventive measures to stop it.

Key Points

- ⌚ **Basic Reproductive Ratio (R0)**
 - ⊙ It tells the **average number of people who will catch the disease from one contagious person.**
 - ⌘ It is pronounced as **R-nought.**
 - ⊙ The **larger this number, the more contagious** is the disease caused by the virus and the faster it will spread in the community.
 - ⊙ R-nought can be **viewed as the product of three numbers:**
 1. The number of days an infected person remains infectious (that is, can infect others).
 2. The number of susceptible persons available to infect.
 3. The chance that a susceptible person gets infected.
 - ⊙ The **easiest way to keep R-nought low** is by observing **social-distancing.**
 - ⌘ **However,** maintaining distance from those who show symptoms of infection is not sufficient.
 - ⌘ It is suggested to keep distance from **every other person as many apparently normal persons**

may actually be infected without showing symptoms of infection.

- ⊙ Therefore, just as R-nought influences the spread of **Covid-19, human behaviour also influences R-nought.**
- ⌚ **How R-nought works?**
 - ⊙ A person infected with SARS-CoV-2 can remain infective for 10-14 days.
 - ⌘ During the initial phases of spread, there is a large number of uninfected persons to infect.
 - ⊙ For **SARS-CoV-2, R-nought has been estimated to be between 2 and 3.** For example:
 - ⌘ Assuming R-nought to be 2 and the infective period to be 10 days, the first person will infect two others, each of whom will infect two others, each of these four persons will infect two others and so on. In 10 days, one infected person will have infected 2,046 persons.
 - ⊙ As **herd immunity increases** in the community, many infected persons stop infecting others. Then, R-nought becomes less than one, on average.
 - ⊙ Consequently, there are **few new cases arising** and existing cases either recover or die, slowing down the disease spread.
- ⌚ **Herd Immunity**
 - ⊙ It happens when so many people in a community become immune to an infectious disease that it **stops the disease from spreading.**
 - ⊙ A person who is infected or has recovered **cannot be infected again.** At least, not in the next several months or even years.

- ⌘ An infection activates the immune system which learns to recognize the virus and remembers it. The next time the virus tries to infect a person, her/his immune defenses are able to recognise and protect against further infection.
- ⌚ Therefore, with the spread of the infection, there is less and less number of uninfected persons to infect. An increasing number of persons in the community gains immunity from having been infected earlier.
- ⌚ However, **if there was a vaccine for SARS-CoV-2, it would have helped achieve herd immunity without a large number of persons being infected.**
 - ⌘ A vaccine stimulates the effect of an infection and builds immune resistance to the virus.
 - ⌘ **India has eradicated polio** by using vaccines against it.
- ⌚ **Series Interval**
 - ⌚ During an outbreak, people in the community get symptomatically infected one after another. The **length of time between appearance of two successive persons with symptoms of infection is called the Series Interval.**
 - ⌚ This interval **informs about the spreadability of the virus.**
 - ⌘ The shorter this interval, the greater the speed of spread through the community.
 - ⌚ For **SARS-CoV-2, the Series Interval is between 5 and 7 days.**
 - ⌘ For normal influenza, this interval is 1.3 days.
 - ⌚ However, Covid-19 is spreading through the community slowly and herd immunity will therefore arise slowly which implies a **longer duration of the pandemic.**
- ⌚ **Herd Immunity Threshold and Lockdown**
 - ⌚ The **proportion of individuals in the country who are immune to the disease is called the herd immunity threshold.**
 - ⌚ It is **calculated as $1-(1/R_0)$.**
 - ⌘ For SARS-CoV-2, R_0 is 2 or 3.
 - ⌘ An R_0 of 2 would mean a herd immunity threshold of $1-(1/2)$ or 50%.
 - ⌘ An R_0 of 3 would mean a herd immunity threshold of $1-(1/3)$ or 67%.
 - ⌚ **Lockdown can be safely lifted if about two-thirds of the population attains immunity to the virus.** Then the chances of an infected person finding

another person to infect are sufficiently low and the virus stops spreading.

- ⌚ However, **estimating the number of those who have gained immunity is a tough task.** It can be done by **testing the citizens randomly and in large numbers** through surveillance testing in communities.

Preventive Measures

- ⌚ **Contract tracing reduces the likelihood of the infection** thereby reducing R -naught in the region.
 - ⌚ **Contact tracing:**
 - ⌘ It is the identification and listing of persons in close contact with an infected person, testing to identify infected persons among contacts and isolating them or, if testing of all contacts is infeasible, isolating all contacts and following them up for signs of infection.
- ⌚ **Identification of most affected geographical regions and extending lockdowns** there, **intensifying surveillance-testing, more strict monitoring** of cases and isolation of infected people is required.
 - ⌚ There will be an overall reduction of infection in the country if the spread of the infection from these high-intensity regions can be arrested.
- ⌚ **All large gatherings, including religious and political gatherings, must continue to be banned.**
- ⌚ **Government needs to provide food and basic amenities** to the people whose life has come to a halt due to the lockdown.
 - ⌚ The lockdown needs to be softened and daily wage earners should be allowed to work.
 - ⌚ **A policy should be framed on allowing a minority of citizens to work.** However, it should only be done if social distancing is maintained and the net of symptom-monitoring and community-testing is casted more widely.
 - ⌚ Surveillance-testing and deep monitoring should continue at all levels throughout the country to identify new pockets of high-intensity.

Covid-19 & Cytokine Storms

Why in News

Accumulating evidence suggests that a **subset of patients with severe Covid-19** might have a “**Cytokine Storm Syndrome**” (CSS).

- ⌚ CSS is an **overly vigorous immune response** to a triggering event, mostly, certain viral infections.
- ⌚ **Severe Covid-19 patients** are defined by manifestations that include **respiratory failure** requiring **mechanical ventilation** and shock or organ failure that requires intensive care, and may lead to death.

Cytokine Storm Syndrome

⌚ **Body's Immune Response Working**

- ⊙ The immune systems in our bodies protect us from bacteria, viruses, and parasites by removing them from our systems.
- ⊙ The immune system gets activated by substances that the body does not recognise as its own. These are called **antigens**, and include **bacteria, fungi and viruses**.
- ⊙ An **effective immune system response involves inflammation**, an important and indispensable part of the process. **For example**, Inflammation is visible when one hurts one's knee or ankle — the area of this external injury becomes red and swollen.
- ⊙ Immune system deploys **white blood cells** to the injured area to begin work on repairs.
- ⊙ Without such an immune response, injuries would not heal, and infections would become deadly.

⌚ **Role of Cytokines**

- ⊙ **Cytokines are inflammatory immunological proteins** that are there to fight off infections and ward off cancers.
- ⊙ The **release of inflammatory mediators increases the blood flow to the area**, which allows larger numbers of immune system cells to be carried to the injured tissue, thereby aiding the repairing process. Thus, inflammation has an important protective function.
- ⊙ However, if this **inflammatory response is not regulated**, very dangerous consequences can follow. This is when a '**cytokine storm**' can be triggered.

⌚ **Cytokine Storm Syndrome**

- ⊙ CSS is characterised by the **overproduction of immune cells and the cytokines** themselves because of a dysregulation in the process.
- ⊙ **Reasons:** A cytokine storm can occur due to an infection, auto-immune disorder (when the body's immune system **attacks healthy cells** as in case of coeliac disease- an immune disorder that **primarily affects the small intestine**), or other diseases.

- ⊙ **Signs and symptoms** include high fever, inflammation (redness and swelling), severe fatigue, and nausea.
- ⊗ In the **case of any flu infection**, a cytokine storm is associated with a **surge of activated immune cells** into the lungs, which, instead of fighting off the antigen, leads to **lung inflammation** and fluid build-up, causing **respiratory distress**.

⊙ **Harm**

- ⊗ A severe immune reaction, leading to the secretion of too many cytokines in the bloodstream, can be harmful since an excess of immune cells can attack healthy tissue as well.
- ⊗ The damage to the surrounding cells can be catastrophic, leading to sepsis and potentially, death.
 - Sepsis occurs when the body's response to infection is out of balance, triggering changes that can **damage multiple organ systems**.

⌚ **CSS and Covid-19**

- ⊙ Cytokine storms are **not exclusive to coronavirus patients**. It is an immune reaction that can occur during other infectious and non-infectious diseases as well.
- ⊙ CSS is seen as a likely **major cause of mortality in both the 1918-20 Spanish Flu** that killed more than 50 million people worldwide, and the **H1N1 (swine flu)** and **H5N1 (bird flu)** outbreaks in recent years.
- ⊙ **Increased pro-inflammatory cytokine** responses against human coronaviruses such as SARS-CoV-1 (which caused Severe Acute Respiratory Syndrome - SARS), SARS-CoV-2 (responsible for the current Covid-19 pandemic), and Middle East Respiratory Syndrome (MERS) **can result in acute lung injury and Acute Respiratory Distress Syndrome (ARDS)**.

If the clinical features of CSS are not recognised and adequate treatment is not promptly instituted, multiple organ failure can result. Researchers writing in the Lancet have suggested that **all severe Covid-19 patients should be screened for hyper inflammation**.

Kerala Gets Nod for Trial of Plasma Therapy

Why in News

Recently, Kerala has got the **Indian Council of Medical Research (ICMR) approval** for the clinical protocol exploring

the feasibility of **convalescent plasma transfusion** which may be administered to severe **Covid-19** patients.

Key Points

- ⌚ A proposal was submitted to ICMR saying that the **Transfusion Medicine Department of the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Kerala** would help the Health Department in exploring the possibility of Convalescent Plasma (CP) therapy for Covid-19 treatment.
- ⌚ The move was taken as a **precautionary step** to be prepared for the more severe second and third waves of the **novel coronavirus pandemic**.
- ⌚ Kerala had also sought ICMR's early clearance for **using HIV antivirals (lopinavir/ritonavir)** for treating Covid-19 after reports on their potential uses surfaced.
- ⌚ Kerala might need to **submit an expanded access protocol to ICMR and Drugs Controller General's approval and Institutional Ethics Committee approval** would be necessary before the administration of the treatment.
- ⌚ One **major challenge** is the **non-availability of the kit for checking the antibody level in the plasma of a recovered person**.
 - ⊙ It is not available in India and has to be **brought from Germany**.
 - ⊙ The **cancellation of international flights** would lead to **delay** in importing the desired number of kits.

Convalescent Plasma Therapy

- ⌚ Convalescent plasma (CP) therapy is not a new therapy and banks on the age-old concept of **passive immunity**.
- ⌚ **Basis of the Therapy:**
 - ⊙ The convalescent plasma therapy seeks to make **use of the antibodies developed in the recovered patient** against the coronavirus.
 - ⊙ The **whole blood or plasma** from such people is taken, and the plasma is then injected in critically ill patients so that the **antibodies are transferred** and boost their fight against the virus.
- ⌚ **Time Period for Infusion:**
 - ⊙ A study in The Lancet Infectious Diseases stated that a Covid patient usually **develops primary immunity against the virus in 10-14 days**.
 - ⊙ Therefore, if the plasma is **injected at an early stage**, it can possibly help fight the virus and prevent severe illness.

⌚ Infusion into Covid-19 Patients:

- ⊙ The plasma can be **infused into two kinds of Covid-19 patients**, those with a **severe illness** or individuals at a **higher risk of getting the virus**.
- ⊙ However, while plasma transfers immunity from one person to another, it is **not known if it can save lives** in Covid-19 infection.
- ⊙ The treatment could be **effective for patients in the age group 40-60**, but **may be less effective for people aged beyond 60 years**.

⌚ Previous Application:

- ⊙ The **United States** used plasma of recovered patients to treat patients of **Spanish flu (1918-1920)**.
- ⊙ Hong Kong used it to treat **SARS (Severe Acute Respiratory Syndrome)** patients in 2005.
- ⊙ In 2009, the **Swine flu (H1N1)** patients were treated with plasma.
- ⊙ It has also been used to treat critically ill patients during **Ebola** as well.
- ⌚ The report of a study, **Proceedings of National Academies of Sciences (U.S.)**, highlighted that CP therapy shows a potential therapeutic effect and low risk in the treatment of severe Covid-19 patients.
- ⌚ According to the study, **one dose (200 ml) of convalescent plasma with a high concentration of neutralising antibodies is well-tolerated** by patients and it can **rapidly reduce the viral load in patients and improve clinical symptoms** significantly.

Coronavirus Infection Rate: The Lancet

Why in News

A study in the Lancet Infectious Diseases has estimated the **mean duration from onset of symptoms (coronavirus) to death to be about 18 days** and that of **hospital discharge to be about 25 days**.

- ⌚ This finding is based on data on 24 deaths that occurred in mainland China and 165 recoveries outside of China.

Key Points

⌚ Infection Fatality Rate

- ⊙ Overall infection fatality rate for China, where coronavirus first hit, was **0.66%**.

- ⌚ Infection fatality ratio takes into account the **total number of people that might carry the virus without showing symptoms**. These people are not a part of the “official number of cases” in China.
- ⌚ However, recently, **China has disclosed the number of asymptomatic (people showing no symptoms) cases**. China has found more than 43,000 cases of asymptomatic infection through contact tracing.
 - ⊙ **Contact tracing** is the process of identifying, assessing and managing people who have been exposed to a disease to prevent transmission.
- ⌚ China has decided to devote greater screening to asymptomatic sufferers and those in contact with them.
- ⌚ **Infection Fatality Rate is lower than Crude Fatality Ratio**
 - ⊙ Researchers from Imperial College, London, had earlier said that the ‘**crude fatality ratio**’ was about **3.67%**, which is on a par with the World Health Organization (WHO) estimates.
 - ⊙ The **crude rate does not take into account the severity of the infection**, which means it just compares the total number of cases with the total number of deaths.
- ⌚ **Age and Severity of Coronavirus**
 - ⊙ Severity of coronavirus depends on the age of a patient, and the overall **case fatality ratio** (number of deaths per positive case) could be 1.38%.
 - ⊙ In those above 60 years, it was found to be 6.4%; in those above 80 years, 13.4%; and in people aged below 60 years, 0.32%.
 - ⊙ The findings are based on all the laboratory confirmed and clinically diagnosed cases from mainland China (70,117).
- ⌚ **Implication of Study**
 - ⊙ The estimates of the case fatality ratio for Covid-19, are substantially higher than for recent influenza pandemics (eg, **H1N1 influenza** in 2009).
 - ⊙ With the rapid geographical spread observed to date, Covid-19 therefore represents a major global health threat in the coming weeks and months.
 - ⌘ Till April 1, 8.53 lakh cases of Covid-19 had been reported world-wide, with 41,887 deaths.
 - ⊙ The estimate of the proportion of infected individuals requiring hospitalisation, when combined with likely infection attack rates (around 50-80%), show that even the most advanced health-care systems are likely to be overwhelmed.

- ⊙ Estimates are therefore crucial to enable countries around the world to best prepare as the global pandemic continues to unfold.

Suggestions for Covid-19 and Lockdown Exit

Why in News

Recently, the Prime Minister of India has held a video conference with the Chief Ministers of the States on tackling the **Covid-19** pandemic.

- ⌚ He emphasised on the importance of formulating a common exit strategy to ensure a steady re-emergence of the population after the **lockdown** is over.

Key Suggestions

- ⌚ Seamless **supply lines for medical equipment and drugs and raw materials**.
- ⌚ Coordinated and prioritised **testing, tracing, isolation and quarantine** among and in all states.
- ⌚ **Appointment of district-level disease surveillance officers** for optimum penetration of the combating strategy.
- ⌚ Ensuring that there are separate hospitals for Covid-19 patients and proper protection to the doctors attending the patients.
- ⌚ **Speedy online training of doctors** in the treatment of Covid-19.
- ⌚ **Going beyond the route of Agricultural Produce Marketing Corporations (APMC)** for the procurement of this season’s harvest. **Starting a truck pooling scheme** for ferrying produce to the market.
- ⌚ Using the amount from the **State Disaster Response Fund (SDRF)** to fight Covid-19. The Centre will release 11,000 crore from the **SDRF** by the end of April.
- ⌚ **Rapid disbursement** of grants under the **Pradhan Mantri Gareeb Kalyan Yojana**.
- ⌚ Recruitment of volunteers from the **National Cadet Corps (NCC)** and the **National Service Scheme (NSS)** in the effort to combat the crisis.
- ⌚ Coordination between NGOs and crisis management groups and sharing of strategies.
- ⌚ Promotion and use of **traditional immunity boosting methods mentioned in Ayurveda** to minimise the number of people with weak immunity. The **Ministry of AYUSH** has also issued an **advisory** regarding this.

Scientists on Lockdown

- ⌚ **Lockdown is only a temporary solution** and this period should be used to prepare the healthcare system to avoid its social costs and to realise long-term epidemiological benefits.
- ⌚ The government needs to **reveal a post-lockdown plan** that will ensure that the rate of new infections is kept low in a sustainable manner after the lockdown ends.
 - ⊙ **Social distancing and better hygiene are helpful yet insufficient** measures by themselves.
- ⌚ If the lockdown period will not be used responsibly, it might lead to a **possible bounce-back effect**.
 - ⊙ The current restricted testing-policy creates the risk that a large number of mildly symptomatic or asymptomatic cases will remain undetected even at the end of the lockdown period.
 - ⊙ These cases could easily serve as the nucleus for the epidemic to bounce back.
- ⌚ The problem of **reverse migration** (from cities to sub-urban/rural areas) has also been highlighted. The exodus triggered by the lockdown will rapidly spread the virus to all parts of the country.
 - ⊙ This can lead to both an **epidemiological** and a **humanitarian crisis**.
- ⌚ Instead of stopping the reverse migration, the **forces should be used to stock up food-grains, ensure fast cash transfers for the food-security and welfare** of workers.
- ⌚ Scientists have **offered their complete support to the people** and **possible expertise** in combating this disease and in ensuring that the country emerges from this difficult period with as little loss of life as possible.

New Developments

- ⌚ **Alternative Sealant**
 - ⊙ The **Defence Research and Development Organisation (DRDO)** has developed a **special sealant as an alternative to seam sealing tape** which is critical in **Personal Protective Equipment (PPE)**.
 - ⊙ The alternative sealant is based on the sealant used in **submarine applications**.
 - ⊙ DRDO can mass produce this glue through the industry to support the seam sealing activity by suit manufacturers.
- ⌚ **Bio Suit**
 - ⊙ DRDO has also developed a **bio suit to keep medical and other personnel safe from the virus**.

- ⊙ Scientists developed it with the help of the industry at various DRDO laboratories **by applying the technical know-how and expertise in textile, coating and nanotechnology**.
- ⊙ It has been **subjected to rigorous testing** for textile parameters as well as **protection against synthetic blood**.
- ⊙ The production of bio-suits was **hampered due to the non-availability of seam sealing tapes** but the development of the alternative sealant will boost its production now.
- ⌚ **Handheld InfraRed Temperature Sensor**
 - ⊙ **Naval Dockyard, Mumbai**, has designed and developed its own **handheld InfraRed (IR) based temperature sensor for screening** people at its entry gates.
 - ⊙ The instrument has been **manufactured through in-house resources** at a cost of under 1000, a fraction of the cost of the temperature guns in the market.

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, without a new case.
 - ⌘ 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 since August 2018, **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**.

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 **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.

Recovery Curve and Case Rate Curve

Why in News

The recovery rate of Covid-19 patients in India aligns closely with the curve of confirmed cases, with a lag of two weeks, according to an examination of absolute numbers of the cases.

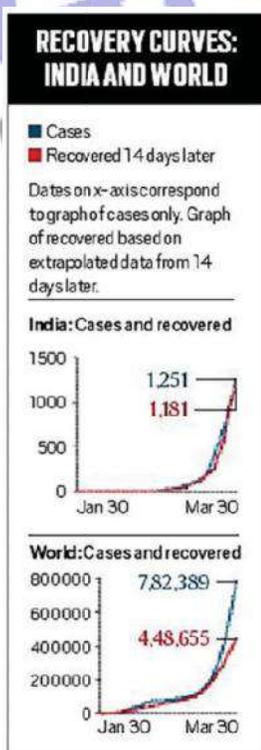
Key Points

- ⌚ For making the global comparison, data from the Johns Hopkins University database was used.
- ⌚ Mapping the global number of Covid-19 patients who recovered largely mimics the global case load, with a 14-day lag.
 - ⊙ However, the high recovery rate does not take into account the severity of the disease during the recovery process.
- ⌚ Indian graph shows that the mortality rate in India is lower than global rates, so far.
- ⌚ The graph for global rates shows the overall recovery rate as significantly flatter than the caseload.
 - ⊙ The cases worldwide are growing exponentially but the global recovery rate has begun to fall flat.

⊙ Globally, there is considerable research on the mortality of Covid-19 but there is less literature to help understand the patterns of recovery.

Science of the Curves:

- ⊙ The two curves would align exactly if everyone who fell sick on Day 1 recovered 14 days later.
- ⊙ Any discrepancy between the two lines is either due to people who fell sick and died, or people who recovered earlier or later than the mean period of 14 days.
- ⊙ People who recover before 14 days and the people who recover after



14 days, almost balance out each other and do not hamper the curve.

- ⊙ This leaves only accounting for those who die.
 - ⊗ This is probably why the recovered curve is lower than the infected curve in the global figure.
- ⌚ **Recovery Time for Covid-19**
 - ⊙ There is no established recovery time of Covid-19 patients.
 - ⊗ Recovery is measured by a patient no longer showing symptoms and having two consecutive negative tests for the virus at least one day apart.
 - ⊙ According to an early World Health Organisation (WHO) report, mild cases have a recovery time of roughly two weeks and severe cases have the recovery time of somewhere between three to six weeks.
 - ⊙ However, countries measure recovery differently.
 - ⊙ The number of the global recoveries will inevitably be an estimate in the absence of global recovery rates by the WHO and uniform methods of reporting recoveries.

False Negative Tests: A Concern

Why in News

Recently, there have been concerns about the manner in which some Covid-19 patients have apparently relapsed due to **false negative** tests.

- ⌚ They have been tested positive only a few days after testing negative.

False Negative Test

- ⌚ There is a **possibility that the virus does not show up in the first test** because patients have not rid themselves of the virus. However, on **testing again, the virus shows up** and the patients test positive.
- ⌚ According to the research on the subject of false negative tests, **no lab test is 100% accurate.**
- ⌚ Although the tests based on detection of genetic material are very sensitive, they can be negative sometimes. Therefore, scientists and researchers have to constantly deal with the **positive and negative predictive values.**

Possible Reasons

- ⌚ The **swab is not obtained or processed correctly** or maybe **obtained too early.**

- ⊙ An initial swab sample may **not always collect enough genetic material** to provide an accurate test.
- ⊙ This problem may arise more often in patients who do not show many symptoms at the time of their test.
- ⌚ The **test runs badly** due to some technical glitch.
- ⌚ The **virus may shed in different amounts** and is **probably not present in the nose** while the swab is collected.
- ⊙ If the infection is in the lung, then a nose swab may not detect it.
- ⊙ According to a study on **SARS (Severe Acute Respiratory Syndrome)** respiratory swabs can be negative, but faeces may test positive in tests done at the same time which **proves that the virus can exist in the body even if not in the nose at a given time.**

Suggestions

- ⌚ The public data on false negative rates in the clinical setting is very limited so **each negative test must be guarded and analysed.**
- ⌚ A **negative test does not mean** the person does not have the disease so the test results need to be **considered in the context of patient characteristics and exposure.**
- ⌚ Public health officials **should stick to principles of evidence-based reasoning** regarding diagnostic test results and false-negatives.
- ⌚ False negative test results may be reassuring for the low-risk individuals but for higher-risk individuals, even those without symptoms, the risk of such results **requires additional protective measures against the spread of disease,** like extended self-isolation.
- ⌚ To be **confirmed negative after being positive,** a patient normally **needs two negative swabs 24 hours apart** to be sure.

Test Positivity Rate

Why in News

Recently, the **Indian Council of Medical Research (ICMR)** has observed that the **test positivity rate had not changed substantially** over the last one to two months, **maintaining between 3% and 5%.**

Key Points

- ⌚ **Test Positivity Rate:**
 - ⊙ It is the **proportion of positive cases among all tests done.**
 - ⊙ It is taken to be a useful indicator if a substantial section of suspected cases has been tested.
 - ⊙ It is **one among the measures for assessing the spread of an infection.**
- ⌚ From data on tests for **Covid-19** and positive cases between 18th March and 13th April, it emerges that the test positivity rate in India has been between 1.1% and 4.3% (ratios based on cumulative counts until any date).
- ⌚ If **more people are tested** and the **positivity rate remains the same,** it's a **clue that the infection is where it was and is not expanding.**
 - ⊙ A sudden spike in the infection spread would be an alarming concern.

Fight Against Covid-19

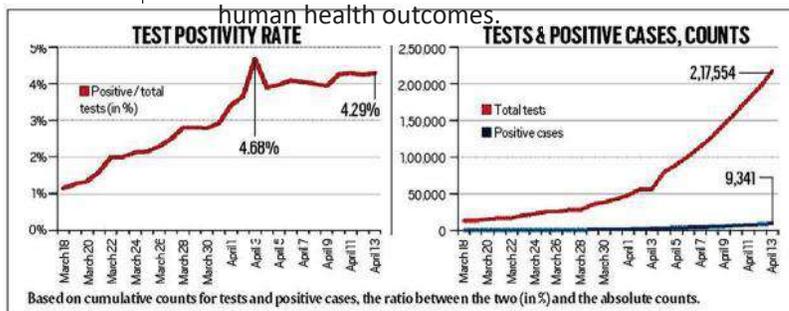
Why in News

According to an article in the New England Journal of Medicine (NEJM), **over 40 vaccines against the Novel Coronavirus (SARS-CoV2)** are in various stages of development across the world.

- ⌚ **One** of these vaccines is **being developed by the Serum Institute of India (Pune, Maharashtra).**
- ⌚ Out of 40, only **two vaccines are currently in clinical trials.**
- ⌚ However, a vaccine against coronavirus **can be available only in the next 12-18 months** at the earliest.

Development of Covid-19 Vaccines

- ⌚ **Clinical trials** are a type of research that studies new tests and treatments and evaluates their effects on human health outcomes.



- ⌚ According to the NEJM article, written by researchers affiliated to the **Coalition for Epidemic Preparedness Innovations (CEPI)**, there is a **need to speed up the vaccine development**.
 - ⊙ **CEPI** is an international non-governmental organisation funded by the Wellcome Trust, the Bill and Melinda Gates Foundation, the European Commission, and eight countries (Australia, Belgium, Canada, Ethiopia, Germany, Japan, Norway, and the UK).
 - ⊙ Launched in 2017, its **mission** is to stimulate and accelerate the development of vaccines against emerging infectious diseases and enable access to these vaccines for people during outbreaks.
- ⌚ The speed is of essence for millions of people around the world. However, there is also a **business side** to it.
 - ⊙ **Severe Acute Respiratory Syndrome (SARS)** and **Zika** epidemics ended before vaccine development was complete.
 - ⊙ As a result, federal funding agencies reallocated funds that had been committed to vaccine development, leaving **manufacturers with financial losses** and setting back other vaccine-development programmes.

Indian Government's Latest Moves

- ⌚ Combination of Hydroxychloroquine and Azithromycin against Covid-19 instead of HIV drugs
 - ⊙ According to the new clinical management guidelines issued on 31st March, 2020, a **combination of hydroxychloroquine (HCQ)** - used for treatment of auto-immune disorders, and **azithromycin** - the antibiotic has been recommended for use in severe patients.
 - ⊙ The earlier guidelines, dated 17th March, 2020, which included use of Anti HIV drugs - **Ritonavir and Lopinavir in high risk patients, now stand repealed**.
 - ⊙ **Reasons:**
 - ⌘ No specific antivirals have been proven to be effective as per currently available data.
 - ⌘ The **azithromycin-hydroxychloroquine combination** is part of an upcoming **multi-country trial anchored by the World Health Organization** to examine the efficacy of various drug combinations against Covid-19.

Alcohol Sanitizers and Coronaviruses

- ⌚ The novel coronavirus has a **lipid envelope**. Soap being a detergent destroys this envelope. The same is **true for alcohol also**.
- ⌚ **Structure of Lipid Envelope:**
 - ⊙ SARS-CoV-2 particles, like other coronaviruses, are spherical and **have proteins called spikes** protruding from their surface.
 - ⊙ These spikes **latch onto human cells**, then undergo a structural change that allows the viral membrane to **fuse with the cell membrane**. The viral genes can then enter the host cell to be copied, producing more viruses.
 - ⊙ Recent work shows that, like the virus that caused the 2002 SARS outbreak, SARS-CoV-2 spikes bind to receptors on the **human cell surface called angiotensin-converting enzyme 2 (ACE2)**.
 - ⊙ All of this is **held together by a fatty layer, called an envelope**.
- ⌚ **Functioning of Alcohol in Sanitizers:**
 - ⊙ The Envelope layer is **disrupted when it comes into contact with soap or a hand sanitiser with more than 60% alcohol**.
 - ⊙ Disruption of the envelope leads to the **killing of the virus**.
 - ⊙ Handwashing for 20 seconds at least kills the virus.
- ⌚ **Indian Government's Move:** The Government has notified **hand sanitizers as an essential commodity under the Essential Commodities Act, 1955**.
 - ⊙ **the WHO global trials**, which are also looking at these two drugs.
- ⌚ **Portal for Stranded Foreigners in India**
 - ⊙ The **Ministry of Tourism** has come up with a portal titled **'Stranded in India'** to disseminate information regarding the services that can be availed by foreign tourists who are stuck far away from their home land.
 - ⊙ The Portal has information on the Ministry of External Affairs control centres and state-based/ regional tourism support infrastructure. It also lists the Covid-19 helpline numbers for tourists.
 - ⊙ On 19th March, 2020, the Directorate General of Civil Aviation (DCGA) had issued an advisory stating that no international commercial passenger flights

will operate here from March 23 to March 29. The advisory was later extended and all international flight operations remain suspended till April 14.

✳ The government has announced **visa extensions** for stranded foreigners till flight operations resume.

IITs Support to the Indian Government

- ⌚ The Indian Institutes of Technology (IITs) has offered a **range of inexpensive solutions** developed by their faculty to assist the government in the fight against the Covid-19 outbreak.
- ⌚ From low-cost ventilators and testing kits to personal protective equipment for health workers, the directors of IIT-Delhi, IIT-Guwahati, IIT-Bombay and IIT-Kanpur shared their institute's work on containing the spread of the virus with the Government.
- ⌚ The institutions have also sought the government's assistance in facilitating tie-up with Public Sector Units (PSUs) to scale up production of prototypes and to mitigate difficulties faced in procuring raw material because of the lockdown.
- ⌚ **Example:** IIT-Guwahati has offered to pitch in with its 3D-printed full-face shield and headgear for health workers, robotic cart to deliver food to isolation wards and high-grade sanitiser. It needs the government's help to tie up with a PSU for large-scale manufacturing.
- ⌚ Indian Institutes of Technology are apex institutions for engineering education and research. At present, there are **twenty three Indian** Institutes of Technology (IITs).
 - ⊙ All are governed by the **Institutes of Technology Act, 1961** which has declared them as "**Institutions of national importance**", and lays down their powers, duties, framework for governance etc.

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.

Effect of BCG Vaccine on Covid-19

Why in News

Recently, **Doctors and scientists in India have expressed caution on a study**, which argues that countries that have deployed the BCG-tuberculosis vaccine in their immunisation programmes have seen fewer deaths from Covid-19.

- ⌚ **BCG**, or bacille Calmette-Guerin, is a vaccine for **Tuberculosis (TB) disease**.

Key Points Related to Study

- ⌚ **BCG Vaccine Policy and Covid-19 Deaths**
 - ⊙ **The middle and high-income countries**
 - ⌘ Countries that have universal BCG policy had 0.78 deaths per million people.
 - ⌘ The countries that **never had a universal BCG policy** had a **larger mortality rate**, with 16.39 deaths per million people, a significant variation.
 - ⊙ **Low and middle-income countries**, even if they had universal immunisation policies, were **excluded** from the analysis because they were also likely to have low testing rates for Covid-19 infection and therefore fewer reported deaths.
 - ⊙ **India having a universal BCG policy in place** and relatively fewer deaths as a proportion of confirmed coronavirus infections, **wasn't included** in the analysis.
- ⌚ **BCG Vaccine confers a strong immune response**
 - ⊙ The BCG vaccine is known to confer a strong immune response and a significant degree of protection against **leprosy and non-invasive bladder cancers**.
 - ⊙ Those countries where the elderly were likely to have had a BCG shot in their childhood were likely to be better protected against coronavirus because Covid-19 was **particularly lethal to the elderly**.
- ⌚ **Cases of Different Countries**
 - ⊙ **Japan** (which has a BCG policy since 1947) had one

of the early cases of Covid-19 but it has maintained a low mortality rate despite not implementing the most strict forms of social isolation.

- ⌘ Japan had 1,655 cases and 65 deaths as of March 29.
- ⊙ **Iran**, which has seen at least 3,000 deaths, began implementing its BCG vaccination policy only in 1984 and therefore anyone over 36 was vulnerable.
- ⊙ Spain, France, the United States, Italy and the Netherlands:
 - ⌘ These countries don't have universal BCG policies and have seen many deaths from Covid-19.
 - ⌘ Many of these countries don't have a universal

programme because BCG has been shown to **not be always protective against tuberculosis in adults** as well as an **increased risk of mycobacterium (bacteria) species**.

- ⌘ **Italy**, where the Covid-19 mortality is very high, never implemented universal BCG vaccination.

⌚ **Views of Indian Scientists and Doctors**

- ⊙ It is premature for India, that has had a **consistent TB vaccination policy since 1968**, to take comfort from the study.
- ⊙ Australia, the Netherlands, the United States are going to vaccinate healthcare workers with BCG. This may provide some evidence.

■■■



VANIK-IAS
Exclusive Coaching for UPSC/OPSC

Environment and Ecology

Highlights

- ⌘ *Armyworm Attack*
- ⌘ *Agasthyavanam Biological Park*
- ⌘ *Koundinya Wildlife Sanctuary*
- ⌘ *Animals and Covid-19*
- ⌘ *Wildlife Panel Holds Virtual Conference*
- ⌘ *Ionospheric Based Monitoring of Large Earthquakes*

Armyworm Attack

Why in News

The **Directorate of Agriculture** has reported an **armyworm attack** on the standing crops in the northeastern **Dhemaji district of Assam**.

- ⌚ The pest attack has added to sorrows of the already worried farmers, due to the **Covid-19 pandemic**.

Key Points

- ⌚ The **armyworm caterpillar** is the **larval stage** of several species of **moths**.
- ⌚ It has a **huge appetite** and can **feed on more than 80 species of plants** according to the **entomologists**.
 - ⌚ **Entomology** is a branch of **zoology** which involves the **scientific study of insects**.
- ⌚ **Challenges:**
 - ⌚ The **weather is a factor** because there are **no pre-monsoon rains** in Assam yet and the **temperature is very high now**. The armyworm can cause more damage in the absence of rain.
 - ⌚ Another major issue is **reaching out to farmers**. All the roads and gaps have been blocked due to the fear of contracting coronavirus.
- ⌚ **Other Concerns:**
 - ⌚ Officials are **afraid of the winter crop cycle getting affected** if the lockdown continues beyond 14th April, 2020.
 - ⌘ **April-May** is the time when paddy farmers in Assam clear weeds and manure the fields for transplanting the seedlings of the **winter crop** from the nursery. The process takes 35-40 days.
 - ⌚ According to the farm experts, if the cycle is pushed back by more than a month it **could impact yield**

because the sowing and maintenance phase of the crops would be very close to the **flood timings of Assam**.

Armyworm

- ⌚ Its scientific name is **Spodoptera frugiperda** and also commonly referred as **Fall Armyworm (FAW)**.
- ⌚ It is a **dangerous transboundary insect** with a high potential to spread rapidly due to its **natural distribution capacity** and opportunities presented by **international trade**.
- ⌚ FAW represents a **real threat to food security and livelihoods** of millions of smallholder farmers by spreading across all of **sub-Saharan Africa, the Near East and Asia**.
- ⌚ **Control and Elimination:**
 - ⌚ Farmers need significant support to manage FAW sustainably in their cropping systems through **Integrated Pest Management (IPM)** activities.
 - ⌚ **FAW cannot be eliminated**.
- ⌚ The **Food and Agriculture Organisation (FAO)** has launched a **Global Action for FAW Control** as a response to the international threat posed by the armyworms.



Agasthyavanam Biological Park

Why in News

The Forest Department is procuring forest produce collected by the tribespeople of the Agasthyavanam Biological Park (ABP) and surrounding forest ranges to be sold to commercial establishments and various collectives to deal with the lockdown necessitated by the **Covid-19 pandemic**.

- ⌚ Established in **1997**, Agasthyavanam Biological Park is a **wildlife sanctuary in Kerala**.
 - ⦿ The park is located **near Thiruvananthapuram/Trivandrum**, the capital city of Kerala.
 - ⦿ It is contiguous to **Neyyar Wildlife Sanctuary** and **Peppara Wildlife Sanctuary**.
- ⌚ The park has been **named after the Agasthyamalai Agasthyakoodam Peak**, which can be seen at a distance from the park.
 - ⦿ The **Agasthyamala Biosphere Reserve** is located in the southernmost end of the Western Ghats and incorporates peaks towering 1,868 m above sea level. It covers 3,500 km² and encompasses tropical forest ecosystems that fall within the Tirunelveli and Kanyakumari districts of Tamil Nadu and the Thiruvananthapuram and Kollam districts of Kerala.
- ⌚ Agasthyavanam Biological Park is **spread** over an area of 23 sq. km., of which 17.5 sq. km. of the park has been dedicated for natural regeneration to develop into a dense forest. The rest area of the park is left for systematic conservation programs.
- ⌚ The Park has **endemic medicinal plants** and **rich biodiversity**.

Koundinya Wildlife Sanctuary

Koundinya Wildlife Sanctuary is the only sanctuary in **Andhra Pradesh** with a population of **Asian elephants**. The sanctuary is covered by **southern tropical dry deciduous and thorn forests**. Some of the important flora consists of *Albizia amara*, *Acacia*, *Lagerstroemia*, *Ficus*, bamboo, and a species which is a regeneration of *Santalum album*.

- ⌚ **Apart from Elephant**, some of the animals found in the sanctuary are: sloth bear, panther, cheetal,

chowsingha, sambar, porcupine, wild boar, jungle cat, jackal, jungle fowl, starred tortoise and slender loris.

