Current Affairs (Consolidation)

August 2020
(Part – I)

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Polity and Governance

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Constitution Bench for EWS Quota

Why in News

Recently, the **Supreme Court of India** referred the petitions challenging the **103rd Constitutional Amendment Act, 2019** to a five-judge **constitution bench**, saying it involves **'substantial questions of law'**.

➢ According to Article **145 (3) of the Constitution**, **at least five judges** need to hear cases that involve **'a substantial question of law as to the interpretation'** of the Constitution, or any **reference under Article 143**, which deals with the power of the President of India to consult the Supreme Court.

➢ The Supreme Court bench consisting of at least five judges is called the **Constitution bench.**

Key Points

➢ **103rd Constitutional Amendment Act 2019:**
  ○ It introduced an **economic reservation** (10% quota) in jobs and admissions in educational institutes for **Economically Weaker Sections (EWS)** by amending **Articles 15 and 16.**
    - It inserted **Article 15 (6) and Article 16 (6).**

➢ It was enacted to promote the welfare of the poor **not covered by the 50% reservation policy** for SCs, STs and Socially and Educationally Backward Classes (SEBC).

➢ It enables both Centre and the States to provide reservation to the EWS of society.

➢ **Petitioners' Argument:**
  ○ The amendments **run contrary to the constitutional scheme**, where no segment of available seats/posts can be reserved, only on the basis of economic criterion.
  ○ The amendments also run contrary to the judgment pronounced in the **Indra Sawhney V. Union of India 1992 case**, that **a backward class cannot be determined only and exclusively with reference to economic criterion.**
  ○ The amendments **alter the 50% quota limit** set up in **Indra Sawhney versus Union of India 1992** case, which according to the petitioner is a part of the **Basic Structure of the Constitution**.
  ○ Reservation in unaided institutions violates the fundamental right under **Article 19(1)(g)** of the Constitution.
    - Article 19 (1)(g) allows every citizen to practise any profession or to carry on any occupation, trade or business.

Note:

➢ **Central Government's Stand:**

❍ The amendment **was necessitated to benefit EWS who are not covered under existing schemes of reservation**, which as per statistics, constitute a considerably large segment of the country's population.

❍ The 50% limit in the **Indira Sawhney** ruling cannot be applied in the present petitions as the Sawhney case dealt with memoranda issued by the government while what is under challenge now is a constitutional amendment.

➢ **Substantial Question of Law Involved:**

❍ **Whether the challenged 103rd Amendment Act violates the Basic Structure of the Constitution,** with reference to equality provisions of the Constitution.

❍ In the case of the Union of India that though ordinarily, 50% is the rule, the same will not prevent the amendment of the Constitution itself in view of the existing special circumstances to uplift the members of the society belonging to EWS.

Demand for 6th Schedule Status: Arunachal Pradesh

Why in News

The recent revival of the demand for two **autonomous councils** in Arunachal Pradesh has led to the call for bringing the entire Arunachal Pradesh under the ambit of the **6th Schedule** or **Article 371 (A)** of the Constitution.

➢ Arunachal Pradesh is a **5th Schedule State.** Currently the **6th Schedule** is applied in **Assam, Meghalaya, Mizoram and Tripura**.

➢ On the other hand, **Article 371 A is applied in Nagaland** which provides special status to Nagaland.

Key Points

➢ **6th Schedule:**

❍ The 6th Schedule of the Constitution p**rovides for the administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram** to **safeguard the rights of the tribal population** in these states. This special provision is provided under **Article 244(2)** and **Article 275(1)** of the Constitution.

● The **tribes in the above states have not assimilated** much with the life and ways of the other people in these states. These areas still have the presence of **anthropological specimens**.

● Based on the reports of the **Bordoloi Committee** formed by the Constituent Assembly, the 6th Schedule was formulated to provide **limited autonomy** to the **tribal regions of North-East.**

● The committee report stated that there was a need for a system of administration that would allow tribal areas to become developed.

● The report also called for the protection of these tribal areas from exploitation by the people in the plains and preserving their distinct social customs.

➢ **Administration in the 6th Schedule:**

❍ The tribal areas in the 6th Schedule area have been constituted as **autonomous districts.** The autonomous districts have been given varying degrees of autonomy within the State Legislature.

● There are **10 autonomous districts** – three in Assam, Meghalaya and Mizoram and one in Tripura.

● Each autonomous district can also have a separate **regional council.**

MEGHALAYA	
● Khasi Hills Autonomous District Council	● Mara Autonomous District Council
● Jaintia Hills Autonomous District Council	**TRIPURA**
	● Tripura Tribal Areas Autnomous District Council
● Garo Hills Autonomous District Council	**ASSAM**
MIZORAM	● Dima Hasao Autonomous Council
● Chakma Autonomous District Council	● Karbi Anglong Autonomous Council
● Lai Autonomous District Council	● Bodoland Territorial Council

❍ The tribals have been given **freedom to exercise legislative and executive powers** through an **autonomous regional council** and **autonomous district councils (ADCs).**

❍ The ADCs are empowered with **civil and judicial powers**. They can **also make laws on matters** like land, forests, fisheries, social security, etc. **with due approval from the governor.**

Note:

- ○ The **Acts passed by Parliament and state legislatures may or may not be levied in these regions** unless the President and the governor gives her or his approval, with or without modifications in the laws for the autonomous regions.
- ➢ **Governor's Control:**
  - ○ Despite various degrees of autonomy, the 6th Schedule area **does not fall outside the executive authority of the state concerned.**
  - ○ The **governor is empowered** to organise and re-organise the autonomous districts. He can increase or decrease the areas of autonomous districts or change their names or define their boundaries and so on.
    - ● If there are different tribes in an autonomous district, **the governor can also divide the district into several autonomous regions**.
- ➢ **Composition of Autonomous Councils:**
  - ○ Each autonomous district and regional council consists of **not more than 30 members**, of which four **are nominated by the governor** and the rest via elections. All of them **remain in power for a term of five years**.
  - ○ However, the **Bodoland Territorial Council is an exception** as it can constitute up to 46 members.
- ➢ **Article 371 A:**
  - ○ The Acts of Parliament relating to the following matters **would not apply to Nagaland** unless decided by the State Legislative Assembly:
    - ● Religious or social practices of the Nagas.
    - ● Naga customary law and procedure.
    - ● Administration of civil and criminal justice involving decisions according to Naga customary law.
    - ● Ownership and transfer of land and its resources.

Report on Clause 6 of Assam Accord

Why in News

Recently, a Ministry of Home Affairs appointed committee on implementation of **Clause 6 of the Assam Accord** has proposed a **definition for 'Assamese people'** in its report.

➢ The 14-member committee, **headed by the High Court judge Biplab Kumar Sarma** was set up in 2019 **following widespread protests against the Citizenship Amendment Act, 2019.**

Key Points

- ➢ **Assam Accord:**
  - ○ It was a **tripartite accord** signed between the **Government of India, State Government of Assam and the leaders of the Assam Movement** in 1985.
  - ○ The signing of the Accord l**ed to the conclusion of a six-year agitation** that was launched by the All Assam Students' Union (AASU) in 1979, **demanding the identification and deportation of illegal immigrants** from Assam.
  - ○ It sets a **cut-off** of midnight of **24th March 1971**, for the detection of **illegal foreigners in Assam**.
    - ● However, the **demand** was for detection and deportation of migrants who had illegally entered Assam after **1951.**
- ➢ **Clause 6 of the Accord:**
  - ○ It says that **constitutional, legislative and administrative safeguards**, as may be appropriate, shall be provided to protect, preserve and promote the cultural, social, linguistic identity and heritage of the **Assamese people**.
  - ○ The committee chaired by **Biplab Kumar Sarma** was constituted **to define 'Assamese People'** and institute safeguards for them.
- ➢ **Recommendation of the Committee:**
  - ○ **Definition of Assamese:** The report **proposes January 1951 as the cut-off date** for any Indian citizen residing in Assam **to be defined as an Assamese** for the purpose of implementing Clause 6.
  - ○ **Reservation for Assamese:** The report seeks reservation for Assamese in Parliament, state assembly, local bodies. It recommended creating an Upper House (Legislative Council of Assam) whose seats will be reserved for the 'Assamese people'.
    - ● The report also seeks **quotas in government jobs.**
  - ○ **Regulation of Outsiders:** The report recommends regulation of entry of people from other states

into Assam, which include the implementation of an **Inner Line Permit (ILP)** regime in the state.

- The ILP is a system in which a special permit is required by people from other regions of India to visit the state.
- Currently the ILP is applicable in **Manipur, Arunachal Pradesh, Nagaland and Mizoram.**
  - ○ **Other Rights:** The report also talks about issues related to land and land rights, linguistic, cultural and social rights and protection of the state's resources and biodiversity.
- ➢ **Issues Involved:**
  - ○ According to the recommendations, people who migrated between 1951 and 1971, including large sections of post-Partition refugees, **would be Indian citizens under the Assam Accord** and the **National Register of Citizens (NRC)**, but they **would not be eligible for safeguards meant for "Assamese people"** under Clause 6 of the Accord.
  - ○ **East Bengal migrants** who entered Assam before 1951 would be **considered Assamese.**
  - ○ There is **no mechanism** to prove that a person has been in Assam prior to 1951.
    - The 1951 **NRC is not available in several parts** of the state and the **current NRC being made uses 1971 as a cut-off.**

Habeas Corpus Cases in Jammu & Kashmir

Why in News

After the **abrogation of the special status (under Article 370 of the Constitution)** of the erstwhile state of Jammu & Kashmir in August 2019, the Jammu & Kashmir High Court was confronted with an unprecedented number (250 plus) of **habeas corpus** petitions.

- ➢ The habeas corpus petitions were filed to challenge the detentions under the **J&K Public Safety Act (PSA), 1978.**

Key Points

- ➢ **Background:** After the abrogation of the special status, thousands of people were detained from across the Kashmir valley under the **preventive detention law**. Of these, several hundred were detained under the PSA.