Asian Elephant

- ⌚ There are **three subspecies of Asian elephant – the Indian, Sumatran and Sri Lankan**.
 - ⦿ The Indian has the widest range and accounts for the majority of the remaining elephants on the continent.
- ⌚ Escalation of poaching, habitat loss, **human-elephant conflict** and mistreatment in captivity are some common threats to both African and Asian elephants.
- ⌚ **African elephants are listed as “vulnerable” and Asian elephants as “endangered” in IUCN Red List of threatened species**.
- ⌚ The elephant has been accorded the highest possible protection under the Indian wildlife law through its listing under **Schedule I of the Wildlife (Protection) Act, 1972**.
- ⌚ **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) status-Appendix I**.
 - ⦿ Appendix I lists species that are the **most endangered among CITES-listed animals and plants**.
- ⌚ Few **important initiatives for the conservation of elephants** are:
 - ⦿ **Project Elephant** launched by the **Government of India in the year 1992** as a **Centrally Sponsored Scheme**. Elephant census is conducted once in 5 years under the aegis of Project elephant.
 - ⦿ Establishment of elephant reserves and adoption of the **“World Elephant Day” (August 12)** to help conserve and protect elephants in India and improve their welfare.
 - ⦿ **‘Gaj Yatra’** a nationwide awareness campaign to celebrate elephants and highlight the necessity of securing elephant corridors.
 - ⦿ The **Wildlife Trust of India (WTI)**, had come out with a publication on the **right of passage in 101 elephant corridors** of the country in 2017, stressed on the need for greater surveillance and protection of elephant corridors.
 - ⦿ The **Monitoring the Killing of Elephants (MIKE) programme launched in 2003** is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.

Animals and Covid-19

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

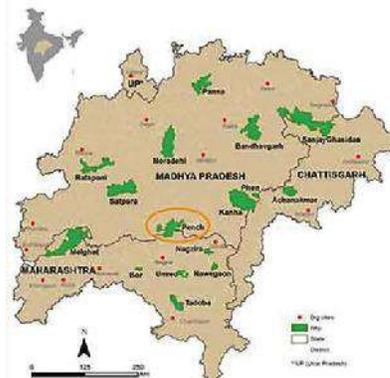
- ⌚ It is a **statutory body** whose main objective is to enforce minimum standards and norms for upkeep and health care of animals in Indian zoos. It was established in **1992**.
- ⌚ Zoos are regulated as per the provisions of **Wildlife (Protection) Act, 1972** and are guided by the **National Zoo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

National Tiger Conservation Authority

- ⌚ It 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

- ⌚ It is located in **Seoni (Madhya Pradesh)** and is one of the major Protected Areas of **Sapura-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 forest is found in Pench Tiger Reserve



are divided into three parts: southern tropical wet dryforest, southern tropical dry deciduous teakforest and southern tropical dry deciduous mixedforest.

- ⌚ The **major Carnivores** are Tiger, leopard, wild cat, wild dog, hyena, jackal, fox, wolf, weasel, etc. 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, Vegtel etc. are prominent.

Wildlife Panel Holds Virtual Conference

Why in News

Recently, the Standing Committee of the **National Board for Wildlife (NBWL)** had its first ever video-conferencing meet in which it **cleared infrastructure projects in 11 States**.

Key Points

- ⌚ According to experts associated with the conference **most of the projects were given “in-principal approval”**.
 - ⦿ In a virtual conference, it is difficult to scrutinise maps that show the location of the proposed projects.
 - ⦿ It is because only the formal minutes of the meeting would reveal the conditions which projects would have to adhere to.
- ⌚ Projects that encroach into forests or protected reserves **require NBWL approval** as part of the government’s **environmental clearance process**.

Environment Clearance Process

- ⌚ An **Environment Impact Assessment (EIA)** report is prepared to get Environment Clearance (EC) for a project.
- ⌚ A process of **‘Public Hearing’** is conducted before the issue of **‘Consent to Establish (NOC)’ by state regulators**. Concerns of people living in the proposed project area are heard.
- ⌚ An application form with EIA report, details of public hearing and **NOC is submitted for environmental clearance** with the **Ministry of Environment, Forests and Climate Change (MoEFCC)** if the project falls

under A category or the state government if the project falls under B category.

- ⌚ The documents submitted for A and B category are then analyzed by an **Expert Appraisal Committee (EAC)** under the Union Environment Ministry or the concerned **State Environmental Impact Assessment Authorities (SEIAAs)** respectively.
- ⌚ The recommendations of the Committee gets processed in the Ministry of Environment, Forests and Climate Change for final approval or rejection.

National Board for Wildlife

- ⌚ It is a **statutory Board** constituted officially in **2003** under the **Wild Life (Protection) Act, 1972**.
- ⌚ It is **chaired by the Prime Minister** and is **responsible for promotion of conservation and development of wildlife and forests**.
- ⌚ The **board is ‘advisory’ in nature** and can only advise the Government on policy making for conservation of wildlife.
- ⌚ It is an important body because it serves as an apex body for the review of all wildlife-related matters and for the approval of projects in and around national parks and sanctuaries.
- ⌚ The **standing committee** of NBWL is chaired by the Ministry of Environment Forest and Climate Change.
 - ⦿ The standing committee approves all the projects falling within protected wildlife areas or within 10 km of them.

Ionospheric Based Monitoring of Large Earthquakes

Why in News

Recently, scientists of the **Indian Institute of Geomagnetism (IIG)** have come up with a study of the signatures of recent large **earthquakes** into the ionosphere.

- ⌚ Its aim was to derive the seismic source characteristics from the ionosphere.
- ⌚ The research is a part of the interdisciplinary program **‘Coupled Lithosphere-Atmosphere- Ionosphere- Magnetosphere System (CLAIMS)’** of IIG.
 - ⦿ CLAIMS focuses on energy transfer to the atmosphere during solid Earth processes such as earthquakes as well as tsunamis.

- ⌚ IIG is an **autonomous institution** of the **Department of Science and Technology**.

Key Points

- ⌚ Scientists noticed that the spatial distribution of near field **co-seismic ionospheric perturbations (CIP) associated with the earthquake could reflect well the ground deformation pattern** evolved around the epicentre.
 - ⦿ These CIP were derived using the **Global Positioning System (GPS)** measured **Total Electron Content (TEC)**.
 - ※ The TEC is the total number of electrons present along a path between a radio transmitter and receiver.
 - ⦿ The CIP distribution was estimated at **ionospheric piercing point (IPP)** altitude.
- ⌚ **Co-seismic Ionospheric Perturbations (CIP) :**
 - ⦿ In general, the Earth crust uplift during an earthquake produces compressional (i.e. pressure) waves in the overlying atmosphere.
 - ※ These waves propagate upward in the region of exponentially decreasing atmospheric neutral density, and thus, waves amplitudes increase with atmospheric heights.
 - ※ **On arrival at ionospheric heights, the waves redistribute ionospheric electron density and produce electron density perturbations (disruption) known as Co-seismic Ionospheric Perturbations (CIP).**

- ⌚ However, the evolution of seismic/tectonically induced ionospheric perturbation is **highly controlled by the non-tectonic forcing mechanisms**.
- ⌚ The major effective **non-tectonic forcing mechanisms at ionospheric altitudes** are:
 - ⦿ Orientation between the ambient geomagnetic field and seismic induced neutral wave perturbations.
 - ⦿ Orientation between the moving satellite line of sights and the wave perturbations.
 - ⦿ Ambient ionospheric electron density gradient.
- ⌚ **Challenge:** The ionosphere is a **highly dynamic region** and the **origin of any perturbations** in ionospheric electron density can be traced to various origins **either from above** (e.g. solar, geomagnetic etc.) **or below** (e.g. lower atmospheric, seismic etc.) the ionosphere. This is a **major challenge** while identifying the CIP.
- ⌚ **Inference:** The manifestation of **CIP has to be seen in light of the prevailing non-tectonic forcing mechanisms**.
 - ⦿ In this line, it is believed that the present study may assist while designing a tool for the ionospheric based seismic source characterisation.

Ionosphere

- ⌚ The ionosphere is defined as the layer of the Earth's atmosphere that is ionized by solar and cosmic radiation. It **overlaps** the **mesosphere, thermosphere, and exosphere**.
- ⌚ It lies 75-1000 kms above the Earth.



Social Issues

Highlights

- ⌘ Rise in Violence Against Women Amidst Lockdown
- ⌘ Gender Disparity and Covid-19
- ⌘ Rare Diseases
- ⌘ Covid-19 Community Mobility Report: Google
- ⌘ Kendriya Bhandar

Rise in Violence Against Women Amidst Lockdown

Why in News

The UN-Women, women's rights activists, government authorities, and civil society partners across the globe have said that domestic violence during the **Covid-19** crisis has increased against women.

UN Women

- ⌚ It is the **United Nations entity** dedicated to gender equality and the empowerment of women.
- ⌚ It is a global champion for women and girls, established to accelerate progress on meeting the needs of women worldwide.

Key Points

- ⌚ The reports of violence have increased in countries like Argentina, Canada, France, Germany, Spain, the United Kingdom, and the United States, Cyprus, Singapore and Australia among others.
- ⌚ In **India**, the **National Commission for Women (NCW)** has recorded a **more than twofold rise in gender-based violence**.
- ⌚ The **confinement due to Covid-19** is fostering the tension and strain created by security, health, and money is the reason behind this.
- ⌚ This will have **multiple impacts on women's wellbeing**, their sexual and reproductive health, mental health, and their ability to participate and lead in the recovery of societies, economy and difficulty in achieving **Sustainable Development Goal -5 (SDG-5)-Gender equality**.

Challenges in the wake of Covid-19 Outbreak

- ⌚ Even before Covid-19, **domestic violence was already one of the most rampant human rights violations**.
 - ⌚ In 2019-20, 243 million women and girls (aged 15-49) across the world have been subjected to sexual or physical violence by an intimate partner.
 - ⌚ As the Covid-19 pandemic continues, the violence is likely to grow.
- ⌚ **Wide under-reporting** of domestic and other forms of violence
 - ⌚ Less than 40% of women who experience violence seek help of any sort or report the crime.
 - ⌚ Less than 10% of those women seeking help go to the police.
- ⌚ The current circumstances (Covid-19 pandemic) **make reporting even harder**, including limitations on women's and girls' access to phones and helplines and disrupted public services like police, justice and social services.
 - ⌚ These disruptions is **compromising the care and support** that survivors need, like clinical management of rape, and mental health and psycho-social support.
 - ⌚ The disruptions also fuel impunity for the perpetrators.
- ⌚ In many countries **the law is not on the women's side**. 1 in 4 countries have no laws specifically protecting women from domestic violence.

Scenario in India

- ⌚ The **National Commission for Women (NCW)** has recorded a **more than twofold rise in gender-based violence**.

National Commission for Women

- ⌚ It was set up as a **statutory body** in January 1992 under the National Commission for Women Act, 1990.
- ⌚ Its **mission** is to strive towards enabling women to achieve equality and equal participation in all spheres of life by securing her due rights and entitlements through suitable policy formulation, legislative measures, etc.
- ⌚ Its **functions** are to:
 - ⊙ Review the constitutional and legal safeguards for women.
 - ⊙ Recommend remedial legislative measures.
 - ⊙ Facilitate redressal of grievances.
 - ⊙ Advise the Government on all policy matters affecting women.

⌚ Data Analysis:

- ⊙ **Total complaints**- Rose from 116 in the first week of March 2020 to 257 in the final week of March 2020.
- ⊙ **Rape or attempt to rape**- Rose sharply from 2 to 13.
- ⊙ **Domestic violence**- Increased from 30 to 69 over the same comparative period.
- ⊙ **Police apathy towards women**- Almost threefold increase as the police are busy enforcing the lockdown to curb the spread of **Covid-19**.
- ⊙ **Cases under Right to live with dignity (Article 21)**- Rose to 77 from 35. Such cases could pertain to discrimination on the basis of gender, class or caste or all three of them combined.
- ⊙ These cases might be a **fragment of the actual number** as many women will not be able to reach out due to various reasons.

⌚ Possible Reasons:

- ⊙ **Privacy**: Women are not able to reach out because of restrictions on movement as well as a lack of privacy within homes. Women need privacy and certainty that they will not be discovered by their family but that becomes impossible in the presence of the entire house.
- ⊙ **Frustration among Males**: There is a lot of **anxiety in people's minds** about their jobs, salaries and livelihood. **Women become easy targets for men** for venting out their anger in **patriarchal societies**.
- ⊙ **Lockdown**: It has **restricted the movement** and closed women's avenues to escape violence such

as by relocating to their natal homes or contacting the local police.

- ⊙ There is evidence that in situations of crisis or calamity there is an increase in violence against women.

⌚ Suggestions:

- ⊙ The police do not seem the first port of call for victims of domestic violence and, therefore, **alternative arrangements** should be put in place.
- ⊙ The government should **ensure resources to help** women in **distress**, and put **health services** to women and abortion in the list of essential services.
- ⊙ **Inspiration** can be taken from **France** which announced that it would pay for 20,000 hotel bookings and contribute €1 million to organisations that fight domestic abuse as well as set up assistance points at supermarkets and pharmacies.

Constitutional and Legal Safeguards for Women

- ⌚ **Fundamental Rights**: Guarantees all Indian women equality (Article 14), no discrimination by the State on the basis of gender (Article 15(1)) and special provisions to be made by the State in favour of women (Article 15(3)).
- ⌚ **Directive Principles of State Policies (DPSPs)**: Ensures equal pay for equal work (Article 39 (d)).
- ⌚ **Fundamental Duties**: Ensures that practices derogatory to the dignity of women are prohibited under Article 51 (A).
- ⌚ **Protection of Women from Domestic Violence Act 2005**: Provides victims of domestic violence with a means for practical remedy through prosecution.
- ⌚ **The Dowry Prohibition Act 1961**: Prohibits the request, payment or acceptance of a dowry.
- ⌚ **The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and redressal) Act, 2013**: This legislative act seeks to protect women from sexual harassment at their place of work.

Way Forward

- ⌚ The increase in **violence against women should be dealt with urgently** with measures embedded in **economic support and stimulus packages** that meet the gravity and scale of the challenge and reflect the needs of women who face multiple forms of discrimination.
- ⌚ **Grassroots women's organizations** and **communities** need to be supported strongly in their current frontline role.

- ⌚ **Helplines, psychosocial support and online counselling** should be boosted, using technology-based solutions such as SMS, online tools and networks to expand social support, and to reach women with no access to phones or internet.
- ⌚ **Police and justice services should mobilize** to ensure that incidents of violence against women and girls are given high priority with no impunity for perpetrators.

Gender Disparity and Covid-19

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.

- ⌚ GlobalHealth50/50 is an **independent research initiative** that tracks **gender and health**. It compiled data from almost 40 countries on Covid-19 cases.

Key Points

- ⌚ Men in India more than women appear disproportionately likely to test positive for Covid-19.
- ⌚ Another unusual exception was South Korea, which has conducted the maximum number of tests as a proportion of population, where more women tested positive than men.
- ⌚ **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.
- ⌚ **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 6th April 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.

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.

Covid-19 Community Mobility Report: Google

Why in News

Google has released '**Covid-19 Community Mobility Reports**'. These reports aim to provide insights into what has changed in response to policies aimed at combating Covid-19.

- ⌚ The reports **cover 131 countries** and chart movement trends over time by geography, across different categories of places such as retail and recreation, groceries and pharmacies, parks, transit stations, workplaces, and residential.
- ⌚ The report comes at a time when communities across the globe are looking at measures such as **social distancing** as a key action to deal with the Covid-19 pandemic.
- ⌚ The company said it adopted technical measures to ensure that no individual could be identified through the new reports. The reports have been **developed according to the company's stringent privacy protocols and policies**.
- ⌚ Google is an **American search engine company founded in 1998** by Serge Brin and Larry Page. It is a subsidiary of Alphabet Inc.

Finding Related to India

- ⌚ In the wake of the **March 22 'Janata Curfew'** and the subsequent ongoing **21-day nationwide lockdown, public movement in India** at areas with restaurants, pharmacies, parks and workplaces had **declined** while movement in residential areas had increased.
- ⌚ The data is **based on the 5-week period Jan 3–Feb 6, 2020** and the **first few days of the lockdown period**.

- ⌚ There has been a **dip of 77% in mobility trends** for places like restaurants, cafes, shopping centres and movie theaters and a **65% drop at grocery markets**, food warehouses, farmers' markets and pharmacies.
- ⌚ A **57% fall for places like public beaches** and gardens, a **71% decline at public transport hubs** and a **47% drop for places of work**.
- ⌚ However, the **mobility trends in the places of residence category** showed an **increase of 22%**.
- ⌚ These reports will **help support decisions about how to manage the Covid-19 pandemic**. For example, the information could help officials understand changes in essential trips that can shape recommendations on business hours or inform delivery service offerings.

Movement Across Other Countries

- ⌚ Reports compared traffic from Feb 16 to March 29 to retail and recreational venues, train and bus stations, grocery stores and workplaces with a five-week period (Jan 3–Feb 6).
- ⌚ **Italy and Spain**, two of the hardest-hit countries, both saw visits to retail and recreation locations such as **restaurants and movie theaters fall 94%**.
- ⌚ The **United Kingdom, France and Philippines** had **declines of more than 80%**.
- ⌚ In Japan and Sweden, where authorities have not imposed harsh restrictions, visits to retail and recreation sites **fell by roughly only a quarter**.
- ⌚ While in South Korea, which has successfully contained a large outbreak through aggressive testing and contact tracing, the **decline was just 19%**.
- ⌚ There were **no reports for China and Iran**, where Google services are blocked.

Kendriya Bhandar

Why In News

- ⌚ **Kendriya Bhandar** prepared **2200 essential kits for distribution to needy families** in Delhi in the wake of **Covid-19**.
 - ⊙ Each such Kit consisting of 9 items is meant to assist one needy family for some time.
 - ⊙ 9 items in the kit are Rice, Wheat Flour, Dal, Cooking Oil, Chiwda/Poha, Salt, Bathing Soap bar, Detergent Soap bar, and Biscuits.

Key Points

- ⌚ Kendriya Bhandar is the **Central Government Employees Consumer Cooperative Society Ltd, established in 1963.**
- ⌚ The society endeavors to serve the Central Government Employees and general public at large by
 - ⦿ providing quality goods of daily needs at reasonable prices and
 - ⦿ playing an effective role in the Public Distribution System through its retail outlets.
- ⌚ It functions under the **Department of Personnel**

and Training (DoPT), Ministry of Personnel, Public Grievances and Pensions.

- ⌚ It is the **largest Consumer Cooperative Society in the country.** It is a **Multi State Consumer Cooperative Society**, i.e. functioning in more than one state.
- ⌚ In general, a **cooperative society** is a voluntary association of individuals having common needs who join hands for the achievement of common economic interest. Its aim is to serve the interest of the poorer sections of society through the principle of self-help and mutual help. The main objective is to provide support to the members.



Miscellaneous

Highlights

- ⌘ *Madhuban Gajar: Biofortified Variety*
- ⌘ *World Health Day*
- ⌘ *Yanomami Tribe*
- ⌘ *Wimbledon Postponed due to Covid-19*
- ⌘ *Covid-19 Affects Odisha's Art and Festival*

Madhuban Gajar: Biofortified Variety

Why in News

Madhuban Gajar, a biofortified carrot variety, is benefitting more than 150 local farmers in Junagadh, Gujarat.

- ⌚ It is being planted in an area of over 200 hectares in Junagadh, and the average yield, which is 40-50 tonne/hectare (t/ha), has become the main source of income to the local farmers.
- ⌚ It is used for various value-added products like carrot chips, juices, and pickles.

Key Points

- ⌚ **Biofortified Variety:** The Madhuban Gajar is a highly nutritious carrot variety developed through the selection method with higher **β-carotene content** (277.75 mg/kg, source of Vitamin A) and **iron content** (276.7 mg/kg).
- ⌚ **Developed By:** Shri Vallabhbhai Vasrambhai Marvaniya, a farmer scientist from Junagadh district, Gujarat.
 - ⌚ He was conferred with a **National Award by the President of India** at Rashtrapati Bhavan, New Delhi during **Festival of Innovation (FOIN)–2017**.
 - ⌚ He was also conferred with **Padma Shri** in the year 2019 for his extraordinary work.
- ⌚ **Tested By:** **National Innovation Foundation (NIF) – India**, an autonomous institute under the Department of Science and Technology during 2016-17. It was found that the Madhuban Gajar carrot variety possesses a significantly **higher root yield (74.2 t/ha) and plant biomass (275 gm per plant)**.

- ⌚ **Areas of Cultivation:** The variety is being cultivated in more than 1000 hectares of land in Gujarat, Maharashtra, Rajasthan, West Bengal, Uttar Pradesh.

Biofortification

- ⌚ **Fortification** is the practice of **deliberately increasing the content of an essential micronutrient**, i.e. vitamins and minerals in food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health.
- ⌚ **Biofortification** is the process by which the nutritional quality of food crops is improved through agronomic practices, conventional plant breeding, or modern biotechnology.
- ⌚ **Biofortification differs from conventional fortification** in that biofortification aims to increase **nutrient levels in crops during plant growth rather than through manual means during processing of the crops**.
- ⌚ Increased nutritional quantity through biofortification will further support India's **National Nutrition Mission**.
 - ⌚ Indian government launched the **National Nutrition Mission (renamed as Poshan Abhiyaan)** in March 2018.
 - ⌚ The National Nutrition Mission is backed by a **National Nutrition Strategy** prepared by the NITI Aayog with the goal of attaining "**Kuposhan Mukh Bharat**" or malnutrition-free India, by 2022.

Festival of Innovation

- ⌚ **The Festival of Innovation & Entrepreneurship (FINE)** {previously known as Festival of Innovation FOIN} is a unique initiative of the **Office of the President of India** to recognise, respect, and reward **grassroots innovations and foster a supportive ecosystem**.

- Hosted in the month of March at the President's House, FINE has become a national celebration of **creativity and innovation at and for the grassroots.**

Yanomami Tribe

Why in News

- Recently, a **Yanomami indigenous** boy died in Brazil after contracting **Covid-19**, raising fears for the Amazon tribes.

Key Points

- Brazil is home to an estimated 8,00,000 indigenous people from more than 300 ethnic groups.
- Guarani, Kaingang, Pataxó Hã Hã Hãe Tupinambá, Yanomami, Tikuna and Akuntsu** are popular tribe of Amazon.
- Yanomami Tribe**
 - Yanomami, also called **South American Indians**, live in the remote forest of the **Orinoco River basin** in **southern Venezuela** and the **northernmost reaches of the Amazon River basin in northern Brazil.**
 - They numbered around 27,000 individuals throughout their range.
 - Yanomami live in small, scattered, semi-permanent villages and speak the **Xirianá language.**
 - They practice **hunting and slash-and-burn agriculture.**
- It can be noted that recently, a Brazilian indigenous leader **Davi Kopenawa** who secured the land rights of the **Yanomami people** was awarded the **Right Livelihood Award-2019**, also known as **Sweden's alternative Nobel Prize.**

Covid-19 Affects Odisha's Art and Festival

Why in News

Recently, Odisha's Ganjam district administration banned the **Meru Jatra festival** and congregations related to it at temples on the occasion of **Mahavishub Sankranti (13th April, 2020)**, due to Covid-19.

- Covid-19 has also affected the sale of **Pattachitra paintings.**

Meru Jatra Festival

- Meru Jatra marks the end of the 21-day-long festival of penance named '**Danda Nata**'.
- Danda Nata is celebrated in the month of '**Chaitra**'.
 - Danda as the name implies, is **self-inflicted pain, which the danduas (people who participate in the festival) undergo** to pay their obeisance to the **lord Kali**. It is also a form of worshipping the lord Shiva and his consort Parvati.
 - The **origin of the festival** is generally traced to **8th and 9th AD** after the decadence of Buddhism in Orissa.
- On the occasion of **Mahavishub Sankranti** thousands of devotees used to gather at the **Tara Tarini hill shrine** and other temples.
 - Tara Tarini hill shrine, located at a hilltop on banks of the **Rushikulya river**, is a major centre of Shakti worship in Odisha.
 - The **twin goddesses Tara and Tarini** represent one Shakti and are the main deity of Ganjam district (Odisha).
- Mahavishub Sankranti** is the start of the **Odia New Year.**
- Earlier, the administrations had also banned the famous Chaitra Jatra festival at Tara Tarini hill shrine as a precautionary measure against Covid-19 infection.

Pattachitra Painting

- Pattachitra style of painting is one of the **oldest and most popular art forms of Odisha.**
- The name **Pattachitra** has evolved from the Sanskrit words **Patta**, meaning **canvas**, and **Chitra**, meaning **picture**. Pattachitra is done on canvas and is manifested by rich colourful application, creative motifs and designs, and portrayal of simple themes, mostly mythological in depiction.
- Some of the popular themes represented through this art form are **Thia Badhia** - depiction of the temple of Jagannath; **Krishna Lila** - enactment of Jagannath as Lord Krishna displaying his powers as a



child; **Dasabatara Patti** - the ten incarnations of Lord Vishnu; **Panchamukhi** - depiction of Lord Ganesh as a five-headed deity.

- ⌚ The Pattachitra, when painted on cloth, follows a traditional process of preparation of the canvas. First, the **base is prepared by coating the cloth with the soft, white, stone powder of chalk and glue made from tamarind seeds.**
- ⌚ It is a tradition to complete the borders of the painting first. The painter then starts making a rough sketch directly with the brush using light red and yellow. The colours used are normally white, red, yellow, and black.
- ⌚ When the painting is completed it is held over a charcoal fire and lacquer is applied to the surface. This makes the painting water resistant and durable, besides giving it a shining finish.

World Health Day

- ⌚ **Every year 7th April** marks the celebration of **World Health Day.**
- ⌚ Its idea was conceived at the **First Health Assembly in 1948** and came into **effect in 1950.**
- ⌚ **Aim:** To create awareness of a specific health theme to highlight a priority area of concern for the **World Health Organization (WHO).**
 - ⊙ Over the years, it has brought to light **important health issues** such as mental health, maternal and child care and climate change.
- ⌚ **Theme for 2020: Support Nurses and Midwives.**
- ⌚ **2020** has been designated as the **International Year of the Nurse and the Midwife.**
 - ⊙ This year, the day celebrates the work of nurses and midwives and reminds world leaders of the critical role they play in keeping the world healthy.
 - ⊙ On the Day, the **'State of the World's Nursing 2020'** report has been launched.
 - ⊙ WHO and its partners will make a series of recommendations to strengthen the nursing and midwifery workforce.
- ⌚ Nurses and other health workers are at the forefront of **Covid-19** response-providing high quality, respectful treatment and care, leading community dialogue to address fears and questions and collecting data for clinical studies.

Wimbledon Postponed due to Covid-19

Why in News

Recently, the **Wimbledon championships**, which were scheduled for 29th June-12th July, have been cancelled for the first time since **World War Two (WWII)** in the wake of the ongoing crisis of **Covid-19.**

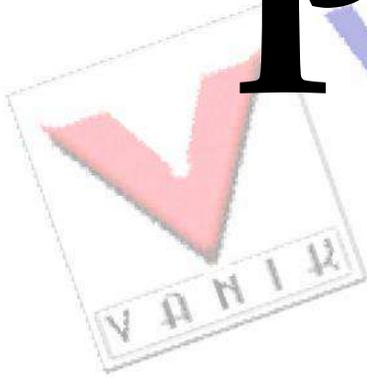


- ⌚ Wimbledon (**one of the Grand Slams**) had been one of the few events not to have been officially cancelled or postponed.
- ⌚ Few days back, the **Tokyo Olympics** were also postponed.

Grand Slam Tournaments

- ⌚ These are the **four most important annual tennis events** and each tournament is played for about two weeks.
- ⌚ It consists of:
 - ⊙ **Australian Open**
 - ⌘ It takes place in **mid-January**
 - ⌘ Played in **hard** courts.
 - ⊙ **French Open**
 - ⌘ It is also known as the Roland-Garros de Paris.
 - ⌘ It takes place in **May and June.**
 - ⌘ Played on **clay** court.
 - ⊙ **Wimbledon**
 - ⌘ It takes place in **June and July.**
 - ⌘ Played on a **grass** court.
 - ⊙ **US Open**
 - ⌘ It takes place in **August and September.**
 - ⌘ Played in **hard** courts.
- ⌚ Wimbledon is relatively older than the rest (1877), followed by the US (1881), French (1891) and the Australian (1905).
- ⌚ Only Wimbledon was a major before **1924–25**, when **all the four became designated Grand Slam tournaments.**

PART-2



VANIKA- IAS
Exclusive Coaching for UPSC/OPSC

Polity and Governance

Highlights

- ⌘ *Basic Structure of Constitution*
- ⌘ *Rights of Minority Institutes not Absolute: SC*
- ⌘ *Reservation Review: SC*
- ⌘ *Ordinance to Protect Health Workers*
- ⌘ *Parliamentary Committee On Industrial Relations Code Bill, 2019*
- ⌘ *Unlawful Activities (Prevention) Act*
- ⌘ *Civil Services Day*
- ⌘ *National Panchayati Raj Day*
- ⌘ *SVAMITVA Scheme*
- ⌘ *e-Gram Swaraj Portal*

Basic Structure of Constitution

Why in News

The concept of ‘**basic structure**’ came into existence in the landmark judgment of **Kesavananda Bharati vs State of Kerala case (1973)** 47 years ago.

Background

- ⌚ Since the adoption of Indian Constitution, debates have started regarding the **power of the Parliament to amend key provisions of the Constitution**.
- ⌚ In the early years of Independence, the **Supreme Court conceded absolute power to Parliament in amending the Constitution**, as was seen in the verdicts in **Shankari Prasad case (1951)** and **Sajjan Singh case (1965)**.
- ⌚ In both the **cases** the court had ruled that the term “**law**” in **Article 13** must be taken to mean **rules or regulations made in exercise of ordinary legislative power and not amendments to the Constitution** made in exercise of constituent power under **Article 368**.
- ⌚ This means Parliament had the power to amend any part of the constitution including Fundamental rights.
- ⌚ Article 13(2) reads, “The State shall not **make any law** which takes away or abridges the right conferred by this Part (Part-III) and any law made in contravention of this clause shall, to the extent of contravention, be void.”
- ⌚ However, in the **Golaknath case (1967)**, the Supreme Court held that **Parliament could not amend**

Fundamental Rights, and this power would be only with a Constituent Assembly.

- ⌚ The Court held that an **amendment under Article 368 is “law” within the meaning of Article 13** of the Constitution and therefore, if an amendment “takes away or abridges” a Fundamental Right conferred by Part III, it is void.
- ⌚ Together over the judgments of the Supreme Court in the **Golaknath case (1967)**, **RC Cooper case (1970)**, and **Madhavrao Scindia case (1970)**, the then government headed by Prime Minister Indira Gandhi had enacted major **amendments to the Constitution (the 24th, 25th, 26th and 29th)**.
- ⌚ All the four amendments brought by the government were challenged in the Kesavananda Bharati case.

Kesavananda Bharati case

- ⌚ In Kesavananda Bharati case, a relief was sought against the Kerala government vis-à-vis **two state land reform laws**, which imposed restrictions on the management of religious property.
- ⌚ The **case was challenged under Article 26**, concerning the right to manage religiously owned property without government interference.
- ⌚ **Question underlying the case:** Was the power of Parliament to amend the Constitution unlimited? In other words, could Parliament alter, amend, abrogate any part of the Constitution even to the extent of taking away all fundamental rights?
- ⌚ The Constitutional Bench in Kesavananda Bharati case ruled by a 7-6 verdict that **Parliament could amend any part of the Constitution so long as it did not alter or amend the basic structure or essential features of the Constitution**.

- ⌚ However, the court **did not define the term ‘basic structure’**, and only listed a few principles, **federalism, secularism, democracy**, as being its part.
- ⌚ The ‘basic structure’ doctrine has since been interpreted to include:
 - ⊙ Supremacy of the Constitution.
 - ⊙ Rule of law.
 - ⊙ Independence of the judiciary.
 - ⊙ Doctrine of separation of powers.
 - ⊙ Sovereign democratic republic.
 - ⊙ Parliamentary system of government.
 - ⊙ Principle of free and fair elections.
 - ⊙ Welfare state.
- ⌚ An **example** of application of basic structure is the **SR Bommai case (1994)**.
 - ⊙ In this case the Supreme Court upheld the dismissal of BJP governments by the President following the demolition of the Babri Masjid, invoking a threat to secularism by these governments.
- ⌚ Arguments related to Basic structure
 - ⊙ Critics of the doctrine have called it undemocratic, since unelected judges can strike down a constitutional amendment. At the same time, its proponents have hailed the concept as a safety valve against majoritarianism and authoritarianism.
- ⌚ **Origin:** The basic structure theory was first introduced by Justice Mudholkar in the Sajjan Singh case (1965) by referring to a 1963 decision of the Supreme Court of Pakistan.
 - ⊙ Chief Justice Cornelius of Pakistan had held that the President of Pakistan could not alter the “fundamental features” of their Constitution.

Rights of Minority Institutes not Absolute: SC

Why in News

Recently, the **Supreme Court of India** gave its judgement on the **admission criteria of minority institutions**.

- ⌚ It held that **National Eligibility-cum-Entrance Test (NEET)** is mandatory for admission to all the medical colleges and the **right of minority institutions is not absolute** and is **amenable to regulation**.

Key Points

- ⌚ **Background:**
 - ⊙ Few colleges challenged the notifications issued by the **Medical Council of India (MCI)** and the **Dental Council of India (DCI)** under **Sections 10D of the Indian Medical Council Act of 1956 and the Dentists Act of 1948** for uniform entrance examinations.
 - ⊙ The management of such minority-run medical institutions held that **uniformly bringing them under the ambit of NEET** would be a **violation of their fundamental right to occupation, trade and business (Article 19(1)(g))** and would violate their **fundamental rights of religious freedom and to manage their religious affairs (Article 25-28) and to administer their institutions (Article 30)**.
 - ⊙ Few petitioners claimed that **rules notified by Andhra Pradesh government are violative of rights of minority educational institutions under Article 30(1) of the Constitution**.
- ⌚ **Highlights of the Judgement:**
 - ⊙ The SC held that the **fundamental and religious rights of minorities** and rights available under Article 30 are **not violated by provisions** carved out in Section 10D of the MCI and Dentists Act.
 - ⊙ **The right to freedom of trade or business is not absolute.** It is subject to **reasonable restriction** in the interest of the students’ community to **promote merit, recognition of excellence, and to curb the malpractices**. A uniform entrance test qualifies the test of proportionality and is reasonable.
 - ⊙ The **NEET is mandatory for admission to medical colleges run by religious and linguistic minority communities** and it would **apply for both aided and unaided** medical colleges administered by minorities.
 - ⌘ NEET was started to **check several malpractices in the medical education**, to **prevent capitation fee** by admitting students which are lower in merit and to **prevent exploitation, profiteering, and commercialisation** of education.
 - ⊙ Uniform entrance exams will **ensure improvement in future public health** by encouraging merit which will further enhance the **Directive Principles** enshrined in the Constitution.
 - ⊙ The SC also upheld **rules framed by the Andhra Pradesh government making Secondary School**

Certificate (SSC)/Transfer Certificate (TC) the basis for a candidate's claim of minority status for admission to B.Ed courses. The rules also require minority institutions to allot vacant seats under management quota to non-minority students on merit.

⌘ **Major Issues:**

- ⌘ It was noted that **conversion certificates were obtained by students** from other communities for admission under the management quota.
- ⌘ According to statistical data, **minority seats are highly disproportionate and far in excess** due to the number of colleges and total seats availability.
- ⌘ Upholding the Andhra Pradesh government's rules will **safeguard the interests of genuine minority students** against the false overnight conversions.
- ⌘ Providing admission to non-minority students will also **not interfere with the right of a Minority Educational Institution** to manage its affairs for the benefit of the Minority Community.

Minority Educational Institutions

- ⌘ The term '**minority**' has **not been defined anywhere in the Constitution.**
- ⌘ **Article 30** grants the following rights to minorities, whether **religious or linguistic**:
 - a. All minorities shall have the **right to establish and administer educational institutions** of their choice.
 - b. The **compensation** amount fixed by the State for the compulsory acquisition of any property of a minority educational institution **shall not restrict or abrogate the right guaranteed** to them. (added by the **44th Amendment Act of 1978**).
 - c. In granting aid, the **State shall not discriminate** against any educational institution managed by a minority.
- ⌘ **Minority educational institutions are of three types:**
 - a. Institutions that **seek recognition as well as aid** from the State.
 - b. Institutions that **seek only recognition** from the State and **not aid**.
 - c. Institutions that **neither seek recognition nor aid** from the State.

- ⌘ The institutions of **first and second type are subject to the regulatory power of the state** with regard to syllabus prescription, academic standards, discipline, sanitation, employment of teaching staff and so on. The institutions of **third type are free to administer their affairs but subject to operation of general laws** like contract law, labour law, industrial law, tax law, economic regulations, and so on.
- ⌘ The SC **allowed the minority educational institutions to admit eligible students of their choice** and to **set up a reasonable fee structure** in the judgement delivered in the **Secretary of Malankara Syrian Catholic College case (2007)**.
 - ⌘ However, it also held that the **right to establish and administer educational institutions is not absolute**. Nor does it include the right to maladminister.
 - ⌘ There can be regulatory measures for ensuring educational character and standards and maintaining academic excellence.

Reservation Review: SC

Why in News

Recently, the **Supreme Court of India** has ruled the **January 2000 order** of the Governor of the erstwhile state of **Andhra Pradesh** which provided **100% reservation to Scheduled Tribes (ST) candidates** in posts of school teachers in **Scheduled Areas, unconstitutional**.

- ⌘ It also highlighted that within the **Other Backward Castes (OBCs)** and the **Scheduled Castes (SCs)** and **STs**, reservation benefits are **not reaching the truly deserving**.

Key Points

- ⌘ The apex court said that 100% reservation is **not permissible** under the Constitution as the **outer limit is 50%** as specified in **Indra Sawhney case, 1992**.
- ⌘ A 100% reservation would become **discriminatory and impermissible**. The citizens have **equal rights** and the total exclusion of others by creating an opportunity for one class is not contemplated by the Constitution.
- ⌘ It also **deprives SCs and OBCs** of their due representation.
- ⌘ The **opportunity of public employment** cannot be denied unjustly to the incumbents and it is not the prerogative of few.

- ⌚ **Equality of opportunity and pursuit of choice** under **Article 51A** cannot be deprived of unjustly and arbitrarily.
- ⌚ It is **arbitrary and violative of** provisions of **Articles 14 (equality before law), 15(1) (discrimination against citizens) and 16 (equal opportunity) of the Constitution.**
- ⌚ It also impinges upon the **right of open category** because only STs will fill all the vacant posts leaving SCs and OBCs far behind.
 - ⊙ **Open Category:** It means for **all castes**. The **50% unreserved seats are not entitled to the General category**. They can be **filled by reserved categories** as well in **case all seats are not occupied by the general category**.
- ⌚ The SC has **allowed the request not to quash the appointments already made** under the 2000 order. However, it has **warned Andhra Pradesh and Telangana** against making such provisions in the future.
 - ⊙ In case they do so, exceeding the limit of reservation, the appointments which have not been quashed now, will also be considered null and void.

Background

- ⌚ The **Andhra Pradesh government** came out with a **similar order in 1986** which was **quashed by the State Administrative Tribunal** and an appeal before the Supreme Court was dismissed in **1998**.
- ⌚ However, in **2000**, the State issued an order providing for **100% reservation to STs candidates** on teacher posts in Schedules areas.
- ⌚ The **State's High Court upheld** the order but its decision was later on **challenged in the Supreme court** leading to this order.

On Reservation

- ⌚ **Failure of trickle down approach:** The SC highlighted the **struggles of people from the OBCs, SCs and STs who could not benefit** from the trickle down approach of the reservation.
 - ⊙ By now, there are **affluent and socially and economically advanced classes within the reserved communities** who do not permit benefits to trickle down to the ones who actually need them.
- ⌚ **Revision of reservation:** The apex court **suggested the government to revise the lists of those entitled to reservation**, from time to time.

- ⊙ **Suggestion:** It can be **done without disturbing the percentage of reservation** so that the benefits trickle down to the needy and are not hindered by those who have been obtaining benefits for the last 70 years or after their inclusion in the list.

Indra Sawhney & Others vs Union of India, 1992:

- ⌚ The Supreme Court while **upholding the 27% quota** for backward classes, struck down the government notification reserving 10% government jobs for economically backward classes among the higher castes.
- ⌚ SC in the same case also upheld the principle that the combined reservation beneficiaries **should not exceed 50%** of India's population.
- ⌚ The concept of **'creamy layer'** also gained currency through this judgment and provision that **reservation for backward classes should be confined to initial appointments only and not extend to promotions.**
- ⌚ The **Constitutional (103rd Amendment) Act of 2019** provided for **10% reservation in government jobs and educational institutions** for the **"economically backward"** in the unreserved category.
 - ⊙ The Act **amended the Articles 15 and 16** of the Constitution by adding clauses empowering the government to provide reservation on the basis of economic backwardness.
 - ⊙ This **10% economic reservation is over and above the 50% reservation cap.**
- ⌚ However, it should be noted that a constitution bench of the SC has reserved orders whether a bunch of **writ petitions challenging the economic reservation law should be referred to a Constitution Bench or not.**
 - ⊙ That is why the court had **refused to pass any interim order to stay or hamper the implementation of the Constitution (103rd Amendment) Act, 2019.**

Ordinance to Protect Health Workers

Why in News

- ⌚ The President has given his assent to an ordinance passed to amend the **Epidemic Diseases Act, 1897.**

Key Points

- ⌚ **Wider Inclusion:** The amendments intend to protect the health workers from **harassment by the public**. The amendments will also apply to **harassment by landlords and neighbours**.
- ⌚ **Cognizable and Non-bailable:** Violence against medical staff has been made a cognizable and non-bailable offence.
- ⌚ **Compensation:** Provision for compensation for injury to healthcare personnel or for damage or loss to property.
 - ⦿ If damage was done to vehicles or clinics of healthcare workers, a compensation amounting to twice the market value of the damaged property would be **charged from the accused**.
- ⌚ **Timely Investigation:** In cases of attacks on healthcare workers, the **investigation will be completed within 30 days and the final decision arrived within one year**.
- ⌚ **Umbrella Protection:** The ordinance will **protect the whole healthcare fraternity, including doctors, nurses and ASHA workers from violence during epidemics**.
- ⌚ **Punishment:** The punishment for such attacks will be **3 months to 5 years and the fine ₹50,000 to ₹2 lakh**.
 - ⦿ In severe cases, where there are grievous injuries, the punishment will be **6 months to 7 years and the fine ₹ 1 lakh to ₹5 lakh**.

Cognisable Offences

- ⌚ In cognisable offences, an officer can take cognizance of and arrest a **suspect without seeking a court's warrant** to do so, if she has "reason to believe" that the person has committed the offence and is satisfied that the arrest is necessary on certain enumerated bases.
- ⌚ According to the **177th Law Commission Report**, cognisable offences are those that require an immediate arrest.
- ⌚ Within 24 hours of the arrest, the officer must have detention ratified by a judicial magistrate.
- ⌚ Cognizable offences are generally heinous or serious in nature such as murder, rape, kidnapping, theft, dowry death etc.
- ⌚ The first information report (FIR) is registered only in cognizable crimes.

Non-Cognizable Offences

- ⌚ In case of a non-cognizable offence, the police **cannot arrest the accused without a warrant** as well as cannot start an investigation without the permission of the court.
- ⌚ The crimes of forgery, cheating, defamation, public nuisance, etc., fall in the category of non-cognizable crimes.

Background

- ⌚ **Need:** Healthcare workers are being portrayed as potential spreaders of **Covid-19 pandemic**. Public venting of angst against healthcare service personnel leading to harassment assault and damage to property is being highlighted daily. Therefore, the medical community has been demanding protection.
- ⌚ **Unique Challenge:** The Covid-19 outbreak has posed a unique situation where **harassment of the healthcare workforce** and others working to contain the spread of the disease has been taking place at all fronts, in various places, including in cremation grounds.

Deficiency in State laws:

- ⦿ Several States had enacted special laws to offer protection to doctors and other medical personnel in the past. However, these existing State laws **do not have such a wide ambit**.
- ⦿ They generally **do not cover harassment at home and workplace** and are focussed more on physical violence.
- ⦿ **The penal provisions contained in these laws are not stringent enough to deter mischief-mongering.**

Ordinance

- ⌚ Ordinance is a decree or law promulgated by a state or national government **without the consent of the legislature**.
- ⌚ **Article 123 of the Constitution of India grants the President** certain law-making powers to promulgate ordinances when either of the two Houses of Parliament is not in session.
- ⌚ Similar powers are given to the Governor of a state to issue ordinances under **Article 213 of the Constitution**.
- ⌚ There are **three limitations** with regard to the ordinance making power of the executive. They are:

- ⊙ The President can only promulgate an ordinance when **either of the two Houses of Parliament is not in session.**
- ⊙ The **President cannot promulgate an ordinance unless he is satisfied** that there are circumstances that require taking 'immediate action'.
- ⊙ Ordinances **must be approved by Parliament within six weeks of reassembling** or they shall cease to operate. They will also cease to operate in case resolutions disapproving the ordinance are passed by both the Houses.

Epidemic Diseases Act, 1897

- ⌚ The Epidemic Diseases Act initially was passed in February 1897 in the **wake of the outbreak of the bubonic plague in India** (particularly in the Bombay presidency).
- ⌚ The Act aims to provide for the better **prevention of the spread of Dangerous Epidemic Diseases.**
- ⌚ It **empowers the state and central government to take special measures** and prescribe regulations that are to be observed by the public to contain the spread of disease.
- ⌚ It also makes disobedience of any regulation or order made under this Act a **punishable offence.**
- ⌚ It provides for the **protection of persons or officials acting under this Act** as no suit or other legal proceeding can be initiated against any person for anything done or in good faith intended to be done under this Act.

Parliamentary Committee On Industrial Relations Code Bill, 2019

Why in News

Recently, the Parliamentary Committee on Labour submitted its report on the **Industrial Relations Code, 2019.**

- ⌚ The Industrial Relations Code 2019 (IR Code) **is the third bill** in a series of four being framed **to amalgamate and rationalise more than 40 central laws governing labour affairs.**
 - ⊙ **Two other bills were :** (a) Code on Wages, 2019 and (b) Occupational Safety, Health and Working Conditions Code, 2019.

Key Points

- ⌚ **Payment of wages unjustifiable:** The Committee in its reportsaid that **in case of natural calamities, payment of wages to the workers** until the re-establishment of the industry may be **unjustifiable.**
 - ⊙ The idea behind the recommendations is that the **industry should not be forced when the situation is beyond their control.**
 - ⊙ The law has to be reasonable, in such cases it is for **the government to step in and extend a helping hand for the industries.**
 - ⊙ According to the Committee **Covid-19** would be counted as natural calamity.
- ⌚ **50% wages:** The **Industrial Code** makes it incumbent upon the employer to pay **50% wages** to the workers/ employees who are laid off due to shortage of power, coal, raw material etc. for 45 days.
- ⌚ The **Industrial Relations Code, 2019** was introduced in the Lok Sabha and referred to the Standing Committee on Labour in December, 2019.
 - ⊙ With the ongoing lockdown, the draft report was circulated to the members via email on April 15 and later the final adopted report was accepted by the Speaker.

Industrial Relations Code Bill, 2019

- ⌚ The Industrial Relations Code, 2019 was introduced in Lok Sabha. It seeks to **replace three labour laws:**
 - ⊙ The Industrial Disputes Act, 1947
 - ⊙ The Trade Unions Act, 1926
 - ⊙ The Industrial Employment (Standing Orders) Act, 1946.
- ⌚ Key features of the Bill
 - ⊙ Trade Unions:
 - ⌘ Under the Code, **seven or more members of a trade union** can apply to register it.
 - ⌘ Trade unions that have a membership of **at least 10% of the workers or 100 workers**, whichever is less, will be registered.
 - ⌘ Further, the central or state government may recognise a trade union or a federation of trade unions as **Central or State Trade Unions respectively.**
 - ⊙ Negotiating Unions:
 - ⌘ The Code provides for a **negotiation union** in an industrial establishment for negotiating with the employer.

- ⌘ If there is only one trade union in an industrial establishment, then the employer is required to recognise such trade union as the **sole negotiating union of the workers**.
- ⌘ In case of multiple trade unions, the trade union with the **support of at least 75% of workers** will be recognised as the negotiating union by the government.
- ⌚ Lay-off and Retrenchment:
 - ⌘ The Code defines lay-off as the **inability of an employer**, due to shortage of coal, power, or breakdown of machinery, from giving employment to a worker. It also provides for employers to terminate the services of a worker, i.e., **retrenchment**.
 - ⌘ Employers of industrial establishments with **at least 100 workers** are required to **take prior permission of the central or state government** before lay-off, retrenchment or closure of an establishment.
 - ⌘ The central or state government can modify this threshold number of workers by notification. Any person who contravenes this provision is punishable with a fine between **Rs 1 lakh and Rs 10 lakh**.
- ⌚ Resolution of Industrial Disputes:
 - ⌘ The **central or state governments** may appoint **conciliation officers** to mediate and promote settlement of industrial disputes.
 - ⌘ These **officers will investigate the dispute and hold conciliation proceedings** to arrive at a fair and amicable settlement of the dispute.
 - If no settlement is arrived at, then any party to the dispute can make an application to **an Industrial Tribunal set up under the Code**.

Unlawful Activities (Prevention) Act

Why In News

- ⌚ Recently, many activists, journalists and students have been booked under the **Unlawful Activities (Prevention) Act (UAPA)** in different cases across the country.

Key Points

- ⌚ UAPA was passed in **1967**. It aims at **effective prevention of unlawful activities associations in India**.
- ⌚ **Unlawful activity** refers to any action taken by an individual or association intended to disrupt the **territorial integrity and sovereignty of India**.
- ⌚ The Act assigns absolute power to the central government, by way of which if the **Centre deems an activity as unlawful** then it may, **by way of an Official Gazette, declare it so**.
- ⌚ It has **death penalty and life imprisonment** as highest punishments.
- ⌚ Under UAPA, **both Indian and foreign nationals** can be charged. It will be applicable to the offenders in the same manner, even if crime is committed on a foreign land, outside India.
- ⌚ Under the UAPA, the investigating agency can **file a charge sheet in maximum 180 days after the arrests** and the duration can be extended further after intimating the court.
- ⌚ The **2004 amendment**, added **“terrorist act”** to the list of offences to ban organisations for terrorist activities, under which 34 outfits were banned.
 - ⌚ Till 2004, “unlawful” activities referred to actions related to secession and cession of territory.
- ⌚ In August, Parliament cleared the **Unlawful Activities (Prevention) Amendment Bill, 2019 to designate individuals as terrorists** on certain grounds provided in the Act.
 - ⌚ The Act empowers the **Director General of National Investigation Agency (NIA)** to grant approval of **seizure or attachment of property** when the case is investigated by the said agency.
 - ⌚ The Act empowers the **officers of the NIA, of the rank of Inspector or above, to investigate** cases of terrorism in addition to those conducted by the DSP or ACP or above rank officer in the state.

Civil Services Day

- ⌚ Every year, **21st April** is celebrated as the **Civil Services Day** by the Government of India.
- ⌚ It is celebrated as an **occasion for the civil servants** to rededicate themselves to the causes of citizens and renew their commitments to public service and excellence in work.

- ⌚ The **date is chosen to commemorate** the day when the first Home Minister of Independent India, **Sardar Vallabhbhai Patel addressed the probationers of Administrative Services Officers in 1947 at Metcalf House, Delhi.**
 - ⊙ He referred to **civil servants as the ‘Steel Frame of India’.**
- ⌚ The **first function on civil services day** was held in **Vigyan Bhawan, New Delhi in 2006.**
- ⌚ On this day, the **Prime Minister’s Awards for Excellence in Public Administration** are presented to Districts/Implementing Units for implementation of Priority programme and innovation categories.
 - ⊙ These awards bring together civil servants to connect with each other and learn the good practices being implemented across the nation in the field of public grievance.

Sardar Vallabhbhai Patel

- ⌚ He was born on **31st October, 1875** in **Nadiad, Gujarat.**
- ⌚ He was the **first Home Minister and Deputy Prime Minister** of independent India.
- ⌚ He played an important role in the **integration of many Indian princely states** to make an **Indian federation.**
 - ⊙ He requested the people of India to live together by uniting in order to create **Shreshth Bharat (Foremost India).**
- ⌚ **Women of Bardoli (in 1928)** bestowed the title **‘Sardar’** on Vallabhbhai Patel, which means ‘a Chief or a Leader’.
- ⌚ He is also remembered as the **‘Patron saint of India’s civil servants’** as he **established the modern all-India services system.**
- ⌚ The **Statue of Unity** at Kevadiya in Narmada district of Gujarat was built in his honor.

National Panchayati Raj Day

Why in News

Recently, the Prime Minister addressed sarpanches from across the country on **24th April** through a video conference on **National Panchayati Raj Day.**

Key Points

- ⌚ The **first National Panchayati Raj Day was celebrated in 2010.** Since then, the National Panchayati Raj Day is celebrated on **24th April** every year in India.

- ⌚ **Prime Minister Launched two programmes:**
 - ⊙ **e-GramSwaraj:** For monitoring of rural infrastructure works and e-governance.
 - ⊙ **Swamitva programme:** It involves mapping of rural housing and land holdings via technology including drones.
 - ⌘ The Swamitva programme would help rural India leverage property for institutional credit and other benefits.

Panchayati Raj

- ⌚ After the Constitution came into force, **Article 40** made a mention of panchayats and **Article 246** empowered the state legislature to legislate with respect to any subject relating to local self-government.
- ⌚ **Panchayati Raj Institution (PRI)** was constitutionalized through the **73rd Constitutional Amendment Act, 1992** to build democracy at the grass roots level and was entrusted with the task of rural development in the country.
- ⌚ **PRI** is a system of **rural local self-government** in India.
 - ⊙ Local Self Government is the management of local affairs by such local bodies who have been **elected by the local people.**

Salient Features of the 73rd Constitutional Amendment

- ⌚ The 73rd Constitutional Amendment added **Part IX titled “The Panchayats”** to the Constitution.
- ⌚ Basic unit of democratic system-**Gram Sabhas (villages)** comprising all the adult members registered as voters.
- ⌚ **Three-tier system** of panchayats at village, intermediate block/taluk/mandal and district levels except in States with population is below 20 lakhs (Article 243B).
- ⌚ Seats at all levels to be filled by direct elections **Article 243C (2).**
- ⌚ **Reservation of seats:**
 - ⊙ Seats reserved for Scheduled Castes (SCs) and Scheduled Tribes (STs) and the chairpersons of the Panchayats at all levels also shall be reserved for SCs and STs in proportion to their population.
 - ⊙ One-third of the total number of seats to be reserved for women.
 - ⊙ One-third offices of chairpersons at all levels reserved for women (**Article 243D**).

- ⌚ **Duration:**
 - ⊙ **Uniform five year term** and elections to constitute new bodies to be completed before the expiry of the term.
 - ⊙ In the event of dissolution, elections compulsorily within six months (**Article 243E**).
- ⌚ **Independent Election Commission in each State** for superintendence, direction and control of the electoral rolls (Article 243K).
- ⌚ **Power of Panchayats:** Panchayats have been **authorised to prepare plans for economic development and social justice** in respect of subjects illustrated in **Eleventh Schedule (Article 243G)**.
- ⌚ **Source of Revenue (Article 243H):** State legislature may authorise the Panchayats with
 - ⊙ Budgetary allocation from State Revenue.
 - ⊙ Share of revenue of certain taxes.
 - ⊙ Collection and retention of the revenue it raises.
- ⌚ Establish a **Finance Commission in each State** to determine the principles on the basis of which adequate financial resources would be ensured for panchayats and municipalities (Article 243I).
- ⌚ **Exemption:** The act does not apply to the states of **Nagaland, Meghalaya and Mizoram** and **certain other areas** because of socio-cultural and administrative considerations.
- ⌚ These areas include:
 - ⊙ the Scheduled areas and the tribal areas (under Schedule VI of the Constitution) in the states.
 - ⊙ the hill areas of Manipur for which district councils exist;
 - ⊙ Darjeeling district of West Bengal for which Darjeeling Gorkha Hill Council exists.
- ⌚ However, the **Parliament can extend the provisions of Part IX to Vth schedule areas** through an Act called the **Provisions of Panchayats (Extension to the Scheduled Areas) Act, 1996**.
 - ⊙ Till 2019, ten states have Vth Schedule Areas. These are: Andhra Pradesh, Telangana, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Rajasthan.

Note:

- ⌚ The VIth Schedule areas are governed by **Autonomous District Councils (ADCs)**.

- ⊙ These councils have been given Legislative, Administrative and Judicial powers under the VIth Schedule.
- ⊙ The district councils are also empowered to constitute Village councils and also Village courts.

SVAMITVA Scheme

Why in News

Recently, the **Union Minister of Rural Development & Panchayati Raj** has issued guidelines regarding the **SVAMITVA scheme**. The scheme was **launched on the National Panchayati Raj Day (April 24)**.

Key Points

- ⌚ **SVAMITVA (Survey of Villages and Mapping with Improved Technology in Village Areas)** scheme is a collaborative effort of the **Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India**.
- ⌚ **Aim:** To provide an **integrated property validation solution for rural India**.
 - ⊙ It is a scheme for **mapping** the land parcels in rural inhabited areas using **drone technology** and **Continuously Operating Reference Station (CORS)**.
 - ⊙ The mapping will be done across the country in a **phase-wise** manner over a period of four years - from 2020 to 2024.
- ⌚ **Benefits:**
 - ⊙ The scheme will **help in streamlining planning and revenue collection** in rural areas and ensuring clarity on property rights.
 - ⊙ The scheme will **enable creation of better-quality Gram Panchayat Development Plans (GDPs)**, using the maps created under this programme.
 - ⌘ The Gram Panchayats are **constitutionally mandated** for preparation of Gram Panchayat Development Plans (GPDP) for economic development and social justice.
 - ⌘ The GPDP is based on a **participatory process** in convergence with schemes of all related Central Ministries/Line Departments related to 29 subjects listed in the **Eleventh Schedule of the Constitution**.
- ⌚ **Present Coverage Area:** The program is currently being implemented in **six states** - Haryana, Karnataka,

Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand.

e-Gram Swaraj Portal

Why in News

Recently, the Ministry of Panchayati Raj released a Standard Operating Procedure (SOP) regarding e-Gram Swaraj. The application was **launched on the National Panchayati Raj Day (April 24)**.

Key Points

- ⌚ **Aim:** To bring in better transparency and strengthening of the e-Governance in Panchayati Raj Institutions (PRIs) across the country through **decentralized planning, progress reporting and work-based accounting**.

- ⌚ It will also assist in enhancing the **credibility of Panchayats** which would induce greater devolution of funds to PRIs.
- ⌚ It will help in establishing a strong financial system by integrating the **PRIASoft** and **Public Financial Management System (PFMS)**.
- ⌚ The **PRIASoft** (Panchayati Raj Institutions Accounting Software) is the Online Payment Module whereby Gram Panchayats are carrying out online payments to the vendors and service providers.
 - ⦿ The main objective of introducing such a module is to have a sound financial management system in the Panchayats leading to their greater credibility and image.
- ⌚ These endeavours are also congruent to that of **Digital India Programme** which is to transform India into a digitally empowered society and knowledge economy.



Economic Scenario

Highlights

- ⌘ *Measures to Deal with Economic Hardship*
- ⌘ *Rupee Slips Due to Covid-19*
- ⌘ *Currency Exchange Rate Index*
- ⌘ *Sovereign Gold Bonds*
- ⌘ *Liquidity Boost to NBFCs*
- ⌘ *RBI to Restart Operation Twist*
- ⌘ *WMA Borrowings of States*
- ⌘ *Direct Monetisation*
- ⌘ *India's New FDI Norms Violate WTO: China*
- ⌘ *Commodity Markets Outlook: World Bank*
- ⌘ *Impact of Covid-19 on Remittance: WB*
- ⌘ *Special Drawing Rights: IMF*
- ⌘ *Oil Prices Below Zero*
- ⌘ *Kisan Rath App*
- ⌘ *Impact of Oil Price Crash and Covid-19 on Sugar*
- ⌘ *Food Crisis Amid Covid-19*
- ⌘ *International Financial Services Centres Authority*
- ⌘ *Final Report on National Infrastructure Pipeline*
- ⌘ *ESIC Funds*
- ⌘ *Centre Cuts Non-urea Fertiliser Subsidy*
- ⌘ *RBI's Liquidity Offer for Mutual Funds*

Measures to Deal with Economic Hardship

Why in News

Recently, prominent economists Amartya Sen, Raghuram Rajan and Abhijit Banerjee have raised concerns and also suggested measures to deal with economic hardships created by the **Covid-19 lockdown**.

Key Points

- ⌚ **Risk of Defiance of Lockdown Orders:** In the scenario of extended lockdown, a huge number of **people will be pushed into dire poverty or even starvation** by the combination of the **loss of their livelihoods** and **interruptions in the standard delivery mechanisms**.
 - ⦿ This opens up the risk of **large-scale defiance of lockdown orders**.
- ⌚ **Reassurance to People:** The government needs to reassure people that it does care and their minimum well-being will be secure. Moreover, the government has the resources to do this.
 - ⦿ The stocks of food at the **Food Corporation of India** stood at 77 million tons in March 2020, more than **three times the "buffer stock norms"**. This

is also likely to grow over the next few weeks as the **Rabi crop comes in**.

- ⌚ **Extend PDS Beyond 3 Months:** Although the government has offered a **supplementary Public Distribution System (PDS)** provision of **5 kg/person/month for the coming three months**. However, it is likely that three months will not be enough, since even if the lockdown ends soon, the process of reopening the economy will take time.
- ⌚ **Multidimensional Challenges:** The starvation is just one of the worries, the **unexpected loss of income and savings can have serious consequences**. For example:
 - ⦿ Farmers need money to buy seeds and fertilizer for the next planting season.
 - ⦿ Shopkeepers need to fill their shelves again.
 - ⦿ Many others have to repay the loan that is already due.
- ⌚ **Improvement Needed:** The government has partly recognized this in the **cash transfers it has promised to certain groups** under **Pradhan Mantri Garib Kalyan Package** but the amounts are both small and narrowly targeted.

Issues Involved

- ⌚ **Exclusionary PDS:** A substantial fraction (over 10 crore) of the poor are excluded from the **PDS rolls**, for one

Food Corporation of India

- ⌚ It is a **Public Sector Undertaking (PSU)**, under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- ⌚ It was established as a **statutory body** in 1965 under the **Food Corporations Act 1964**. It was established against the backdrop of a major shortage of grains, especially wheat.

Public Distribution System

- ⌚ It is an **Indian food Security System** established under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- ⌚ PDS evolved as a **system of management of scarcity** through distribution of food grains at affordable prices.
- ⌚ PDS is operated under the **joint responsibility of the Central and the State Governments**.
 - ⊙ The **Central Government**, through **Food Corporation of India (FCI)**, has assumed the responsibility for **procurement, storage, transportation and bulk allocation** of food grains to the State Governments.
 - ⊙ The **operational responsibilities** including allocation within the State, identification of eligible families, **issue of Ration Cards** and supervision of the functioning of Fair Price Shops (FPSs) etc., rest with the **State Governments**.
- ⌚ Under the PDS, presently the commodities namely **wheat, rice, sugar and kerosene** are being allocated to the States/UTs for distribution. Some States/UTs also distribute additional items of mass consumption through the PDS outlets such as pulses, edible oils, iodized salt, spices, etc.

reason or another (such as identification barriers to get a ration card), and the supplementary provision (of 5 kg/person/month for the coming three months) only applies to those who are already on it.

- ⌚ **Reliance on Outdated Data:** The exclusion in the Public Distribution System is because of **outdated 2011 census data** being used to calculate State-wise **National Food Security Act (NFSA) coverage**.
 - ⊙ Under the NFSA, the PDS is supposed to cover 75% of the population in rural areas and 50% of the population in urban areas, which **works out to 67% of the total population**, using the rural-urban population ratio in 2011.

- ⊙ India's population was about 121 crore in 2011 and so PDS covered approximately 80 crore people. However, applying the 67% ratio to a projected population of 137 crore for 2020, PDS coverage today should be around 92 crore.

- ⌚ **Issue of Pending Applications:** Many State governments are reluctant to issue new ration cards beyond the numbers that will be provided for by the Central quota.

- ⊙ For example, there are about seven lakh pending applications for ration cards in Jharkhand, because the State government stopped issuing new ration cards several years ago to avoid exceeding the numbers provided for by the Central government.

Way Forward

- ⌚ **Giving away some of the existing stock**, at a time of emergency created by Covid-19 would make perfect sense and it should not be portrayed as costly.
- ⌚ The government should **use every means** at its disposal to make sure that no one is starving. This includes:
 - ⊙ **Expanding** the PDS.
 - ⊙ Setting up **public canteens for migrants** and others who are away from home.
 - ⊙ Sending the **equivalent of the school meal to the homes** of the children who are now stuck at home (as Kerala is already doing).
 - ⊙ Making use of reputed local NGOs that often have a reach among the most marginalized that exceeds that of the government.
- ⌚ **Sending 5000 rupees to the Jan Dhan accounts** of the identified poor households. The poor can be identified by the idea of using the **MGNREGA** rolls from 2019, plus those covered by **Jan Arogya** and **Ujjwala Yojana**.
 - ⊙ **Issuing temporary ration cards**, perhaps for six months, with minimal checks to everyone who wants ration cards.

Rupee Slips Due to Covid-19

Why in News

The rupee slipped 17 paise against the dollar on 15th April, 2020, amid **heightened uncertainty over the economy** as the **Covid-19** pandemic continues to spread.

Key Points

- ⌚ The rupee closed at a record low of 76.44 against the dollar on 15th April, 2020. Rupee was 76.27 against dollar on the previous day.
- ⌚ However, **the dollar index** was trading 0.3% higher at 99.19.
 - ⊙ The **U.S. Dollar Index (USDIX)** is an index (or measure) of the value of the United States dollar relative to a basket of foreign currencies.
- ⌚ It can be noted that the rupee has **weakened about 7% against the dollar in 2020** and has hit a record intraday low of 76.55.
 - ⊙ This implies that the **rupee has become less valuable with respect to the dollar, implying depreciation** of the rupee.
- ⌚ According to some experts, the **Reserve Bank of India (RBI) has not intervened strongly in the market to stop rupee depreciation.**
 - ⊙ They expect the RBI to intervene once the rupee breaches the 77 to a dollar.
- ⌚ In its macroeconomic review, RBI had said if the rupee

depreciates 5% from the baseline (i.e. Rs 75 per dollar), inflation could rise by 20 basis points (bps) while the **Gross Domestic Product (GDP) growth could be higher by about 15 bps via increased net exports.**

Currency Depreciation

- ⌚ Currency depreciation is a **fall in the value of a currency in a floating exchange rate system.**
 - ⊙ In a floating exchange rate system, **market forces (based on demand and supply of a currency)** determine the value of a currency.
- ⌚ **Rupee depreciation** means that rupee has become **less valuable with respect to dollar.**
 - ⊙ It means that the rupee is now **weaker** than what it used to be earlier.
 - ⊙ **For example:** \$1 used to equal to Rs 70, now \$1 is equal to Rs 76, implying that the rupee has depreciated relative to the dollar i.e. it takes more rupees to purchase a dollar.
- ⌚ Some of the factors that influence the value of a currency:
 - ⊙ Inflation
 - ⊙ Interest rates
 - ⊙ Trade deficit

- ⊙ Macroeconomic policies
- ⊙ Equity market
- ⌚ Currency depreciation **increases a country's export activity as its products and services become cheaper to buy.**
- ⌚ The Reserve Bank of India intervenes in the currency market to support the rupee as a **weak domestic unit can increase a country's import bill.**
- ⌚ There are a **variety of methods** by which RBI intervenes:
 - ⊙ It can intervene directly in the currency market by **buying and selling dollars.**
 - ⌘ If the RBI wishes to increase the rupee value, then it can sell dollars and when it needs to bring down rupee value, it can buy dollars.
 - ⊙ The central bank can also influence the value of rupee by the way of **monetary policy.**
 - ⌘ RBI can adjust the **repo rate** (the rate at which RBI lends to banks) and the liquidity ratio (the portion of money banks are required to invest in government bonds) to control rupee.

Currency Exchange Rate Index

Why in News

- ⌚ The rupee has been losing value (or depreciating or weakening) against the dollar over the past few months.
- ⌚ The exchange rate of rupee is one of the markers to compare **Indian economy's competitiveness vis-a-vis other economies** (also amid Covid-19 outbreak).
- ⌚ **Another measure** for comparison is looking at the **growth rates of Gross Domestic Product (GDP) and Gross Value Added (GVA).**
- ⌚ **High-frequency data like sales of automobiles** etc. can also be used as a proxy to compare economies.

Key Points

- ⌚ **Exchange Rate**
 - ⊙ The **price of one currency in terms of the other** is known as the exchange rate.
 - ⊙ A currency's exchange rate vis-a-vis another currency reflects the relative demand among the holders of the two currencies.
 - ⊙ **For e.g.** If the US dollar is stronger than the rupee (implying value of dollar is higher with respect to

rupee), then it shows that the demand for dollars (by those holding rupee) is more than the demand for rupees (by those holding dollars).

- ⊙ This demand in turn **depends on the relative demand for the goods and services** of the two countries.

🕒 Index for Exchange Rate

- ⊙ Since a country interacts with many countries, it wants to **see the movement of the domestic currency relative to all other currencies in a single number** rather than by looking at bilateral rates.
- ⊙ That is, it would want an index for the exchange rate against other currencies, **just as it uses a price index (CPI or WPI)** to show how the prices of goods in general have changed.
- ⊙ The Reserve Bank of India tabulates the **rupee's Nominal Effective Exchange Rate (NEER)** in relation to the currencies of 36 trading partner countries.
 - ⌘ This is a **weighted index** — that is, countries with which India trades more are given a greater weight in the index.
 - ⌘ A **decrease** in this index denotes **depreciation in rupee's value** whereas an increase reflects appreciation.
- ⊙ There is one more measure that is even better at capturing the actual change. This is called the **Real Effective Exchange Rate (REER)** and is essentially an **improvement over the NEER** because it also **takes into account the domestic inflation in the various economies**.
- ⊙ The REER is the **weighted average of NEER adjusted by the ratio of domestic prices to foreign price**.

🕒 Impact of Inflation on Exchange Rate

- ⊙ **Many factors affect the exchange rate** between any two currencies ranging from the interest rates to political stability (less of either results in a weaker currency). Inflation is one of the most important factors.
- ⊙ **Illustration:** Imagine that the Rupee-Dollar exchange rate was exactly 1 in the first year. This means that with Rs 100, one could buy something that was priced at \$100 in the US. But suppose the Indian inflation is 20% and the US inflation is zero. Then, in the second year, an Indian would need Rs 120 to buy the same item priced at \$100, and the rupee's exchange rate would depreciate (reduce in value) to 1.20.

NOMINAL & REAL EFFECTIVE EXCHANGE RATES



🕒 Comparison between NEER and REER

- ⊙ As the chart shows, in **NEER terms**, the rupee has depreciated to its lowest level since November 2018. The rupee has been steadily losing value — **showing the Indian economy's reducing competitiveness** — since July 2019.
- ⊙ In **REER terms** also, the **rupee has depreciated** in March and fallen to its lowest level since September 2019.
- ⊙ The **difference** between trends of NEER and REER was **due to India's domestic retail inflation being lower relative to the other 36 countries**. As domestic inflation started rising, the REER, too, started depreciating like the NEER.

Note:

- 🕒 **Gross Domestic Product (GDP)** is a measure of economic activity in a country. It is the total value of a country's annual output of goods and services. It gives the economic output from the consumers' side.
- 🕒 **Gross Value Added (GVA)** is the sum of a country's GDP and net of subsidies and taxes in the economy. It provides the rupee value for the amount of goods and services produced in an economy after deducting the cost of inputs and raw materials that have gone into the production of those goods and services.

Sovereign Gold Bonds

Why in News

The Government of India (GoI), in consultation with the **Reserve Bank of India (RBI)**, has decided to issue

Sovereign Gold Bonds (SGBs) in six installments, from April 2020 to September 2020.

- ⌚ This series of government-run gold bonds, the **Sovereign Gold Bond 2020-21 scheme**, comes at a time when the **rapidspread of the deadly coronavirus (Covid-19)** has **disturbed the financial markets** around the globe **but increased the appeal of the yellow metal (gold) as a safe-haven**.

Key Points

- ⌚ **Sovereign gold bonds**
 - ⊙ Sovereign gold bonds are **issued by the RBI on behalf of the government**. They are **government securities denominated in grams of gold**. They are **substitutes for holding physical gold**.
 - ⊙ The sovereign gold bond scheme was launched in November 2015. Its **objective** is to reduce the demand for physical gold and shift a part of the domestic savings (used for the purchase of gold) into financial savings.
 - ⊙ **Buy and Sale:** Investors have to pay the issue price in cash and the bonds will be redeemed (bought back by the issuer) in cash on maturity.
 - * Issue price is the price at which bonds are offered for sale when they first become available to the public.
 - ⊙ Apart from having a chance to gain from the **rise in gold prices at the time of redemption (capital gain)**, the investor gets a **fixed rate of interest** on the investment amount throughout the tenure of the fund.
 - * The government will pay an interest at the rate of **2.5% per annum**. The interest is payable **semi-annually**.
 - ⊙ **Tenure:** Sovereign gold bonds have a **tenure of eight years, with exit options are available from the fifth year**.
 - ⊙ **Eligibility:** The Bonds will be restricted for sale to resident individuals, Hindu Undivided Families (HUFs), Trusts, Universities and Charitable Institutions.
 - * The **minimum permissible investment unit is 1 gram of gold**.
- ⌚ **Channels to buy bonds:**
 - ⊙ Investors can buy these bonds through **designated scheduled commercial banks (except Small Finance Banks and Payment Banks), Stock Holding**

Corporation of India Limited and designated post offices.

- ⊙ One can also buy these bonds through **National Stock Exchange of India Limited and Bombay Stock Exchange (BSE) Limited**.
- ⌚ **Advantages of investing in gold bond:**
 - ⊙ For investors it is advisable to invest in gold for portfolio diversification.
 - ⊙ Sovereign gold bonds are considered one of the better ways of investing in gold as **along with capital appreciation an investor gets a fixed rate of interest**.
 - ⊙ Apart from this, it is **tax efficient as no capital gains is charged in case of redemption on maturity**.
 - ⊙ Sovereign gold bonds are a good way to ensure an investment that does **not need physical storage of gold**.
- ⌚ **Disadvantages of sovereign gold bonds**
 - ⊙ This is a **long term investment unlike physical gold which can be sold immediately**.
 - ⊙ Sovereign gold bonds are listed on exchange but the **trading volumes are not high, therefore it will be difficult to exit before maturity**.

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.**

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

- ⌚ It 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

- ⌚ It is a statutory organization that was established on 9th July, 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.
- ⌚ However, 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.

RBI to Restart Operation Twist

Why in News

The Reserve Bank Of India (RBI) has decided to conduct **simultaneous purchase and sale of government securities under Open Market Operations (OMO)** for 10,000 crore each on April 27, 2020 considering the current and evolving liquidity and market conditions.

- ⌚ Such Open Market Operations are known as 'Operation Twist,' which was used by the RBI in December, 2019 for the first time.

Key Points

- ⌚ Operation Twist is the RBI's simultaneous **selling of short-term securities and buying of long term securities** through Open Market Operations (OMO) in order to **bring down long-term interest rates and bolster short-term rates**.
- ⊙ Operation Twist **was first used in 1961 by the US Federal Reserve** (central bank) as a way to strengthen the U.S. dollar and stimulate cash flow into the economy.
- ⌚ Under this mechanism, **the short-term securities are transitioned into long-term securities**.
- ⌚ **Impact of Operation Twist:**
 - ⊙ As the central bank **buys long-term securities (bonds)**, their demand rises which in turn **pushes up their prices**.
 - ⊙ However, the **bond yield comes down** with an increase in prices (**inverse relationship**).

holding/investment.

- ⊙ The interest rate in an economy is determined by yield. If yield is low, interest rates decrease.
- ⊙ Thus, lower long-term interest rates mean people can **avail long-term loans** (such as buying houses, cars or financing projects) **at lower rates**.

- ⊙ This will lead to a **boost in consumption and spending** in the economy which in turn will revive the growth.

Government Security

- ⌚ A G-Sec is a **tradable instrument** issued by the **Central Government or the State Governments**.
- ⌚ It acknowledges the Government's debt obligation. Such securities are:

- ⊙ Short term securities

- ⊗ They are usually called **treasury bills**, with original **maturities of less than one year**—presently issued in three tenors, namely, 91 day, 182 day and 364 day.

- ⊙ Long term securities

- ⊗ They are usually called **Government bonds or dated securities** with original maturity of **one year or more**.

- ⌚ In India, the **Central Government issues both treasury bills and bonds or dated securities** while the **State Governments issue only bonds or dated securities**, which are called the State Development Loans (SDLs).

- ⌚ G-Secs carry practically **no risk of default** and, hence, are called **risk-free gilt-edged instruments**.

Open Market Operations

- ⌚ Open Market Operations (OMO) is one of the **quantitative** monetary policy tools which is **employed by the central bank of a country to control the money supply in the economy**.

- ⊙ Other monetary policy tools are such as repo rate, cash reserve ratio and statutory liquidity ratio, etc.

- ⌚ OMOs are conducted by the RBI by way of **sale or purchase of government securities (g-secs) to adjust money supply conditions**.