- ○ The other preventive detention laws under which people were booked are **National Security Act (NSA) 1980** and **Unlawful Activities (Prevention) Act 1967**.
- ➢ **J&K Public Safety Act (PSA), 1978**
  - ○ **Definition:** It is a kind of **preventive detention law**, under which a person is taken into custody to prevent him or her from acting in any manner that is prejudicial to the security of the state or the maintenance of public order.
  - ○ **Period of Detention:** Up to 2 years.
  - ○ **Enforcement:** Detention order is passed either by Divisional Commissioner or the District Magistrate.
  - ○ **Challenging the Detention:** The only way the administrative preventive detention order can be challenged is **through a habeas corpus petition** filed by relatives of the detained person.
    - The High Court and the Supreme Court have jurisdiction to hear such petitions and pass a final order seeking quashing of the PSA.
    - However, if the order is quashed, there is no bar on the government passing another detention order under the PSA and detaining the person again.
    - There can be no prosecution or any legal proceeding against the official who has passed the order.
- ➢ **Habeas Corpus:**
  - ○ It is a Latin term which literally means **'to have the body of'.** Under this the court issues an order to a person who has detained another person, to produce the body of the latter before it. The court then examines the cause and legality of detention.
  - ○ This **writ** is a **bulwark of individual liberty** against arbitrary detention.
  - ○ The writ of habeas corpus **can be issued against both public authorities as well as private individuals**.
  - ○ The writ, on the other hand, is not issued where the:
    - detention is lawful,
    - the proceeding is for contempt of a legislature or a court,
    - detention is by a competent court, and
    - detention is outside the jurisdiction of the court.

Note:

Restoration of 4G Internet in J&K

Why in News

Recently, a **special committee** set up by the **Supreme Court of India** has recommended **restoration of 4G internet services** in Jammu & Kashmir (J&K).

Key Points

➢ **Committee's Recommendation:**

○ The committee is of the view that the **threat perception on the security front** in J&K continues **to be high.**

○ However, it has recommended to restore 4G internet services **after 15th August** 2020 **on a trial basis** in a careful manner in specified areas to assess the impact on the security situation.

○ The **internet could be restored in one district each of Jammu region and Kashmir region** which are away from the international border or line of control, and has low intensity of terrorist activities.

○ Telecom operators in the districts which are allowed to have 4G services on a trial basis may also **have to submit reports of data usage** volume and which apps are being used the most.

○ The committee is also of the view that **internet speed related restrictions are not posing any hindrance** to **Covid** control measures, access to education programmes or carrying out business activities.

● According to it there is adequate access to the internet through broadband services available over landline to business and healthcare institutions.

➢ **Background:**

○ High speed internet services in J&K were suspended in August 2019, when the **Centre announced revocation of J&K's special status** and **bifurcation** of the state into two Union Territories (UTs).

○ According to the Centre, the same was being done in order **to avoid violence.**

● It has maintained that faster internet services can be misused in the region by elements opposed to peace, who act at the behest of a hostile neighbour to spread rumours and arouse passions of the public and disturb the atmosphere in the J&K.

➢ **Impact of Lifting the 4G Ban:**

○ **Promote Commercial Activity:** Resumption of 4G in the J&K will be beneficial for citizens engaged in commercial activities that are dependent on high-speed internet. E.g. e-commerce, travel bookings, filing of GST and income tax returns.

○ **Education and Job:** It will also help the students to access the online classes, till the school and colleges are closed due to Covid-19 pandemic.

● It will allow people to work from home.

○ **Health:** 4G services are necessary to provide access to the medical fraternity including patients to access latest information, advisories, and guidelines.

Comptroller and Auditor General

Why in News

Girish Chandra Murmu has been appointed the **Comptroller and Auditor General of India (CAG).**

➢ He has replaced Rajiv Mehrishi and will have a tenure up to 20th November, 2024.

Key Points

➢ **Constitutional Body: Article 148** provides for an independent office of the CAG. It is the **supreme audit institution of India.**

○ **Other Provisions** Related to CAG include: **Articles 149-151** (Duties & Powers, Form of Accounts of the Union and the States and Audit Reports), **Article 279** (calculation of net proceeds, etc.) and **Third Schedule** (Oath or Affirmation) and **Sixth Schedule** (Administration of Tribal Areas in the States of Assam, Meghalaya, Tripura and Mizoram).

➢ **Profile in Brief:**

○ Head of the **Indian Audit and Accounts Department** - created in 1753.

○ **Guardian of the public purse** and controls the entire **financial system** of the country at both the levels–**the Centre and the state.**

- ❍ **One of the bulwarks** of the democratic system of government in India.
  - The others being the **Supreme Court**, the **Election Commission** and the **Union Public Service Commission.**
  - ❍ The **accountability of the executive (i.e. Council of Ministers)** to the Parliament in the sphere of **financial administration** is secured through audit reports of the CAG.
- ➢ **Appointment:** Appointed by the **President of India** by a warrant under his hand and seal.
- ➢ **Tenure:** A period of **six years** or upto the age of **65** years, whichever is earlier.
- ➢ **Removal:** CAG can be removed by the President on the **same grounds and in the same manner as a judge of the Supreme Court.** He **does not hold his office till the pleasure of the President.**
  - ❍ In other words, he can be removed by the President on the basis of a **resolution** passed to that effect by both the **Houses of Parliament with special majority,** either on the ground of **proved misbehaviour** or **incapacity.**
- ➢ **Other Related Points:**
  - ❍ **Not eligible for further office**, either under the Government of India or of any state, after he ceases to hold his office.
  - ❍ **Salary and other service conditions are determined by the Parliament.**
  - ❍ The administrative expenses of the office of the CAG, including all salaries, allowances and pensions of persons serving in that office are **charged upon the Consolidated Fund of India** (thus are **not subject to the vote of Parliament**).
  - ❍ No minister can represent the CAG in Parliament.
- ➢ **Duties & Powers** as also under the **CAG's (Duties, Powers and Conditions of Service) Act, 1971:**
  - ❍ Audits the accounts related to all **expenditure from the Consolidated Fund of India**, consolidated fund of each state and consolidated fund of each union territory having a Legislative Assembly.
  - ❍ Audits all expenditure from the **Contingency Fund of India** and the **Public Account of India** as well as the contingency fund of each state and the public account of each state.

- ❍ **Audits** profit and loss accounts, balance sheets and other subsidiary **accounts kept by any department of the Central Government and state governments.**
- ❍ Audits the receipts and expenditure of the following:
  - Bodies and authorities substantially **financed from the Central or state revenues;**
  - **Government companies;** and
  - Other corporations and bodies, when so required by related laws.
- ❍ Audits the accounts of any other authority when **requested by the President or Governor**. For example, the audit of local bodies.
- ❍ Acts as a **guide, friend and philosopher of the Public Accounts Committee** of the Parliament.
- ➢ **Limitation:**
  - ❍ The Constitution of India visualises the CAG to be Comptroller as well as Auditor General. However, in practice, the CAG is **fulfilling the role of an Auditor-General only and not that of a Comptroller.**
  - ❍ In other words, the CAG has no control over the issue of money from the consolidated fund and many departments are authorised to draw money by issuing cheques without specific authority from the CAG, who is concerned only at the audit stage when the expenditure has already taken place.
  - ❍ In this respect, the CAG of India **differs totally from the CAG of Britain** who has powers of both Comptroller as well as Auditor General.
    - In other words, in Britain, the executive can draw money from the public exchequer only with the approval of the CAG.

Electric Vehicles Policy 2020: Delhi

Why in News

Recently, the Delhi government has notified the **Electric Vehicles (EV) Policy 2020**.

- ➢ It lays the maximum emphasis on replacement of two-wheelers, public transport and shared vehicles and goods-carriers instead of private four-wheelers, with **Electric Vehicles** (EVs).

Key Points

➢ **Features:**

❍ It envisions the **replacement of the existing auto rickshaws and State-run buses with e-autos and e-buses** respectively. It will also ensure that **delivery-based services** operating in the city are powered by e-mobility.

❍ It talks about **increasing road tax for fuel-based vehicles**, at least in the luxury segment and imposing in certain parts of the city a congestion fee that EVs will be exempt from.

❍ It has a '**scrapping incentive**' for those people who want to make the switch, allowing them to exchange an old fuel-based vehicle while purchasing a new EV, further reducing its cost.

❍ The government will also **offer low-interest rate loans** to people interested in buying commercial EVs.

❍ The policy also offers **subsidies and road tax and registration fee waivers**, for EVs bought in the capital.

● At present, road tax ranges from 4% to 10% of the cost of the vehicle, while the registration fee could cost up to ₹3,000.

● In addition, a subsidy of ₹5,000 per kWh of the battery capacity up to ₹30,000 will be given on the purchase of each EV.

● For the first 1,000 e-cars or electric four-wheelers, a subsidy of ₹10,000 per kWh will be given, capped at ₹1,50,000 per vehicle.

❍ These **grants will be in addition to the subsidies offered by the Union government** under its **FAME India Phase 2** scheme, which offers similar incentives, especially on the purchase of electric two-wheelers and electric heavy passenger and goods vehicles.

❍ A **State EV fund** will be set up, encompassing all the expenditure of the EV Policy. A **State Electric Vehicle Board** will be constituted for effective implementation of the policy and managing the fund. Besides, a **dedicated EV Cell** will also be constituted.

➢ **Aims:**

❍ To **reduce air pollution** and to **kick-start the economy by spurring demand**.

● Delhi experiences a public health emergency every winter due to the rise in air pollution, which has become a recurrent annual crisis.

● During the **Covid-19** induced **lockdowns**, the capital witnessed a drastic **reduction in the PM10 and PM2.5 levels**.

❍ To address both **problems of the high cost of purchase** and the **lack of sufficient charging infrastructure**.

❍ To register **at least 5,00,000 EVs in Delhi** in the **next five years**.

➢ **Delivery-based and Ride-hailing Services:**

❍ Ride-hailing service providers will be **allowed to operate electric two-wheeler taxis** subject to operating within the guidelines to be issued by the Transport Department.

❍ It is expected that the incentives provided by the policy would **encourage delivery service providers** related to food delivery, **e-commerce** logistics providers and couriers to switch to using electric two-wheelers.

❍ All delivery service providers shall be **expected to convert 50%** of their fleet operating in Delhi to electric **by 31st March 2023** and **100% by 31st March 2025**.

❍ Delivery service providers who **commit to achieving these targets will be eligible for financing support** from the Delhi Finance Corporation.

➢ **Autorickshaws:**

❍ **Incentive**s will be provided related to the purchase (₹**30,000 per vehicle**) and use of new electric autos.

❍ An **open permit system** will be put in place to **provide permits on a first-come, first-served basis** to those with valid light motor vehicle driving licences and a Public Service Vehicle badge.

● The open permit system for e-autos shall be subject to the cap on the maximum number of autos if the **Supreme Court** will direct so in future.

❍ There will be **no cap on permits issued to e-autos in Delhi** since they are **zero-emission vehicles and can be very effective in ensuring clean**, last-mile connectivity.