- ⊙ RBI carries out the OMO **through commercial banks** and does not directly deal with the public. The central bank **sells g-secs to remove liquidity** from the system and **buys back g-secs to infuse liquidity** into the system.

WMA Borrowings of States

Why in News

Recently, states like Kerala, Punjab and Bihar have said that the **Reserve Bank of India's (RBI)** decision to allow 60% higher borrowing under **Ways and Means Advances (WMA)** compared 30th March 2020 limit, is inadequate given the mounting expenses of states to counter the **Covid-19 pandemic**.

Key Points

- ⌚ The states welcomed the **RBI move to allow 60% higher borrowing under Ways and Means Advances**

(WMA), but said it is a temporary relief and will have only a marginal impact upon the fiscal crisis the states are facing.

- ⌚ They are saying that they **can not go long for ways and means** and **have to slash their expenditure** to a large extent because they do not have many avenues left for revenue augmentation.
 - ⊙ They said banks are not willing to lend for the long term large amounts of money because of their **liquidity preference**.
- ⌚ They demanded from the Central government to **raise the fiscal borrowing** limits of states currently capped at 3% of the GSDP (**Gross State Domestic Product**) under the **Fiscal Responsibility and Budget Management (FRBM) Act**.
- ⌚ The Centre can invoke **Section 5(3)** of Fiscal Responsibility and Budget Management Act, 2003 which allows the RBI to “**subscribe to the primary issues of Central Government securities**” under very specific grounds.
 - ⊙ Those cover, among other things, “**act of war**” and “**national calamity**”.
- ⌚ The RBI can also undertake increased **secondary market purchases** and **sales of Central as well as state government securities**.

Ways and Means Advances

- ⌚ The WMA are **short-term loan facilities** which allow the **Centre and states** to borrow funds from the **RBI** to bridge their **temporary mismatch** between expenditure and receipts.
- ⌚ The interest rate on WMA is the **RBI’s repo rate**.
 - ⊙ **Repo rate** is basically the rate at which RBI lends short-term money to banks.
- ⌚ The WMA loans have a **three-month tenure**.
- ⌚ States are allowed an **overdraft facility** (to borrow in excess of WMA limit) **of 21 days**.

Fiscal Responsibility and Budget Management Act, 2003

- ⌚ It was enacted by the Parliament in 2003 to institutionalize fiscal discipline, reduce fiscal deficit, and improve macroeconomic management.
- ⌚ The government was supposed to wipe out revenue deficit and cut fiscal deficit to 3% of GDP by 2008-09, thus bringing much needed fiscal discipline.

- ⊙ **Fiscal deficit** is the total expenditure excluding revenue receipts, loan recoveries and receipts from disinvestment etc. It is a measure of the government borrowing in a year.

- ⌚ The Act applies only to the central government and the **States have to enact suitable legislation to adopt the rules under the FRBM Act**.
- ⌚ The implementation of the Act was **put on hold in 2007-08** due to the global financial crisis and the need for fiscal stimulus.
- ⌚ In 2012, the FRBM Act was amended and it was decided that the FRBM Act would target an effective revenue deficit in place of revenue deficit.
 - ⊙ **Effective revenue deficit** excludes capital expenditure from revenue deficit and thus provides space to the government to spend on formation of capital assets.
- ⌚ In 2017, the **FRBM Review Committee** headed by former Revenue Secretary, **NK Singh** submitted its report to the Central Government. Few important recommendations being-
 - ⊙ A debt to GDP ratio of 60% should be targeted with a 40% limit for the centre and 20% limit for the states;
 - ⊙ Creation of an autonomous Fiscal Council;
 - ⊙ An “escape clause”, i.e. the government can deviate from the targets in case of a national calamity, national security, etc.
 - ⌘ The government **used an escape route** in its Budget for FY20, by taking a deviation of 0.5 percentage points from the fiscal deficit targets set out earlier.

Direct Monetisation

Why in News

The government’s (both centre and state) **fiscal deficit** is expected to **shoot up to around 15% of Gross Domestic Product (GDP)** when the **permissible limit is only 6%** according to **Fiscal Responsibility and Budget Management (FRBM)** obligations.

- ⌚ The **possibility of direct monetisation** to alleviate the stress is being explored.

Key Points

- ⌚ **Fiscal Deficit:**

- ⊙ Fiscal deficit is the **total amount of borrowings required** to bridge the gap between government's spending and revenues.
- ⊙ The borrowings can be from the internal sources (public, commercial banks, central bank etc.) or the external sources (foreign governments, international organisations etc.).
- ⊙ At this time, for the government to borrow the money, the market should have it as savings.
 - ⊗ Data show that savings of **domestic households** have been faltering and are **not enough to fund the government's existing borrowing needs.**
 - ⊗ **Foreign investors have been pulling out** and moving to "safer" economies like the US, and are unwilling to lend in times of such uncertainty.
- ⌚ **Ideal limit for government debt:**
 - ⊙ According to economists developing economies like India **should not have debt higher than 80%-90% of the GDP.** At present, it is around 70% of GDP in India.
 - ⊙ The government should commit to a predetermined amount of **additional borrowing and to reversing the action** once the crisis (Covid-19 outbreak) is over.
- ⌚ **Direct monetisation (borrowing from the RBI):**
 - ⊙ In direct monetisation, the government asks RBI to **print new currency in return for new bonds** that the government gives to the RBI.
 - ⊙ **In lieu of printing new cash**, which is a liability for the RBI (since, every currency note has the RBI Governor promising to pay the bearer the designated sum of rupees), it gets government bonds, which are an asset for the RBI since such bonds carry **the government's promise to pay back the designated sum at a specified date.**
 - ⊙ Now, the **government would have the cash to spend and alleviate the stress** in the economy via direct benefit transfers to the poor or starting construction of a hospital or providing wage subsidy to workers of small and medium enterprises etc.
 - ⊙ This is different from the "**indirect**" monetisation that RBI does when it conducts the **Open Market Operations (OMOs) and/ or purchases bonds** in the secondary market.
- ⌚ **Direct Monetisation by other countries in the wake of Covid-19:**
 - ⊙ In the United Kingdom (UK) on April 9, 2020 the

Bank of England extended direct monetisation facility to the UK government.

- ⌚ **Problems with direct monetisation of government deficit:**
 - ⊙ **High Inflation**
 - ⊗ Ideally, the direct monetisation provides an opportunity for the government to **boost overall demand at the time when private demand has fallen.**
 - ⊗ Thus, it **fuels inflation.** A little increase in inflation is healthy as it encourages business activity.
 - ⊗ However, **higher inflation and higher government debt** provide grounds for **macroeconomic instability.**
 - ⊙ **Inefficient Spending:** The governments are considered **inefficient and corrupt** in their spending choices— for example, whom to help and to what extent.
 - ⊙ **Crisis in the Past:** Earlier, the direct monetisation led to the **balance of payments crisis** in 1991, and a near-crisis in 2013.
 - ⊗ Until 1997, the RBI "automatically" monetised the government's deficit.
 - ⊗ In 1994, Manmohan Singh (then Finance Minister) and C Rangarajan, then RBI Governor, decided to end this facility by 1997.

India's New FDI Norms Violate WTO: China

Why in News

Recently, China has accused India of violating the **World Trade Organization (WTO)** "principle of non-discrimination" after the **India tweaked its Foreign Direct Investment (FDI) policy** to make its **approval mandatory for firms in neighbouring countries** to invest in Indian companies.

- ⌚ **India tweaked its FDI policy, 2017** days after China's central bank, the People's Bank of China (PBoC), **raised its shareholding in Housing Development Finance Corporation (HDFC) to over 1%** during the recent stock market slump.

Key Points

- ⌚ **China's Stand:** The **additional barriers** for investors from **neighbouring countries violate WTO's principle**

of non-discrimination, and go against the general trend of liberalization and facilitation of trade and investment.

- ⊙ India's decision **do not conform to the consensus of G20 leaders and trade ministers** to realize a free, fair, non-discriminatory, transparent, predictable, and stable trade and investment environment, and to keep markets open.
- ⊙ The **principle of non-discrimination** stipulates that a member **shall not discriminate between products from different trading partners** (giving them equally "**most favoured-nation**" or MFN status); and between its own and foreign products.
- ⌚ **India's Stand: The amendments are not prohibiting investments**, It has just **changed the approval route** for these investments. There are **many sectors** in India that are already subject to this approval route.
- ⊙ India said countries like **Germany, Australia and Spain** have also tightened their foreign investment policies to **prevent hostile takeovers by overseas investors**.
- ⊙ India's move is seen as **checking "opportunistic takeovers"** of Indian firms hit by the ongoing Covid outbreak and lockdown.

Issues Involved

- ⌚ India's new amendments to foreign investment **do not apply to all countries** but just those which **share borders with India**.
- ⌚ There will be **different sets of procedures for the same set of investments** based on which country the company is investing from.
- ⌚ The government could have adopted a more nuanced approach. E.g.
 - ⊙ **Greenfield investments** should have been kept out of the purview as they do not pose a threat of takeover of existing business; to the contrary, they create new capacities and businesses in the country.
 - ⊙ A distinction should also have been made based on the **class of investors**: venture capital funds are financial investors who may not necessarily be interested in taking over and running a business.
- ⌚ While the FDI route has been plugged, it is not clear what happens to investments that **come through the market route**.

- ⌚ Investments that are through entities **registered in countries that do not share a land border** with India but which may trace their **beneficial ownership to China**.

Foreign direct investment

- ⌚ It is an investment from a party in one country into a business or corporation in another country with the intention of **establishing a lasting interest**.
- ⌚ Lasting interest differentiates **FDI** from **foreign portfolio investments**, where investors passively hold securities from a foreign country.
- ⌚ Foreign direct investment can be made by expanding one's business into a foreign country or by becoming the owner of a company in another country.
- ⌚ **China's FDI in India**
 - ⊙ China's FDI has grown five-fold since 2014 and as of December 2019, its cumulative investment in India has exceeded \$8 billion.
 - ⊙ A Brookings India paper pegs the total current and planned Chinese investment in India as being over \$26 billion.

Commodity Markets Outlook: World Bank

Why in News

According to the **World Bank's April 2020 Commodity Markets Outlook**, **Covid-19** is expected to **bring most commodity prices down** substantially in 2020.

- ⌚ However, it also says that the outlooks are "**exceptionally uncertain**" and depend on the severity and duration of the pandemic and when mitigation measures are taken.

Key Points

- ⌚ **Worst Hit:**
 - ⊙ **Energy and metals commodities** are the most affected by the sudden stop to economic activity and the serious global slowdown that is anticipated.
 - ⊙ Commodities associated with **transportation, including oil**, have experienced the steepest declines.
- ⌚ **Agricultural prices** are likely to **stay broadly stable in 2020** because of relatively stable demand and all-time high levels of staple production and stock.

- ⊙ However, **supply chain disruptions** and government steps to restrict exports or stockpile commodities raise concerns that **food security may be at risk** in places.
- ⌚ **Gold prices were up 6.9%** in the last quarter (January-March, 2020) – its **sixth consecutive quarterly rise**.
- ⊙ The **strong investor demand** propped gold up despite weak jewelry demand in India and China.
- ⌚ **Oil Prices:** These are expected to average at \$35 per barrel in 2020.
 - ⊙ The decline in crude oil prices has been exacerbated by **uncertainty around production agreements among the Organization of the Petroleum Exporting Countries (OPEC) and other oil producers**.
- ⌚ **Impact on Importers and Exporters:** They are likely to see some long-term shifts in their markets due to the pandemic. These include
 - ⊙ **Increasing transport costs** due to enhanced border checks and thus **impact on supply chains**.
 - ⊙ **Substituting for imports with domestic goods:** Companies might prefer to source from closer by for instance.
- ⌚ **Other Observations: Changing consumer behaviour**, for instance, people may choose to work remotely, travel less, and this could impact permanent drops in demand for oil, **favourably impacting the accounts for oil importers**.
 - ⊙ The reduction in emissions of the harmful gases caused by the restrictions **may also increase public pressure for greener transport and lowered fossil fuel use**.

Commodity Markets Outlook

- ⌚ It provides **market analysis for major commodity groups** – energy, metals, agriculture, precious metals, and fertilizers.
- ⌚ The report forecasts **prices for 46 key commodities**, including oil.
- ⌚ It is **published by the World Bank in April and October**.

Impact of Covid-19 on Remittance: WB

Why in News

Recently, the **World Bank** released a report on the **impact of Covid-19 on migration and remittances**.

Key Points

- ⌚ According to the report, **India's remittances** are projected to fall by **about 23 %** in 2020.
- ⌚ **Globally remittances** are projected to decline by about **20 %** in 2020.
- ⌚ The projected **fall is largely due to a fall in the wages and employment of migrant workers** due to the recession caused by the Covid-19 pandemic.
 - ⊙ The migrant workers are vulnerable to loss of employment and wages during an economic crisis in a host country.
- ⌚ The **sharp decline in crude prices will also hurt remittances from oil-producing countries** such as Saudi Arabia and the United Arab Emirates.
- ⌚ This will lead to **loss of income for expatriate Indians working** in the Gulf and elsewhere across the world.

Remittance

- ⌚ A remittance is **money sent to another party, usually one in another country**.
- ⌚ The sender is typically an immigrant and the recipient a relative back home.
- ⌚ Remittances represent one of the **largest sources of income for people in low-income and developing nations**. It often exceeds the amount of direct investment and official development assistance.
- ⌚ Remittances **help families afford food, healthcare, and basic needs**.
- ⌚ **India is the world's biggest recipient of remittances**. Remittances bolsters **India's foreign exchange reserves** and helps fund its **current account deficit**.

World Bank

- ⌚ **The Bretton Woods Conference** held in 1944, created the **International Bank for Reconstruction and Development (IBRD)** along with the **International Monetary Fund (IMF)**.
- ⌚ The IBRD later became the **World Bank**.
- ⌚ The World Bank Group is a unique global partnership of five institutions working for **sustainable solutions** that **reduce poverty** and build shared prosperity in **developing countries**.
- ⌚ It has 189 member countries.
- ⌚ Few **important reports** released by the World Bank are:
 - ⊙ **Ease of Doing Business**,

- ⊙ **Human Capital Index** and
- ⊙ **World Development Report**
- ⌚ The five development institutions of the World Bank are.
 - ⊙ **International Bank for Reconstruction and Development (IBRD)**: provides loans, credits, and grants.
 - ⊙ **International Development Association (IDA)**: provides low-or-no-interest loans to low-income countries.
 - ⊙ **International Finance Corporation (IFC)**: provides investment, advice, and asset management to companies and governments.
 - ⊙ **Multilateral Guarantee Agency (MIGA)**: insures lenders and investors against political risks such as war.
 - ⊙ **International Centre for the Settlement of Investment Disputes (ICSID)**: settles investment-disputes between investors and countries.

Special Drawing Rights: IMF

Why in News

Recently, the Finance Minister of India opposed a general allocation of new **Special Drawing Rights (SDR)** by the **International Monetary Fund (IMF)** because it might not be effective in easing **Covid-19** driven financial pressures.

- ⌚ The Finance Minister was concerned that such a major liquidity injection could **produce potentially costly side-effects** if countries used the funds for irrelevant purposes.
- ⌚ The new SDR allocation will provide all 189 members with **new foreign exchange reserves with no conditions**.

Key Points

- ⌚ The SDR is **neither a currency nor a claim on the IMF**. Rather, it is a potential claim on the freely usable currencies of IMF members. **SDRs can be exchanged for these currencies**.
- ⌚ The SDR serves as the **unit of account of the IMF** and some other international organizations.
- ⌚ The **currency value** of the SDR is determined by **summing the values in U.S. dollars**, based on market exchange rates, of a SDR basket of currencies.

- ⌚ The **SDR basket of currencies** includes the **U.S. dollar, Euro, Japanese yen, pound sterling and the Chinese renminbi** (included in 2016).
- ⌚ The SDR currency value is calculated daily (except on IMF holidays or whenever the IMF is closed for business) and the valuation basket is reviewed and adjusted every five years.
- ⌚ **Quota** (the amount contributed to the IMF) of a country is denominated (expressed) in SDRs.
 - ⊙ Members' **voting power** is related directly to their **quotas**.
- ⌚ **India's Foreign exchange reserves** also incorporate SDR.
 - ⊙ The Foreign exchange reserves of India also includes foreign currency assets, gold reserves and Reserve Tranche in the IMF.

Oil Prices Below Zero

Why in News

Recently, the prices of **West Texas Intermediate (WTI)**, the **best quality of crude oil** in the world, **fell to minus \$40.32 a barrel** in interlay trade in **New York (the USA)**.

- ⌚ It means that the seller of crude oil would be paying the buyer \$40 for each barrel that is bought.
- ⌚ It is the **lowest crude oil price ever recorded** below the zero mark while the **previous lowest** was recorded **immediately after World War II (WWII)**.

Oil Pricing

- ⌚ Generally the **Organization of the Petroleum Exporting Countries (OPEC)** used to **work as a cartel and fix prices** in a favourable band.
 - ⊙ OPEC is **led by Saudi Arabia**, which is the **largest exporter of crude oil in the world (single-handedly exporting 10% of the global demand)**.
 - ⊙ It could bring down prices by increasing oil production and raise prices by cutting production.
- ⌚ The global oil pricing mainly **depends upon the partnership between the global oil exporters** instead of well-functioning competition.
- ⌚ **Cutting oil production** or **completely shutting down** an oil well is a difficult decision, because **restarting** it is immensely **costly and complicated**.
 - ⊙ Moreover, if a country cuts production, it **risks losing market share** if other countries do not follow the suit.

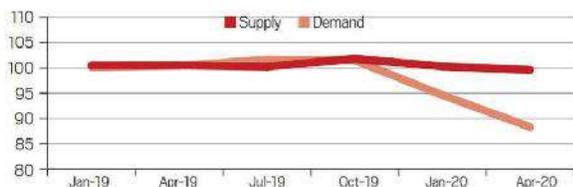
- Recently, OPEC has been working with **Russia**, as **OPEC+** to fix the global prices and supply.

Reasons for Price Fall

- Crude oil prices were **already falling before the global lockdown** due to the **higher supply and lower demand**.
 - They were close to \$60 a barrel at the start of 2020 and, by March-end, they were closer to \$20 a barrel.

TOO MUCH SUPPLY, FALLING PRICES

Chart 1: Liquid fuels produced and consumed worldwide (in million barrels per day)



- Problems arose when **Saudi Arabia and Russia disagreed over the production cuts**, required to keep prices stable.
 - Consequently, Saudi Arabia led oil-exporting countries started **undercutting each other on price while producing the same quantities of oil**.
 - This strategy was **unsustainable** on its own and the global spread of **Covid-19 made it even worse** as it sharply **reduced the economic activity and the oil-demand**.
- Oil-exporting countries decided to **cut production by 10 million barrels a day (the highest production cuts)** and yet the demand for oil was reducing even further.
 - This **supply demand mismatch** resulted in **exhausted storage capacities**.
- It is important to highlight that the **US became the largest producer of crude oil in 2018** and the current US President has been pushing for **higher oil prices** instead of making efforts for lower prices like the previous US Presidents.
- The oil prices started falling steeply because the **May contracts for WTI were due to expire on 21st April, 2020** which posed **huge challenges** for both the **oil producers and the consumers (contractors/ buyers)**.
 - Producers:** They started selling the oil at unbelievably low prices because **shutting production would have been costlier to restart when compared to the marginal loss on May sales**.

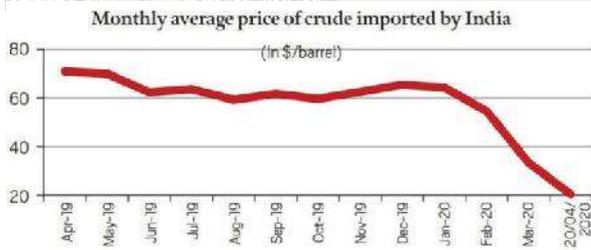
- Consumers:** They were facing the **problem of storage**. There is no space to store the oil even if they decided to buy and take the delivery.
 - Accepting the oil delivery, paying for the transportation and storage would have been costlier than the hit on contract price.
- In the short term, for both the holders of the delivery contract and the oil producers, it was less costly to pay \$40 a barrel and get rid of the oil instead of storing it (consumers/buyers) or stopping production (producers). So this led to the **negative WTI oil contract prices**.

Future of Oil Prices

- It was the **WTI price for May in the US markets** that went **so low**. Crude oil prices at **other places fell but not too much**.
- Prices for **June and the coming months** are pegged **between \$20 and \$35 a barrel**.
- Investment budgets of exploration and production companies** are **expected to drop** because of the **low shale oil prices**.
- Normally, this should force oil exporting countries to **cut back production and negate the excess supply, restoring balance** in the oil markets but the possibility of recent events from happening again cannot be ruled out.
- Eventually, it would be the **demand-supply mismatch** (adjusted for how much can be stored away) that will **decide the fate of oil prices**.

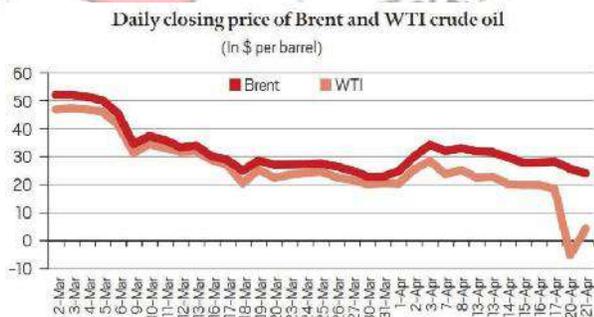
Impact on India

- There is **no direct impact** on India because Indian crude oil basket does not comprise WTI and it **only has Brent and oil from some of the Gulf countries**.
 - However, the **weakness in WTI reflects on the falling prices** of Indian basket as well because **oil is traded globally** and has **indirect impacts**.
- The lower price can be **beneficial for India in two ways**:
 - For Individuals:** If the government passes on the **lower prices to consumers**, then **individual consumption will be boosted** whenever the **economic recovery** starts in India.
 - For Governments:** If both, central and the state, governments decide to **levy higher taxes** on oil, it can **boost government revenues**.



Difference between Brent and WTI

- ⌚ **Brent crude oil** originates from oil fields in the **North Sea** between the Shetland Islands and Norway, while **West Texas Intermediate (WTI)** is sourced from **US oil fields**, primarily in Texas, Louisiana, and North Dakota.
- ⌚ **WTI with a lower sulphur content (0.24%)** than **Brent (0.37%)**, is considered “**sweeter**”.
- ⌚ Both oils are **relatively light**, but Brent has a slightly higher API gravity, making WTI the lighter of the two.
 - ⌚ **American Petroleum Institute (API) gravity** is an indicator of the density of crude oil or refined products.
- ⌚ **Brent crude price** is the international benchmark price used by the **OPEC** while **WTI crude price** is a benchmark for **US oil prices**.
 - ⌚ Since **India imports primarily from OPEC** countries, Brent is the benchmark for oil prices in India.
- ⌚ **Cost of shipping for Brent** crude is typically **lower**, since it is **produced near the sea** and it can be put on ships immediately. Shipping of WTI is priced higher since it is produced in landlocked areas like Cushing, Oklahoma where the storage facilities are limited.



Kisan Rath App

The **Ministry of Agriculture & Farmers Welfare** has launched ‘**Kisan Rath**’ mobile application (app) to facilitate

transportation of foodgrains and perishable during lockdown.

- ⌚ The application has been developed by the **National Informatics Centre -NIC** (backed by the **Ministry of Electronics and Information Technology**).
- ⌚ It will be **available in eight languages** initially, including english and hindi.

Key Points

- ⌚ The app is expected to **connect farmers and traders to a network of more than 5 lakh trucks** and 20,000 tractors.
- ⌚ It is meant to **help farmers and traders who are searching for vehicles to move produce**. This includes:
 - ⌚ **Primary transport** from the farm to the mandis, local warehouses or the collection centres of **farmer producer organisations**.
 - ⌚ **Secondary transport** from the local mandis to intra-and inter-State mandis, processing units, railway stations, warehouses or wholesalers.
- ⌚ The **Government has granted relaxation in the nationwide lockdown for activities related to agriculture-farming** and allied activities with a view to address problems being faced by the farming community.
- ⌚ The app will be a stepping stone towards provision of **timely transportation service at competitive rates** for farmers and traders, besides achieving a **reduction in food wastage**.
 - ⌚ This will help in ensuring **better prices of the produce to farmers**.

Impact of Oil Price Crash and Covid-19 on Sugar

Why in News

Recently, the prices of raw sugar for May delivery in New York crashed to 9.75 cents/pound, the lowest since June, 2008.

- ⌚ Earlier, the oil **prices of West Texas Intermediate grade crude fell** to an unprecedented minus \$40.32/ barrel in interlay trade in New York (the USA).

Key Points

- ⌚ **Impact of Covid-19 lockdown on Sugar:** Subdued economic activity and lockdowns imposed by many

countries to combat the **Covid-19** pandemic has **reduced the demand** of many commodities including sugar.

- ⌚ **Impact of crude oil prices on production of Sugar:** Usually, when oil prices are high, **mills (especially in Brazil) tend to divert cane for making ethanol** (alcohol of 99%-plus purity) that is used for blending with petrol.
 - ⦿ With recent fall in oil prices, **mills will not find it attractive to divert cane for ethanol.** The juice from crushing sugarcane can be crystallised into sugar or fermented into ethanol.

Challenges/ Issues

- ⌚ **Impact of low demand in sugar and low oil prices on India:** Dip in sugar consumption, together with higher Brazilian output, is bad news for both **Indian sugar mills and cane farmers.**
 - ⦿ **Excess stocks** of sugar due to low demand and high dumping from Brazil will add to the woes of both farmers and industries.
- ⌚ **India is already grappling with high dues to farmers** by the sugar industry.
 - ⦿ **Slow down in exports and not much domestic lifting** of sugar by institutional consumers has significantly undermined the ability of mills to make cane payments.
- ⌚ **Reduced offtake of alcohol:** The lockdown has also **reduced offtake of alcohol**, be it potable liquor or ethanol for blending with petrol.

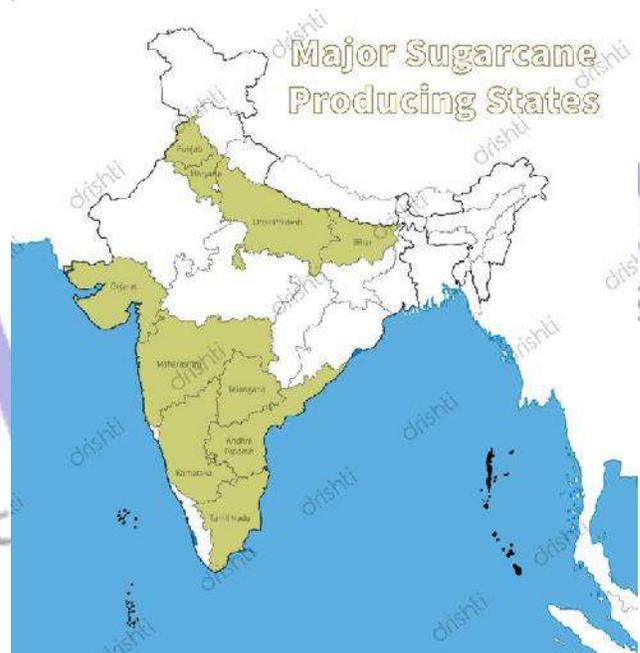
Scope of Opportunity

- ⌚ India can supply sugar to **Indonesia's increased import requirements.**
 - ⦿ **Higher Import Projections:** Indonesian refiners are projected to import 3.3 mt of raws this year, up from 2.6 mt in 2019.
 - ⦿ **Absence of Alternatives:** Indonesia buys mostly from Thailand, which is experiencing a bad drought that could lead to its production falling.
 - ⦿ **Reduced Duty:** Indonesia also slashed the duty on Indian raw sugar from 15% to 5% in March.

Sugarcane Cultivation

- ⌚ **Temperature:** Between 21-27°C with hot and humid climate.

- ⌚ **Rainfall:** Around 75-100 cm.
- ⌚ **Soil Type:** Deep rich loamy soil. It can be grown on all varieties of soils ranging from **sandy loam to clay loam** given these soils should be **well drained.**
- ⌚ **Yield:** The **yield of sugarcane is high in southern states** compared to northern states because of favourable climatic conditions, i.e dry weather with low humidity, bright sunshine hours, cooler nights with wide diurnal variations and very little rainfall during ripening period.
- ⌚ **Top Sugarcane Producing States:** Uttar Pradesh > Maharashtra > Karnataka > Tamil Nadu > Bihar.
- ⌚ India is the **second largest producer of sugarcane after Brazil.**



- ⌚ It needs manual labour from sowing to harvesting.
- ⌚ It is the main source of **sugar, gur (jaggery), khandsari and molasses.**
- ⌚ **Scheme for Extending Financial Assistance to Sugar Undertakings (SEFASU) and National Policy on Biofuels** are two of the government initiatives to support sugarcane production and the sugar industry.

Food Crisis Amid Covid-19

Why in News

According to the **United Nations' World Food Programme (WFP)**, the **number of people facing acute**

food insecurity could nearly double to 265 million in 2020 due to the economic fallout of Covid-19.

- ⌚ **Acute food insecurity** is any manifestation of food insecurity at a specific point in time of a severity that threatens lives, livelihoods or both, regardless of the causes, context or duration.

Key Points

- ⌚ **Global Report on Food Crisis 2020**
 - ⊙ This report was highlighted to show links between conflict and rising levels of acute food insecurity.
 - ⊙ **135 million people** in 55 countries experienced acute food insecurity in **2019** nearly 60% of whom lived in conflict or instability.
 - ⊙ **Yemen will see the world's worst food and malnutrition crisis in 2020** as the number of acutely food-insecure people there is "expected to exceed 17 million".
 - ⊙ The report is produced by the **Global Network against Food Crises**, an international alliance working to address the root causes of extreme hunger.
- ⌚ **Covid-19 Effect**
 - ⊙ An **additional 130 million** are on the edge of starvation prompted by Coronavirus. Added with 135 million, the number rises to 265 million in 2020.
 - ⊙ **Reasons:** The impact of **lost tourism revenues, falling remittances, unemployment, under-employment, shutdown of many factories and travel and other restrictions** linked to the coronavirus pandemic.
- ⌚ **Suggestions**
 - ⊙ Swift and unimpeded humanitarian access to vulnerable communities.
 - ⊙ To set up a network of logistics hubs to keep worldwide humanitarian supply chains moving.
 - ⊙ Strengthening food security systems.

UN World Food Programme

- ⌚ World Food Programme (WFP) is the leading humanitarian organization saving lives and changing lives, delivering food assistance in emergencies and working with communities to improve nutrition and build resilience.
- ⌚ The WFP was **established in 1963** by the FAO (Food and Agriculture Organization) and the United Nations General Assembly.

India's Step in Ensuring Food Security

- ⌚ The Union Agriculture Minister participated in an Extraordinary virtual meeting of **G-20** Agriculture Ministers to address the issue of Covid-19 impacts on food security, safety and nutrition.
 - ⊙ The G-20 Agriculture Ministers virtual meeting was **organized** through video conferencing **by the Saudi Presidency**.
 - ⊙ The G-20 nations resolved to have **international cooperation** in the backdrop of the Covid-19 pandemic, to avoid food wastages and losses, **maintain the continuity of the food supply value chain** across borders.
 - ⊙ They also resolved to work together for food security and nutrition, share best practices and lessons learnt, promote research, responsible investments, innovations and reforms that will improve the sustainability and resilience of agriculture and food systems.
 - ⊙ Agreed to **develop science based international guidelines on stricter safety and hygienic measures for zoonosis control**.
- ⌚ The **Government of India has exempted all agriculture operations during the lockdown period** and ensured continued availability of essential agriculture produce and supply, while adhering to protocol of social distancing, health and hygiene.

International Financial Services Centres Authority

Why in News

The central government has established **International Financial Services Centres Authority** to regulate all financial services in International Financial Services Centres (IFSCs) with headquarters in **Gandhinagar (Gujarat)**.

Key Points

- ⌚ **Functions:**
 - ⊙ The authority will **regulate financial products** such as securities, deposits or contracts of insurance, financial services, and financial institutions which have been **previously approved by any appropriate regulator such as Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI)** etc., in an IFSC.

- ⊙ It will also regulate any other financial products, financial services, or financial institutions in an IFSC, which may be **notified by the central government**.
- ⊙ It may also **recommend to the central government** any other financial products, financial services, or financial institutions, which may be permitted in an IFSC.
- 🕒 **Members:**
 - ⊙ The International Financial Services Centres Authority will consist of **nine members, appointed by the central government**.
 - ⊙ They will include **chairperson** of the authority, **a member each from the RBI, SEBI, the Insurance Regulatory and Development Authority of India (IRDAI), and the Pension Fund Regulatory and Development Authority (PFRDA)**; and **two members from the Ministry of Finance**. In addition, two other members will be appointed on the **recommendation of a Selection Committee**.
 - ⊙ **Term:** All members of the IFSC Authority will have a **term of three years, subject to reappointment**.
- 🕒 **Possible Benefits:**
 - ⊙ **Unification under one authority:** The banking, capital markets and insurance sectors in IFSC which are regulated by multiple regulators-- the RBI, SEBI, and IRDAI will be unified under the IFSC authority.
 - ⊙ The single window regulatory institution would **accelerate the development of India's first IFSC at GIFT City, Gandhinagar**.

International Financial Services Centre

- 🕒 An IFSC enables **bringing back the financial services and transactions that are currently carried out in offshore financial centres** by Indian corporate entities and overseas branches/subsidiaries of Financial Institutions (such as banks, insurance companies, etc.) to India.
- ⊙ It offers a **business and regulatory environment** that is **comparable to other leading international financial centres** in the world like London and Singapore.
- 🕒 IFSCs are intended to provide Indian corporates with **easier access to global financial markets**, and to complement and promote further development of financial markets in India.
- 🕒 The first IFSC in India has been set up at the **Gujarat International Finance Tec-City (GIFT City) in Gandhinagar**.

- ⊙ **Both national and international institutions** dealing with international financial services would utilise the IFSC platform for **inbound and outbound investments with improved ease of doing business**, thereby making GIFT IFSC a **global financial hub**.

Final Report on National Infrastructure Pipeline

Why in News

Recently, the **task force headed by Atanu Chakraborty** (economic affairs secretary) on **National Infrastructure Pipeline (NIP)** submitted its final report to the Finance Minister.

Key Points

- 🕒 **Revised Investment Need:** The taskforce has **forecast an investment need of ₹111 lakh crore** over the **next five years (2020-2025)** to build infrastructure projects and drive economic growth.
 - ⊙ The final report has revised up NIP from earlier Rs 100 lakh crore in light of additional data provided by central ministries/state governments since the release of **summary NIP report**.
- 🕒 **Bulk Share:** **Energy, roads, railways and urban projects** are estimated to account for the bulk of projects (around 70%).
- 🕒 **Measures Suggested:**
 - ⊙ Aggressive push towards asset sales.
 - ⊙ Monetisation of infrastructure assets.
 - ⊙ Setting up of development finance institutions.
 - ⊙ Strengthening the municipal bond market.
- Streamlining Process:** The task force **has also recommended to set up of three committees:**
 - ⊙ **Timely Execution:** Panel to monitor NIP progress and eliminate delays.
 - ⊙ **Follow Up:** Steering committee in each infrastructure ministry for following up implementation.
 - ⊙ **Raising Financial Resources:** Committee in the Department of Economic Affairs for raising financial resources for the NIP

Background

- 🕒 The **task force was set up** after the Prime Minister, in his Independence Day speech of 2019, promised to

- roll out an **infrastructure push worth ₹100 lakh crore** over five years to make India a \$5 trillion economy.
- ⌚ The summary report for, National Infrastructure Pipeline (NIP), 2020-25 was released by the finance minister on 31 December, 2019.
 - ⌚ Out of the total expected capital expenditure of Rs 111 lakh crore
 - ⦿ Projects worth Rs 44 lakh crore (40 % of NIP) are **under implementation.**
 - ⦿ Projects worth Rs 33 lakh crore (30 % of NIP) are at **conceptual stage.**
 - ⦿ Projects worth Rs 22 lakh crore (20 % of NIP) are **under development.**

National Infrastructure Pipeline

- ⌚ NIP will enable a forward outlook on **infrastructure projects which will create jobs, improve ease of living, and provide equitable access to infrastructure** for all, thereby making growth more inclusive.
- ⌚ NIP includes **economic and social infrastructure** projects.
- ⌚ It also includes both **greenfield and brownfield projects.**
- ⌚ It will help in stepping-up annual infrastructure investment to **achieve the Gross Domestic Product (GDP) of \$5 trillion by 2024-25.**
- ⌚ The Centre and states are expected to have almost equal share in implementing NIP, while the private sector contribution is expected to be around 21 %.

ESIC Funds

Why in News

The Union Labour Secretary has **ruled out appropriating funds of the Employees' State Insurance Corporation (ESIC)** for payment of wages to workers or to employers to meet their salary bill during the **Covid-19** lockdown.

Key Points

- ⌚ Employees' state Insurance Corporation of India is a **multidimensional social system** which provides **socio-economic protection to the worker population and immediate dependent or family** covered under the ESI scheme.
- ⌚ The **Employees' State Insurance Scheme (ESI)** is an integrated measure of social Insurance embodied in the **Employees' State Insurance Act, 1948.**

- ⌚ ESI is designed to accomplish the task of protecting employees against the impact of incidences of sickness, maternity, disablement and death due to employment injury and to provide medical care to insured persons and their families.

⌚ Coverage of the Scheme:

- ⦿ The ESI Scheme applies to **factories and other establishment's** viz. Road Transport, Hotels, Restaurants, Cinemas, Newspaper, Shops, and Educational/Medical Institutions wherein 10 or more persons are employed.
 - ⌘ However, in some States the threshold limit for coverage of establishments is 20.
- ⦿ Employees of the aforesaid categories of factories and establishments, drawing **wages upto Rs.15,000/- a month**, are entitled to social security cover under the ESI Act.
 - ⌘ However, ESI Corporation has also decided to enhance the wage ceiling for coverage of employees under the ESI Act **from Rs.15,000/- to Rs.21,000/-.**
- ⦿ ESI Corporation has extended the benefits of the ESI Scheme to the **workers deployed on the construction sites** located in the implemented areas under ESI Scheme from 1st August, 2015.
 - ⌘ The ESI Scheme is implemented district wise.
 - ⌘ It is now notified in 526 Districts in 34 States and Union Territories.

⌚ Contributions to the Scheme:

- ⦿ The ESI Scheme is financed by **contributions from employers and employees.**
- ⦿ In June, 2020 the **government had reduced the rate of contribution** under the ESI Act from 6.5% to 4% (employers' contribution reduced from 4.75% to 3.25% and employees' contribution reduced from 1.75% to 0.75%).
- ⦿ Employees, **earning less than Rs. 137/- a day as daily wages, are exempted** from payment of their share of contribution.

Centre Cuts

Non-urea Fertiliser Subsidy

Why in News

Recently, the **Cabinet Committee on Economic Affairs (CCEA)** has **cut the subsidy for non-urea fertilizers.**

- ⌚ That is about **3% lower** than the estimated expenditure on the **nutrient based subsidies in 2019-20**.
- ⌚ The CCEA has also **approved the inclusion of ammonium phosphate [(NH₄)₃PO₄]**, a complex fertiliser, under the **nutrient-based subsidy (NBS) scheme**.

Key Points

- ⌚ Nutrient Based Subsidy Scheme is being **implemented from April 2010** by the **Department of Fertilizers, Ministry of Chemicals & Fertilizers**.
- ⌚ Under NBS, a **fixed amount of subsidy decided on an annual basis**, is provided on each grade of subsidized **Phosphatic & Potassic (P&K) fertilizers, except for Urea**, based on the nutrient content present in them.
 - ⊙ It is largely for **secondary nutrients** like **Nitrogen (N), Phosphorus (P), Potash (K) and Sulphur (S)** which are very important for crop growth and development.
- ⌚ It aims to **ensure the availability of fertilizers to farmers at an affordable price**, as the retail prices of such non-urea fertilisers are decontrolled and set by manufacturers.

RBI's Liquidity Offer for Mutual Funds

Why in News

Recently, the **Reserve Bank of India (RBI)** announced a **special liquidity window of Rs 50,000 crore** to bail out mutual funds hit by the turmoil in the debt fund segment.

Key Points

- ⌚ **Repo Operations:** Under the **special liquidity facility for mutual funds (SLF-MF)**, the RBI will conduct **repo (repurchase agreement) operations** of 90 days tenor at fixed rate for banks.
 - ⊙ A repurchase agreement, or 'repo', is a **short-term agreement** to sell securities in order to buy them back at a slightly higher price.
 - ⊙ The **one selling the repo (banks) is effectively borrowing** and the other party (the RBI) is lending.
- ⌚ **Providing Liquidity to Mutual Funds**
 - ⊙ Funds availed under the SLF-MF will be used by banks **exclusively for meeting the liquidity requirements of mutual funds**.

- ⊙ Under the SLF-MF, **banks can extend loans to mutual funds** and undertake outright purchase of and repos against the collateral of investment grade corporate bonds, commercial papers (CPs), debentures and certificates of Deposit (CDs) held by mutual funds.

Features of the offer

- ⊙ The RBI said liquidity support availed of under the SLF-MF would be eligible to be classified as **Held-To-Maturity (HTM)**.

Key Terms

- ⌚ **Mutual Fund:** A mutual fund collects money from investors and invests the money, on their behalf, in securities (debt, equity or both). It charges a small fee for managing the money.
- ⌚ **Debt funds** aim to generate returns for investors by investing their money in avenues like bonds and other fixed-income securities.
- ⌚ **Credit-risk funds** are **debt funds** which have **at least 65% of their investments in less than AA-rated (i.e. in lower-rated) papers**.
- ⌚ **Held-to-maturity** securities are purchased to be owned until maturity. E.g bonds.
- ⌚ **Adjusted non-food Bank Credit** includes non-food bank credit and total **non-statutory liquidity ratio (SLR)** investments of banks in commercial papers, shares and bonds/debentures.
- ⌚ **Capital Market exposure** refers to the percentage of a portfolio, invested in a particular type of security, market sector or industry
 - ⊙ It is also known as the exposure amount an investor can lose from the risks unique to a particular investment.
- ⌚ **Large Exposures Framework:** The large exposures framework **sets prudent limits to large exposures of banks**, which may result in a concentration of its assets to a single counterparty or a group of connected counterparties.
 - ⊙ To address this concentration risk, RBI has fixed limits on bank exposures.
 - ⊙ As per current guidelines of RBI, a bank's exposure to a single borrower is restricted to 15% and to a borrower group 40% of capital funds.

- ⊙ The face value of securities acquired under the SLF-MF and kept in the HTM category would not be reckoned for computation of **Adjusted Non-food**

Bank Credit (ANBC) for determining priority-sector targets/sub-targets.

- ⊙ Support extended to MFs under the SLF-MF shall be exempted from banks' **capital market exposure limits**.
- ⊙ Exposure under this facility would not be reckoned under the **Large Exposure Framework (LEF)**.
- ⌚ This is the **third time the RBI is opening the liquidity window** for the financial sector players in the last 15 years.
- ⊙ The RBI had opened a special liquidity repo window for mutual funds in 2008 at the time of the global financial crisis.
- ⊙ In July 2013 again RBI opened a special liquidity repo window, when returns on debt mutual funds dropped sharply after the rupee fell significantly against dollar.

⌚ **Background**

- ⊙ Volatility in capital markets has intensified the stress on mutual funds due to the redemption pressures related to the **closure of six debt schemes of Franklin Templeton** and potential contagious effects.
- ⊙ The stress is, however, confined to the high-risk debt funds segment at this stage while the larger industry remains liquid.

⌚ **Outcome**

- ⊙ The RBI move on pumping liquidity will boost investor confidence in the mutual fund industry.
- ⊙ The RBI's liquidity offer is expected to bring some degree of comfort in the debt market which is under huge redemption (paying back) pressure, especially in the **credit risk fund** category.

■ ■ ■



VANIK-IAS
Exclusive Coaching for UPSC/OPSC

International Relations

Highlights

- * Islamophobia in India: OIC
- * USCIRF Annual Report-2020
- * Urge to Suspend H-1B
- * 5th Annual Meeting of NDB
- * UNGA Resolution on Covid-19
- * Comprehensive Nuclear-Test-Ban Treaty
- * U.S. Priority Watch List for IPR
- * \$1.5 Billion ADB Loan to India
- * NITI Aayog Questions GTI
- * BRICS Foreign Ministers Meet
- * Reforms in Saudi Arabia

Islamophobia in India: OIC

Why in News

Recently, the **Organisation of Islamic Cooperation (OIC)** has criticised the Indian government for what it called “growing Islamophobia” in India.

Key Points

- ⌚ OIC asked the government to take **steps to protect Muslim minorities** who are being “negatively profiled,” facing “discrimination and violence” amidst the **Covid-19** crisis.
- ⌚ OIC urged the government to **protect the rights of its minority** as per its obligations under **international Human Rights law**.
- ⌚ It also asked the government to take urgent steps to **stop the growing tide of Islamophobia** (dislike of or prejudice against Islam or Muslims) **in India**.
 - ⊙ A religious gathering of muslims (Tablighi Jamaat) was held in Delhi in March. The event was linked to many of the Covid-19 positive cases in India.
 - ⊙ After this most sections of the media, people on social media blamed the Tablighi jamaat and muslims for deliberately spreading the Covid-19 in India.
- ⌚ Earlier, the **U.S. Commission on International Religious Freedom (USCIRF)** has also criticised India of “increased stigmatisation” of its muslim minorities.
 - ⊙ It criticized the government for the reports that Covid-19 patients were **religiously segregated at a hospital** in Ahmedabad.

- ⌚ The **Indian government has denied all the allegations** levelled by the USCIRF and accused the USCIRF for spreading misguided reports on the professional medical protocols followed to deal with spread of Covid-19 in India.

Organisation of Islamic Cooperation

- ⌚ The Organisation of Islamic Cooperation (OIC) is the **second largest intergovernmental organization** after the **United Nations** with a membership of 57 states.
- ⌚ It is the **collective voice of the Muslim world**. It **endeavors to safeguard and protect the interests of the Muslim world** in the spirit of promoting international peace and harmony among various people of the world.
- ⌚ It was **established** upon a decision of the **historical summit** which took place in **Rabat, Kingdom of Morocco on the 25th of September 1969**.
- ⌚ Headquarters: **Jeddah, Saudi Arabia**.

OIC and India

- ⌚ **India is not a member of the OIC**. However, India was invited as a guest of honour at the **46th Session of the Council of Foreign Minister** in 2019. 2019 is the 50th anniversary of OIC.
 - ⊙ This marked a high point in New Delhi’s often tensed relations with the OIC.
- ⌚ However, in recent months, the OIC has **repeatedly criticised the Indian government’s handling of the situation in Kashmir and attacks on Muslims**.
 - ⊙ The external affairs ministry has rejected this criticism.

USCIRF Annual Report-2020

Why In News

Recently, the **U.S. Commission on International Religious Freedom (USCIRF)** has downgraded India to the lowest ranking of “**Countries of Particular Concern (CPC)**” in its 2020 report on religious freedom.

- ⌚ USCIRF has placed **India alongside** China, North Korea, Saudi Arabia and Pakistan. India was categorised as a “**Tier 2 country**” in last year’s listing.
- ⌚ This is the first time since 2004 that India has been placed in the CPC category.

Key Points

- ⌚ Designation of the CPC is the top tier recommendation by the USCIRF when it comes to **violation of international religious freedom**. It is followed by **Special Watch List Countries** for severe violations.
- ⌚ **Reasons:**
 - ⊙ **India took a sharp downward turn in 2019**, which included specific concerns about the **Citizenship Amendment Act**, the proposed **National Register for Citizens**, anti-conversion laws and the situation in Jammu and Kashmir.
 - ⊙ Indian government used its parliamentary majority to institute **national-level policies violating religious freedom of minorities**, especially for Muslims.
 - ⌘ Earlier, the **Organisation of Islamic Cooperation (OIC)** had criticised the **Indian government** for “growing Islamophobia” in the country.
- ⌚ **Steps suggested to U.S:**
 - ⊙ The U.S. government should take stringent action against India under the “**International Religious Freedom Act**” (IRFA).
 - ⌘ The **International Religious Freedom Act of 1998** was passed to promote religious freedom as a **foreign policy of the United States**.
 - ⌘ It **aims to promote greater religious freedom** in countries which engage in or tolerate violations of religious freedom, and to advocate on the behalf of individuals persecuted for their religious beliefs and activities in foreign countries.
 - ⊙ To impose **targeted sanctions** on Indian government agencies and officials responsible for severe violations of religious freedom.

- ⌚ **India’s stand:** The Indian government has rejected the USCIRF report and termed it “**biased and tendentious**”.

U.S. Commission on International Religious Freedom (USCIRF)

- ⌚ USCIRF is an **independent, bipartisan U.S. federal government commission**, dedicated to **defending the universal right to freedom of religion or belief abroad**.
- ⌚ The USCIRF is also an **advisory body** to the US Congress.
- ⌚ USCIRF reviews **the facts and circumstances of religious freedom violations** and makes policy recommendations to the President, the Secretary of State, and Congress.
- ⌚ It is **Headquartered at Washington DC**.

Urge to Suspend H-1B

Why in News

The **US President** has been **requested to suspend the foreign workers programme**, including **H-1B** as a huge number of Americans have lost their jobs due to the **Covid-19 pandemic**.

Key Points

- ⌚ A lawmaker in the US has sought **suspension of the H-1B, H4, L1, B1, B2, Optional Practical Training Program and guest worker admissions**.
- ⌚ The Congressional Select Committee on the Coronavirus Crisis has also been **urged to take action to protect medical professionals holding H-1B visas** because they are essential to confront and combat the current crisis.
 - ⊙ Due to the **loss of revenues**, many **health centres are closing down** which will impact H-1B visa holders currently practicing medicine at these facilities.
- ⌚ **Indians and H-1B Visa**
 - ⊙ **Indians** are the **largest beneficiaries** of the H1B visas and held three out of four H1B visas as of 2018, data from the **United States Citizenship and Immigration Service (USCIS)** shows.
 - ⊙ Indians held 309,986 H1B visas as of 2018, which was 73.9% of the total H1B visas issued.
 - ⊙ Indians comprised 68% of H1B registrations for Financial Year 2020-21, followed by China, which accounted for 13.2%.

- ⊙ The latest move will hamper Indians who are working in the US on such visas by **decreasing the chances of employment**.
- ⌚ Earlier, the US temporarily suspended approval of some **Green Cards**.
- ⊙ This step ensures the policy of **America First**.

Green Card

- ⌚ It is officially known as a **Permanent Resident Card**.
- ⌚ It is **issued to immigrants** to the US under the **Immigration and Nationality Act (INA), 1952**.
- ⌚ It **allows a person to live and work permanently** in the US.

H-1B Visa

- ⌚ It is a **non-immigrant visa** that allows US companies to employ **graduate level foreign workers in specialty occupations**. Speciality occupations requires:
 - ⊙ **Theoretical or technical expertise** in specialized fields such as in IT, finance, accounting, architecture, engineering, mathematics, science, medicine, etc.
 - ⊙ **Any professional level job** that usually requires a bachelor's degree or higher can come under the H-1B visa for specialty occupations.
- ⌚ The US H1-B visa is **designed to be used for staff in specialty occupations**. H-1B has an **option of green card application**.
- ⌚ H-1B visa holders can **bring their spouse and children under 21 years of age** to the US **under the H4 Visa category as dependents**.
 - ⊙ An H4 Visa holder is allowed to remain in the US as long as the H-1B visa holder remains in legal status.
 - ⊙ While an H4 visa holder is **not eligible to work** in the US, they may **attend school, obtain a driver's license and open a bank account** while in the US.

5th Annual Meeting of NDB

Why in News

Recently, the **Union Minister of Finance** attended the **5th Annual Meeting of the Board of Governors of New Development Bank (NDB)** through video-conference in **New Delhi**.

Key Highlights of the Meeting

- ⌚ **India appreciated NDB's efforts** in establishing itself as a **credible Global Financial Institution**, delivering

its mandate successfully by taking a more sustainable and inclusive approach.

- ⌚ **NDB fast-tracked financial assistance of about \$5 billion to BRICS countries** including **Emergency Assistance of \$1 billion to India** to combat **Covid-19 pandemic**.
 - ⊙ The assistance under this facility was **suggested to be enhanced to \$10 billion**.
- ⌚ **Brazil thanked India for sending critical drugs** for timely management of **novel coronavirus** in Brazil.
- ⌚ NDB was encouraged to take **appropriate actions to join the G-20 forum** along with other **Multilateral Development Banks (MDBs) and International Financial Institutions (IFIs)** like the **World Bank, Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB)**, etc.
- ⌚ India urged NDB to follow **novel practices in supporting the BRICS nations** for achieving their **Sustainable Development Goals**.
- ⌚ **Measures taken by India** to respond to the health crisis and to mitigate its impact were highlighted. **Few of them are:**
 - ⊙ **India Covid-19 Emergency Response and Health System Preparedness Package: Allocation of \$2 Billion (₹ 15,000 crore)** by the Government of India for **strengthening the healthcare system**.
 - ⊙ **Pradhan Mantri Garib Kalyan Yojana:** Announcement of a scheme of social support measures amounting to **\$23 Billion (₹ 1.70 lakh crore)** to **alleviate the hardship of the poor and the vulnerable**.
 - ⊙ **Insurance cover of \$67,000 (₹ 50akh) per person** to over 2.2 million **frontline health workers and others provision of relief** to firms in statutory and regulatory compliance matters
 - ⊙ **Easing of monetary policy** by the **Reserve Bank of India (RBI)** and **three-month moratorium** on loan instalments.
 - ⊙ Creation of a **Covid-19 Emergency Fund for SAARC countries**.
 - ⊙ **India's efforts in supplying critical medicine to the countries in need (e.g. Operation Sanjeevani)**, to tackle the Covid-19.

New Development Bank

- ⌚ It is a **multilateral development bank** jointly founded by the **BRICS countries (Brazil, Russia, India, China and South Africa)** at the **6th BRICS Summit in Fortaleza, Brazil in 2014**.

- ⌚ It was **formed to support** infrastructure and sustainable development efforts in BRICS and other underserved, emerging economies for faster development through innovation and cutting-edge technology.
- ⌚ It is **headquartered at Shanghai, China.**
- ⌚ In **2018**, the NDB received **observer status** in the **United Nations General Assembly**, establishing a firm basis for active and fruitful cooperation with the UN.
- ⌚ **Objectives:**
 - ⊙ Fostering development of member countries.
 - ⊙ Supporting economic growth.
 - ⊙ Promoting competitiveness and facilitating job creation.
 - ⊙ Building a knowledge sharing platform among developing countries.
- ⌚ To fulfill its purpose, the Bank **supports public or private projects** through **loans, guarantees, equity participation and other financial instruments.**
- ⌚ NDB has so far **approved 14 projects in India** for an amount of \$4,183 million.

UNGA

Resolution on Covid-19

Why in News

Recently, the **United Nations General Assembly** has adopted a resolution, calling for global cooperation to ensure '**equitable and fair**' access to medicines, vaccines and medical equipment for all nations to battle the **Covid-19 pandemic.**

Key Points

- ⌚ The UNGA resolution which was **drafted by Mexico** was adopted through consensus.
- ⌚ The resolution:
 - ⊙ **Prevent any undue stockpiling** of essential medical supplies.
 - ⊙ **Recognised the importance of international cooperation** and **effective multilateralism** to ensure that all States have in place effective national protective measures, access to and flow of vital medical supplies, medicines and vaccines.
 - ⊙ Encourages member states **to work in partnership** with all relevant stakeholders to increase research

and development funding for vaccines and medicines.

- ⊙ Called to **bolster coordination with the private sector** towards rapid development, manufacturing and distribution of diagnostics, antiviral medicines, personal protective equipment and vaccines, adhering to the objectives of efficacy, safety, equity, accessibility, and affordability.
- ⌚ Earlier, the United Nations General Assembly had unanimously adopted a resolution, **calling for intensified international cooperation** to defeat the pandemic that is causing severe disruption to societies and economies.

United Nations General Assembly

- ⌚ The General Assembly is the **main deliberative, policymaking and representative organ of the UN.**
- ⌚ **All 193 Member States** of the UN are represented in the General Assembly, making it the only UN body with **universal representation.**
- ⌚ Each year, in **September**, the full UN membership meets in the General Assembly Hall in **New York** for the **annual General Assembly session**, and general debate, which many heads of state attend and address.
- ⌚ Decisions on important questions, such as those on **peace and security, admission of new members** and budgetary matters, require a **two-thirds majority** of the General Assembly.
 - ⊙ Decisions on other questions are **by simple majority.**
- ⌚ **The President** of the General Assembly is elected each year by assembly to serve a one-year term of office.

Comprehensive

Nuclear-Test-Ban Treaty

Why in News

Recently, the **United States State Department** has accused **China** and **Russia** of conducting nuclear tests with low yields, in violation of the **Comprehensive Nuclear Test-Ban Treaty (CTBT).**

Key Points

- ⌚ CTBT was negotiated at the **Conference on Disarmament**

in Geneva and adopted by the United Nations General Assembly in 1996.

- ⌚ The Treaty intends to **ban all nuclear explosions** - everywhere, by everyone. It was opened for signature in 1996 and since then 182 countries have **signed** the Treaty, most recently Ghana has **ratified** the treaty in 2011.
 - ⊙ A comprehensive test ban has been defined as a **“zero yield”** test ban that would prohibit **supercritical hydro-nuclear tests** but not **sub-critical hydrodynamic nuclear tests**.
 - ⊙ **Hydro nuclear tests** study nuclear materials under the conditions of explosive shock compression. Their yield ranges from negligible all the way up to a substantial fraction of full weapon.
 - ⊙ **Subcritical (or cold) tests** are types of tests involving nuclear materials and possibly high-explosives that purposely result in no yield.
- ⌚ The **Treaty will enter into force after all 44 States listed in Annex 2** to the Treaty will ratify it.
 - ⊙ These States had nuclear facilities at the time the Treaty was negotiated and adopted.
- ⌚ As of August 2011, **36** of these States have **ratified** the Treaty. Eight States still need to do so: **China, North Korea, Egypt, India, Iran, Israel, Pakistan and the United States**.
 - ⊙ **India, North Korea and Pakistan have not yet signed the Treaty.**
 - ⊙ 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.**
- ⌚ **Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO):**
 - ⊙ The organization **promotes the Treaty** so that it can enter into force.
 - ⊙ It establishes a **verification regime** to monitor adherence to the Treaty. The verification system is built around a network of over 325 seismic, radionuclide, infrasound and hydroacoustic (underwater) monitoring stations.
 - ⊙ The organization was founded in 1996. It is **headquartered in Vienna**. It employs a staff of roughly 260 from the CTBT’s Member States.

U.S. Priority Watch List for IPR

Why in News

India continues to be on the **‘Priority Watch List’** of the **United States Trade Representative (USTR)** for lack of adequate **Intellectual Property (IP) rights protection and enforcement**, according to the USTR’s **Annual Special 301 Report**.

Key Points

- ⌚ **Concerns:**
 - ⊙ Copyright laws not incentivising the creation and commercialisation of content.
 - ⊙ An outdated trade secrets framework.
 - ⊙ India **restricted the transparency of information** provided on state-issued pharmaceutical manufacturing licenses.
 - ⊙ India continues to apply **restrictive patentability criteria** to reject pharmaceutical patents.
 - ⊙ Absence of an effective system for protecting against the **unfair means** to obtain marketing approval for **pharmaceuticals and certain agricultural chemical products**.
 - ⊙ India maintains extremely **high customs duties** directed to IP-intensive products such as medical devices, pharmaceuticals, Information and Communications Technology (ICT) products, solar energy equipment, and capital goods.
 - ⊙ India was ranked among the **top five source countries for fake goods** by the **Organization of Economic Development and Cooperation (OECD)** in 2019.
 - ⊙ The **government’s 2019 draft Copyright Amendment Rules**, if implemented, would have “severe” consequences for Internet-content rights holders as the proposed rules broadened the scope of compulsory licensing **from radio and television broadcasting to online broadcasting**.
 - ⊙ **Trademarks:** Trademark counterfeiting levels were “problematic” and there were “excessive delays” in obtaining trademarks due to a **lack of examination quality**.
 - ⌘ It urged India to join the **Singapore Treaty on the Law of Trademarks**, a treaty that harmonises trademark registration.

🕒 **Progress Noted**

- ⦿ India had made “**meaningful progress**” to enhance IP protection and enforcement in some areas in 2019 and had acceded to the **World Intellectual Property Organization (WIPO) Internet Treaties** and the **Nice Agreement**.
 - ⌘ The Nice Agreement establishes a classification of goods and services for the purposes of registering trademarks and service marks (the Nice Classification).
- ⦿ **Online IP enforcement:** Online IP enforcement in India has improved but progress is undercut by factors including :
 - ⌘ Weak enforcement by courts and the police.
 - ⌘ Lack of familiarity with investigative techniques.
 - ⌘ No centralised IP enforcement agency.

Special 301 Report

- ⦿ The Special 301 Report identifies trading partners that **do not adequately or effectively protect and enforce Intellectual Property (IP) rights** or otherwise **deny market access to U.S. innovators and creators that rely on protection of their IP rights**.
- ⦿ The report is released **annually by the United States Trade Representative (USTR)**.
- ⦿ Trading partners that currently present the most significant concerns regarding IP rights **are placed on the Priority Watch List or Watch List**. USTR identified **33 countries for these lists in the Special 301 Report**:
 - ⦿ Algeria, Argentina, Chile, China, India, Indonesia, Russia, Saudi Arabia, Ukraine and Venezuela are on the **Priority Watch List**.
 - ⦿ Barbados, Bolivia, Brazil, Canada, Colombia, Dominican Republic, Ecuador, Egypt, Guatemala, Kuwait, Lebanon, Mexico, Pakistan, Paraguay, Peru, Romania, Thailand, Trinidad & Tobago, Turkey, Turkmenistan, the United Arab Emirates, Uzbekistan and Vietnam are on the **Watch List**.

Why in news

Recently, the **Asian Development Bank (ADB)** has provided a \$1.5 billion loan to India to fund India’s immediate response to the **Covid-19 pandemic**.

Key Points

- ⦿ The loan will help the Central government to focus on immediate priorities such as:
 - ⦿ Covid-19 containment and prevention.
 - ⦿ Social protection for the poor and economically vulnerable sections of the society.
- ⦿ The loan has been provided under ADB’s **Covid-19 Active Response and Expenditure Support (CARES) Programme**.
 - ⦿ The CARES Programme
 - ⌘ **support the government’s stimulus package** geared to expand existing social assistance programs,
 - ⌘ boost resources for Covid-19 prevention and control,
 - ⌘ safeguard productive sectors and workers from the economic downturn.
 - ⦿ The CARES Program is **funded through the Covid-19 Pandemic Response Option (CPRO)** under ADB’s Countercyclical Support Facility.
 - ⌘ CPRO was introduced as part of a \$20 billion package approved by ADB on 13th April, 2020 to assist its developing member countries in their fight against Covid-19.
 - ⦿ It will be **implemented through a country engagement framework** focused on policy dialogue and monitoring of the government’s countercyclical strategy and measures.

Asian Development Bank

- ⦿ ADB is a **regional development bank** established on **19th December 1966**.
- ⦿ ADB now has **68 members, 49 from within Asia**.
- ⦿ **Japan holds the largest proportion** of shares in ADB followed by the USA.
- ⦿ It aims to promote social and economic development in Asia.
- ⦿ ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty.
- ⦿ ADB is **headquartered in Manila, Philippines**.

NITI Aayog Questions GTI

Why in News

A report compiled by **NITI Aayog** has **questioned the methodology** adopted by the **Institute for Economics and Peace (IEP)**, to rank India as the seventh worst terrorism affected country.

- ⌚ IEP is an **Australian based institute** which releases the **annual Global Terrorism Index (GTI)**.
- ⌚ GTI is based on **four parameters**:
 - ⦿ Number of terrorist incidents per year.
 - ⦿ Number of fatalities caused by terrorists per year.
 - ⦿ Number of injuries caused by terrorists per year.
 - ⦿ Total property damage caused by terrorism per year.

Key Points

- ⌚ In **GTI 2019**, India has moved to the **seventh** position from the **previous year's eighth** position.
 - ⦿ **Countries Ahead**: Afghanistan, Iraq, Nigeria, Syria, Pakistan and Somalia (top 6).
 - ⦿ **Countries Behind**: Democratic Republic of Congo, South Sudan, Sudan, Burkina Faso, Palestine and Lebanon (at different ranks).
- ⌚ NITI Aayog was being asked to **track various global indices**. The **purpose** was to see:
 - ⦿ How they can **help drive reforms and growth**.
 - ⦿ Which of these **require some amount of engagement with the publishing agency** to make the indices more relevant.
 - ⌘ In **2017**, India challenged at the **International Labour Organisation (ILO)**, the country's ranking in a **Global Slavery Report** published by the **Walk Free Foundation**, Australia.
- ⌚ **Use of GTI scores in other rankings**:
 - ⦿ **Direct Use**: In **Global Peace Index**, the **Global Slavery Report**
 - ⦿ **Indirect Use**: In the **World Economic Forum's Travel and Tourism Competitiveness** and **Global Competitiveness Indices** and compilation of **Safe Cities Index** by the **Economist Intelligence Unit**.
 - ⌘ The position in the global indices **impact investments and other global opportunities**.

Highlights of the Report

- ⌚ The NITI Aayog **questioned the rankings** as well as the **funding of the IEP**.
 - ⦿ The funding source and the list of donors **has not been revealed**.
- ⌚ **Findings**:
 - ⦿ The GTI is based **solely on unclassified media articles**, with more than 100 structured variables such as each attack's location, tactics and weapons, perpetrators, casualties and consequences etc.
 - ⦿ The organisation has **only 12 full-time staff, 12 full-time equivalent staff and 6 volunteers**.
 - ⌘ It is something to focus on how the organization is able to annually collect, meaningfully analyse and disseminate data about 163 countries in the Global Terrorism and Peace Indices and provide country wise national peace reports with such **minimal resources**.
- ⌚ **Criticism of the Methodology**:
 - ⦿ The GTI **lacks mechanisms to engage with Governments** or to further **classify and verify open source media reports** through Government databases in any of the 163 countries it covers.
 - ⦿ The **lack of a universally accepted definition of terrorism** leads to **ambiguity**.
 - ⌘ The **Comprehensive Convention on International Terrorism (CCIT)** is pending in the **United Nations General Assembly** since 2014.
 - ⦿ The **definition of mass shootings** used in the GTI is **limited to indiscriminate rampages in public places resulting in four or more victims killed by the attacker**.
 - ⌘ It **leaves out lone wolf attacks** which may have lesser fatalities and more injuries, and **attacks foiled by security and intelligence agencies**.
- ⌚ The NITI Aayog report concluded that the GTI has **low direct value for policymakers** due to the **absence of a robust data collection and analysis methodology** and any **engagement with Governments** facing the scourge of terrorism.
 - ⦿ Given the reasons, it **cannot be used as an aid to understand and alleviate challenges** to countries from domestic and cross border terrorism.

BRICS Foreign Ministers Meet

Why in News

Recently, the External Affairs Minister of India attended the BRICS Foreign Ministers meet through video conferencing.

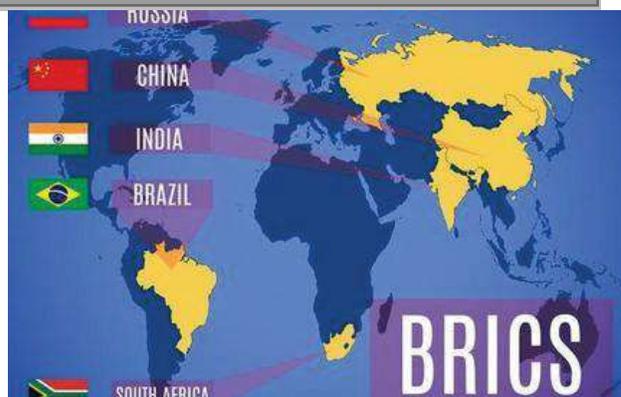
- ⌚ This meeting was convened by Russia to discuss the impact of the [coronavirus pandemic](#).

Key Points

- ⌚ BRICS nations have set up a “**special loan instrument**” of **\$15 billion fund** for member nations to revive the economy amid Covid-19 pandemic
- ⌚ BRICS nations exchanged views on possible joint measures to be taken by the member states to counter Covid-19 and overcome the financial, trade, economic and social consequences of the pandemic.
- ⌚ **India showcased its pharmaceutical support to around 85 countries** to deal with the viral infection. It also highlighted the **need for reforms in the multilateral bodies** like the United Nations.
 - ⊙ The [UN Security Council](#) members are currently discussing draft resolutions on the Covid-19 pandemic.

BRICS

- ⌚ BRICS is an **acronym** for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China, and South Africa**.
 - ⊙ In 2001, the British Economist **Jim O’Neill** coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
 - ⊙ The grouping was formalised during the first meeting of BRIC Foreign Ministers in 2006.
 - ⊙ South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- ⌚ It comprises 42% of the world's population, has 23% of the global GDP and around 17% of the world trade.
- ⌚ The **chairmanship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- ⌚ The BRICS Leaders’ Summit is convened annually.
- ⌚ During the Sixth BRICS Summit in Fortaleza (2014) the leaders signed the Agreement establishing the



New Development Bank (NDB). They also signed the BRICS Contingent Reserve Arrangement.

Reforms in Saudi Arabia

Why in News

Recently, **Saudi Arabia** has **abolished flogging** (whipping or lashing) as a form of punishment and the **death sentence for minors**.

- ⌚ The Islamic kingdom has **no codified system of law**. The individual judges **interpret Islamic law** (Sharia) and come up with their own sentences.

Key Points

- ⌚ Abolition of Flogging as Punishment:
 - ⊙ Before abolition, flogging was **mandatory as a form of corporal punishment** and could extend to hundreds of lashes.
 - ⊙ Courts ordered it for **murder, breach of peace, homosexuality, consumption or possession of alcohol, adultery and insulting Islam**, among others.
- ⌚ Abolition of Death Sentence for Minors:
 - ⊙ It ensures that **no-one who committed crimes as minors could receive the death sentence for those crimes**. Instead, the individual will receive a **prison sentence of no longer than 10 years in a juvenile detention facility**.
 - ⊙ However, there is a **possibility of exception** for people who carry out **terrorism-related crimes as minors**.
 - ⊙ The practise of capital punishment for crimes committed by people under the age of 18 was in **contradiction** to the [United Nations Convention on the Rights of the Child](#).

- ⌚ However, the country **still practices public executions** and other forms of **corporal punishment** such as amputation for theft. It has been **criticised** for them as well.
- ⊙ Human rights organization **Amnesty International** lists Saudi Arabia as **one of the world's most prolific executioners, after Iran and China**. In its latest report, it said the kingdom had executed 184 people in 2019.
- ⊙ The country has also been **widely criticized for the continued repression of dissidents and political activists**.
 - ⌘ The **Specialised Criminal Court (SCC)** jurisdiction was expanded from the trials of **alleged violent extremists** to include **political dissidents, religious minorities and human rights activists**.
 - ⌘ SSC was created in 2008 to prosecute detainees held after the 2003 terrorist attack claimed by **al-Qaeda**.
- ⌚ **Reforms Taken**
 - ⊙ Saudi Arabia's **Crown Prince Mohammed bin Salman** has overseen a series of **social and economic reforms** known as '**Saudi Vision 2030**'.
 - ⊙ These are aimed at **modernising the country, reducing its dependence on oil, expanding its economy, developing the public service sector and bringing it in line with international human rights norms**.

Other Earlier Reforms

- ⌚ In **2018**, Saudi Arabia **lifted the ban on women drivers**.
 - ⊙ Before the ban was lifted, the law made it **compulsory for every woman to have a male guardian and seek their consent** for almost everything.
 - ⊙ Prior to the change in the law, **Saudi Arabia was the only country in the world** that did not allow women to drive.
- ⌚ In **2019**, the country **reformed the laws relating to women**.
 - ⊙ **Women over the age of 21** would be able to **receive passports and travel abroad without permission from a male guardian**.
 - ⊙ Apart from that, women can also be **able to register the marriage, divorce or the birth of children and obtain family documents**.
 - ⊙ They can now **also be the legal guardian of their children**, a position hitherto reserved for men.



VANIK-IAS
 Exclusive Coaching for



Science and Technology

Highlights

- * *Blood Shortage Due to Lockdown*
- * *Social Vaccine*
- * *Antiviral Nano-coatings*
- * *Human Activities Responsible for Zoonoses*
- * *Classical Swine Fever*
- * *Inactivated Virus Vaccine in Focus for Covid-19*
- * *Chitra GeneLAMP-N for Covid-19 Test*
- * *Sepsivac to be Tested for Covid-19*
- * *Portable Sensor for Heavy Metal Detection in Water*
- * *Human Challenge Trials*
- * *Covid-19 Related Disease*
- * *Reverse Vaccinology*
- * *Merger of Two Black Holes with Unequal Masses*
- * *Deep Fakes*
- * *Hydrogen Fuel Cell Based Bus and Car Project*
- * *PRACRITI: IIT Delhi*

Blood Shortage Due to Lockdown

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.
- ⌚ **Thalasseemics Fearful:**

⊙ Thalasseemia patients need repeated blood transfusions to survive. Many thalasseemics 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 (NBTC)**, 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

- ⌚ It 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

- ⌚ It 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).

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 **Covid-19 pandemic**.

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.

Antiviral Nano-coatings

Why in News

Recently, the **Department of Science and Technology (DST)** has approved the use of antiviral nano-coatings on **anti-Covid-19** masks.

- ⌚ These coatings have been approved for **Triple Layer Medical masks** and **N-95 respirator**, as a part of the **Mission on Nano Science and Technology (MNST or commonly known as Nano Mission)**.

Key Points

- ⌚ The antiviral nano-coating has been developed using **N9 blue silver** which will be modified to form **nanocomplexes with Zinc (Zn, atomic number-30) compounds** to achieve a synergistic effect. Subsequently, it will be **applied as coatings on facemasks** and other **Personal Protection Equipment (PPEs)**.
 - ⦿ Nano-coatings have **99.99% effectiveness** and these can **work on multiple levels** at the same time like **antiviral, bacterial and fungal and self-cleaning**.
 - ⦿ These can be **applied to various surfaces** such as **glass, metal, stone, textiles and plastics** by **spraying or dipping**.
 - ⦿ N9 blue nanosilver is a **highly potent antimicrobial agent** and has been developed at **SMITA Research Lab, Indian Institute of Technology (IIT) Delhi**.
 - ⦿ **Silver (Ag, atomic number-47)** is known to have strong antimicrobial activity against bacteria, viruses and fungus.
 - ⌘ In experiments, **strains of bacteria and viruses** have **shown either resistance or sensitivity** when **exposed to silver** which confirms **silver resistance and toxicity** in them.
- ⌚ After the **evaluation of shelf life of the coatings and their efficacy** under different conditions such as **temperature, humidity and time**, the masks and PPEs will be **prepared and provided to the medical workers for field trials**.
- ⌚ The use of highly effective antimicrobial nanoparticles on masks, PPEs, etc is a useful application providing an **extra layer of protection for the high risk settings**, such as for the medical workers.

Mission on Nano Science and Technology

- ⌚ It was launched by the **Government of India** in **May 2007** as an **“umbrella capacity-building programme”**

to build upon the promotional activities in the highly promising and competitive area of Nano Science and Technology.

- ⌚ The **DST is the nodal agency** for its implementation.
- ⌚ **Objectives:**
 - ⦿ Basic research promotion.
 - ⦿ Infrastructure development.
 - ⦿ Nano applications and technology development.
 - ⦿ Human Resource development.
 - ⦿ International collaborations.
- ⌚ Due to its efforts, India is **amongst the top five nations in the world** in terms of scientific publications in nano science and technology.
- ⌚ In **2014**, recognizing its success, the Union Cabinet accorded **approval for continuation** of the Nano Mission in its **Phase-II during the 12th Plan period (2012-17)** with an allocation of **650 crore**.
- ⌚ The Nano Mission has **resulted in useful products** like nano hydrogel based eye drops, pesticide removal technology for drinking water, water filters for arsenic and fluoride removal, nanosilver based antimicrobial textile coating, etc.
- ⌚ It has orchestrated national dialogues to promote R&D in development of standards for nanotechnology and for laying down a **National Regulatory Framework Road-Map for Nanotechnology (NRFR-Nanotech)**.

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.**

Classical Swine Fever

Why in News

Recently, few districts of **eastern Assam** have reported the death of more than 1,300 pigs within a week due to the **classical swine fever (CSF)**.