● Currently, there is a cap on the number of CNG-run auto rickshaws, allowed to ply in the city.

Note:

➢ **Buses:**
  ○ The policy envisions that **half of the State-run buses to be procured over the next three years will be pure electric buses**.
  ○ It will start doing so with the **induction of 1,000 pure electric buses by 2020**.

Central Government Initiatives on EVs

➢ Government has set a **target of EV making up 30% of new sales of cars and two-wheelers by 2030**.

➢ To build a sustainable EV ecosystem, initiatives like **National Electric Mobility Mission Plan** (NEMMP) and **Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India** (FAME India) have been launched.
  ○ **NEMMP** was launched in **2013** with an aim to **achieve national fuel security** by promoting hybrid and EVs in the country. There is an ambitious target to achieve 6-7 million sales of hybrid and EVs year on year from 2020 onwards.
  ○ **FAME India** was launched in **2015** with the objective to support hybrid/EV market development and manufacturing ecosystem. The scheme has 4 focus areas viz. technology development, demand creation, pilot projects and charging infrastructure.

➢ Organisations like **Bureau of Indian Standards** (BIS), Department of Heavy Industry, **Automotive Research Association of India** are devising design and manufacturing standards of EVs, Electric Vehicle Supply Equipment (EVSEs) and charging infrastructure to smoothen the advent of in-house production of EVs.

High Level Group on Agricultural Exports: Finance Commission

Why in News

Recently, the **High Level Group (HLEG) on Agricultural Exports** set up by the **Fifteenth Finance Commission** has submitted its report to the Commission.

➢ The HLEG was set up to recommend **measurable performance incentives** for states **to encourage agricultural exports** and to promote crops to enable high import substitution.

Finance Commission

➢ The Finance Commission (FC) is a **constitutional body**, that determines the method and formula for distributing the tax proceeds between the Centre and states, and among the states as per the constitutional arrangement and present requirements.

➢ Under **Article 280** of the Constitution, the President of India is required to constitute a Finance Commission at an interval of five years or earlier.

➢ The 15th Finance Commission was constituted by the President of India in November 2017, under the **chairmanship of NK Singh**. Its recommendations will cover a period of five years from April 2020 to March 2025.
  ○ Recently, the Ministry of Finance has **released a part of grants-in-aid as a part of the 'Tied Grant' as recommended by the 15th FC** for the Financial Year (FY) 2020-2021.

Key Points

➢ **Purpose to Constitute HLEG:**
  ○ To **assess export & import substitution opportunities for Indian agricultural products** (commodities, semi-processed, and processed) in the changing international trade scenario and suggest ways to **step up exports sustainably and reduce import dependence.**
  ○ To recommend **strategies and measures to increase farm productivity, enable higher value addition, ensure waste reduction, strengthen logistics infrastructure** etc. related to Indian agriculture, to improve the sector's global competitiveness.
  ○ To **identify the impediments for private sector investments along the agricultural value chain** and suggest policy measures and reforms that would help attract the required investments.
  ○ To **suggest appropriate performance-based incentives to the state governments** for the period 2021-22 to 2025-26, to accelerate reforms in the agriculture sector as well as implement other policy measures in this regard.

drishti

- ➤ **Recommendations:**
  - ❍ **Crop Value Chains:**
    - It emphasises to focus on 22 crop value chains with a **demand driven approach**.
    - The demand driven approach refers to a development strategy where the people themselves are expected to take the initiative and the responsibility for improving supply situation rather than being passive recipients of the Government services.
    - It also suggests to solve **Value Chain Clusters (VCC)** holistically with focus on value addition.
- ➤ **State-led Export Plan:**
  - ❍ It is a business plan for a crop value chain cluster, that will lay out the opportunity, initiatives and investment required to meet the desired value chain export aspiration.
  - ❍ Such plans should be **collaboratively prepared** with private sector players and Commodity Boards representing **participation of all stakeholders**.
- ➤ **Participation of Private Sector:**
  - ❍ It needs to play a pivotal role in ensuring demand orientation and focus on value addition.
  - ❍ It also needs to ensure project plans are feasible, robust, implementable and appropriately funded; providing funds for technology based on business cases and for creating urgency and discipline for project implementation.
- ➤ **Central Government's Role:**
  - ❍ The Central government should act as an enabler.
  - ❍ Thus, robust institutional mechanisms need to be enforced to fund and support implementation.
- ➤ **India's Estimated Agricultural Export Potential:**
  - ❍ India's agricultural export has the potential to **grow** from USD 40 billion to USD 70 billion in a few years.
  - ❍ The estimated investment in agricultural export could be to the tune of USD 8-10 billion across inputs, infrastructure, processing and demand enablers.
  - ❍ Additional exports are likely to **create an estimated 7-10 million jobs**.
  - ❍ It will also lead to **higher farm productivity** and farmer income.

Student Entrepreneurship Programme 2.0: AIM

Why in News

Atal Innovation Mission (AIM - an initiative by the NITI Aayog) in collaboration with Dell Technologies has launched the **second edition of its Student Entrepreneurship Programme (SEP 2.0)** for student innovators of **Atal Tinkering Labs (ATLs)**.

- ➤ **SEP 1.0** was launched in January **2019.**

Key Points

- ➤ **SEP 2.0:**
  - ❍ **Objective:** It will allow student innovators to work closely with Dell volunteers. They will receive mentor support; prototyping and testing support; end-user feedback; **intellectual property** registration and patenting of ideas, processes, and products; manufacturing support; as well as the launch support of the product in the market.
  - ❍ **Background:**
    - As many as **1500 innovations** were submitted in the last season of **ATL Marathon (2019).** ATL Marathon is a **nationwide contest** where students identify community challenges and create grassroots innovations and solutions within their ATLs.
    - 50 teams were selected and mentored by **Atal Incubation Centres** via the **Student Innovator Programme 2.0.**
    - Student Innovator Programme provides training on business and entrepreneurship skills to students.
  - ❍ The **top 8** will take their prototypes to product through **SEP 2.0.**
- ➤ **SEP 1.0:**
  - ❍ SEP 1.0 was **a 10-month-long programme** through which the **top 6 teams of ATL Marathon 2017** got a chance to transform their innovative prototypes into fully functioning products, which are now available in the market.
- ➤ **ATLs:**
  - ❍ **Vision:**
    - AIM is establishing ATLs in schools across India with a vision **to cultivate one million children in India as neoteric (modern) innovators.**

Note:

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- It is aimed at disrupting the Indian education system, creating a paradigm shift where children as young as 12 years of age are being introduced to the world of technology innovation.

➢ **Objectives:** To foster **curiosity, creativity and imagination** in young minds; and inculcate **skills** such as design mindset, computational thinking, adaptive learning, physical computing etc.

➢ **Eligibility:** Schools (minimum Grade VI - X) managed by Government, local body or private trusts/society.

➢ **Financial Support:** AIM provides **grant-in-aid of ₹20 Lakh** to each school that includes a one-time establishment cost of ₹10 lakh and operational expenses of ₹10 lakh for a maximum period of 5 years to each ATL.

➢ **Features:**

  ○ ATL is a **work space** where young minds can give shape to their ideas through hands on do-it-yourself mode; and learn innovation skills.

  ○ Young children get a chance to work with tools and equipment to understand the concepts of **STEM** (Science, Technology, Engineering and Math).

    - **CollabCAD** was launched in ATL schools to provide students experience in creating and modifying 3D designs.

  ○ In order to foster inventiveness among students, ATL conducts different activities ranging from regional and national level competitions, exhibitions, workshops on problem solving, designing and fabrication of products, lecture series etc. at periodic intervals.

24 States under One Nation-One Ration Card

Why in News

Recently, **Manipur, Nagaland and Uttarakhand, along with the Union Territory (UT) of Jammu and Kashmir** have been **integrated** with the **One Nation-One Ration Card (ONORC) Scheme**.

➢ Now a total of 24 States/UTs are connected under the ONORC scheme.

➢ The remaining states/UTs are targeted to be integrated into the scheme by March 2021.

Key Points

➢ **The ONORC Scheme:**

  ○ It was started as an **inter-State portability of ration cards** in 2019.

  ○ It allows the migratory **National Food Security Act (NFSA), 2013** beneficiaries to lift their entitled quota of food grains from any Fair Price Shop (FPS) of their choice anywhere in the country.

    - This can be done by using their existing ration card with **Aadhaar** based authentication.

  ○ With 24 States/UTs connected under the scheme, about 65 crore beneficiaries, comprising 80% of the total beneficiaries covered under the NFSA, **can now get their subsidised ration** from anywhere in these 24 states and union territories.

➢ **Benefit of ONORC Scheme:**

  ○ Transparency:

    - It will bring more **transparency** and **efficiency** in the distribution of foodgrains.

    - Further, it will **improve the mechanism to identify fake/duplicate ration cards.**

  ○ **Food Security:** The scheme will **ensure food security of migrant labourers** who move to other states to seek better job opportunities.

  ○ **SDG:** This will help achieve the target set under **Sustainable Developmental Goals** (SDG) 2 of **ending hunger by 2030**.

    - Also, it will address the poor state of hunger in India, as highlighted by the **Global Hunger Index**, where India has been ranked 102 out of 117 countries in 2019.

➢ **Issues Involved:**

  ○ **Distribution of Ration:** The distribution of ration had become an issue during the lockdown when migrant workers didn't have ration cards in the states they were staying. This led the migrants to walk towards their villages amid lockdown.

  ○ **Logistical Issues:** An FPS receives the monthly quota of products strictly in accordance with the number of people assigned to it.

    - The ONORC, when fully operational, would disrupt this practice, as some FPSs may have to cater to more numbers of cards even as others cater to less, owing to migration of people.

Note:

❍ **Lack of Data:** There is no exact data on the mobility of poor households migrating to work, locating intra- and inter-state destinations and sectors employing the workers.

Suggestions

➢ The **Unorganised Sector Social Security Act, 2008**, had drawn up a system of documenting informal sector workers through a system of welfare boards.

❍ In order to get credible data regarding the migrant workers, this must be implemented in letter and spirit.

➢ A **dedicated e-commerce platform ONORC** may resolve the challenge of logistical issues.

➢ **Social auditing** must be made mandatory to measure the performance of ONORC.

➢ NFSA defines food security as nutritional security.

❍ Therefore, portability of **Integrated Child Development Services**, **Mid-Day Meals**, **immunisation**, health care and other facilities for poor migrant households can't be neglected and should be made portable.