Key Points

- ⌚ It has **added to the worries of the pig farmers** who are already troubled due to the **Covid-19 lockdown**.
- ⌚ **Assam** has the **most farmed pigs in the country** according to the **20th livestock census from 2012-2019**.
 - ⦿ The **pork market** in the region is **more than \$1 billion**.
 - ⦿ Data shows that the **eight north-eastern States with Assam** at its core **consume more than 65%** of the 4.26 lakh metric tonnes of pork produced in the country.
- ⌚ **Classical Swine Fever** is also known as **hog cholera** and is a **contagious viral disease of domestic and wild swine**.
- ⌚ Unlike **Swine Flu (H1N1)** that **attacks humans**, **classical swine fever** is a **viral disease that affects pigs only**. It **can be controlled by proper vaccination** of pigs in time.
 - ⦿ **African Swine Fever** is another kind of swine fever.
- ⌚ **Prevention and Control:**
 - ⦿ **Treatment is not attempted.**
 - * Affected pigs must be slaughtered and the carcass buried or burnt.
 - ⦿ The **first barrier to prevent** an outbreak of the CSF is to **apply strict and rigorous sanitary treatment**.
 - ⦿ **Vaccination can prevent the spread** of the disease.
 - ⦿ The OIE Terrestrial Animal Health Code **defines the requirements for a country or a zone** to be considered **free of the disease**.

World Organisation for Animal Health

- ⌚ OIE is an **intergovernmental organisation** responsible for improving animal health worldwide.
- ⌚ In 2018, it had a total of **182 Member Countries**. **India is one of the member countries**.
- ⌚ OIE standards are **recognised by the World Trade Organization** as reference international sanitary rules.
- ⌚ It is headquartered in **Paris, France**.

Inactivated Virus

Vaccine in Focus for Covid-19

Why in News

Recently, researchers from the **Centre for Cellular and Molecular Biology (CCMB)** have started developing an **inactivated virus vaccine** for the **novel coronavirus (SARS-CoV-2)**.

Key Points

- ⌚ Vaccination is thought to be the most effective and sure way to arrest the progress and deadly effect of the virus.
- ⌚ Inactivated vaccines are known for their safety and easy production.
- ⌚ **Inactivated Vaccines**
 - ⦿ **Active pathogens are grown** in large numbers and **then killed** either by a chemical or heat. Although the pathogen is killed, or made to lose its reproduction capacity, **various parts of the pathogen are intact**. E.g The antigen (the chemical structure) that is recognised by the immune system is left unimpaired.
 - ⦿ When this dead microbe is introduced in the body, **the immune system is tricked to respond by producing antibodies** against specific antigens still left intact, without knowing that the pathogen is defective.
 - ⦿ As the pathogen is dead, it cannot reproduce nor cause even a mild disease. Thus, it is safe to administer to even people with lesser immunity, like the old and those who have comorbidity.
 - ⦿ Inactivated **polio vaccine and the rabies vaccine** are made this way.
- ⌚ **Benefit:** If a **large amount of coronavirus is grown and inactivated**, that will be material for candidate vaccines to be injected.
- ⌚ **Challenges:** The important technological challenge is **growing the coronavirus outside of the human host**.
 - ⦿ As the novel coronavirus has evolved to life on human cells, locating the **right source of the cell line to grow the virus outside of the human body** is key to this technology.
- ⌚ CCMB is using the **epithelial cell line from African green monkeys** to artificially grow and harvest the deadly virus.

- ⌚ The cells will be observed and if **the cells show changes, including dying of cells and release of the virus, then the culture is positive.**
- ⌚ Finding a right cell growing technology for the novel coronavirus **will also help in drug development.**

Other Types of Vaccine

- ⌚ **Live-attenuated vaccines**
 - ⊙ Live vaccines use a **weakened (or attenuated) form of the germ** that causes a disease.
 - ⊙ Because these vaccines are so **similar to the natural infection** that they help prevent, they create a strong and long-lasting immune response.
 - ⌘ Just one or two doses of most live vaccines can give you a lifetime of protection against a germ and the disease it causes.
 - ⊙ The limitation of this approach is that these vaccines usually **cannot be given to people with weakened immune systems**
 - ⊙ Live vaccines are used against: **Measles, mumps, rubella** (MMR combined vaccine), **Rotavirus, Smallpox** among others.
- ⌚ **Subunit, recombinant, polysaccharide, and conjugate vaccines**
 - ⊙ They use **specific pieces of the germ** — like its protein, sugar, or capsid (a casing around the germ). They give a very strong immune response.
 - ⊙ They can also be used on people with weakened immune systems and long-term health problems.
 - ⊙ These vaccines are used to protect against: **Hib** (Haemophilus influenzae type b) disease, **Hepatitis B, HPV** (Human papillomavirus), **Pneumococcal disease** among others.
- ⌚ **Toxoid vaccines**
 - ⊙ Toxoid vaccines use a toxin made by the germ that causes a disease. Toxoid vaccines are used to protect against: Diphtheria, Tetanus.

Chitra GeneLAMP-N for Covid-19 Test

Why in News

- ⌚ **Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST)**, Trivandrum (Kerala), has developed a diagnostic test kit that can confirm Covid-19 in 2 hours at low cost.

- ⊙ SCTIMST is an Institute of National Importance under the **Department of Science and Technology (DST).**

Key Points

- ⌚ The test kit, funded by the DST called **Chitra GeneLAMP-N**, is highly specific for **SARS-CoV-2 N-gene** and can **detect two regions of the gene.**
 - ⊙ This would ensure that the test does not fail even if one region of the viral gene undergoes mutation during its current spread.
- ⌚ It is a confirmatory diagnostic test, which detects the N Gene of SARS- COV2 using **reverse transcriptase loop-mediated amplification of viral nucleic acid (RT-LAMP).**
- ⌚ The results can be read from the machine from the **change in fluorescence.**
 - ⊙ Fluorescence is the **emission of light by a substance** that has absorbed light or other electromagnetic radiation.
- ⌚ The tests performed at National Institute of Virology (NIV), Alappuzha (Kerala) (authorized by Indian Council of Medical Research (ICMR)) show that Chitra GeneLAMP- N has **100% accuracy** and match with test results using **Reverse Transcription Polymerase Chain Reaction (RT-PCR).**
- ⌚ This has been intimated to Indian Council of Medical Research (ICMR), the authority to approve it, for Covid-19 testing in India, following which License needs to be obtained from Central Drugs Standard Control Organisation (CDSCO) for manufacture.
- ⌚ **Advantages**
 - ⊙ A total of 30 samples can be tested in a single batch in a single machine allowing a **large number of samples to be tested each day.**
 - ⊙ Current Polymerase Chain Reaction (PCR) kits in India enable detection of E gene for screening and RdRp gene for confirmation. Chitra GeneLAMP-N gene testing will allow confirmation in one test **without the need for a screening test and at much lower costs** (less than Rs. 1000/test).
 - ⊙ Chitra GeneLAMP-N makes confirmatory tests results of Covid-19 possible in 2 hours.
 - ⌘ The detection time is 10 minutes, and the sample to result time (from RNA extraction in swab to RT-LAMP detection time) **will be less than 2 hours.**

- ⌚ The testing facility can be **easily set up** even in the laboratories of district hospitals with **limited facilities and trained laboratory technicians**.

Gene

- ⌚ Gene, unit of **hereditary information**.
- ⌚ Genes achieve their effects by directing the **synthesis of proteins**.
- ⌚ Genes are composed of **Deoxyribonucleic acid (DNA)**, except in some viruses, which have genes consisting of a closely related compound called **Ribonucleic acid (RNA)**.

Reverse Transcription-based Loop Mediated Isothermal Amplification (RT-LAMP)

- ⌚ It is a simple **quantitative detection method**.
- ⌚ In this method, a **DNA copy of the viral RNA is generated** by reverse transcriptase, and then **isothermal amplification is carried out to increase the amount of total DNA**.
 - ⌚ A reverse transcriptase (RT) is an enzyme used to generate complementary DNA (DNA) from an RNA template, a process termed reverse transcription.
 - ⌚ Isothermal amplification enables rapid and specific amplification of DNA at constant temperature (60-65 °C).

Sepsivac to be Tested for Covid-19

Why in News

The **Council of Scientific and Industrial Research (CSIR)** has decided to **test its new drug against Sepsis**, named **Sepsivac** to treat critical patients of **Covid-19**.

Key Points

- ⌚ **New Drug Against Sepsis**
 - ⌚ The new drug has **recently been approved for marketing** in India and would be available commercially as Sepsivac® from Ahmedabad-based Cadila Pharmaceuticals Limited.
 - ⌚ The pharmaceutical company was **supported by CSIR laboratories led by Indian Institute of Integrative Medicine (IIIM)**, Jammu in development of this drug, which has **also been found effective for leprosy patients**.

⌚ Gram Negative Sepsis and Covid-19

- ⌚ **Sepsis** is a serious life-threatening condition caused when the body's response to any kind of infection goes out of balance, triggering changes that can lead to **multi-organ failure**.
- ⌚ **Gram negative bacteremia** (presence of bacteria in the bloodstream) in the critically ill patient is **synonymous with gram negative sepsis**.
 - ⌘ **Gram-negative bacteria** have built-in abilities to find new ways to be resistant and can pass along genetic materials that allow other bacteria to become drug-resistant as well.
- ⌚ According to scientists, there are **some clinical similarities between patients suffering from gram-negative Sepsis and Covid-19**.
- ⌚ A Covid-19 infection **leads to a cytokine storm**, quite **similar to the one seen in Sepsis**, when there is a **heightened immune response** and over production of immune cells because of which the body starts attacking its own cells. There is inflammation and it reduces the lung's capacity to absorb oxygen.

⌚ Effectiveness of Sepsivac

- ⌚ Previous randomised trials in sepsis patients showed **11% absolute reduction and 55.5% relative reduction in mortality**. Sepsivac reduces the days on ventilator, in ICU and hospital and incidence of secondary infection.
- ⌚ The drug **uses the Mycobacterium w** (formally known as mycobacterium indicus pranii) as it produces a different immune-system response.
 - ⌘ The United States and Australia are also going to start testing the efficacy of the **BCG, or tuberculosis vaccine**, that also employs a different strain of mycobacterium, in health care workers at the frontline of treating Covid-19 patients.

⌚ CSIR's Plan for Mycobacterium w

- ⌚ CSIR has also planned to **evaluate Mw for faster recovery of hospitalised Covid-19 infected patients** and minimise the spread of disease through them as well for providing **preventive treatment (prophylaxis) to persons coming in contact with Covid-19 infected patients** like family members and health care workers.

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.

Portable Sensor for Heavy Metal Detection in Water

Why in News

Recently, the **Centre for Nano and Soft Matter Sciences (CeNS)** has developed a **compact solid-state sensor to detect the heavy metal ions in water**.

- ⌚ It is a **portable** device which can help onsite detection in remote areas.

Key Points

- ⌚ The compact solid-state sensor can detect the heavy metal ions like **lead ions (Pb²⁺) down to 0.4 parts per billion (ppb)**.
- ⌚ **Mechanism:**
 - ⌚ A sensor film was prepared by **forming a composite between manganese doped zinc sulfide quantum dots and reduced graphene oxide on a glass substrate**.
 - ⌚ These particular quantum dots are **water-soluble** and have **high photoluminescence (~30%) quantum yield**, making them suitable for **luminescence-based sensing**.
 - ⌘ Luminescence is emission of light by certain materials when they are relatively cool. It may be seen in neon and fluorescent lamps.
 - ⌚ These quantum dots can be **excited with handheld UV (ultra-violet) light of 254 nm, thus making them portable** even to remote areas.
 - ⌘ Excitation, in physics, refers to the addition of a discrete amount of energy (called excitation energy) to a system—such as an atom, or a molecule—that results in its alteration, ordinarily from the condition of lowest energy (ground state) to one of higher energy (excited state).

- ⌚ If a **drop of water containing heavy metal ions** such as **mercury (Hg), lead (Pb), cadmium (Cd), etc.** are **added to the composite film, the emission of the film extinguishes within seconds**.
- ⌚ The development of efficient and portable sensors for rapid onsite detection of heavy metal ions becomes important due to the **health hazards associated with them**.
 - ⌚ Heavy metal ions pose severe potential threats to living beings (kidney damage, bone fractures, etc.).
 - ⌚ They can be **accumulated in the body easily and cannot be detoxified** by any chemical or biological processes.
- ⌚ This study demonstrates the easy detection of heavy metal ions in water. However, **strategies are being developed to improve the selectivity of the detection**.

Centre for Nano and Soft Matter Sciences

- ⌚ It is an **autonomous research institute** under the **Department of Science and Technology (DST)**, Government of India.
- ⌚ DST provides **core support** to the Centre in the form of a **grant-in-aid for conducting basic and applied research** in nano and soft matter sciences.
- ⌚ CeNS is located at **Jalahalli, Bengaluru**.
- ⌚ It is being mentored by **Nano-Mission** of the Government of India.
- ⌚ It is **engaged in materials research** at all relevant length scales.
 - ⌚ The current activities are focussed on a variety of metal and semiconductor nanostructures, liquid crystals, gels, membranes and hybrid materials.
- ⌚ The Centre was **established in 1991** by an **eminent liquid crystal scientist, Prof. S. Chandrasekhar, FRS**. After years of expansion and name changes, in **2014**, it became the **Centre for Nano and Soft Matter Sciences (CeNS)**.

Nano Mission

- ⌚ It was **launched in 2007** as an **umbrella capacity-building programme** by the Government of India.
- ⌚ It is being implemented by the **Department of Science and Technology**.
- ⌚ Objectives:
 - ⌚ Basic research promotion.
 - ⌚ Infrastructure development.
 - ⌚ Nano applications and technology development.

- ⊙ Human Resource development.
- ⊙ International collaborations.
- ⌚ The Nano Mission has established national dialogues to promote R&D in the development of standards for nanotechnology and for laying down a **National Regulatory Framework Road-Map for Nanotechnology (NRFN-Nanotech)**.

Human Challenge Trials

Why in News

In the race to **develop a vaccine for the novel coronavirus**, many people have volunteered to take part in the **Human Challenge Trials (HCTs)**.

- ⌚ It involves **intentionally infecting volunteers** with the novel coronavirus, in order to **speed up the vaccination development**.

Key Points

- ⌚ **Vaccine Development**
 - ⊙ In most of the regulatory regimes, vaccines take several **years to develop** and their development typically proceeds through **three phases of clinical trials**.
 - ⌘ **Phase 1:** Small groups of people receive the trial vaccine.
 - ⌘ **Phase 2:** Clinical study is expanded and the vaccine is given to people who have characteristics (such as age and physical health) similar to those for whom the new vaccine is intended.
 - ⌘ **Phase 3:** Vaccine is given to several thousand people and tested for efficacy and safety. During this phase, participants either receive the vaccine or a placebo.
 - **Placebo** is anything which **looks like real treatment but it is actually not**. For example- sugar pills and saline injections.
 - ⊙ The vaccine's **efficacy is determined by comparing the prevalence of infection** in the **group that was administered the vaccine** with the **one which received a placebo**.
 - ⊙ The **hypothesis** that those in the vaccine group will be infected significantly less is thus tested.

Human Challenge Trials

- ⊙ Under HCTs, participants of both the vaccine group and placebo group are **deliberately exposed to the infection** after their **consent** and thus are **challenged by the disease organism**.
- ⊙ HCTs are **not new** and they are usually carried out in developing medications for **diseases** which are considered **less lethal and have been better understood** by scientists over the years like **malaria**.
- ⊙ Few scientists have suggested **replacing the conventional Phase 3 testing** of vaccines by **controlled HCTs of Covid-19 (SARS-CoV-2) vaccine** which can **accelerate the testing** and potential rollout of efficacious vaccines.
 - ⌘ Such trials **may reduce many months from the licensure process**, making efficacious vaccines available **more quickly** and will also **require significantly less number of people** than regular Phase 3 trials.

⌚ **Ethical Concerns**

- ⊙ HCTs for Covid-19 have been questioned by critics because it is a **potentially deadly disease for even those who are less at risk**, and has **not been studied fully yet**.
- ⊙ In 2016, the **World Health Organisation (WHO)** emphasised on the **ethical framework of the challenge studies** and also highlighted the **importance of informed consent**.
- ⊙ Human challenge studies should be **conducted with abundant forethought, caution, and oversight**. The **value of the information** to be gained should clearly **justify the risks to human subjects**.

Covid-19 Related Disease

Why in News

Recently, the **Paediatric Intensive Care Society (PICS)** of the **United Kingdom** has observed an apparent rise in the number of children suffering from a **multi-system inflammatory state**. Doctors believe that it **could be related to Covid-19**.

Key Points

- ⌚ **Multi-system Inflammatory State**
 - ⊙ It is a **rare illness** that causes **inflammation of the blood vessels** leading to **low blood pressure**. It affects the entire body as it **causes a build-up of fluid in the lungs and other organs**.

- ⊙ Patients suffering from it require **intensive care to support** the lungs, heart and other organs.
- ⊙ **Symptoms:**
 - ⌘ Abdominal and gastrointestinal symptoms.
 - ⌘ Cardiac inflammation.
 - ⌘ Overlapping symptoms of **Toxic Shock Syndrome (TSS)** and **Kawasaki disease** as well.
- 🕒 **Toxic Shock Syndrome**
 - ⊙ It is a **rare** condition which is caused by certain **bacteria** which enter the body and **release harmful toxins**.
 - ⊙ It could be **fatal if not treated in time**.
 - ⊙ **Symptoms:** High temperature, headache, sore throat, cough, diarrhea, dizziness or fainting, difficulty breathing and confusion.
- 🕒 **Kawasaki Disease**
 - ⊙ It is an **acute inflammatory disease of the blood vessels** and usually occurs in **children below the age of five**.
 - ⊙ The **inflammation** in the **coronary arteries** that are responsible for supplying blood to the heart results in **enlargement or in the formation of aneurysms** (swelling of the wall of an artery), leading to **heart attacks**.
 - ⊙ **Symptoms:** Fever, rashes, redness of the cornea, red and cracked lips, a red tongue and lymph node enlargement of the neck.
- 🕒 **Relation to Covid-19**
 - ⊙ **Only a few children** with the symptoms of the multi-system inflammatory state **tested positive for Covid-19**. So, it **remains unclear** if and how the inflammatory syndrome is related to the virus.
 - ⊙ It is suggested by some doctors that the illness **may be a post-infection inflammatory response**, where the immune system get over-stimulated.
 - ⌘ A syndrome **associated with an overstimulated immune system response** is the **Cytokine Storm syndrome**.
 - ⌘ This syndrome may develop as a response to **coronavirus**, leading to **sepsis, multiple organ failures and even death**.
 - ⊙ This could be the reason for the negative Covid-19 test results in some children with this illness because they **could have already recovered from the virus before the inflammation set in** or the **tests simply did not detect the virus**.

- ⊙ These diseases and conditions are rare but it is **important that clinicians are made aware of any potential emerging links** so that they are able to give children and young people the **right care swiftly on time**.

Reverse Vaccinology

Why in News

The Tamil Nadu Dr. MGR Medical University has **developed a vaccine candidate** (i.e. potential vaccine) against **SARS-CoV-2** (Covid-19) through '**reverse vaccinology**'.

Key Points

- 🕒 The **use of genomic information with the aid of computers** for the preparation of vaccines **without culturing microorganism** is known as reverse vaccinology.
- 🕒 **Reverse vaccinology** helps in the **examination of the genome** of an organism in order to identify novel antigens and epitopes that might constitute vaccine candidates.
 - ⊙ Antigen is a **toxin or other foreign substance** which induces an immune response in the body,
 - ⊙ Epitope is a **portion of a foreign protein, or antigen**, that is capable of stimulating an immune response.
- 🕒 With the unwrapping of the entire **genomic sequence**, it is possible to know what molecules make the genomic sequence.
- 🕒 Reverse vaccinology has been used for developing vaccinations for **meningococcal and staphylococcal infections** all through the world.
 - ⊙ Meningococcal meningitis is caused by **Neisseria meningitidis** bacteria. It is a serious **infection of the thin lining that surrounds the brain and spinal cord**.
 - ⊙ Staphylococcal infections are caused by **staphylococcus bacteria** commonly **found on the skin or in the nose** of even healthy individuals.
- 🕒 The technique has been available for the **last 10 to 15 years**.
- 🕒 In reverse vaccinology identification of candidate antigens (potential target for vaccine preparation) is possible without the need to grow the pathogen in a shorter time.

- ⌚ Earlier, a viral culture had to be done in the laboratory to develop a vaccine which was **time-consuming**. It would take time to find out the protein in the virus.

Merger of Two Black Holes with Unequal Masses

Why in News

- ⌚ The gravitational wave observatories at **Laser Interferometer Gravitational-Wave Observatory (LIGO)** have detected a merger of **two unequal-mass black holes for the first time**.

Key Points

- ⌚ The event, dubbed **GW190412**, was observed on 12th April, 2019. The event came almost **five years after the first ever detection of gravitational wave signals** by LIGO detectors.
 - ⌚ On 14th September, 2015 the LIGO Observatories detected a signal from GW150914.
- ⌚ **GW190412**: It involved the merger of two black holes weighing approximately **8 and 30 Solar masses**, respectively. The merger took place at a distance of **2.5 billion light years away**.
 - ⌚ A solar mass is the mass of the sun equal to **approximately 2×10^{30} kg**.
 - ⌚ It is a **standard unit of mass in astronomy**,
- ⌚ The new unequal mass system is a **unique discovery** since all binaries observed previously by the LIGO and Virgo detectors consisted of two roughly similar masses. This will make it possible to infer many more things such as:
 - ⌚ A more **accurate determination of the distance** from the event.
 - ⌚ The **spin or angular momentum** of the black hole with more mass.
 - ⌚ The **orientation of the whole event** with respect to viewers on Earth.
- ⌚ **Difference between binary blackholes of equal masses and unequal masses:**
 - ⌚ Dominant emission of gravitational waves happens at **twice the orbital frequency** of the binary blackholes of **equal masses** and is negligible.

- ⌚ In binary blackholes with unequal masses, the emission happens at a **frequency that is three times the orbital frequency**.
 - ⌘ Orbital frequency is a scalar **measure of rotation rate**.
- ⌚ Also, in the merger of unequal black holes, the **spin of the more massive black hole** can be determined from the **extra features in the signal waveform**.
 - ⌘ The spin of the heavier black hole plays a more prominent role in the dynamics of the binary.
- ⌚ **Verification with the prediction of General Relativity:**
 - ⌚ This observation once again confirms Einstein's theory of general relativity, which predicts the existence of higher harmonics, i.e. gravitational waves at two or three times the fundamental frequency.
 - ⌘ General relativity, also known as the general theory of relativity, is the geometric theory of gravitation **published by Albert Einstein in 1915**.
 - ⌘ **The key predictions of Einstein's theory:** the first direct **detection of gravitational waves** and the first **observation of the collision and merger of a pair of black holes**.

Black hole

- ⌚ A black hole is a place in space where **gravity pulls so much that even light can not get out**. The gravity is so strong because **matter has been squeezed into a tiny space**.

Laser Interferometer Gravitational Wave Observatory

- ⌚ LIGO is the **world's largest gravitational wave observatory**.
- ⌚ It comprises **two enormous laser interferometers located 3000 kilometers apart**.
- ⌚ LIGO exploits the **physical properties of light and of space** to detect and **understand the origins of Gravitational Waves (GW)**.
- ⌚ Though its mission is to detect gravitational waves from some of the most violent and energetic processes in the Universe, the data LIGO collects may have effects on many areas of physics including **gravitation, relativity, astrophysics, cosmology, particle physics and nuclear physics**.

Deep Fakes

Why in News

Recently, cybercrime officials in India have been tracking certain apps and websites that produce nude photographs of innocent people using **Artificial Intelligence (AI)** algorithms.

Key Points

🕒 Deep Fake:

- ⦿ Deep fakes or deep nudes are **computer-generated images and videos**. Cybercriminals use AI softwares to **superimpose a digital composite** (assembling multiple media files to make a final one) **onto an existing video, photo or audio**.
- ⦿ Using AI algorithms a person's words, head movements and expressions are transferred onto another person in such a seamless way that it becomes difficult to tell that it is a deep fake, unless one closely observes the media file.
- 🕒 Deep fakes **first came into notice in 2017** when a Reddit user posted explicit videos of celebrities. After that several instances have been reported.

🕒 Concerns:

- ⦿ The technology becomes **vulnerable** because deep fake images, audio and videos are very **realistic** and can be **used by cybercriminals to spread misinformation to intimidate or blackmail people, seek revenge or commit fraud** on social networking and dating sites.
- ⦿ It has become **one of the modern frauds of cyberspace**, along with **fake news, spam/phishing attacks, social engineering fraud, catfishing and academic fraud**.
- ⦿ It can be used to **create fake pornographic videos** and to make **politicians appear to say things they did not**, so the potential for damage to individuals, organisations and societies is vast.
- ⦿ With the **improvement in technology**, deep fakes are also getting better.
 - ⌘ **Initially, an individual with advanced knowledge** of machine learning and access to the victim's publicly-available social media profile **could only make** deep fakes.
 - ⌘ **Development of apps and websites** capable of such editing became **more frequent and easily accessible** to an average user.

🕒 Legality:

- ⦿ In the US, the legality of deep fakes is **complicated**. An affected person **may claim defamation** but removing such content could be considered **censorship**.
 - ⌘ Then, it will be a **violation of the First Amendment** which guarantees Americans the freedom concerning religion, expression, assembly and the right to petition.
- ⦿ Also, **46 states in the US have revenge porn laws**.
 - ⌘ **Revenge porn** refers to the creation of sexually explicit videos or images that are posted on the Internet without the consent of the subject as a way to harass them.
- ⦿ However, the **Right to be Forgotten**, allows a user to request companies such as Facebook and Google, that have collected his/her data to take it down.

🕒 Protection:

- ⦿ **Ensuring strict privacy settings on social media platforms** because keeping track of who downloads and misuses a user's pictures is impossible.
- ⦿ **Using freely available reverse image search tools** to find images that are similar to users in case it is feared that someone is using the original user's pictures.
- ⦿ **Staying mindful of virtual interactions and checking other user's profiles** to help determine if the person is genuine or not.

Phishing

- 🕒 The email or text message carrying a link appears to come from a trusted source like a bank.
- 🕒 The link takes the user to a fake website and once details like login name and passwords are entered, the login credentials reach the hacker.

Catfish Account

- 🕒 It refers to the practice of setting up fictitious online profiles, generally, for luring another person into a fraudulent romantic relationship.

Hydrogen Fuel Cell Based Bus and Car Project

Why in News

Recently, **National Thermal Power Corporation (NTPC) Limited** has announced the launch of its new

project involving **hydrogen Fuel Cell Electric Vehicles (FCEV)** to run in Delhi and Leh.

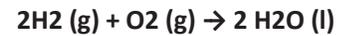
Key Points

- ⌚ NTPC Limited has **invited Global Expression of Interest (EoI)** to provide 10 Hydrogen Fuel Cell (FC) based buses and an equal number of such cars in Leh and Delhi.
 - ⊙ The EoI has been issued by NTPC's wholly owned subsidiary, **NTPC Vidyut Vyapar Nigam (NVVN) Limited**.
- ⌚ This will be the **first time such a project will be undertaken in India**, wherein a complete solution from **green energy** to fuel cell vehicle would be developed.
 - ⊙ The move **aims at decarbonizing the mobility segment**.
 - ⊙ **Tata Motors** launched Starbus Electric 9m, Starbus Electric 12m and the Starbus Hybrid 12m range of buses which are **made in India** and are **powered by alternative fuels** (like Biofuels).
 - ⌘ These buses produce **only water and heat as a byproduct**, thus, producing **zero emissions**.
- ⌚ The initiative has been undertaken with the **support of the Ministry of New and Renewable Energy**.
 - ⊙ The ministry will **also harness renewable energy for the generation of hydrogen and develop its storage and dispensation facilities** as part of pilot projects at Leh and Delhi.
- ⌚ NTPS's initiatives for **complete e-mobility solutions for public transport** include:
 - ⊙ **Creation of public charging infrastructure:** 90 public charging stations in various cities and battery charging and swapping stations for electric 3-wheelers have been commissioned.
 - ⊙ **Providing electric buses to state/city transport undertakings.** For example, e-bus solutions for Andaman & Nicobar Administration are under implementation.
- ⌚ **Other Initiatives:**
 - ⊙ The Government of India launched the **FAME India Scheme** with the **objective to support hybrid/electric vehicles market development and manufacturing ecosystem**.

Fuel Cell Electric Vehicle

- ⌚ **Mechanism:** The FCEV combines hydrogen and oxygen to generate an electric current.

Hydrogen + Oxygen = Electricity + Water Vapour



- ⌚ FCEV engines are **similar to the conventional internal combustion engines** because they also rely on a constant supply of fuel (hydrogen) and oxygen.
 - ⊙ However, there are **no moving parts** in the fuel cell, so they are **more efficient and reliable**.
- ⌚ **Advantages:**
 - ⊙ FCEVs produce much **smaller quantities of greenhouse gases** (GHGs) and none of the air pollutants that cause health problems.
 - ⊙ Fuel cells **emit only heat and water as a byproduct** and are far **more energy-efficient** than traditional combustion technologies.
 - ⊙ FCEVs **do not need to be plugged in for charging**, like battery-powered EVs.
 - ⊙ There is a **wide availability of resources for producing hydrogen**.
- ⌚ **Disadvantages:**
 - ⊙ The **process of making hydrogen needs energy**, often from fossil fuel sources, which raises questions over hydrogen's green credentials.
 - ⊙ **Handling of hydrogen is a safety concern** because it is **more explosive** than petrol.
 - ⊙ These vehicles are **expensive** and **fuel dispensing pumps are scarce**.

PRACRITI: IIT Delhi

Why in News

Researchers at the **Indian Institute of Technology in Delhi** have developed a web-based dashboard **PRACRITI** for **predicting the spread of Covid-19** in India.

- ⌚ PRACRITI is the acronym for **PRediction and Assessment of CoRona Infections and Transmission** in India.

Key Points

- ⌚ **Prediction of Covid-19 Cases**
 - ⊙ The dashboard gives detailed **State-wise and district-wise predictions** of Covid-19 cases in India for a **three-week period**.
 - ⊙ The data is **updated on a weekly basis** to accommodate **various effects due to administrative interventions, severity of viral strain, change of weather patterns**.

- ⊙ It also accounts for the **effect of different lockdown scenarios** such as the effect of locking down district boundaries, and implementing different levels of lockdown within a district.
- ⊙ It also **includes the effect of movement of population** across district/state borders in the wake of Covid-19.
- 🕒 **Provides R0 Value**
 - ⊙ PRACRITI provides the **R0 values of each district and State** based on data available from the Ministry of Health and Family Welfare, **National Disaster Management Authority (NDMA)**, and the **World Health Organization (WHO)**. Reduction of R0 is key in **controlling and mitigating Covid-19** in India.
 - ⊙ **Reproduction number (R0):**
 - ⌘ Reproduction number (R0), pronounced 'R naught' refers to the **number of people to whom the disease spreads from a single infected person.**
 - ⌘ For instance, if an active Covid-19 patient infects two uninfected persons, the R0 value is two.
- 🕒 **Working:**
 - ⊙ Predictions are based on a recent mathematical model, namely, **Adaptive, Interacting, Cluster-**

based, Susceptible, Exposed, Infected, Removed (AICSEIR) model.

- ⊙ This is a modified form of the traditional SEIR model and it caters for the interactions that occur between subpopulations such as districts or states. The model **divides population into following four classes:**
 - ⌘ Susceptible refers to people who have **not been exposed to the coronavirus.**
 - ⌘ Exposed refers to those who have been **exposed to the virus from an infected person.**
 - ⌘ Infected refers to those who are **actively infected with Covid-19.**
 - ⌘ Removed refers to those who are **no longer a carrier of the virus.**
- 🕒 **Benefits**
 - ⊙ Such a platform will be highly useful for **healthcare organisations as well as local and central authorities** to efficiently plan for different future scenarios and resource allocation.
 - ⊙ These predictions can help the districts and states **having higher R0 to take rigorous measures** to control the spread of Covid-19, while for those with **low R0 they need to sustain measures and remain very vigilant.**



Environment and Ecology

Highlights

- ⌘ Conversion of Surplus Rice to Ethanol
- ⌘ Water Quality Improves in Yamuna
- ⌘ No Improvement in Ganga Water Quality
- ⌘ Godavari Valley Area and Covid-19
- ⌘ Aerosol Levels Hit 20-year Low
- ⌘ XI Petersberg Climate Dialogue
- ⌘ Dehing Patkai Wildlife Sanctuary
- ⌘ Earth Day
- ⌘ World Malaria Day

Conversion of Surplus Rice to Ethanol

Why in News

Recently, the **Central Government** has allowed the **conversion of surplus rice to ethanol**.

- ⌚ Ethanol produced from this will be used for **utilisation in making alcohol-based hand sanitizers and blending in petrol**.
- ⌚ Ethanol is one of the most variable alternatives amongst **biofuels**.

Key Points

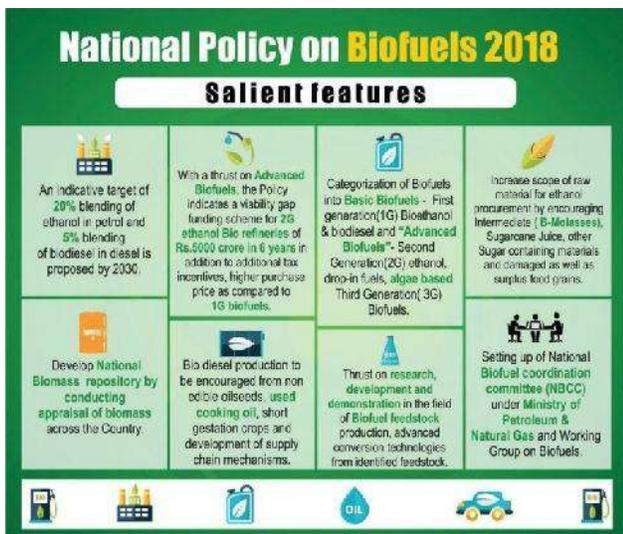
- ⌚ The **National Biofuel Coordination Committee (NBCC)** took the decision which will lead to utilisation of part of a **huge stockpile of 30.57 million tonnes (MT) of rice** which is **almost 128% more** than the buffer stock and strategic requirement norms.
 - ⌚ At present, the **Food Corporation of India (FCI)** has huge rice stock from previous years excluding the unmilled paddy lying with millers on behalf of FCI.
- ⌚ Using surplus rice for ethanol will **address the concern of about 750 million litres of grain-based distillery capacities lying idle**, due to the **lack of feedstock**.
 - ⌚ In India, the **total capacity of grain-based distilleries** is **close to 2 billion litres**, of which around **38% (750 million litres) was lying unused**.
- ⌚ The **National Policy on Biofuels, 2018** allows **conversion of surplus quantities of food grains to ethanol** when there is a projected oversupply of food grains.

Major Criticism

- ⌚ This move has been **criticised** on the grounds that **how can the government waste food stock for fuel** when the considerable number of the population **doesn't have food and is suffering from malnutrition**.
- ⌚ On 26th March 2020, the government decided to give 5 kg wheat or rice and 1 kg of preferred pulses free of cost to 800 million people, under the **National Food Security Act, 2013 (NFSA)** in the wake of the **Covid-19 pandemic**.
 - ⌚ However, **many poor people are unable to get the benefit out of it**, due to loopholes in the PDS network.
 - ⌚ For example, a large chunk of **ration card holders may not be eligible for the free grains**, as they are not covered under the NFSA.
 - ⌚ The **NFSA, based on the 2011 census**, had not **factored in the population increase in over nine years**, leaving a huge number of people out of its ambit.

National Policy on Biofuels, 2018

- ⌚ It **categorises biofuels in various categories** to enable extension of appropriate financial and fiscal incentives under each category.
 - ⌚ **Basic Biofuels or First Generation (1G):** Bioalcohols, Biodiesel, etc.
 - ⌚ **Advanced Biofuels or Second Generation (2G):** Ethanol, Municipal Solid Waste (MSW) to drop-in fuels, etc.
 - ⌚ **Third Generation (3G):** Butanol.
 - ⌚ **Fourth Generation (4G):** Fuel from genetically engineered crops.



- ⌚ It expands the scope of raw material for ethanol production by allowing use of sugarcane juice, sugar containing materials like sugar beet, sweet sorghum, starch containing materials like corn, cassava, damaged food grains like wheat, broken rice, rotten potatoes which are unfit for human consumption.
- ⌚ Objective:
 - ⊙ To achieve 20% ethanol-blending and 5% biodiesel-blending by the year 2030.
 - ⊙ It also expands the scope of feedstock for ethanol production and has provided for incentives for production of advanced biofuels.

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 behind improved quality:
 - ⊙ Lockdown: Earlier, a Delhi Jal Board (DJB) report had also highlighted the improved quality of water due to the Covid-19 lockdown.
 - ⊙ Increased Flow: Haryana has increased the discharge of water which has also contributed to less pollution due to dilution of polluted water.

Biochemical Oxygen Demand

- ⌚ It is the amount of dissolved oxygen needed by microorganisms to decompose organic matter under aerobic reaction (in the presence of oxygen) at a specified temperature.
- ⌚ A higher BOD level means that more oxygen is needed to decompose a large quantity of organic matter present in the water.
- ⌚ 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:
 - ⊙ Oxygen is measured in its dissolved form as dissolved oxygen (DO). DO tells a lot about the water quality.
 - ⊙ As the DO level decreases the water quality deteriorates and some aquatic animals may move away, weaken, or die.

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**, 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**.

No Improvement in Ganga Water Quality

Why in News

According to a report published by the **Central Pollution Control Board (CPCB)**, the **pollution in Ganga has not reduced significantly during lockdown**.

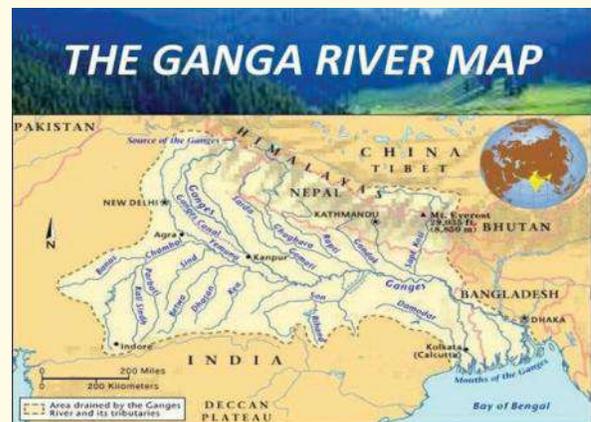
- ⌚ The CPCB assessed pollution a week before lockdown and weeks after at 36 locations in **Uttar Pradesh and West Bengal**.

Key Points

- ⌚ The **Dissolved Oxygen (DO)** concentration **improved marginally**.
 - ⊙ There is a **gradual increase in Biological Oxygen Demand (BOD)** levels towards downstream stretches of the river, with the maximum values in West Bengal.
 - ⊙ There is **marginal reduction in Chemical Oxygen Demand (COD)** levels which is attributed due to the stoppage of industrial activities.
 - ⌘ COD measures the amount of oxygen in parts per million required to oxidise organic (biodegradable and non-biodegradable) and oxidizable inorganic compounds in the water sample.
- ⌚ The **pollution in Ganga is highest in Uttar Pradesh**.
- ⌚ **Causes of Pollution:** Domestic wastewater from 97 towns situated near river Ganga, and industrial effluents, are the main sources of water pollution in the river.
- ⌚ There was notable **improvement in water quality in the Yamuna**.