➢ In the longer run, **the PDS system may be replaced by a fool-proof food coupon system or direct benefit transfer,** targeting the poor, wherein a Below Poverty Line family can buy rice, pulses, sugar and oil from any Kirana store at the market price, by paying fully either through the coupon or cash.

Sahakar Cooptube NCDC Channel

Why in News

Recently, the Union Minister of Agriculture & Farmers' Welfare launched the two initiatives of the **National Cooperative Development Corporation (NCDC)** - **Sahakar Cooptube NCDC Channel** and **Guidance Videos on 'Formation and Registration of A Cooperative'**.

Key Points

➢ **Sahakar Cooptube NCDC Channel:**

❍ The Channel **aims** to facilitate involvement of the youth in the cooperative movement.

● Cooperatives lend strength to farmers to minimize risks in agriculture and allied sectors and act as a shield against exploitation.

❍ The channel will give a boost to **Atmanirbhar Bharat Abhiyan** under which the government has announced a series of transformative measures and sector specific financial packages to help agriculture.

● The initiatives are steps towards **One Nation One Market** with the objective for India to become a food factory of the world.

Cooperatives

➢ According to the **International Labour Organisation (ILO),** a **cooperative** is an **autonomous association of persons united voluntarily** to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. E.g. FPOs as cooperatives.

➢ **An FPO,** formed **by a group of farm producers,** is a **registered body with producers** as shareholders in the organisation.

❍ It deals with **business activities related to the farm produce** and it works for the benefit of the member producers.

➢ **Cooperatives in India (Agriculture):**

❍ They largely **function as an association of small and marginal farmers and rural poor.** They have a huge network of over 8.50 lakh organizations and 290 million members.

❍ According to the government, cooperatives in India have proven their success in improving the condition of farmers and economic development.

➢ **Provisions of Indian Constitution related to Cooperatives:**

❍ The **Constitution (97th Amendment) Act, 2011** added a new **Part IXB** right after Part IXA (Municipals) regarding the cooperatives working in India.

❍ The word "cooperatives" was added after "unions and associations" in **Article 19(1)(c) under Part III of the Constitution.** This enables all the **citizens to form cooperatives by giving it the status of fundamental right of citizens.**

❍ A new **Article 43B** was added in the **Directive Principles of State Policy (Part IV)** regarding the **"promotion of cooperative societies".**

➢ **Guidance Videos:**

❍ These have been produced by the NCDC on '**Formation and Registration of A Cooperative**'

for eighteen different states in Hindi and regional languages.

○ These would help strengthen and deepen the major initiatives of the government to promote and form 10,000 **Farmer-Producer Organisations (FPOs).**

- One such initiative is the formation of FPOs under the **"One-Product One-District"** approach.

National Cooperative Development Corporation

➢ **Formation:** NCDC was established by an Act of Parliament in 1963 **as a statutory Corporation** under the **Ministry of Agriculture & Farmers' Welfare.**

➢ **Office:** NCDC functions through its **Head Office at New Delhi** and multiple Regional Offices.

➢ **Functioning:**

○ The objectives of NCDC are **planning and promoting programmes for agricultural produce, foodstuffs, industrial goods, livestock** and certain other notified commodities and services on cooperative principles.

○ The NCDC has the **unique distinction of being the sole statutory organisation** functioning as an **apex financial and developmental institution** exclusively devoted to the **cooperative sector.**

➢ **Recent Initiatives:**

○ **Mission Sahakar 22,** which aims to **double farmers' income by 2022.**

○ **Scheme on Internship Programme (SIP)** named **Sahakar Mitra.**

Telemedicine Service Platform: eSanjeevani

Why in News

The **telemedicine service platforms of the Ministry of Health & Family Welfare** i.e. **'eSanjeevani'** and **'eSanjeevaniOPD'** have completed 1.5 lakh tele-consultations.

➢ The **top two States** which have registered highest consultations through the platforms are **Tamil Nadu** (32,035 consultations) and **Andhra Pradesh** (28,960).

○ Since November 2019, tele-consultation by eSanjeevani and eSanjeevaniOPD have been implemented by 23 States.

➢ Both the platforms have been developed by the **Centre for Development of Advanced Computing (C-DAC)** Mohali.

○ C-DAC is the **premier R&D organization of the Ministry of Electronics and Information Technology (MeitY)** for carrying out R&D in IT, Electronics and associated areas.

Key Points

➢ **Telemedicine:** As per the **World Health Organisation (WHO)**, telemedicine is the delivery of health care services, where distance is a critical factor, by all health care professionals **using Information Technology (IT)** for diagnosis, treatment and prevention of disease and injuries, research and evaluation, etc, all in the interests of advancing the health of individuals and their communities.

○ **Tele-consultation is one of the applications of telemedicine.** It uses IT to facilitate communications between a patient and a doctor who are otherwise geographically separated.

➢ **eSanjeevani:**

○ It is a **doctor to doctor telemedicine system**, being implemented under the **Ayushman Bharat Health and Wellness Centre (AB-HWCs) programme.**

- AB-HWCs are envisaged to be the platform for delivery of an expanded range of primary health care services closer to the communities.

○ It **seeks to connect all 1,50,000 HWCs using the hub-and-spoke model by December 2022.**

○ Under the model, a network will be established comprising an anchor establishment, or hub, which offers a full array of services, and will be complemented by secondary establishments, or spokes, which offer limited services, routing patients needing more intensive services to the hub for treatment.

○ Presently, telemedicine is being provided through more than 3,000 HWCs in 10 States.

➢ **eSanjeevaniOPD:**

○ It was **launched amid the Covid-19 pandemic** to enable **patient-to-doctor tele-consultations.**

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- Offered at **no cost**, this **e-health service** has made it convenient for the people to avail of the health services without having to travel. It enables **two-way interaction** and even generates a prescription slip.
- It is **hosting over 40 online Out Patient Department (OPD) services**, more than half of these are speciality OPDs which include Gynaecology, Psychiatry, **AntiRetroviral Therapy (ART) for the AIDS/HIV patients**, **Non-Communicable Disease (NCD)** etc.

First Kisan Rail

Why in News

The **Indian Railways** has introduced the first "Kisan Rail" from **Devlali (Maharashtra) to Danapur (Bihar).**

➢ The Centre had announced plans of starting special parcel trains called 'Kisan Rail' in the **Budget 2020-21.**

Key Points

➢ Kisan Rails are the **first ever multi commodity trains.**
- Earlier, Indian Railways had run single commodity special trains lik**e Banana Specials** etc.

➢ These trains with **refrigerated coaches** will help in bringing **perishable agricultural products** like vegetables, fruits **to the market in a short period of time.**

➢ These trains are a step towards realising the goal of **doubling farmers' incomes by 2022.**
- These are expected to be a great help to the farmers, as **freight of these trains will be charged as per parcel tariff of normal trains.**
- The **Devlai-Danapur train (a weekly service)** is expected to **reduce transportation costs by ₹1000 per tonne** compared with roadways and reduce **travel time by around 15 hours.**

➢ **Aggressive marketing** is being done with local farmers, loaders, **Agriculture Produce Market Committee (APMC)** and individuals.
- Any **farmer or any other interested party can directly book their consignments** in trains, **without any lower limit** on the size of consignment.

- Regarding loss/damage of products for any reason, Railways already have a well-established **claim/compensation system** for the same.

Thenzawl Golf Resort in Mizoram

Why in News

Recently, the **Thenzawl Golf Resort Project** in **Mizoram** has been virtually inaugurated.

➢ The project was implemented under the **Swadesh Darshan Scheme** of the Ministry of Tourism.

Key Points

➢ The project was sanctioned under the **Integrated Development of New Eco-Tourism** under **Swadesh Darshan-North East Circuit** at Thenzawl and South Zote, District Serchhip and Reiek, Mizoram.
- Eco-Tourism has been broadly defined as **tourism which is ecologically sustainable**.

Swadesh Darshan Scheme

➢ It was **launched in 2014-15** for integrated development of **theme-based tourist circuits** in the country.
- Currently, there are **15 theme based circuits** which are as follows: Buddhist, Coastal, Desert, Eco, Heritage, Himalayan, Krishna, North-east, Ramayana, Rural, Spiritual, Sufi, Tirthankara, Tribal and Wildlife.
- Theme-based tourist circuits are developed on the principles of high tourist value, competitiveness and sustainability in an integrated manner to enrich tourist experience and enhance employment opportunities.

➢ It is a **Central Sector Scheme**.

➢ Under the scheme, the Ministry of Tourism provides **Central Financial Assistance** (CFA) to State Governments/Union Territory Administrations for **infrastructure development of circuits**.

➢ This scheme is **envisioned to synergise with other schemes** like **Swachh Bharat Abhiyan**, **Skill India**, **Make in India**, etc. with the idea of positioning the tourism sector as a major engine for job creation, driving force for economic growth, building synergy with various sectors to enable tourism to realise its potential.

Note:

TRIFED's Digitisation Drive

Why in News

The **Tribal Cooperative Marketing Development Federation of India** (TRIFED) celebrated its **33rd Foundation Day on 6th August 2020** and launched its own virtual office on the same day.

➤ The virtual office is a part of TRIFED's ambitious **all-encompassing digitisation drive** to **promote tribal commerce** and **map and link its village-based tribal producers and artisans to national and international markets** by setting up **state of art e-platforms** benchmarked to international standards.

Key Points

➤ **Formation:**
  ○ TRIFED came into existence in **1987** as the **national nodal agency** under the aegis of the **Ministry of Tribal Affairs**.
  ○ It was registered under the then **Multi-State Cooperative Societies Act, 1984**.
  ○ It **started its operations in 1988** with its **head office in New Delhi**.

➤ **Objectives:** Socio-economic development of tribal people, promotion of economic welfare, empowerment of tribal people with knowledge, tools and information and their capacity building.

➤ **Functions:** It mainly undertakes two functions which are **Minor Forest Produce** (MFP) Development and Retail Marketing and Development.

➤ **Initiatives and Involvement:**
  ○ It started the **procurement and marketing of tribal art and craft items** through its **first retail outlet** called **TRIBES INDIA** in New Delhi in **1999**.
  ○ It has organised the **Van Dhan Internship Programme**, to enhance the output of the **Van Dhan Yojana**.
  ○ It has also launched a transformational **Tech For Tribals program** in partnership with **Institutes of National Importance** (INIs) to develop Tribal entrepreneurship.

○ **TRIFOOD Scheme** is a joint initiative of the Ministry of Food Processing Industry, Ministry of Tribal Affairs and TRIFED and it **promotes value addition to** MFP.

○ **Mechanism for Marketing of MFP through Minimum Support Price (MSP) and Development of Value Chain for MFP** was **implemented in 2013** to **ensure fair returns to forest dwelling Scheduled Tribes** (STs) and other traditional forest dwellers.

○ Recently, it organized a **Webinar on Covid-19 Response** in collaboration with the **United Nations Children's Fund** (UNICEF) and the **World Health Organisation** (WHO).
  • The webinar was organised for virtual training of TRIFED Trainers and **Self Help Groups** (SHGs) on basic orientation on Covid-19 response and key preventive measures to ensure that tribal gatherers carry on their work safely.

Rashtriya Swachhata Kendra

Why in News

The Prime Minister will inaugurate Rashtriya Swachhata Kendra (RSK) on 8th August, 2020.

Key Points

➤ RSK is an interactive experience centre on the **Swachh Bharat Mission.**
  ○ It will introduce future generations to its successful journey as the **world's largest behaviour change campaign.**
  ○ It will showcase the **core elements of the mission** and anecdotes on the journey of the country from *Satyagraha* to *Swachchagrah.*
  ○ It will impart **information, awareness** and **education** on *Swachhata* (sanitation) and related aspects.
  ○ The installations at RSK will include audio visual immersive shows, interactive LED panels, hologram boxes, interactive games etc.

➤ Rashtriya Swachhata Kendra (RSK) was first **announced** on the occasion of the centenary celebrations of **Mahatma Gandhi**'s **Champaran Satyagraha.**

Note:

Swachh Bharat Mission

➢ Swachh Bharat Mission (SBM) or Clean India Mission is a country-wide sanitation campaign launched on **2nd October, 2014**.

➢ **Objectives**: Elimination of **open defecation**, eradication of **Manual Scavenging**, modern and scientific municipal **solid waste management** and bring behavioral change regarding healthy sanitation practices.

➢ It encompasses **two missions:**

   ❍ **Swachh Bharat Mission (Urban):** Implemented by the Ministry of Housing and Urban Affairs (M/o HUA) for urban areas.

     ● Swachh Bharat Mission-Urban (SBM-U) recently achieved its target of creating **Urban India Open Defecation Free (ODF)**

   ❍ **Swachh Bharat Mission (Grammen):** Implemented by the Ministry of Drinking Water and Sanitation (M/o DWS) for rural areas.

     ● Recently, SMB(G) completed its Phase-I and its **Phase-II** was launched.

     ● Swachh Bharat Mission (G) Phase-I: The **rural sanitation coverage** in the country has increased from 38.7% to 100%.

     ● More than **10 crore individual toilets** have been constructed since the launch of the mission.

     ● All rural areas in all the States have declared themselves **ODF** as on 2nd October, 2019.

Tsunami Ready Programme: UNESCO-IOC

Why in News

Recently, the **Intergovernmental Oceanographic Commission (IOC) of UNESCO** (also known as UNESCO-IOC) has **approved the recognition of two communities of Odisha viz., Venkatraipur and Noliasahi as Tsunami Ready Communities.**

   ❍ With this recognition, India has become the **first country in the Indian Ocean Region** to achieve the honor from the UNESCO-IOC.

     ● Odisha is the **first state in India** to have such recognised communities.

Key Points

➢ **Tsunami Ready:**

   ❍ It is a **community performance-based programme initiated by the Intergovernmental Oceanographic Commission (IOC) of UNESCO** to promote tsunami preparedness through active collaboration of public, community leaders, and national and local emergency management agencies.

   ❍ The **main objective** of this programme is to improve coastal community's preparedness for tsunami emergencies, to minimize the loss of life and property and to ensure a structural and systematic approach in building community preparedness through fulfilling the best-practice indicators set by the **Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) of UNESCO-IOC.**

➢ **Implementation in India:**

   ❍ Tsunami Ready in India is implemented by the **National Board (Ministry of Earth Sciences-MoES)** under the **Chairmanship of Director, Indian National Centre for Ocean Information Centre (INCOIS)** with members drawn from MoES, **National Disaster Management Authority (NDMA)**, Ministry of Home Affairs (MHA), Odisha State Disaster Management Authority (OSDMA), Andaman & Nicobar Islands Directorate of Disaster Management (DDM) and INCOIS.

   ❍ **INCOIS (an autonomous body under the Ministry of Earth sciences)** is also **providing tsunami advisories to Indian Ocean region (25 countries)** as a Tsunami Service Provider as the responsibility assigned by UNESCO-IOC.

   ❍ The **Indian Tsunami Early Warning Centre (ITEWC), INCOIS is the nodal agency to provide tsunami advisories to India.** It is coordinating with the Disaster Management Officials (DMOs) for implementation of Tsunami Ready programme in India.

   ❍ It conducts **IOWave Tsunami mock exercises biannually** in coordination with ICG/IOTWMS and also conducts **mock exercises at national level in alternative years** in coordination with MHA and NDMA and State Disaster Management Agencies (SDMA) to strengthen the readiness to handle the emergency situations with stakeholders.

Note:

Tsunamis

➢ These are a series of waves usually **generated by movement of the sea floor.** These movements are **caused by different types of geophysical phenomena** such as **earthquakes, landslides** and **volcanic eruptions.**

➢ The word tsunami is a **Japanese word**, represented by two characters: tsu, meaning, "harbor", and nami meaning, "wave".

➢ The tsunami waves behave very differently in deep water than in shallow water as their **speed is related to the water depth.**

➢ They **frequently occur in the Pacific**, where dense oceanic plates slide under the lighter continental plates. When these plates fracture they provide a vertical movement of the seafloor that allows a quick and efficient transfer of energy from the solid earth to the ocean.

National Handloom Day

Why in News

On the occasion of the **6th National Handloom Day** on **7th August** 2020, the Ministry of Textiles is organizing a virtual function in the wake of the **Covid-19 pandemic**.

➢ The **first** National Handloom Day was celebrated in **Chennai in 2015**.

Key Points

➢ The date, 7th August, was chosen as the **Swadeshi Movement was launched** on the same date in the year **1905**, which was based on the **Gandhian ideology of Swadeshi**.

➢ On this day, the **handloom weaving community is honoured** and the **contribution of this sector is highlighted**.

➢ **Objectives:**
  ○ To **generate awareness** about the handloom industry amongst the public at large and its contribution to socio-economic development.
  ○ To **protect India's handloom heritage** and to enable the handloom weavers and workers with greater opportunities.

○ To **ensure sustainable development** of the handloom sector thereby empowering handloom workers financially and instilling pride in their exquisite craftsmanship.

➢ **Significance:**
  ○ Handloom sector is a **symbol of India's glorious cultural heritage**.
    ● India's **soft power** has long been endorsed by the handloom and handicraft space. '**Saree diplomacy**' and **'Khadi diplomacy'** are some such examples.
  ○ The textiles and handloom sector in India is the **second-largest source of employment** to people, after **agriculture**.
    ● According to the **Fourth All India Handloom Census 2019-20,** 31.45 lakh households are engaged in handloom, weaving and allied activities.
  ○ It is an important **source of livelihood** in the country and a **key to women empowerment** as over 70% of handloom weavers and allied workers are women.

Steps Taken

➢ A **social media campaign** has been planned for the handloom weaving community.
  ○ All the Secretaries of the States, Textile Bodies like the **Central Silk Board**, **National Jute Board**, **e-commerce** entities, retail companies and designer bodies have been requested to amplify the campaign.

➢ The Prime Minister has **urged the people to use Indian handlooms and handicrafts and further spread awareness** to others as well.
  ○ The more the world knows about the richness and diversity of these products, the greater Indian artisans and weavers will benefit.

➢ Under **Atmanirbhar Bharat Abhiyan**, **Handloom Export Promotion Council** (HEPC) is organising a **Virtual Fair**, connecting more than 150 participants from different regions of the country showcasing their products with unique designs and skills.
  ○ Various exquisite handloom products and numerous other **Geographical Indication (GI) Tagged** products will be displayed to attract the attention of international buyers.

Note:

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➢ Other events include the **launching of a mobile app** and **backend website for Handloom Mark Scheme** (HLM), the **launching of My Handloom Portal**, etc.

➢ HLM was **launched in 2006** with the basic objective to brand Indian handloom products and secure a premium position for them in domestic as well as international markets.

> **Handloom Export Promotion Council**
> ➢ It is a **nodal agency** constituted under the **Ministry of Textiles**, Government of India.
> ➢ It was incorporated as a **not-for-profit company under** section 25 of the Companies Act, 1956.
> ➢ **Aim:** To promote the exports of all handloom products like fabrics, home furnishings, carpets, floor coverings, etc.

Challenges

➢ Due to the Covid-19 induced **lockdowns**, norms of **social distancing** and the **resultant economic turbulence**, there are no handicraft and handloom exhibitions or markets.
  ○ It has **impacted incomes and the entire supply chains** involved in handloom and handicraft, along with **supplies of raw materials and unused inventory**.
  ○ According to the **Tribal Cooperative Marketing Development Federation of India** (TRIFED), tribal handicraft and handloom worth ₹100 crore went unsold owing to the lockdown.

➢ **Natural calamities** such as the recent **Assam floods** also **impact the livelihoods** of artisans, especially in the silk clusters of the state.

➢ The sector also faces the issues of **cheap emulations**, **automated looms** which **threaten the sustenance of original arts and the timeless skills** of the weavers.

➢ The Centre has **abolished the All India Handicrafts Board, ending the one official forum where weavers and craftspeople could raise their voices** directly and were empowered to advise the government on policy and spending.
  ○ The move is in consonance with the government's vision of '**minimum government and maximum governance**' in the pursuit of achieving **good governance**, **leaner government machinery** and the **need for systematic rationalisation** of government bodies.

● The government platforms for such direct interactions are **fastly reducing which is a cause for concern**.

○ The board was **established in 1952** and used to **advise the Ministry of Textile on development programmes** for handicrafts.

Suggestions

➢ There is a need to **promote the finesse of Indian weavers globally** to **communicate, disseminate and engage** with not just the global audience but the Indian diaspora as well.

➢ The **textile clusters should be encouraged** in **making masks and other medical equipment that uses textiles** such as bedsheets, etc. contributing to the medical infrastructure.

➢ Government programmes like **Atmanirbhar Bharat Abhiyan**, **Vocal for Local** campaign and **Make in India** need to be popularised within the country to increase the domestic demand.

➢ **Corporate organisations** must buy products from **artisans for the purposes of awards, corporate engagement programmes, and business gifting** which will facilitate direct producer-consumer interface, thereby ensuring proper returns on the products to artisans.