The Ganga River System

- ⌚ The headwaters of the Ganga called the **'Bhagirathi'** is fed by the **Gangotri Glacier** and joined by the **Alaknanda at Devprayag** in Uttarakhand.
- ⌚ At Haridwar, Ganga emerges from the mountains to the plains.
- ⌚ The Ganga is joined by many tributaries from the Himalayas, a few of them being major rivers such as the Yamuna, the Ghaghara, the Gandak and the Kosi.
- ⌚ The **Ganga bifurcates at Farakka Barrage**; the Bhagirathi-Hooghly (a distributary) flows southwards through the deltaic plains to the Bay of Bengal. The mainstream flows southwards into Bangladesh and is joined by the Brahmaputra leading to the Sunderbans Delta.



Central Pollution Control Board

- ⌚ The Central Pollution Control Board (CPCB) of India is a statutory organisation under the **Ministry of Environment, Forest and Climate Change**.
- ⌚ It was established in 1974 under the Water (Prevention and Control of Pollution) Act, 1974.
- ⌚ The CPCB is also entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.

Godavari Valley Area and Covid-19

Why in News

Recently, a petition has been filed in the Supreme Court for directing the Andhra Pradesh government to conduct **Covid-19** tests among the tribal population living along the **Godavari river valley area**.

Key Points

- ⌚ The petition said the Godavari river valley area, where the tribal people live, is close to the **Polavaram irrigation project area**.
- ⌚ The Godavari river valley area spreads across Andhra Pradesh, Telangana, Odisha and Chhattisgarh.
- ⌚ The Covid-19 **lockdown has been blatantly violated** for the construction of the Polavaram irrigation project on Godavari river in Andhra Pradesh.
- ⌚ A large number of migrant workers work on the project site without sanitisers and masks. These workers live in close proximity to the tribal population.
- ⌚ **Lack of awareness among the tribal people**, who live in dense forest and other scheduled areas of the river valley, made them **more prone to Covid-19 infections**.
- ⌚ **Kondareddis, Koyas and Kolam** are the popular tribes living in godavari valley.
 - ⦿ Konda reddis and Kolam are part of **Particularly Vulnerable Tribal Groups (PVTG)**.

Polavaram Irrigation Project

- ⌚ **Polavaram Project** is located in Andhra Pradesh on the river Godavari, near Polavaram village.
- ⌚ **It is a multi-purpose irrigation project** as the project once completed will provide **Irrigation benefits** and will generate **HydroElectric Power**. In addition, this project will also **supply drinking water**.
- ⌚ It will facilitate an **inter-basin transfer to the Krishna river** basin through its Right canal.
- ⌚ It will also provide indirect benefits such as development of Pisciculture (breeding and rearing of fish), tourism and urbanisation.

Godavari River

- ⌚ **Source:** Godavari river rises from Trimbakeshwar near Nasik in Maharashtra and flows for a length of about 1465 km before outfalling into the Bay of Bengal.
- ⌚ **Drainage Basin:** The Godavari basin extends over states of Maharashtra, Andhra Pradesh, Chhattisgarh and Odisha in addition to smaller parts in Madhya Pradesh, Karnataka and Union territory of Puducherry.
- ⌚ **Tributaries:** Pravara, Purna, Manjra, Penganga, Wardha, Wainganga, Pranhita (combined flow of Wainganga, Penganga, Wardha), Indravati, Maner and the Sabri.

- ⌚ The Project has been **accorded national project status by the union government in 2014** (under Section-90 of Andhra Pradesh Reorganization Act, 2014).

Aerosol Levels Hit 20-year Low

Why in News

According to the data published by the **National Aeronautics and Space Administration (NASA)**, **aerosol levels in northern India at the beginning of April were significantly below** the normal for this time of year.

- ⌚ The levels were the **lowest in 20 years of Moderate Resolution Imaging Spectroradiometer (MODIS) observations**.
- ⌚ MODIS is a key instrument on NASA's satellites designed to monitor the Earth's atmosphere, ocean, and land surface. Data provided by it **assists policymakers in making sound decisions concerning the protection of the environment**.

Aerosols

- ⌚ Aerosols are defined as a combination of **liquid or solid particles** suspended in a **gaseous or liquid environment**.
- ⌚ In the atmosphere, these particles are mainly situated in the **low layers of the atmosphere (< 1.5 km)** since aerosol sources are located on the terrestrial surface.
- ⌚ However, certain aerosols **can still be found in the stratosphere, especially volcanic aerosols** ejected into the high altitude layers.
- ⌚ The origin of atmospheric aerosols is either **natural or the result of anthropogenic activities**.
 - ⦿ **Natural sources of aerosols** include sea salt generated from breaking waves, mineral dust blown from the surface by wind, and volcanoes.
 - ⦿ **Anthropogenic aerosols** include sulfate, nitrate, and carbonaceous aerosols, and are mainly from fossil fuel combustion sources.
- ⌚ Effects of aerosols:
 - ⦿ They affect the **atmospheric chemical composition**.
 - ⦿ They can reduce **visibility**.
 - ⦿ They have important impacts on **air quality and human health** (e.g. aerosols can cause damage to heart and lungs).
 - ⦿ They serve as **nuclei for cloud droplets or ice crystals in ice clouds**.

Key Points

- ⌚ **Use of Aerosol Optical Depth:** The data published with mapsshow **Aerosol Optical Depth (AOD) in 2020** compared to the average for 2016-2019. On the day of the **lockdown** on March 25, 2020, it was 0.3 over north India. The AOD fell to 0.2 around April 1 and was found to be 0.1 on April 5.
 - ⦿ Aerosol optical depth is a measure of **how light is absorbed or reflected by airborne particles** as it travels through the atmosphere.
 - ⦿ If aerosols are concentrated near the surface, an **optical depth of 1 or above** indicates **very hazy conditions**.
 - ⦿ An optical depth, or thickness, of **less than 0.1** over the entire atmospheric vertical column is **considered clean**.
- ⌚ The findings are in line with the analysis of the government's **air monitoring service, System of Air Quality and Weather Forecasting and Research (SAFAR)**, which also found **significant reduction in PM10, PM2.5 and nitrogen oxides levels** in major cities, including the national capital, after the lockdown was imposed.
- ⌚ **Impact of lockdown:**
 - ⦿ Every year, aerosols from anthropogenic (human-made) sources contribute to **unhealthy levels of air pollution** in many Indian cities.
 - ⦿ Human activities — driving vehicles, operating coal-fired power plants and factories, etc — **produce nitrates and sulphates that contribute to heavy concentration of aerosols** across the Indo-Gangetic Plains, every year.
 - ⦿ On March 25, 2020 the Indian government placed its 1.3 billion citizens under a strict **lockdown to reduce the spread of Covid-19**.
 - ⦿ The countrywide mandate **decreased activity at factories and severely reduced car, bus, truck and airplane traffic**. This has **contributed to the decreased levels of aerosols**.
- ⌚ **Different conditions in southern India:**
 - ⦿ Satellite data show aerosol levels have not yet decreased to the same extent. In fact, levels seem to be **slightly higher than in the past four years**.
 - ⦿ The reasons are unclear but could be related to recent **weather patterns, agricultural fires, winds or other factors**.

XI Petersberg Climate Dialogue

Why in News

Recently, the **Union Minister for Environment, Forest and Climate Change** attended the **11th Petersberg Climate Dialogue**.

- ⌚ The dialogue was **held virtually for the first time** in the wake of the **Covid-19 pandemic**.

Key Points

- ⌚ **Petersberg Climate Dialogue**
 - ⦿ It 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 virtual XI Petersberg Climate Dialogue was **co-chaired by Germany and the United Kingdom (UK)** and was attended by about 30 countries including India.
 - ⌘ The UK is the incoming Presidency of the 26th Conference of Parties (COP 26) to the **United Nations Framework Convention on Climate Change (UNFCCC)**.
 - ⌘ **COP25** was held at **Madrid, Spain in December 2019**.
 - ⦿ This year's dialogue was crucial because of the efforts to contain **coronavirus** as well as countries preparing to move into the **implementation phase of the Paris Agreement 2015 in the post-2020 period**.
- ⌚ **India's Contributions in the Dialogue:**
 - ⦿ India **expressed solidarity with the world** as it combats the Covid-19 pandemic and **emphasised on adopting more sustainable consumption patterns** in line with the requirement of sustainable lifestyles.
 - ⦿ India **suggested having climate technology as an open source** available to all countries at affordable prices.
 - ⦿ India **stressed on climate finance** and urged to plan for 1 trillion USD in grants to the developing world immediately.
 - ⦿ India **highlighted its Nationally Determined Contributions** spanning a ten-year time frame and in compliance with the **temperature goal** of the Paris Agreement.

- ⌚ India focused on the opportunity to accelerate renewable energy deployment and create new green jobs in the renewable energy and energy efficiency sector.

Paris Agreement 2015

- ⌚ Parties to UNFCCC agreed to strive to limit the rise in global warming to well under 2 degrees Celsius, over pre-industrial levels, by 2100, under Paris Agreement 2015.
- ⌚ **Nationally Determined Contributions (NDCs)** were conceived at the Paris summit which require each Party to prepare, communicate and maintain successive NDCs that it intends to achieve.
- ⌚ Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.
- ⌚ Paris Agreement replaced earlier agreement to deal with climate change, **Kyoto Protocol**.

Kyoto Protocol

- ⌚ It was an international agreement linked to the UNFCCC, which committed its parties by setting internationally binding emission reduction targets.
- ⌚ It was adopted in **Kyoto, Japan in 1997** and entered into force in **2005**.
- ⌚ It recognized that **developed countries are principally responsible for the current high levels of greenhouse gases (GHG) emissions** in the atmosphere as a result of more than 150 years of industrial activity.
- ⌚ The detailed rules for the implementation of the Protocol were adopted at **COP-7 in Marrakesh, in 2001** and are referred to as the **Marrakesh Accords**.
 - ⌚ **Kyoto Protocol Phase-1 (2005-12)** gave the target of cutting down emissions by 5%.
 - ⌚ **Phase-2 (2013-20)** gave the target of reducing emissions by at least 18% by the industrialized countries.

Dehing Patkai Wildlife Sanctuary

Why in News

Recently, the **National Board for Wild Life (NBWL)** has recommended coal mining in a part of an Dehing Patkai elephant reserve in Assam.

- ⌚ Dehing Patkai Elephant Reserve includes the Dehing Patkai Wildlife Sanctuary.

Key Points

- ⌚ The Dehing Patkai Wildlife Sanctuary is also known as the **Jeypore Rainforest**.
- ⌚ It is located in the Dibrugarh and Tinsukia districts of Assam.
- ⌚ **Dehing is the name of the river** that flows through this forest and **Patkai is the hill** at the foot of which the sanctuary lies.
- ⌚ **Fauna:** Rare fauna found in the region include **Chinese pangolin, flying fox, wild pig, sambar, barking deer, gaur, serow and Malayan giant squirrels**.
 - ⌚ It is the **only sanctuary in India** which is **home to seven different species of wild cats** - tiger, leopard, clouded leopard, leopard cat, golden cat, jungle cat and marbled cat.
 - ⌚ **Assamese macaque**, a primate found in the forest, is in the red list of near threatened species.
- ⌚ **Flora:** Dehing Patkai is a **deciduous rainforest** interspersed with semi-evergreen and lush green flora.

National Board for Wildlife

- ⌚ It is a **statutory Board** constituted officially in **2003** under the **Wild Life (Protection) Act, 1972**.
- ⌚ The NBWL is under the **Ministry of Environment, Forest and Climate Change (MoEFCC)**.
- ⌚ The NBWL is **chaired by the Prime Minister** and is **responsible for promotion of conservation and development of wildlife and forests**.
- ⌚ The **board is 'advisory' in nature** and can only advise the Government on policy making for conservation of wildlife.
- ⌚ The **standing committee** of NBWL is **chaired by the Minister of Environment, Forest and Climate Change**.
 - ⌚ The standing committee approves all the projects falling within protected wildlife areas or within 10 km of them.

Earth Day

Why in News

- ⌚ Every year, **22nd April** is celebrated as **Earth Day** to raise public awareness about the environment and inspire people to save and protect it.

Earth Day Network

- ⌚ Earth Day Network is a nonprofit organization whose mission is to diversify, educate and activate the environmental movement worldwide.
- ⌚ EDN main office is located in Washington DC, USA.

Note:

- ⌚ 22 March: **World Water Day**
- ⌚ 22 April: Earth Day
- ⌚ 22 May : **World Biodiversity Day**
- ⌚ Recently the **Earth Hour** was observed on 28th March, 2020. It encourages people to switch off the lights from 8.30 pm to 9.30 pm as per their local time.

- ⌚ The year 2020 marks 50 years since the start of this **modern environmental movement in 1970**.
- ⌚ The theme of Earth Day 2020 is **“Climate Action”**.

Key Points

- ⌚ It was first celebrated in 1970 and is now coordinated globally by the **Earth Day Network** and celebrated in more than 193 countries each year.
- ⌚ The idea of commemorating such a day was propounded by **Gaylord Nelson**, an American environmentalist and politician.
- ⌚ The Earth Day also recognizes a **collective responsibility**, as called for in the **1992 Rio Declaration (Earth Summit)**, to promote harmony with nature and the Earth to achieve a just balance among the economic, social and environmental needs of present and future generations of humanity.
- ⌚ The **Paris Agreement** was also opened for signature on **22nd April 2016 – Earth Day – at United Nations Headquarters in New York**.
- ⌚ World Earth Day encourages people to take more steps for the protection of nature and to thank mother earth for the rich environment.

World Earth day 2020: Digital Celebration

- ⌚ Google marked the 50th anniversary of the Earth Day with a special interactive doodle dedicated to one of the smallest and most critical organisms - **the bees**.

- ⌚ As people have to stay inside their homes amid **Covid-19 lockdown**, World Earth Day 2020 is all set to be celebrated digitally. People who plan on participating can join **‘24 hours of action’**.
- ⌚ One can also take 22 challenges that include measuring your carbon footprint, doing a plastic audit, skype a scientist, work for the earth, zero waste for one day and consume 1 meal per day this week on a plant-based diet.

World Malaria Day

- ⌚ It is celebrated on **25th April** every year, to highlight the need for **continued investment and sustained political commitment** for **malaria** prevention and control.
 - ⌚ Malaria is **preventable as well as curable**.
- ⌚ **Theme for 2020: “Zero malaria starts with me”**
 - ⌚ It is a grassroots campaign that aims to keep malaria high on the political agenda, mobilize additional resources, and empower communities to take ownership of malaria prevention and care.
- ⌚ The **World Health Organisation (WHO)** releases the **World Malaria Report**.
 - ⌚ The **2019 report** showed **no global gains in reducing new infections** over the period 2014 to 2018.
- ⌚ **High burden to high impact:** It is a **new approach** to get the malaria fight back on track, **particularly in countries that carry the highest burden** of disease. It is **founded on 4 pillars**:
 - ⌚ Political will to reduce malaria deaths.
 - ⌚ Strategic information to drive impact.
 - ⌚ Better guidance, policies and strategies.
 - ⌚ A coordinated national malaria response.
- ⌚ WHO **officially endorses disease-specific global awareness days for only four diseases including malaria**:
 - ⌚ **1st December - World AIDS Day.**
 - ⌚ **24th March - World Tuberculosis Day.**
 - ⌚ **28th July - World Hepatitis Day.**

Geography

Highlights

- ⌘ Kasowal Bridge on River Ravi
- ⌘ Daporijo Bridge
- ⌘ Kaleshwaram Lift Irrigation Project
- ⌘ Seismic Noise
- ⌘ BRO Opens Rohtang Pass
- ⌘ Ozone Layer Hole Over Arctic Closed

Kasowal Bridge on River Ravi

Why in News

The **Border Roads Organisation (BRO)** has constructed a **permanent bridge on the Ravi river** to connect Kasowal enclave in Punjab along the India - Pakistan border to the rest of the country.

- ⌚ The 484-meter bridge was built under the **Project Chetak** of BRO.

Key Points

⌚ Project Chetak

- ⌚ This project of the BRO was **raised in June 1962** at Dehradun for construction of Joshimath-Malari-Rinkin road.
- ⌚ In 1980, the project was re-raised for expanding and improving the road networks and ditch-cum-bunds.
- ⌚ The jurisdiction of the project is **spread across the states of Rajasthan, Haryana and Punjab**.

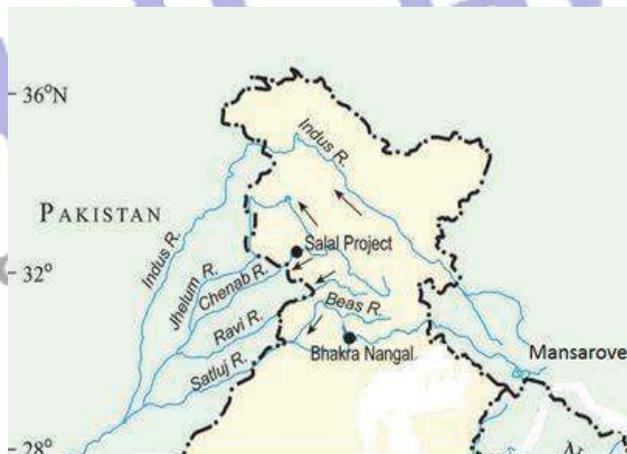
⌚ Ravi River

- ⌚ It is **one of the five tributaries of the Indus River** that give the Punjab (meaning "Five Rivers") its name.
 - ⌘ **Other tributaries are:** Jhelum, Chenab, Beas and Sutlej.
- ⌚ **Transboundary River:** It rises in the Himalayas in Himachal Pradesh (India) and flows to the Pakistani border and along with it for more than 80 km before entering Pakistan's Punjab province.
- ⌚ **Sharing of Water:** The **Indus Waters Treaty in 1960** allocated the water of the **Eastern rivers - Sutlej, Beas and Ravi** - to India for **unrestricted use**. Pakistan has rights of unrestricted use of the

waters of the **Indus and its western tributaries (Jhelum and Chenab)**.

⌘ India has also been permitted to take from the Western rivers for domestic non-consumptive uses, for run-of-the river hydroelectric plants and specified agricultural use and construction of storage works.

- ⌚ **Important Projects: Ujh Multipurpose Project** (River Ujh is a tributary of the Ravi), Shahpurkandi Dam Project



Border Roads Organisation

- ⌚ It was conceived and raised in **1960** by Pandit Jawaharlal Nehru for coordinating the speedy development of a network of roads in the North and the North Eastern border regions of the country.
- ⌚ It works under the administrative control of the **Ministry of Defence**.
 - It has **diversified into a large spectrum of construction and development works** comprising airfields, building projects, defence works and tunneling and has endeared itself to the people.

Daporijo Bridge

Why in News

The **Border Roads Organisation (BRO)** constructed the **Daporijo bridge** over **Subansiri river** in **Arunachal Pradesh** in a **record span of just 27 days**.

Key Points

- ⌚ The bridge is of utmost importance in strategic connectivity as it **links roads leading upto the Line of Actual Control (LAC)** between India and China.
- ⌚ **Subansiri River**
 - ⦿ Subansiri River (**gold river**), originates in the **Tibet Plateau** and **enters India through Miri hills in Arunachal Pradesh**.
 - ⦿ It is the **largest tributary of Brahmaputra River**.

Kaleshwaram Lift Irrigation Project

- ⌚ The Kaleshwaram Lift Irrigation Scheme of Telangana is a multi-purpose irrigation project on the **Godavari River in Kaleshwaram, Bhupalpally, Telangana**.
- ⌚ The project starts at the **confluence point of Pranahita River and Godavari River**.

Godavari River

- ⌚ The Godavari is **India's second longest river** after the Ganga.
- ⌚ **Source:** Trimbakeshwar, Maharashtra.
- ⌚ **Areas drained:** It flows east for 1,465 kilometres, draining the states of **Maharashtra, Telangana, Andhra Pradesh, Chhattisgarh, Odisha, and Karnataka**, ultimately emptying into the Bay of Bengal through its extensive network of tributaries.
- ⌚ **Tributaries:** The major tributaries of the river are classified as the **left bank tributaries** which include the Purna, Pranahita, Indravati and Sabari river and the **right bank tributaries** are Pravara, Manjira, Manair.

Pranahita River

- ⌚ Pranahita river is the largest tributary of the Godavari river covering about 34% of its drainage basin.
- ⌚ It is a confluence of various other smaller tributaries like Wardha, Penganga and Wainganga Rivers.

- ⌚ Originally called **Pranahita-Chevella project** in erstwhile Andhra Pradesh, it was redesigned, extended and renamed as **Kaleshwaram project** in **Telangana in 2014**.

Benefits of the Project

- ⌚ It would bring **drinking water and irrigation** to the backward areas of Telangana.
- ⌚ It will also help to **restore the ground water level** to its original state by the way of shifting from usage of groundwater for irrigation to usage of surface water.
- ⌚ The project will also support **Mission Kakatiya** and **Mission Bhagiratha** schemes designed to provide drinking water to many villages and improve the capacities of tanks.

Mission Kakatiya

It is a flagship programme launched by the Government of Telangana which aims at **rejuvenation of water tanks and other water storage structures** to provide assistance and help to the **small and marginal farmers** of the state.

Mission Bhagiratha

- ⌚ It is a project for **safe drinking water for every village and city household** in Telangana State.
- ⌚ It aims to provide **pipd water** to 2.32 crore people in 20 lakh households in **urban and 60 lakhs in rural areas** of Telangana.
- ⌚ The project will supply **clean drinking water** to all households in the state through water sourced from **River Godavari and River Krishna**.

Seismic Noise

Why in News

Scientists at the British Geological Survey (BGS) have reported a **change in the Earth's seismic noise and vibrations amid the coronavirus lockdown**.

- ⌚ These findings have come two weeks after seismologists at the Royal Observatory in Belgium observed a **30- 50% fall in levels of seismic noise** since schools and businesses were closed in mid-March.

Key Points

- ⌚ **Seismic noise**
 - ⦿ In geology (study of rocks), **seismic noise refers to the relatively persistent vibration of the ground** due to a multitude of causes.

- ⊙ This noise includes vibrations caused due to **human activity**, such as transport and manufacturing.
- ⊙ Scientists **first observed** this seismic noise — everything recorded on seismograms that cannot be attributed to earthquakes — at the end of the **19th century**.
- ⊙ It is the **unwanted component of signals recorded by a seismometer** and makes it difficult for scientists to study seismic data that is more valuable.
- ⊙ Apart from geology, seismic noise is also studied in other fields such as oil exploration, hydrology, and earthquake engineering.
- ⌚ **Benefits of reduction in seismic noise**
 - ⊙ Usually, to measure seismic activity accurately and reduce the effect of seismic noise, geologists **place their detectors 100 metres below the Earth’s surface**.
 - ⌘ Because, the **seismic noise vibrations caused by human activity are of high frequency** (between 1-100 Hz), and travel through the Earth’s surface layers.
 - ⊙ However, **since the lockdown**, researchers have said that **they were able to study natural vibrations even from surface readings**, owing to lesser seismic noise.
 - ⊙ Due to lower noise levels, scientists are now hoping that **they would be able to detect smaller earthquakes and tremors** that had slipped past their instruments so far.

Seismometer

- ⌚ Seismometer is the **scientific instrument** that **records ground motions**, such as those **caused by earthquakes, volcanic eruptions, and explosions**.
- ⌚ These are incredibly **sensitive** so they also pick up other sources of vibration too, including human activity, such as road traffic, machinery and even people walking past.

BRO Opens Rohtang Pass

Why in News

The **Border Roads Organisation (BRO)** has opened the Rohtang Pass, three weeks in advance, for transporting essential supplies and relief materials to Lahaul and Spiti districts of Himachal Pradesh amid the lockdown due to **Covid-19**.

Key Points

- ⌚ The pass is at 13,058 feet on the **eastern Pir Panjal Range of the Himalayas**.
- ⌚ The Pass connects **Leh and Manali**. The road serves as the **only mode of connectivity between the tribal population of Lahaul Valley** in Himachal Pradesh and the rest of the country.
- ⌚ It is also a crucial lifeline for the **Army troops deployed on the eastern border in the Ladakh region**.
- ⌚ The pass remains **snow-bound for almost six months**, from mid-November to mid-May, isolating Lahaul and Spiti districts from the rest of the country.
 - ⊙ The valley depends on **air traffic for external logistics and supplies during winters**.
- ⌚ **Atal tunnel under Rohtang Pass:**
 - ⊙ It is a **8.8-kilometre long tunnel** and will be the **world’s longest tunnel** above an altitude of 3,000 metres.
 - ⊙ It will reduce the **distance between Manali and Leh by 46 kilometres and saves transport costs**.
 - ⊙ It will provide **all weather connectivity** to remote border areas of Himachal Pradesh and Ladakh which otherwise remained cut off from the rest of the country for about six months during winters.

| Pass | Link/Features |
|--------------------|---|
| Banihal Pass | Kashmir Valley with the outer Himalaya and the plains to the south. |
| Bara-Lacha-La Pass | Lahaul district in Himachal Pradesh with Leh district in Ladakh. |
| Fotu La Pass | Leh with Kargil of Ladakh. |
| Rohtang Pass | Kullu Valley with the Lahaul and Spiti Valleys of Himachal Pradesh. |
| Shipki La Pass | Kinnaur district of Himachal Pradesh with Autonomous Region of Tibet, China. |
| Jelep La Pass | Sikkim with Autonomous Region of Tibet, China. |
| Nathu La Pass | Sikkim with Autonomous Region of Tibet, China. |
| Lipu Lekh Pass | Chaudans valley of India with Autonomous Region of Tibet, China. It is located close to the tri junction of Uttarakhand (India), China and Nepal. |
| Khardung La | Ladakh with Siachen glacier. It is the highest motorable pass in the world. |
| Bom di La | It is in Arunachal Pradesh. |

Border Roads Organisation

- ⌚ BRO was conceived and raised in 1960 by Pandit Jawaharlal Nehru for coordinating the speedy development of a **network of roads in the North and the North Eastern border regions** of the country.
- ⌚ It works under the administrative control of the **Ministry of Defence**.
- ⌚ It has diversified into a large spectrum of construction and development works comprising **airfields, building projects, defence works and tunneling** and has endeared itself to the people.

Ozone Layer Hole Over Arctic Closed

Why in News

Recently, the **European Union's Copernicus Atmosphere Monitoring Service (CAMS)** announced that a hole in the Arctic ozone layer, believed to be the biggest reported over the Arctic, has closed.

- ⌚ The ozone hole's closing was because of a phenomenon called the **polar vortex, and not because of reduced pollution levels** due to **Covid-19 lockdowns around the world**.
- ⌚ CAMS is one of **six services that form Copernicus**, the European Union's Earth observation programme.
- ⌚ It provides consistent and quality-controlled information related to **air pollution and health, solar energy, greenhouse gases and climate forcing**, everywhere in the world.

Key Points

- ⌚ **Ozone Hole:**
 - ⌚ It refers to a region in the **stratosphere where the concentration of ozone becomes extremely low in certain months**.
 - ⌚ Ozone (chemically, a molecule of three oxygen atoms) is found mainly in the upper atmosphere, an area called the **stratosphere, between 10 and 50 km from the earth's surface**.
 - ⌚ Ozone **absorbs the harmful UltraViolet (UV) radiations** from the sun eliminating a big threat to life forms on earth. UV rays can cause skin cancer and other diseases and deformities in plants and animals.

Ozone Holes over Antarctica

- ⌚ The ozone holes most commonly refer to the depletions over Antarctica, forming each year in the months of **September, October and November**, due to a set of **special meteorological and chemical conditions that arise at the South Pole**, and can reach sizes of around 20 to 25 million sq km.
- ⌚ **Formation:**
 - ⌚ Polar vortex leads to the most depletion of stratospheric ozone. As winter arrives, a vortex of winds develops around the pole and isolates the polar stratosphere.
 - ⌚ When temperatures drop below **-78°C (-109°F)**, thin clouds **form ice, nitric acid, and sulphuric acid mixtures**.
 - ⌚ **Chemical reactions on the surfaces of ice crystals** in the clouds **release active forms of CFCs** and ozone depletion begins.
 - ⌚ In spring, **temperatures begin to rise, the ice evaporates**, and the ozone layer starts to recover.
- ⌚ Such holes are much **smaller in size in the North Pole** due to the warmer temperatures than the South Pole.

Polar Vortex

- ⌚ A polar vortex is a **large area of low pressure and cold air** that surrounds **both of Earth's poles**.
- ⌚ Polar vortexes always exist, but they typically **weaken during the summer and strengthen in the winter**.
- ⌚ The polar vortex in the **Arctic is typically weaker** due to the presence of nearby **land as well as mountain ranges that disturb the weather** more so than its counterpart to the south.

Reasons Behind the Biggest Ozone Hole over the Arctic:

- ⌚ In 2020, the ozone depletion over the Arctic was much larger. Before this year, the last sizable Arctic ozone hole was reported in 2011.
- ⌚ The hole in the North Pole's ozone layer was **first detected in February, 2020** had since reached a **maximum extension of around 1 million sq km**.
- ⌚ Scientists believe that **unusual atmospheric conditions, including freezing temperatures in the stratosphere**, were responsible.
 - ⌚ As per a European Space Agency report, **cold temperatures (below -80°C), sunlight, wind fields**

and substances such as chlorofluorocarbons (CFCs) were responsible for the degradation of the Arctic ozone layer.

- ⊙ Although Arctic temperatures do not usually fall as low as in Antarctica, this year, **powerful winds flowing around the North Pole trapped cold air within what is known as the polar vortex**— a circling whirlpool of stratospheric winds.
- ⊙ However, the size of hole was still small compared to that usually observed in the southern hemisphere.
- ⌚ **Closing of the hole and Ozone recovery:**
 - ⊙ Scientists believe that the closing of the hole is

because of the same **polar vortex** and not because of the lower pollution levels during the Covid-19 lockdown.

- ⊙ As per the Scientific Assessment of Ozone Depletion data of 2018:
 - ⌘ The ozone layer in parts of the stratosphere has recovered at a rate of **1-3% per decade since 2000**.
 - ⌘ At these projected rates, the **Northern Hemisphere and mid-latitude ozone is predicted to recover by around 2030**, followed by the Southern Hemisphere around **2050**, and polar regions by **2060**.

■■■



VANIK-ias
Exclusive Coaching for UPSC/OPSC

History

Highlights

- ⌘ Kartarpur Sahib Damage
- ⌘ Basava Jayanthi

- ⌘ Khudai Khidmatgar Movement

Kartarpur Sahib Damage

Why in News

India has asked Pakistan to attend to repair and reconstruction of parts of **Kartarpur Sahib gurdwara** that were damaged in a storm on 18th April, 2020.

- ⌚ The shrine in Pakistan's Narowal district, built where **founder of the Sikh faith, Guru Nanak Dev**, lived the last years of his life, is highly revered by followers of the faith and other worshippers in India and the world.

Key Points

- ⌚ Kartarpur Sahib is in the midst of year long festivities associated with the **550th birth anniversary of Guru Nanak**.
- ⌚ It has emerged as a major centre of Sikh pilgrimage in Pakistan over the last few months, after the **corridor from India was operationalised**.
- ⌚ The corridor connects the **Kartar Sahib Gurdwara** in Narowal district of **Pakistan** with the **Dera Baba Nanak shrine** in Gurdaspur district in **India's Punjab province**.
- ⌚ **Kartarpur Sahib**
 - ⌚ Guru Nanak Dev travelled through many countries spreading the message of universal peace, harmony and love before finally arriving in **Kartarpur in 1521**.
 - ⌚ The then-governor of the region, Duni Chand, donated 100 acres of land on the bank of river Ravi to him.
 - ⌚ Kartarpur became a **religious site after he settled there**.
 - ⌚ The foundation stone of the gurdwara in Kartarpur was laid in 1572 and **Maharaja Ranjit Singh covered its dome with gold**.

- ⌚ The present structure was built by **Bhupinder Singh, the Maharaja of Patiala in 1925**.

Guru Nanak Dev

- ⌚ Guru Nanak Dev Jayanti is observed to celebrate the birth of Guru Nanak Dev (1469-1539), who is **first of the 10 Sikh Gurus** and the founder of Sikhism.
- ⌚ He advocated the '**Nirguna**' (**devotion to and worship of formless divine**) form of **bhakti**.
- ⌚ He rejected sacrifices, ritual baths, image worship, austerities and the scriptures of **both Hindus and Muslims**.
- ⌚ He organised his followers into a community. He set up rules for congregational worship (**Sangat**) involving collective recitation.
- ⌚ The fifth preceptor, Guru Arjan Dev, compiled Guru Nanak Dev's hymns along with those of his four successors and other religious poets like Baba Farid, Ravidas (also known as Raidas) and Kabir in the **Adi Granth Sahib**.
- ⌚ These hymns, called '**Gurbani**', are composed in **many languages**.
- ⌚ In the late seventeenth century the tenth preceptor, Guru Gobind Singh, included the compositions of the ninth guru, Guru Tegh Bahadur and this scripture was called the **Guru Granth Sahib**.

Basava Jayanthi

Why in News

The Prime Minister greeted the people on Global Basava Jayanthi, 2020 held digitally on 26th April, 2020, connecting followers in India and abroad.



- ⌚ Basava Jayanthi is an annual event celebrated in the honour of the **birth of Vishwaguru Basaveshwara, the 12th century philosopher and social reformer** who gave a unique spiritual path to mankind.

Key Points

- ⌚ Basaveshwara was born in **Bagevadi (of undivided Bijapur district in Karnataka) during 1131 AD**. He is the **founding saint of the Lingayat sect**.
- ⌚ His spiritual discipline was based on the principles of **Arivu (true knowledge), Achara (right conduct), and Anubhava (divine experience)** and it brought social, religious and economical revolution in the 12th century.
- ⌚ This path advocates a **holistic approach of Lingangayoga (union with the divine)**. This comprehensive discipline encompasses **bhakti (devotion), jnana (knowledge), and kriya (action)** in a well balanced manner.
- ⌚ In Kalyana, the **Kalchuri king Bijjala (1157-1167, AD)** appointed Basaveshwara as a karanika (Accountant) in the initial stage, in his court and later as the Prime minister.
- ⌚ Here, Basaveshwara **revolted against all the social evils** of the traditionalistic society and brought a drastic change in various facets.
- ⌚ His practical approach and act of establishment of **'Kalyana Rajya' (Welfare state)** brought a new status and position for all the citizens of the society, irrespective of **class, caste, creed and sex**.
- ⌚ **Anubhava Mantapa:**
 - ⌚ He established the Anubhava Mantapa, which was a common forum for all to discuss the prevailing problems of socio, economic and political strata **including religious and spiritual principles along with personal problems**.
 - ⌚ Thus, it was the first and foremost Parliament of India, where **Sharanas (citizens of welfare society)** sat together and discussed the **socialistic principles of a Democratic set up**.
 - ⌚ All those **discussions of Sharanas** were written in the form of **Vachanas**.
 - ⌚ Vachanas were an innovative literary form written in **simple Kannada language**.
- ⌚ Basaveshwara gave two more very **important socio-economic principles**. They are:
 - ⌚ **Kayaka (Divine work):** According to this, every individual of the society should take up the job of his choice and perform it with all sincerity.

⌚ Dasoha (Equal distribution):

- ⌚ There must be an equal income for equal work.
- ⌚ The worker (Kayakajeevi) may lead his day-to-day life by his hard earned income. But he should not preserve the money or property for tomorrow. He must utilise the surplus money for the society and poor.
- ⌚ On 14th November 2015, the Prime Minister of India inaugurated the statue of Basavanna along the bank of the river Thames at Lambeth in London.

Khudai Khidmatgar Movement

Why in News

- ⌚ It is 90 years for Qissa Khwani Bazaar massacre.
- ⌚ Qissa Khwani bazar was the site of a massacre perpetrated by British soldiers against **non-violent protesters of the Khudai Khidmatgar movement on April 23, 1930**.

Key Points

- ⌚ **Khudai Khidmatgar Movement**
 - ⌚ The Khudai Khidmatgar was a **non-violent movement** against British occupation of the Indian subcontinent led by **Abdul Ghaffar Khan, a Pashtun freedom fighter, in the North-West Frontier Province**.

Abdul Ghaffar Khan

- ⌚ Abdul Ghaffar Khan (1890-1988), the foremost 20th-century leader of the Pashtuns (a Muslim ethnic group of Pakistan and Afghanistan) was a follower of Mahatma Gandhi and was **called the "Frontier Gandhi"**.
- ⌚ **Ghaffar Khan met Gandhi and entered politics in 1919** during agitation over the Rowlatt Acts, which allowed the confinement of political dissidents without trial.
- ⌚ In 1920 he **joined the Khilafat movement**, which sought to strengthen the spiritual ties of Indian Muslims to the Turkish sultan
- ⌚ In 1921 he was **elected president of a district Khilafat committee** in his native North-West Frontier Province.

- ⌚ Soon after attending an Indian National Congress (Congress Party) gathering in 1929, **Ghaffar Khan founded the Red Shirt movement (Khudai Khitmatgar)** among the Pashtuns.
- ⌚ In **1987 he was awarded the Bharat Ratna Prize**, the highest Indian honour that can be given to civilians. He was the **first foreigner to receive this honour**.
 - ⌚ Another foreigner to receive Bharat Ratna is **Nelson Mandela(1990)**.
 - ⌚ **Mother Teresa, in 1980**, became the first and only naturalised citizen to be awarded the Bharat Ratna.
- ⌚ Over time, the movement turned **political**, leading to the British taking notice of its growing prominence in the region.
- ⌚ Following the arrest of Khan and other leaders in 1929, the movement formally joined the **Indian National Congress** after they failed to receive support from the All-India Muslim League.

- ⌚ Members of the Khudai Khidmatgar were organised and the men stood out because of the bright **red shirts they wore as uniforms**, while the **women wore black garments**.
- ⌚ The Khudai Khidmatgar opposed Partition, a stance that many interpreted as the movement not being in favour of the **creation of the independent nation of Pakistan**.
- ⌚ **Reasons for Qissa Khwani Bazaar massacre:**
 - ⌚ **Abdul Ghaffar Khan and other leaders of the Khudai Khidmatgar were arrested on April 23, 1930** by British police after he gave a speech at a gathering in the town of Utmanzai in the North-West Frontier Province.
 - ⌚ Protests spilled into the **Qissa Khwani Bazaar in Peshawar** on the day of Khan's arrest.
 - ⌚ **British soldiers entered the market area** to disperse crowds that had refused to leave and the British army vehicles drove into the crowds, killing several protesters and bystanders.