Issues With Home-based Learning Programme in MP

Why in News

Only 30% of students in government schools of Madhya Pradesh (MP) have been regularly reached through the **Hamara Ghar, Humara Vidyalaya programme**.

Key Points

➢ **Hamara Ghar, Hamara Vidyalaya Programme:**
  ○ It is a **home-based learning programme** launched by the **Department of School Education, MP**.
  ○ It **aimed to reach 22 lakh students** after shutting down of schools due to **Covid-19 pandemic**.
  ○ The idea behind the programme is to ensure that students **study regularly at home and also learn life skills from their elders**.

Note:

○ Under it, the **modular programme airs on Doordarshan Madhya Pradesh** on fixed time slots. It has **three parts** to it which are **recap**, **delivery of a new concept** and **practice** of the concept.

○ Various concepts in the form of videos, practise sheets and quizzes are delivered in sync with TV programmes through **WhatsApp-led Digital Learning Enhancement Program** (DigiLEP).

➢ **Issues Highlighted:**

○ The programme was able to **reach only around 30%** of the total students from 18th July to 25th July.

● 20% of students were reached through TV and 10% through WhatsApp.

○ Families of 30% of the students **do not have TVs or smartphones having an internet connection** to avail of the study material.

● In families where smartphones with internet connections are available, **parents often take them to work with them**.

○ The remaining students were **not able to avail the study modules on a regular basis breaking the learning flow**.

○ **Reaching to students in the 89 tribal dominated blocks** in districts such as Alirajpur, Barwani and Jhabua is a **task in itself**.

➢ **Suggestions:**

○ Students need to be **divided into various groups according to the availability of TVs and phones** with the working connection, in sync with **PRAGYATA guidelines**.

○ If a family has a phone, it **should be used by all of its children** for their studies.

○ Those who have a TV, they **must watch the telecast during fixed time slots** on Doordarshan.

UGC on University Exams

Why in News

Recently, the **University Grants Commission (UGC)** has objected to Maharashtra and Delhi governments employing the **Disaster Management Act, 2005** to cancel the examinations of students amid the **Covid-19** pandemic.

Key Points

➢ **Background:**

○ The UGC had directed that final year examinations of universities must be conducted by September-end in online or offline mode.

● The **UGC Guidelines on 'Examinations and Academic Calendar for Universities in view of Covid-19 Pandemic'** were recently revised.

● The new guidelines allow students to opt for **offline or online or the "blended"** manner in which students can alternate between online and physical modes of attending the exams.

○ However, many States/UTs like Delhi, Maharashtra and Punjab announced the cancellation of these examinations.

● While **Delhi** has cited 'the reality of digital divide as a reason for scrapping university final year examination', states like **Maharashtra** have used Disaster Management Act for the same.

○ The UGC is calling **'cancellation of examination'** a populist move which may undermine the future of higher education in India.

➢ **Arguments for Conducting Examination:**

○ The UGC argued that the conduct of examinations was entirely within the domain of the UGC which is a **statutory body**, as per the **University Grants Commission Act, 1956.**

○ The **UGC Act** makes provision for the co-ordination and determination of standards in Universities and for that purpose, provides for the establishment of UGC.

○ Under this Act, the **determination and maintenance of standards of teaching, examination and research in Universities** fall under the ambit of **power and functions** of **UGC**.

➢ **Higher education is on the Concurrent List.**

○ The **42nd Amendment Act, 1976** shifted **Education from State list to Concurrent List**, empowering both the central and state government to make rules on Education.

○ Therefore, **UGC and All India Council for Technical Education** (AICTE) directives have to be implemented in this case.

○ As the UGC said, **the courts of law have a limited role** in framing policy on academic issues.

Note:

➢ **Limitations of Conducting Examinations:**

  ❍ As **the teaching-learning process has been hampered** by the Covid-19 pandemic, the basis of an assessment of learning by the students has been negated in the first hand.

  ❍ Many universities are not technically prepared for taking examinations in the online mode.

  ❍ The **reliance on written, subjective-type exams** for the evaluation of students is an archaic model of education which has been done away by many prestigious colleges around the globe, like the Oxford, Indian Institute of Technology (IIT) or National Law Universities.

  ❍ At a time when the country is struggling with a global health and economic crisis, the pressure of exams may **negatively impact the physical and mental well-being** of the student.

  ❍ **Inequality of internet access** among the student fraternity, a lack of adequate **online study material** and grievances of **students with disabilities** are also some of the shortcomings of taking examinations at this juncture.

➢ **Suggestions:**

  ❍ The **central** and **the state governments** should **act in partnership** to devise rules and regulations in order to impart quality education and create human resources with superior mental ability and adaptability.

   ● Campaigns like **Digital India** can go a long way to end this inequality of access to the internet.

  ❍ The education system must move **beyond numerically-defined academic success** and should take into account development of critical thinking, comparative and analytical modalities of instruction and meaningful, engaging classroom discussion and participation.

Report on Future of News in India: Vidhi

Why in News

Recently, the **Vidhi Centre for Legal Policy** (Delhi based independent think-tank) has released a report examining the **future of news in India.**

Key Points

➢ **Findings:**

  ❍ The worsening economic health of print journalism threatens its ability to credibly inform the public and act as an institutional check upon power.

  ❍ The environment of digital news operates in a vacuum of regulation. The emergence of a **post-truth paradigm in public communications** and the **widespread proliferation of misinformation** are barriers to realising the benefits of digital news distribution.

   ● **Post-truth includes** circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.

➢ **Recommendations:** The report has drawn a roadmap of legal reforms to facilitate the transition of high-quality print journalism into the era of digital communications in a manner that benefits the public good.

  ❍ **Checking the Dominance of Online Advertising Platforms:**

   ● The **advertisement-revenue model** for digital news may be displaying indications of market failure.

   ● In an advertising-revenue model, the online companies publish free content that drives hundreds, thousands or millions of visitors to the site on a monthly basis.

   ● Advertisers pay the online companies to get in front of these visitors, this helps businesses generate their revenue from the fees advertisers pay for this access.

  ❍ To orient the market for digital news towards the public good, the **role and practices of online advertising platforms must be systematically studied by a specialised authority.**

  ❍ The report has recommended the **Competition Commission of India** to investigate the dominance of online advertising platforms.

➢ **Enacting Comprehensive Measures to Address Misinformation:**

  ❍ It suggests a range of legislative, co-regulatory and voluntary measures which provide an integrated framework to prevent the spread of misinformation and enhance reader literacy. For example:

Note:

- Development of industry standards to identify misinformation.
- Use of analytics to identify patterns of misinformation, etc.

➢ **Appropriate Responsibilities on Digital News Entities:**
  ○ The report calls to fill the legal vacuum for digital news in a manner which is sensitive to the nuances of online discourse.
  ○ It recommends granting limited powers to the **Press Council of India**, in conjunction with a voluntary registration procedure and the development of a brief, accessible **code of conduct** as a mechanism for the imposition of **editorial responsibility.**
  ○ The role of online platforms in the distribution of news should be addressed through targeted interventions based on the design aspects of such platforms.

Andaman and Nicobar Islands to be Maritime and Startup Hub

Why in News

Recently, the Prime Minister has declared that the **Andaman and Nicobar islands** will be developed as a **"maritime and startup hub".**

Key Points

➢ A **transhipment hub** has been proposed in the Andaman and Nicobar islands.
  ○ A **transshipment** is when cargo or a container is moved from one vessel to another while in transit to its final destination.
  ○ It will be built in South Bay, Great Nicobar Island, to provide Indian shippers an alternative to the **Colombo (Sri Lanka), Singapore and Port Klang (Malaysia) transshipment ports.**
  ○ 12 islands of the archipelago have been selected for **high-impact projects** with an emphasis on boosting trade of **sea-based, organic and coconut-based products** of the region.
  ○ A **submarine cable project** has been launched in the islands to make it digitally independent.

- 2300 km of submarine Optical Fibres Cable (OFC) have been laid down
- The fibre will connect chennai and port blair and seven other islands- **Swaraj Deep (Havelock)**, Long island etc.
- The connectivity project was funded by the Centre through the **Universal Service Obligation Fund** under the Ministry of Communications.
- It was executed by **Bharat Sanchar Nigam Limited** (BSNL) and **Telecommunications Consultants India Limited (TCIL)** was the technical consultant.

➢ In addition, **Port Blair airport** is to be **expanded** and some of the islands will be also **connected with seaplanes**.

➢ **Background:**
  ○ In 2015, the government had announced an ambitious, **Rs 10,000 crore economic plan** to transform the Andaman and Nicobar Islands into the **country's first maritime hub.**
  ○ This included infrastructure construction, protection of the original **Jarawa inhabitants** and boosting the **tourism potential.**
  ○ Earlier, India had also invited **global investors to develop** the Andaman & Nicobar and Lakshadweep islands.
  ○ The Union Government constituted the **Island Development Agency** on 1st June, 2017 for the development of islands.
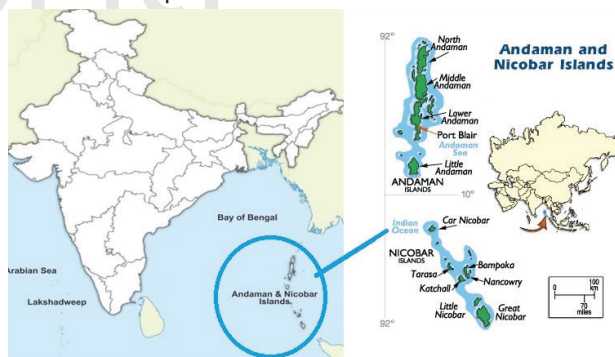
Benefits

➢ **Governance:**
  ○ Better connectivity in the region will facilitate the delivery of **e-governance** services such as **telemedicine** and **tele-education**, as a part of **Digital India** initiative.

Note:

○ The region will play an important role in the government's **self-reliant India** project.

➢ **Economic:**

○ Small enterprises, Business Process Outsourcing Services and other medium and large enterprises will also benefit from better connectivity and opportunities in **e-commerce**.

● This can be leveraged to promote the government's **Startup India** initiative.

○ The internet costs will also come down and it will give a boost to **tourism** and the **local economy**.

○ The building of a transshipment hub will be critical fo**r India's trade** and help the group of islands become an important centre of the **blue economy.**

➢ **Strategic:**

○ The islands are critical for **India's security** because of their **strategic location** in the **Indian Ocean Region (IOR**). Better infrastructure and connectivity will help India enhance its **military and naval strength** in the islands.

○ The islands are home to India's only tri-services command, the **Andaman and Nicobar Command (ANC)** which is strategically important, more so, on the backdrop of the **Chinese aggression i**n the region.

● Earlier this year, China was accused by Vietnam of **sinking its sea** in its **Exclusive Economic Zone**.

CONNECTIVITY TO ANDAMAN & NICOBAR ISLANDS

➢ **International Relations:**

○ It will also help India to build better economic relations with **ASEAN** region.

○ The importance of the islands has increased in light of India's **'Act East'** policy.

Submarine Communications Cable

➢ It is a cable **laid on the seabed** between land-based stations to transmit **telecommunication signals** across stretches of ocean and sea.

➢ The optical fibre elements are typically coated with **plastic layers** and contained in a **protective tube** suitable for the environment where the cable will be deployed.

➢ Compared to satellites, using internet connection through submarine cables is more **reliable, cost efficient** and **of large capacity.**

Universal Service Obligation Fund

➢ USOF ensures that there is universal **non-discriminatory access to quality ICT services** at economically efficient prices to people in rural and remote areas.

➢ It was created under the Department of Telecommunications in **2002.**

➢ It is a **non-lapsable fund,** i.e. the unspent amount under a targeted financial year does not lapse and is accrued for next years' spending.

➢ All credits to this fund require **parliamentary approval** and it has statutory **support** under **Indian Telegraph (Amendment) Act, 2003.**

Negative Imports List for Defence

Why in News

Recently, the **Ministry of Defence (MoD)** has announced a negative list of 101 defence items that the MoD will stop importing.

Key Points

➢ **Indigenisation of Defence Production:**

○ This will **boost indigenisation of defence production** and is in line with the government's target to **reach a turnover of USD 25 billion** by 2025 through indigenously manufactured defence products.

● Government also targets to **export** these indigenously manufactured defence products worth USD 5 billion by 2025.

- The manufacturers could be **private sector players** or **Defence Public Sector Undertakings** (DPSUs).
  ○ This will **reduce the government's defence import bill.**
- ➤ **List of Items:**
  ○ The list comprises simple parts to high technology weapon systems like artillery guns, assault rifles, sonar systems, transport aircrafts, radars, and many other items.
- ➤ **Implementation:**
  ○ The imports on these 101 defence items is planned to be **progressively implemented between 2020 to 2024**.
  ○ MoD has also **bifurcated the capital procurement budget** for 2020-21 **between domestic and foreign capital** procurement routes.
    - A separate budget head has been created with an outlay of nearly ₹52,000 crore for domestic capital procurement in the current financial year.
  ○ **In any government contract over ₹200 crore, no foreign company can participate i**n the tendering process.
- ➤ **Benefits:**
  ○ It will **offer an opportunity** to the Indian defence industry **to manufacture the items in the negative list** by using their own design and development capabilities or adopting the technologies designed and developed by the **Defence Research and Development Organisation (DRDO)** to meet the requirements of the Armed Forces.
  ○ It is a big step towards self-reliance in defence under the **Atmanirbhar Bharat** initiative.
- ➤ **Issues Involved:**
  ○ At least a third of the 101 items are already being produced in India.
    - Some items in the list are under development by domestic industry, and are not produced by any other country. E.g. the **Light Combat Helicopter** and the l**ight transport aircraft.**
  ○ Items like the AK-203 rifle, to be produced by the Ordnance Factory Board in Amethi (Uttar Pradesh) with Russian collaboration are **stuck over pricing issues.**

○ The items in the list are of proven technologies, and **do not involve any critical or cutting-edge technology f**or a next-generation weapon system or platform.
○ Challenge for the government and the armed forces will be **to keep this commitment to domestic producers** in the event of an operational requirement.
- E.g. **Make in India** scheme announced in 2014 aimed to develop the indigenous defence industry, but has failed to achieve its targets.

PURA Initiative

Why in News

The Pune Rural Administration has been able to implement the **Provision of Urban Amenities in Rural Areas (PURA) initiative** amid **Covid-19 pandemic**.

Key Points

- ➤ PURA was **mooted by the former President Dr. Abdul Kalam in January 2003** as a way of empowering and accelerating rural development.
- ➤ The **Ministry of Rural Development (MoRD)** implemented the PURA scheme on a pilot basis in seven clusters for a period of three years (2004- 05 to 2006-07).
- ➤ **PURA 2.0 as a central sector scheme was launched in 2012** focussing on the development of potential growth centres such as **census towns.**
- ➤ **Objective:** Provision of livelihood opportunities and urban amenities in rural areas to bridge the rural – **urban divide.**
- ➤ **Mission:** Holistic and accelerated development of compact areas around a potential growth centre in a Gram Panchayat (or a group of Gram Panchayats) through **Public Private Partnership (PPP) framework** for providing livelihood opportunities and urban amenities to improve the quality of life in rural areas.
- ➤ **Amenities and economic activities provided under PURA include** Water and Sewerage, Construction and maintenance of Village streets, Drainage, Solid Waste Management, Skill Development, village street lighting, telecom, electricity generation, village linked tourism, etc.

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- In **2014-15,** the government made **no allocation to the PURA scheme** and instead **introduced the Rurban Mission** with an initial allocation of ₹**100 crore.**
- The aim of the Rurban Mission is to **create 300 rural growth clusters** across the country.

Meeting of Vaccine Panel

Why in News

Recently, the **National Expert Group on Vaccine Administration for Covid-19** held its first meeting to consider the **logistics and ethical aspects** of procurement and administration of Covid-19 vaccine.

- The **World Health Organisation** (WHO) chief scientist has **cautioned against 'vaccine nationalism'** and held that it is in everybody's self-interest to **take an equitable approach to vaccine distribution and deployment**.

Key Points

- India would **leverage domestic vaccine manufacturing capacity** as well as **engage with all international players** for the early delivery of vaccines in India and also in low and middle-income countries.
- **Discussions were held on:**
  - '**Conceptualisation and Implementation Mechanism**' to create a digital infrastructure for inventory management and delivery mechanism of the vaccine, including tracking of the vaccination process, with particular focus on the last-mile delivery.
  - **Financial resources required for procurement** of vaccines and various options for financing the same.
  - **Available options in terms of delivery platforms, cold chain and associated infrastructure** for the rollout of Covid-19 vaccination.
  - **India's support to its key neighbours and development partner countries** for vaccines.
- This group is also **expected to deliberate on the availability of a vaccine to Indians** after it is fully developed.
  - The **Serum Institute of India (SII), Pune** is in the **process of developing** around 100 million doses by the end of 2020 but it is not clear how many of them will be available to Indians.

- The **Drugs Controller General of India (DCGI)** has given approval to the SII to conduct Phase II/III clinical trials of **Covishield** in India.
- **Russia has also given regulatory approval to its home-grown vaccine** (Sputnik V). However, **details on its early trial performance are not available** and Indian officials have not commented on whether there is any **India-Russia** partnership to either test or procure the vaccine.

Vaccine Nationalism

- **Vaccine nationalism** occurs when a country manages to **secure doses of vaccine for its own citizens or residents** before they are made available in other countries. This is done through **pre-purchase agreements between a government and a vaccine manufacturer**.
  - Currently, there are over 200 Covid-19 vaccine candidates in development and 27 of them on clinical trials across the world.
  - Countries like **India, the USA and Russia have not joined** the **Access to Covid-19 Tools Accelerator**, which was launched by the WHO to promote collaboration among countries in the development and distribution of Covid-19 vaccines and treatments.
- **Concerns:**
  - It would be **impossible for the world to go back to normal** and for the economies to recover if **only pockets of people are protected** as it will create imbalance by allocating vaccines to moderately at-risk populations in wealthy countries over populations at higher risk in developing economies.
    - During the **Swine Flu** (H1N1) **pandemic**, **high-income countries cornered vaccines** leaving very little for low-income countries.
    - They **gave up some of their stockpiled vaccines** for distribution in low-income countries **only after knowing that the pandemic was not so serious**.
    - **Covid-19 pandemic** is far severe as apart from the **other spreading methods**, there is a fear of **aerosol transmission** too which could happen in certain situations in what is called as "**opportunistic aerosolisation**".
    - In **opportunistic aerosolisation**, airborne infections transmit under **favourable conditions**

like a closed environment and poor ventilation where the virus could circulate in the environment for hours.

- ❍ It **disadvantages countries with fewer resources and low bargaining power** and deprives populations from timely access to vital public health goods.

- ❍ Vaccine nationalism also runs **against the fundamental principles of vaccine development and global public health** which involve several parties from multiple countries.

- ❍ **Political leaders have a responsibility** towards their own people so they will think about protecting their own people first.

- ❍ **Getting a consensus** on which set of people would get the vaccine first, is a big concern in itself.

➢ **Suggestions:**

- ❍ The **first batch** of the vaccines **should be made available to all frontline, health and social care workers, police and others who are at high risk** of getting the infection, instead of the otherwise healthy adult population.

  - ● 10% of all infections have occurred in healthcare workers and it would be unfair not to protect them before everyone.

- ❍ **Vaccines distribution can learn from the example of the WHO's Solidarity Trials** in which 25 countries participated and over 6,500 patients were recruited.

- ❍ **Pre-purchase agreements and contracts should not trump equitable access** to global public health goods and **developed countries should pledge to refrain from reserving vaccines** for their populations during public health crises.

- ❍ **International institutions**, including the WHO, should **coordinate negotiations** to produce a framework for equitable access to vaccines during public health crises.

PMJAY Affected by Lockdowns

Why in News

According to the "**Pradhan Mantri Jan Arogya Yojana (PMJAY) Policy Brief (8): PMJAY Under Lockdown: Evidence on Utilization Trends**'', the **nationwide lockdown** has had a significant negative impact on inpatient care utilisation under the scheme.

➢ The analysis covers **22 weeks of data, from 1st January to 2nd June 2020**. The national lockdown started on 25th March and was significantly relaxed as of 1st June.

➢ The analysis is based on claims **data drawn from the PMJAY Transaction Management System** (TMS) and the **main indicator of claim volumes** (utilization) is **non-rejected pre-authorisation requests**.

Pradhan Mantri Jan Arogya Yojana

➢ It offers a sum insured of ₹**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 the 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 insurance cost is **shared by the centre and the state mostly in the ratio of 60:40**.

➢ **Packaged rates** are the rates which include everything so that each product or service is not charged for separately.

- ❍ These rates also mention the number of average days of hospitalization for a medical procedure and supporting documents that are needed.

- ❍ These are flexible but the hospitals can't charge the beneficiary more once fixed.