Art & Culture

Highlights

⌘ *Ambubachi Mela Cancelled*

⌘ *Draft National List of Intangible Cultural Heritage*

⌘ *Raja Ravi Varma*

Ambubachi Mela Cancelled

Why in News

In the wake of the **Covid-19 pandemic**, the **annual Ambubachi Mela** in Assam will not be organised this year.

⌚ The fair is organised from **21st to 25th June, every year**.

Key Points

- ⌚ The festival marks the **annual menstruation of the presiding Goddess** in the **Kamakhya Temple, Guwahati, Assam**.
 - ⌚ The temple's sanctum sanctorum houses the **yonis (female genital)** symbolised by a rock.
- ⌚ Kamakhya is **one of 51 shakti peethas** or holy sites for the followers of the **Shakti cult**, each representing a body part of the **Sati**, Lord Shiva's companion.
- ⌚ The temple is situated on the **Nilachal Hills**, whose **northern faceslopesdowntotheBrahmaputra river**.
- ⌚ According to the **legends**, it was **built by the demon king Narakasura** but records are available **only from 1565** when Koch king Naranarayana rebuilt the temple.



Importance

- ⌚ **Cultural:** The ritualistic fair celebrates the Goddess' period due to which **taboo associated with menstruation is less in Assam** compared to other parts of India.
 - ⌚ The **attainment of womanhood of girls in Assam is celebrated** with a ritual called **Tuloni Biya**, meaning **small wedding**.
- ⌚ **Social:** The fair is also an occasion to **promote menstrual hygiene** among the visitors **through the use of sanitary pads**.
- ⌚ **Financial:** Assam records a **footfall of at least 5 lakh devotees** during the fair mainly from West Bengal, Bihar, Uttar Pradesh and Jharkhand. **Foreigners also visit** which **boost the state tourism and the revenues** associated.

Draft National List of Intangible Cultural Heritage

Why in News

The Ministry of Culture has launched the draft **National List of Intangible Cultural Heritage (ICH)** of India.

Key Points

- ⌚ The National ICH List is an attempt to **recognize the diversity of Indian culture embedded in its intangible heritage**.
- ⌚ It aims to **raise awareness** about the various intangible cultural heritage elements from different states of India at national and international level and ensure their protection.
- ⌚ This initiative is also a part of the **Vision 2024 of the Ministry of Culture**.
- ⌚ The list has more than 100 elements which also include **13 elements recognized by the United**

Nations Educational, Scientific and Cultural Organization (UNESCO) as Intangible Cultural Heritage of Humanity.

Following UNESCO's 2003 Convention for Safeguarding of Intangible Cultural Heritage, this list has been classified into five broad domains in which intangible cultural heritage is manifested.

The 2003 Convention is a part of the Convention Concerning the Protection of World Cultural and Natural Heritage which was adopted by the General Conference of UNESCO in 1972 in order to promote the identification, protection and safeguarding of natural cultural heritage.

The five domains are:

- Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage.
- Performing arts.
- Social practices, rituals and festive events.
- Knowledge and practices concerning nature and the universe.
- Traditional craftsmanship.

Kerala's martial art form, Kalaripayattu, and the practice of making designs at the entrance of homes and temples called kolam in Kerala, Andhra Pradesh, Tamil Nadu and Andhra Pradesh are included in the draft list.

The present items in the list have been collated from the projects sanctioned under the scheme for 'Safeguarding the Intangible Cultural Heritage and Diverse Cultural Traditions of India' formulated by the Ministry of Culture in 2013.

Scheme for Safeguarding the Intangible Heritage and Diverse Cultural Traditions of India

- The scheme was set up under the Ministry of Culture (MoC) during 2013-14.
- The objective of the Scheme is to support and strengthen the efforts of various stakeholders vis-a-vis wider recognition and acceptance, dissemination, preservation and promotion of the rich, diverse and vast ICH of India including recognition of the same by UNESCO.

13 ICH traditions recognised by UNESCO

| | |
|--|--|
| 1. Tradition of Vedic chanting, 2008 | 8. Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir, India, 2012 |
| 2. Ramliila, the traditional performance of the Ramayana, 2008 | 9. Sankirtana, ritual singing, drumming and dancing of Manipur, 2013 |
| 3. Kutiyattam, Sanskrit theatre, 2008 | 10. Traditional brass and copper craft of utensil making among the Thatheras of Jandiaia Guru, Punjab, India ,2014 |
| 4. Ramman, religious festival and ritual theatre of the Garhwal Himalayas, India, 2009 | 11. Yoga, 2016 |
| 5. Mudi yettu, ritual theatre and dance drama of Kerala, 2010 | 12. Nowruz, 2016 |
| 6. Kalbelia folk songs and dances of Rajasthan, 2010 | 13. Kumbh Mela, 2017 |
| 7. Chhau dance, 2010 | |

The Scheme aims to support

- Institutions / Universities / State Govts / UT Administrations / non-MoC Institutions / Societies / Non-government organisations, involved in the preservation and propagation of intangible cultural heritage, cultural expressions etc.
- Individuals, researchers, scholars, professionals who are involved in the research, training, preservation, perpetuation, dissemination, and propagation of intangible cultural heritage, cultural expressions etc.

Raja Ravi Varma

Why in News

29th April is the birth anniversary of the famed Indian painter Raja Ravi Varma (1848-1906).

- He is remembered for giving Indians their western, classical representations of Hindu gods and goddesses.

Key Points

Early days and training:

- Varma was born into an aristocratic family in Travancore (Kerala).
- At the age of 14, Varma was patronised by Ayilyam Thirunal, the then ruler of Travancore, and went on to receive training in watercolours from Ramaswamy Naidu, the royal painter.

Contributions:

- Made around 7,000 paintings.
- Apart from painting Hindu mythological figures, Varma also made portraits of many Indians as well as Europeans.

- ⊙ Varma worked on both **portrait and landscape paintings**, and is considered **among the first Indian artists to use oil paints**.



- ⊙ He continues to be regarded as the most important representative of the **Europeanised school of painting in India**.
- 🕒 **Lithographic press:** He mastered the **reproduction of his work** on the lithographic press – through which his paintings spread far and wide.
- ⊙ Lithographic press is a method of printing based on the principle that **oil and water do not mix**.

- ⊙ Paintings were earlier sent to Germany and Austria to be lithographed.
- ⊙ Varma set up his **own printing press in Maharashtra** – first in Ghatkopar and eventually in Lonavala in 1894.
- ⊙ Through his printing press, Varma's **paintings travelled into the prayer and living rooms of working-class homes**.
- 🕒 **Famous works:** Damayanti Talking to a Swan, Shakuntala Looking for Dushyanta, Nair Lady Adorning Her Hair, and Shantanu and Matsyagandha.
- 🕒 **Awards and Honours:**
 - ⊙ In 1904, the British colonial government awarded Varma with the **Kaiser-i-Hind Gold Medal**.
 - ⊙ In 2013, a **crater on the planet Mercury** was named in his honour.



VANIK- IAS
Exclusive Coaching for UPSC/OPSC

Social Issues

Highlights

⌘ *Social Recession due to Covid-19*

⌘ *Personal Protective Equipment for Sanitation Workers*

⌘ *Woes of Migrants Amid Covid-19*

⌘ *Global Report on Internal Displacement 2020*

⌘ *e-Raktosh Portal*

Social Recession due to Covid-19

Why in News

As the **coronavirus pandemic** threatens to cause an economic recession, it **may also cause a “social recession”**.

Key Points

- ⌚ **Social Recession:** It is a **collapse in social contacts**.
 - ⌚ Just after a few weeks of social distancing and self-isolation because of Covid-19, we have noticed the **decline in our social interactions** and **might have felt the change in our mental and physical health**.
- ⌚ **Possible Impact of social recession (Flight or Fight Response):** Human beings thrive on social engagements and are wired to stay connected. When these connections are threatened or unavailable, the nervous system may go out of order and thus many negative effects on the body follow:
 - ⌚ Both loneliness (the feeling of being alone) and social isolation (physical state of being alone) can **trigger a cascade of stress hormones** that produce **physiological changes like increased heart rate, thickening of blood, etc.** Together, these physiological changes are called the **fight-or-flight response**.
 - ⌚ **Fight-or-flight response:** In response to stress, the body's sympathetic nervous system is activated and it **stimulates the adrenal glands** triggering the release of adrenaline and noradrenaline.
 - ⌚ These hormones, together with direct actions of autonomic nerves, cause the heart to beat faster, respiration rate to increase blood vessels in the arms and legs to dilate, digestive process to change and glucose levels (sugar energy) in the bloodstream to increase **to deal with the emergency**.

- ⌚ Fight-or-flight response has evolved as a **survival mechanism enabling us to cope with physical and psychological threats**.

⌚ Different Studies related to Social Recession

- ⌚ A recent meta-analysis published in Neuroscience and Biobehavioral Reviews revealed that people who are more socially isolated have **higher levels of C-reactive protein (CRP) and fibrinogen**
 - ⌘ CRP is a **protein made by the liver**. CRP levels in the blood increase when there is a condition causing inflammation somewhere in the body.
 - ⌘ Fibrinogen is a soluble protein that helps blood to clot.
 - ⌘ Both of these are associated with chronic inflammation and poor physical and mental health.
- ⌚ Another study in Perspectives on Psychological Science indicated that lack of social connection and living alone can be detrimental to a person's health, respectively **increasing mortality risk by 29% and 32%**.
- ⌚ They also pointed out that social isolation can lead to several chronic conditions like **hypertension, increased heart rate, increased levels of stress hormones and even accelerated ageing**.
- ⌚ **Coping with isolation**
 - ⌚ Usually when things get tough, people tend to lean towards personal relationships to seek their advice and support. But, this cannot be done during lockdown.
 - ⌚ There are no quick solutions to deal with increasing anxiety due to social isolation. However, some approaches can help:

- ⌚ People have to begin by acknowledging that these are situations unlike what they have seen before and it is quite **normal to feel anxious and lonely**.
- ⌚ It is important to know that the whole world is in the same state as them, and **everyone is together**.
- ⌚ People have to use this time to **establish forgotten connections** via technology and catch up with friends and family.
- ⌚ Most importantly, they should put the focus back on **self-care, eat well, exercise regularly, find ways to calm and focus on themselves**.

Personal Protective Equipment for Sanitation Workers

Why in News

The **National Safai Karamcharis Finance and Development Corporation (NSFDC)** has issued advisory to **municipalities, panchayats** urging them to ensure that all sanitation workers are provided **Personal Protective Equipment (PPE)** to remain safe during the **novel coronavirus pandemic**.

National Safai Karamcharis Finance and Development Corporation

- ⌚ It is a wholly owned Government of India Undertaking under the **Ministry of Social Justice & Empowerment**.
- ⌚ It was set up in 1997 as a “**Not for Profit**” Company under **Section 25 of the Companies Act, 1956** (now Section 8 of Companies Act 2013).
- ⌚ It is an apex Corporation for the all round **socio-economic upliftment of the Safai Karamcharis, Scavengers and their dependents** throughout India, through various **loan and non-loan based schemes**.
- ⌚ NSFDC is also playing a vital role in elimination of **manual scavenging**—the worst surviving **symbol of untouchability**.
- ⌚ NSFDC has been designated as the Nodal Agency for implementation of the **Central Sector Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)** under the aegis of the Ministry of Social Justice & Empowerment.

Section 25 of the Companies Act, 1956

- ⌚ It provides an alternative to those who want to promote charity without creating a Trust or a Society for the purpose.
 - ⌚ It can be noted that **non-profit companies are established under Section 8 of the Companies Act, 2013** which broadly is **similar to Section 25 of the Companies Act, 1956**.
- ⌚ It allows the formation of a company existing as a legal entity in its own right, separate from the person promoting it.
 - ⌚ However any company under this section must **necessarily re-invest any and all income towards promoting the said object or charity**.
 - ⌚ In essence, unlike a regular company, where owners and shareholders can make profits or receive dividends, no money gets out of a Section 25 company.
- ⌚ **Benefits under Section 25:**
 - ⌚ Exempt from **statutory requirements of minimum paid-up capital**.
 - ⌚ They are much easier to run than Trusts and Societies, as board meetings require a **smaller quorum** and requirements for calling such meetings are less rigid.
 - ⌚ It is easier to increase the number of directors.
 - ⌚ It is easier for people donating money to join or leave or transfer shares to others.
 - ⌚ Such a company is obliged to fulfill **far less stringent book-keeping** and auditing requirements as against a regular company. These enjoy **significant tax benefits**. Such companies are also exempt from stamp duty payments.
 - ⌚ Depending on how it is registered under the Income-Tax Act, companies could benefit from **income-tax exemptions**, or from the provision wherein people donating money to these companies receive income deductions in their income-tax liability.

Woes of Migrants Amid Covid-19

Why in News

The **Covid-19 pandemic** and the imposition of **lockdown** in order to curb it has brought the **perils of migrant workers** into the light.

Challenges

- ⌚ Most of the migrant workers are **not routed through licensed contractors** so a huge number is excluded from getting any benefit out of the **Inter-State Migrant Workmen (ISMW) Act, 1979**.
- ⌚ The Act is **only applicable** to any establishment which has **five or more inter-State migrant workers as employees** which again leaves a significant number of workers.
 - ⊙ In reality, a **small proportion** of migrant workmen are **placed under such establishments**.
 - ⊙ Migrants from establishments with less than five migrant employees also cease to be migrants, legally.
- ⌚ The ISMW Act is also **not legally enforceable**.
- ⌚ **Coronavirus** crisis has exposed the **inadequacy of the ISMW Act** highlighting needs for legal safeguards and welfare measures for migrants.

Suggestions

- ⌚ **Repealing of the ISMW Act, 1979 and replacing it with a new Act, or by enlarging the scope of Unorganised Workers' Social Security (UWSS) Act, 2008** to include legal entitlements, to define the migrant workman as a subset, to provide for contingencies of livelihood loss and to make the Act legally enforceable.
- ⌚ **Universalisation of registration and issuance of Aadhaar-based Unique Worker's Identification Number (UWIN)**.
- ⌚ Schemes like **MGNREGA, Public Distribution Scheme (PDS) and Ujjwala** need to be **made portable and extensive**.
- ⌚ **Geofencing** of different benefits enabling a migrant worker to choose location-wise benefits.
- ⌚ Preparing a **comprehensive database of the migrant workers'** source and destination, demography, employment patterns and skill sets.
 - ⊙ It will help in skill development, providing social security benefits, planning for mass transit of migrant labour and preparing for any contingency plan in emergency situations.
- ⌚ **Empowering the Inter-State Council**, set up under **Article 263 of the Constitution** to effectively and comprehensively deal with larger issues related to migrant workers.
 - ⊙ Migrant worker issues have **complex Centre-State and inter-State dimensions**.

Steps Taken by Government

- ⌚ **The UWSS Act, 2008:** It provides for **social security and welfare of unorganised workers**.
 - ⊙ The UWSS Act defines **unorganised workers as home-based worker, self-employed worker or wage worker in the unorganised sector**.
 - ⊙ It has **two features**:
 - ⌘ Registration of unorganised workers.
 - ⌘ Portable smart I-card with a **UWIN**.
- ⌚ **Pradhan Mantri Shram Yogi Maan-dhan Yojana:** To ensure **old age protection** for unorganised workers.
- ⌚ **Atal Pension Yojana:** It is a **social security scheme** launched under the **National Pension System (NPS)** and aims at **providing a steady stream of income** after the **age of 60** to all citizens of India including the migrants and labourers.
- ⌚ **Pradhan Mantri Jeevan Jyoti Bima Yojana and Pradhan Mantri Suraksha Bima Yojana** (under the **Gram Swaraj Abhiyan**): Both of the schemes provide for **life insurance and accident insurance respectively** to the migrants and labourers.
- ⌚ **Pradhan Mantri Jan Arogya Yojana (Ayushman Bharat):** It aims at **providing health cover** to protect the migrants among others against the financial risk arising out of catastrophic health episodes.

Global Report on Internal Displacement 2020

Why in News

The **'Global Report on Internal Displacement 2020'** revealed that **conflict, violence and disasters** led to 50.8 million internal displacement across the world at the end of 2019.

- ⌚ **Internal Displacement** refers to the forced **movement of people within the country** they live in due to conflict, violence, development projects, disasters and climate change.
- ⌚ Report is published by **Norwegian Refugee Council's Internal Displacement Monitoring Centre (IDMC)**.

Key Highlights

- ⌚ **Displacement due to conflict**
 - ⊙ All regions are affected by conflict displacement, but it is **highly concentrated in a few countries**.

of the global total of 45.7 million people displaced due to conflict and violence in 2019, three-quarters or 34.5 million, were in just 10 countries.

- ⊙ **Top Five countries with highest displacement by conflict and violence are:** Syria, Democratic Republic of Congo, Ethiopia, Burkina Faso and Afghanistan.
- 🕒 **Displacement related to disasters**
 - ⊙ Nearly 1,900 disasters sparked **24.9 million new displacements** across 140 countries and territories in 2019.
 - ⌘ This is the **highest figure recorded since 2012**.
 - ⌘ Out of the 24.9 million displaced due to disasters, 23.9 were weather-related, and “much of this displacement took place in form of pre-emptive evacuations”.
- 🕒 **Noted efforts to prevent and respond to internal displacement**
 - ⊙ Countries including Afghanistan, Iraq and the Philippines, **incorporated displacement in their development plans**, in their reporting on the Sustainable Development Goals, or when updating risk management strategies in line with the Sendai Framework for Disaster Risk Reduction.
 - ⊙ The combination of **official monitoring of disaster displacement in the Philippines** with mobile phone tracking data and social media analysis helped improve planning for shelters, reconstruction and long term urban recovery.
 - ⊙ **Improvements in the quantity and quality of data available** also enabled better reporting and analysis, which in turn informed more effective responses and risk mitigation measures.

Data Related to India

- 🕒 Nearly **five million people** were displaced in India in 2019
 - ⊙ It is the **highest in the world**.
- 🕒 **Reasons:** The displacements were prompted by increased hazard intensity, high population and social and economic vulnerability.
 - ⊙ **Southwest Monsoon:** More than 2.6 million people suffered displacement due to the southwest monsoon. 2019 was the seventh warmest year since 1901 and the monsoon was the wettest in 25 years.
 - ⊙ **Cyclones** Fani and Bulbul also led to huge displacements.

⌘ Evacuations save lives, but many evacuees had their displacement prolonged because their homes had been damaged or destroyed.

- 🕒 Over **19,000 conflicts and violence** also prompted the phenomenon.
 - ⊙ Political and electoral violence, especially in Tripura and West Bengal, led to the displacement of more than 7,600 people.

e-Raktkosh Portal

Why in News

Recently, the Union Health Minister urged the **use of the e-Raktkosh portal as a single point for maintaining real-time information on the status of stocks of each blood group**.

- 🕒 The Health Minister has termed the **availability of blood in blood banks as ‘essential’**.
- 🕒 In **several blood disorders** like thalassemia and haemophilia regular transfusion of the blood is necessary.

Key Points

- 🕒 e-Raktkosh portal is a **Centralized Blood Bank Management System**.
- 🕒 It is a **comprehensive IT solution** to standardize and streamline the standard operating procedures,

Blood Disorder

- 🕒 A blood disorder is any condition that **impacts one or more parts of the blood**, usually interfering with its ability to work correctly.
- 🕒 Blood disorder can be categorised as **Common Blood Disorder** like anaemia and **Rare Blood Disorder** like thalassemia.

Types of Blood Disorder

1. Blood Disorders **Affecting Red Blood Cells** like Anemia, Pernicious anemia (B12 deficiency), Aplastic anemia, Autoimmune hemolytic anemia etc.
2. Blood disorders **Affecting White Blood Cells** like Lymphoma, Leukemia, Multiple myeloma.
3. Blood Disorders **Affecting Blood Plasma** like **hemophilia**
4. Blood Disorders **Affecting Platelets** like **thrombocytopenia**.

guidelines and workflow of blood banks across the nation.

- ⌚ It was **inaugurated on 7th April 2016** by then Minister of Health and Family Welfare (MoHFW)
- ⌚ It **enforces Drug & Cosmetic Act, National Blood Policy standards** and guidelines ensuring proper management of blood.
- ⌚ e-Rakt Kosh has components for management of the blood donation life cycle which includes:

- ⌚ The biometric Donor Management System
- ⌚ Blood grouping,
- ⌚ Transmissible Transfusion Infections (TTI) screening,
- ⌚ Antibody screening,
- ⌚ A centralized Blood Inventory Management System
- ⌚ Bio-Medical Waste Management System for disposal of discarded blood.

■■■



VANIK-ias
Exclusive Coaching for UPSC/OPSC

Security

Highlights

☞ Unified Commanders Conference

☞ Civil Defence Volunteers Against Covid-19

Unified Commanders Conference

Why in News

The **Unified Commanders Conference (UCC)** which was scheduled to be held on 22nd-23rd April, 2020 has been postponed in the wake of the **Covid-19 pandemic**.

Key Points

- ⌚ It is the **annual meeting of three armed force services (Army, Navy and Air Force)** and the **Ministry of Defence** to plan India's **long term security**.
- ⌚ It provides a **platform for discussions at the apex level on all the Joint Issues** and **enables stock taking of the previous year** and **planning the way ahead for the next year**.
- ⌚ It is **chaired by the Defence Minister, Minister of State (Defence)** and also **attended by** the ministry top officials, **National Security Advisor (NSA)**, **Chief of Defence Staff (CDS)**, service chiefs and senior officers of the three services.

National Security Advisor

- ⌚ The National Security Advisor **acts as the secretary of the National Security Council (NSC)** of India and is also the **primary advisor to the Prime Minister**.
- ⌚ The current National Security Advisor is **Ajit Doval**.

National Security Council

- ⌚ It is a **three-tiered organization** that **oversees political, economic, energy and security issues of strategic concern**.
- ⌚ India formed it in **1999**, where all aspects of national security are deliberated upon by it.
- ⌚ NSC acts as the **apex body, headed by the Prime Minister**.

⌚ It operates **within the executive office of the Prime Minister of India**, liaising between the government's executive branch and the intelligence services, advising leadership on intelligence and security issues.

- ⌚ The Ministers of Home Affairs, Defence, External Affairs and Finance are its **members**.
- ⌚ NSC comprises the three tier structure- **Strategic Policy Group (SPG)**, the **National Security Advisory Board (NSAB)** and the **National Security Council Secretariat**.
- ⌚ The SPG chaired by the Cabinet Secretary is the principal forum for **inter-ministerial coordination and integration** of the relevant inputs.
- ⌚ The NSAB **undertakes long-term analysis and provides perspectives** on issues of national security.

Chief of Defence Staff

- ⌚ The **Cabinet Committee on Security** approved the creation of the CDS on 24th December 2019. **General Bipin Rawat** is the first CDS.
- ⌚ The CDS acts as the **principal military adviser to the defence minister** on all matters relating to tri-services.
- ⌚ The CDS also serves as the **permanent chairman of the Chiefs of Staff Committee (CoSC)** which comprises the three service chiefs.
- ⌚ The CDS also functions as the **Military Adviser to the Nuclear Command Authority**.

Civil Defence Volunteers Against Covid-19

Why in News

More than 50,000 **Civil Defence volunteers** are assisting the local administration in implementing the measures to contain the spread of **Covid-19**.

- ⌚ **Provisions** under the **State Disaster Response Fund** (constituted under the Disaster Management Act, 2005) have been made by the central government for procurement of **Personal Protective Equipment (PPEs)** to be used by the deployed volunteers.
- ⌚ **All States and Union Territories barring Ladakh, Daman & Diu, and Puducherry have deployed** civil defence personnel.
- ⌚ **Rajasthan, Karnataka, Kerala, Uttar Pradesh, Delhi, Uttarakhand and Assam** have taken the **lead** in using their services.

Key Points

- ⌚ Civil Defence measures are **designed to deal with immediate emergency conditions, protect the public and restore vital services and facilities that have been destroyed or damaged by disaster.**
- ⌚ These operate under the **Civil Defence Act, 1968** and associated rules and regulations.
 - ⦿ The Act was **amended in 2009** and in **2010, disaster management** was included as an additional role.
 - ⦿ It is **applicable throughout the nation.**
- ⌚ Although it is a Central law, **Section 4 of the Civil Defence Act empowers State governments to raise corps at the local administration level as per their requirement.**
- ⦿ The **District Magistrate, District Collector or Deputy Commissioner** is designated as **Controller of the Civil Defence.**
- ⌚ **Objectives:**
 - ⦿ To save the life, to minimize loss of property, to maintain continuity of production and to keep high up the morale of the people.
 - ⦿ During times of war and emergencies, to guard the hinterland, support the Armed forces, mobilise the citizens and help civil administration.
 - ⦿ It not only includes the management of damage against conventional weapons but also the management of threat perceptions against Nuclear weapons, Biological & Chemical Warfare and natural and man-made disasters.
- ⌚ It is **primarily organised on a voluntary basis except for a small nucleus of paid staff and establishment** which is augmented during emergencies.
- ⌚ **Central Financial Assistance:** The central government **reimburses 25% of the expenditure (50% for North-eastern states except for Assam)** incurred by the State Government on the authorized items of Civil Defence for raising, training and equipping of Civil Defence Service.



Miscellaneous

Highlights

- ⌘ Devanahalli Pomelo Trees
- ⌘ Aero India
- ⌘ South Asia Seasonal Climate Outlook Forum
- ⌘ Strategic Petroleum Reserves
- ⌘ Pitch Black
- ⌘ India Among Top Military Spenders: SIPRI

Devanahalli Pomelo Trees

Why in News

The **Bangalore International Airport Limited (BIAL)** will plant **500 Devanahalli Pomelo trees** as part of its Corporate Social Responsibility (CSR). The plantation drive is also part of the **50th anniversary of World Earth Day**.

- ⌚ **Devanahalli pomelo**, a citrus variety, is almost on the brink of extinction.

Key Points

- ⌚ Devanahalli Pomelo has a **Geographical Indication (GI)** tag:
 - ⌚ It is **grown in Devanahalli taluk, Bangalore (Karnataka)** and is **popularly known as chakota**.
 - ⌚ The **Devanahalli pomelo has a unique, sweet taste**, unlike other local varieties which have a bitter taste.
- ⌚ **Reasons for extinction:**
 - ⌚ The **establishment of the Kempegowda International Airport** brought in different livelihood opportunities for people to change their practices and **focus shifted away from its cultivation**.
 - ⌘ BIAL owns and operates Kempegowda International Airport.
 - ⌚ The **absence of an organised market for the fruit** was another factor behind decline in the plantation of the variety.
- ⌚ **Pomelo** is a parent of the grapefruit and is also known by its **scientific name Citrus Maxima**. The fruit is rich in **Vitamin C**.
 - ⌚ While each pomelo tree grows 24 inches per season, it can live from 50-150 years and reach a height of 25 feet.

- ⌚ Each tree annually yields an average of 300 to 400 fruit. Each fruit, typically, weighs 2 to 2.5 kg and is identified by distinctive **pink or red juicy carpels**.

Aero India

Why in News

Recently, the Ministry of Defence has announced that the **13th edition of Aero India** will be held from February 3 to 7, 2021 at Air Force Station Yelahanka (Karnataka).

Key Points

- ⌚ Aero India is a **biennial international military and civil airshow**.
- ⌚ It is a premier event that draws **international and Indian military and civil aircraft makers**, their support industries, military brass and government dignitaries, and business visitors.
- ⌚ The Yelahanka air base, about 30 km from the city centre Bengaluru has been hosting the air show in February **since it was started in 1996**.
- ⌚ The 2021 Aero India will be organised by the **Defence Exhibition Organisation, Ministry of Defence**.
 - ⌚ In 2019, it was organised by Hindustan Aeronautics Ltd (HAL).

Defence Exhibition Organisation

- ⌚ It is an **autonomous organisation of the Indian Government** established in 1981.
- ⌚ The organisation was **established to promote export potential of the Indian defence industry**.
- ⌚ The agency is responsible for **organising international exhibitions such as DEFEXPO** and Indian participation at overseas exhibitions.

South Asia Seasonal Climate Outlook Forum

Why in News

The **spatial forecast** which shows wide variations in rainfall across India has been **provided by the South Asia Seasonal Climate Outlook Forum**.

Key Points

- ⌚ South Asian nations, **supported by the World Meteorological Organization (WMO)**, have been conducting the **SASCOF since 2010**.
- ⌚ SASCOF is a consortium of meteorologists and hydrological experts from South Asian countries, including **Afghanistan, Pakistan, India, Nepal, Bangladesh, Sri Lanka, Maldives, Bhutan and Myanmar**.
- ⌚ They work collectively to **issue regional forecasts** and the team **releases forecasts for the Southwest and Northeast monsoon seasons, every year**.
 - ⦿ The experts usually meet ahead of preparing the forecasts, but it **was called off in 2020 in the wake of Covid-19**.

World Meteorological Organization

- ⌚ The World Meteorological Organization (WMO) is an **intergovernmental organization** with a membership of 193 Member States and Territories.
- ⌚ Established by the ratification of the WMO Convention on 23 March 1950, WMO became the **specialized agency of the United Nations** for meteorology (weather and climate), operational hydrology and related geophysical sciences.
- ⌚ It is **headquartered in Geneva, Switzerland**.

Strategic Petroleum Reserves

Why in News

Recently, India has decided to fill its **strategic petroleum reserves** in view of the **slump in crude prices**.

- ⌚ This will help on two fronts: India will get cheap oil for its reserves and it will also help in resolving the storage problem for refiners.

Key Points

- ⌚ Strategic petroleum reserves are huge **stockpiles of crude oil** to deal with any crude oil-related crisis like the risk of supply disruption from natural disasters, war or other calamities.
- ⌚ According to the agreement on an **International Energy Programme (I.E.P.)**, each **International Energy Agency (IEA)** country has an obligation to hold **emergency oil stocks** equivalent to at least 90 days of net oil imports.
 - ⦿ In case of a severe oil supply disruption, IEA members may decide to release these stocks to the market as part of a collective action.
 - ⦿ **India** became an **associate member of the International Energy Agency** in 2017.
- ⌚ India's strategic crude oil storages are currently located at **Visakhapatnam (Andhra Pradesh), Mangaluru (Karnataka), and Padur (Karnataka)**.
 - ⦿ The government has also given approval for setting up of two additional facilities at **Chandikhol (Odisha) and Padur (Karnataka)**.
- ⌚ The concept of dedicated strategic reserves was **first mooted in 1973 in the US**, after the **OPEC** oil crisis.
- ⌚ Underground storage is, by far the most economic method of storing petroleum products because the underground facility rules out the requirement of large swathes of land, ensures less evaporation and, since the caverns are built much below the sea level, it is easy to discharge crude into them from ships.
- ⌚ The construction of the **Strategic Crude Oil Storage facilities** in India is being managed by **Indian Strategic Petroleum Reserves Limited (ISPRL)**.
 - ⦿ ISPRL is a wholly owned subsidiary of **Oil Industry Development Board (OIDB)** under the **Ministry of Petroleum & Natural Gas**.

Pitch Black

Why in News

Recently, **Australia** has informed **India** that the **exercise Pitch Black 2020**, scheduled to be held from 27th July to 14th August has been **cancelled** due to the **Covid-19**.

- ⌚ The **next edition** will be held in **2022**.

Key Points

- ⌚ Exercise Pitch Black is a biennial three-week multilateral air combat training exercise hosted by the Royal Australian Air Force (RAAF).
 - ⦿ Its **last edition** was held in **2018**.
- ⌚ It ensures that the **training and integration of forces** that occur during this exercise **directly supports the Air Force's ability** to conduct operations.
- ⌚ **Cooperation between India and Australia:**
 - ⦿ **Defence Cooperation**
 - ⌘ It is based on the **Memorandum on Defence Cooperation 2006**, the **Joint Declaration on Security Cooperation 2009** and the **bilateral framework for Security Cooperation 2014**.
 - ⌘ Australia and India are committed to working together to **enhance maritime cooperation** and have had **AUSINDEX** since **2015**.
 - ⦿ Australia recently suggested **trilateral cooperation among India, Australia and Indonesia** to identify new ways for collaboration for the safety and security of the Indian Ocean.
 - ⌘ **India and Australia** both border the Indian Ocean and have a **shared interest in the maintenance of freedom of navigation and trade**.
 - ⌘ Australia recognises India's critical role in supporting security, stability and prosperity of the Indian Ocean region.
 - ⦿ **Civil Nuclear Cooperation**
 - ⌘ A **Civil Nuclear Cooperation Agreement** was signed in **September 2014** which came into **force in November 2015**.
 - ⌘ The deal ensures that **Uranium mining companies of Australia can supply uranium to India for civil use**.
 - ⌘ It also **ensures that any future bilateral trade** in other nuclear-related material or items for civil use **will also be protected**.
 - ⦿ **Consular Cooperation**
 - ⌘ India and Australia signed the **Mutual Legal Assistance Treaty (MLAT)** and the **Extradition Treaty in June 2008**, which has been **ratified by both the governments**, and has come into **force since January 2011**.

India Among Top Military Spenders: SIPRI

Why in News

Recently, the **Stockholm International Peace Research Institute (SIPRI)** released its annual report '**Trends in World Military Expenditure, 2019**'.

- ⌚ According to the report, the **global military expenditure rose to \$1917 billion in 2019** with **India and China** emerging **among the top three spenders**.

Key Points

- ⌚ **Global military spending** was **2.2% of the global Gross Domestic Product (GDP)** with an increase of 3.6% from 2018.
 - ⦿ The increase of 3.6% was the largest annual growth in spending since 2010.
- ⌚ **Top five largest spenders** accounted for **62%** of the global expenditure.
 - ⦿ The USA > China > India > Russia > Saudi Arabia.
 - ⦿ India was at the 4th position in 2018 with Saudi Arabia at the 3rd.
- ⌚ Data related to Asia and Oceania:
 - ⦿ **Japan** (\$47.6 billion) and **South Korea** (\$43.9 billion) were the largest military spenders apart from India and China.
 - ⦿ **Pakistan** was at the **24th position** compared to the 19th in 2018.
 - ⌘ Its **military expenditure rose by 70%** over the **decade 2010-19**, to reach **\$10.3 billion** while the military burden **increased to 4% of GDP in 2019** from 3.4% in 2010.
 - ⌘ Military burden assesses the proportion of national resources dedicated to military activities and the burden on the economy.

India Specific Data

- ⌚ The report highlights that **India's defence expenditure is growing in absolute terms**. However, defence expenditure has been **going down as a percentage of its GDP**, due to the increasing trend in the growth of GDP.
 - ⦿ In 2019, the expenditure was **2.4% of India's GDP** which was **lower than that of 2.7% in 2010**.

- ⌚ The **Union Budget 2019-20**, envisaged a total outlay of 27,84,200 crore. Out of this, **₹3,18,931.22 crore was earmarked for Defence (excluding Defence Pension)**.
 - ⌚ **Total Defence Allocation**, including Defence Pension, accounted for **15.48% of the total Central Government expenditure** for the year 2019-20.
 - ⌚ It was **6.8% more than that of 2018** and has **grown by 37% over the decade of 2010–19**. If compared to 1990, it has gone up by 259%.
- ⌚ The **Union Budget 2020-21**, envisaged a total outlay of 30,42,230 crore. Out of this, **₹3,37,553 crore has been allocated for Defence (excluding Defence Pension)**.
 - ⌚ Total defence budget accounts for **15.49% of the total central government expenditure** for the year 2020-21.
- ⌚ It shows a **growth of 9.37%** over Budget Estimates 2019-20.
- ⌚ It was about **1.5% of the country's GDP**, the **lowest in recent times**.
- ⌚ India's **tensions and rivalry with both Pakistan and China** are among the major drivers for its **increased military spending**.

Stockholm International Peace Research Institute

- ⌚ This **think tank** is an **independent international institute** dedicated to **research into conflict, armaments, arms control and disarmament**.
- ⌚ It was **established in 1966** at **Stockholm (Sweden)**.
- ⌚ It **provides data, analysis and recommendations**, based on open sources, to policymakers, researchers, media and the interested public.

■■■



OCS SELECTIONS OF 2018

1 SELECTION IN EVERY
2 SELECTION ARE FROM VANIK

7 IN TOP 10
11 IN TOP 20
24 IN TOP 50
47 IN TOP 100
48% SELECTION FROM VANIK



DEBASIS PANDA



RITUPARNA MOHAPATRA



AKASH KUMAR PANDA



SANTOSHINI DAS



NARAYANI P. PANDA



SHAKTI MOHAPATRA



SMARANIKA TULO



Sampat Ku. Dash



Serada P. Panda



Sidhant Narayan



Akash Pattnaik



Priti R. Rath



Rajiv Das



Abhishek Sahu



Annanya Tripathy



Prasenjit Mishra



Debajyoti Panda



Avipsa Mohanty



Dillip Satapathy



Nibedita Parida



Rashmi Prava Das



Asima Padhi



Om Prasad



Jyotibikash Dash



Narayan Behera



Suvasnigdha



Subrat Ku. Swain



Biswa Tripathy



Upasana Padhi



Bibhuti Satapathy



Avilash Purshit



Birendra Tripathy



Himanshu B. Pale



Sambit Ku. Majhi



Subhadra



Byomakesh



Bishnu Govind



Tanmaya Nayak



Ashutosh Matari



Anshuman Sarangi



Krishna Padhi



Madhusmita Nanda



Adarsh A. Tripathy



Sanishree Mallick



Om Prakash Parida



Md. Azharuddin Khan



Rajesh Ku. Samal



Tattwomasi



Amit Biswal



Agurba R. Aich



Trisandhya Patra



Bani Satabdi Dash



Harekrushna Sahu



Nirmal Ku. Bhouh



Ajit Ku. Uttaray



Manoja Ku. Behera



Ananda Ch. Palei



Sushree Supriya



Dhiren Ku. Nayak



Nivedita Nayak



Biranchi N. Jagat



Sridhar Ku. Sethi



Ananta Ku. Nayak



Abhijit S. Swain



Gyanaranjan Majhi



John Major Dalai



Jyoti P. Sethi



Arjun Majhi



Subha P. Kanungo



Deepak Ku. Jena



Rashmirani Sonapat



Subha Kanta Naik



Madhusmita Samal



Gitu Behera



Madhusmita Singh



Manaranjan Suna



Prachi



Tapan Ku. Malik



Manoj Ku. Behera



Manaswee Sethi



Bhabani Pradhan



Upanjali Majhi



Satyabrata Naik



Sagar Palo



Prasanti Pradhan



D. Satyabhusan



Prem Chand Jani



Mrutunjaya Sabar



Gouranga Ghosh



Meera Naik



Deepak Bara



Debasish Patra



Bhabesh Majhi



Vikas Mundari



Sandeep Singh



Prafulla Muduli



Smrutiranjana Tudu



Lalit Ku. Naik



Phalguni Sabar



Sunita Panda

And Many More Selections