➢ The **National Health Authority** (NHA) has been constituted as an **autonomous entity under the Society Registration Act, 1860** for effective implementation of PMJAY in alliance with state governments.

➢ The **State Health Agency** (SHA) is the **apex body of the State Government** responsible for the implementation of PMJAY in a State.

Key Points

➢ **Demographic groups**, women, younger and older populations (under 20 and over 60) **reduced their utilisation** by more than men, young adults or the middle-aged.

➢ Among **procedures**, **planned surgeries such as cataract operations and joint replacements suffered a decline** of over 90%, while **hemodialysis** (also

known as dialysis which is a process of purifying the blood) declined by only 20%.

➤ Overall, **average weekly claim volumes** in 10 weeks of lockdown **were 51% lower** than the weekly average observed during the 12 weeks prior to the lockdown.

  ❍ The **steepest decline** (over 75%) was registered in **Assam**, followed by **Maharashtra and Bihar**, while much **smaller declines** (about 25% or less) were observed in **Uttarakhand, Punjab and Kerala**.

➤ There was a **small but perceptible shift in PMJAY utilisation from the public to private hospitals**.

➤ Significant declines were noticed in **admissions for child delivery and oncology** (study and treatment of tumours).

  ❍ The **utilisation of neo-natal packages declined** by 24%.

  ❍ There was a slight **shift from public to private hospitals for neonatal care** and the **largest declines** have been observed in the public sector in **Tamil Nadu and Madhya Pradesh**.

  ❍ The **64% decline in oncology volumes** across India was concentrated in a few States.

  ❍ In the **public sector**, which plays a smaller role in oncology care under PMJAY, there was a **90% decline in claims in Maharashtra** and a **65% decline in Tamil Nadu**.

➤ While **access to medical facilities was one of the few exceptions** to stay-at-home orders during the lockdown, **care-seeking behaviours and healthcare provision** were nevertheless **significantly affected**, due to the following **reasons:**

➤ **On the Supply Side**:

  ❍ Hospitals may be **preoccupied with Covid-19 preparations or caseloads**, resulting in fewer resources for non-Covid-19 cases.

  ❍ This may be particularly relevant in public hospitals, which have been the primary focus of the policy response and could extend to activities such as submitting pre-authorisation requests or claims documents as required under PMJAY.

  ❍ **Private hospitals may reduce services out of fear** among health workers that they will become infected.

➤ **On the Demand Side:**

  ❍ PMJAY beneficiaries might **delay or forego treatment due to fear of infection** at a hospital.

  ❍ They may not be able to reach hospitals due to **public transport shutdowns and mobility constraints**.

  ❍ The **economic crisis** may affect financial considerations related to seeking care.

➤ Health experts have highlighted that **ensuring the least possible impact on key health programmes** will be an ongoing challenge which needs **continued close monitoring**.

Blockchain Technology in Voting

Why in News

Election Commission (EC) officials are exploring the potential of using **blockchain technology** to enable **remote voting.** The aim is to **overcome the geographical hurdles in voting.**

➤ **Remote voting** may take place in person somewhere other than an assigned polling station or at another time, or votes may be sent by post or cast by an appointed proxy.

  ❍ There have been **demands** from various political parties that the EC should ensure that **migrant workers** who miss out on voting, as they cannot afford going home during elections to exercise their franchise, should be allowed to vote for their constituency from the city they are working in.

Key Points

➤ **Blockchain Technology:**

  ❍ Blockchain is a system in which the **database of recordings (a 'chain') appears on multiple computers at the same time** even as it is updated with any new digital information ('a block').

  ❍ It offers a singular combination of **permanent and tamper-evident record keeping,** real-time transaction transparency and auditability.

  ❍ The initial and primary use of blockchain technology was for monitoring **cryptocurrency** (e.g. bitcoin) transactions. However, other usage and applications have emerged in the last few years.

Note:

- The government of **Andhra Pradesh** and **Telangana** have put the l**and records on the blockchain technology** owing to its easy traceability feature.

➢ **Blockchain Technology in Voting:**

○ **Growing concern over election security, voter registration integrity, poll accessibility, and voter turnout** has led governments to consider blockchain-based voting platforms as a means to increase faith and participation in essential democratic processes.

- **Electronic voting** has been used in varying forms since the 1970s with fundamental benefits over paper based systems such as increased efficiency and reduced errors. At present, the feasibility of blockchain is being explored for effective e-voting.

- Even the EC had used a one-way electronic system for service electors (consisting of personnel belonging to the armed forces, central para military forces and central government officers deployed at Indian missions abroad) i.e. **Electronically Transmitted Postal Ballot System (ETPBS)** in 2019 Lok Sabha Elections.

○ Blockchain's decentralized, transparent, immutable, and encrypted qualities **could potentially help minimize election tampering and maximize poll accessibility.**

○ **Possible Working:**

- A blockchain remote voting process would involve **voter identification and authorisation** using a multi-layered IT enabled system (with the help of biometrics and web cameras) at the venue.

- After a voter's identity is established by the system, a blockchain enabled **personalised e-ballot paper (Smart Contract)** will be generated.

- When the vote is cast (Smart Contract executed), the **ballot would be securely encrypted and a block chain hashtag (#) will be generated.** This hashtag notification would be sent to various stakeholders i.e. the candidates and political parties.

➢ **Limitations:**

○ Any new technology systems, including those based on blockchain technologies, are **vulnerable to cyber-attacks** and other security vulnerabilities.

- These could cause **vote manipulation, paper trail erasure, or electoral chaos.**

○ Furthermore, a voter verification system that uses biometric software, such as facial recognition, could lead to **false positives or negatives in voter identification,** thus facilitating fraud or disenfranchising citizens.

○ Blockchain-based voting systems may also entail **privacy risks and concerns.**

■■■

Note:

Economic Scenario

Highlights

- *Monetary Policy Report: RBI*
- *Economic Measures Taken by RBI*
- *Expansion of Emergency Credit Line Guarantee Scheme*
- *K.V. Kamath Committee on Restructuring of Loans*
- *Increased Fiscal Deficit*
- *Transparent Taxation – Honoring the Honest*
- *Strong Balance of Payments*
- *Contraction in Manufacturing: PMI*
- *Food System Vision 2050 Prize: Rockefeller Foundation*
- *Contraction in Core Sector Industries*
- *Rising Imports from China*
- *New Proposals for Solar Power*

Monetary Policy Report: RBI

Why in News

The **Reserve Bank of India (RBI)** has released the **Monetary Policy** Report for the month of August 2020.

- The Monetary Policy Report is **published by the Monetary Policy Committee (MPC)** of RBI.
  - The MPC is a **statutory and institutionalized framework** under the **RBI Act, 1934**, for **maintaining price stability,** while keeping in mind the objective of growth.
  - The MPC determines the policy interest rate (repo rate) required to achieve the inflation target (4%).
  - The **Governor of RBI is ex-officio Chairman of the MPC.**

Key Points

- **Policy Rates Unchanged:**
  - **Repo rate** remains at 4% and the **reverse repo rate** at 3.35%.
  - **Repo rate** is the rate at which RBI lends money to commercial banks.
  - **Reverse repo rate** is the rate at which the RBI borrows money from commercial banks within the country.
  - RBI has kept the policy rates unchanged **because of rising retail inflation levels.**

- **Retail inflation (measured by the Consumer Price Index - CPI) rose to 6.09%** in June 2020 from 5.84% in March, breaching the central bank's medium-term target of 4±2%.
  - This **inflation range (4% within a band of +/- 2%) was recommended by the committee headed by Urjit Patel in 2014.**

- **Loan Restructuring:**
  - RBI has allowed banks **to restructure loans** to reduce the rising stress on incomes and balance sheets of **large corporates**, **Micro, Small and Medium Enterprises (MSMEs)** as well as **individuals.**
    - A large number of firms that otherwise maintain a good track record are facing the challenge as their debt burden is becoming disproportionate, relative to their cash flow generation abilities.
    - This can potentially impact their long-term viability and pose significant financial stability risks if it becomes widespread. It may also lead to an increase in **Non-Performing Assets.**
  - However, **only those borrowers will be eligible for restructuring** whose accounts were classified as standard and not in default for more than 30 days with any lending institution as on 1st March, 2020.

Note:

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- All other accounts will be considered for restructuring under the **Prudential Framework** issued by the RBI in 2019, or the relevant instructions as applicable to specific categories of lending institutions where the prudential framework is not applicable.

  ○ The restructuring efforts may or may not include a **moratorium on instalment repayments**. RBI has left the decision of moratorium on banks, with an eye on averting such loans from slipping into non-performing assets.

  ○ The **loan restructuring scheme** will be worked out by a **committee headed by KV Kamath** (former ICICI Bank Chairman).

Policy prescription

Some key policy decisions of the Reserve Bank of India

- **No extension** announced on loan moratorium beyond August 31
- Banks allowed to **restructure** stressed corporate and MSME loans
- Relief to **individual borrowers** at banks' discretion
- Borrowing limits against **gold** relaxed
- Tenure can be extended upto two years for **personal loans**
- ₹10,000 crore support for NHB, NABARD
- **Start-ups** included in priority sector lending norms

While space for further monetary policy action is available, it is important to use it judiciously to maximise the beneficial effects for underlying economic activity

SHAKTIKANTA DAS, RBI Governor

- **Liquidity Support:**

  ○ An additional special liquidity facility of Rs.10,000 crore, equally to be split between **National Bank for Agriculture and Rural Development (NABARD)** and the **National Housing Bank (NHB)** to help small financiers and home loan companies amid Covid-19 difficulties.

    - It can be noted that higher share of moratoriums are being availed by the retail borrowers which has created the need for such liquidity support to lenders.

  ○ The liquidity facility to both NABARD and NHB will be offered at the policy repo rate.

- **Growth Projection:**
- Economic activity had started to recover from the lows of April-May 2020 following the uneven reopening of some parts of the country in June 2020.
- However, fresh **Covid-19** infections have forced renewed lockdowns in several cities and states, and economic indicators have levelled off.
- The recovery in the rural economy is expected to be robust, buoyed by the progress in kharif sowing.
- Manufacturing firms responding to the RBI's industrial outlook survey expect domestic demand to recover gradually from the second quarter of 2020-21 and sustain through the first quarter of 2021-22.
- For 2020-21 as a whole, real **Gross Domestic Product (GDP)** growth is expected to be negative. Early containment of the pandemic may improve the outlook.

Link between Growth, Inflation and Interest rates

- In a fast-growing economy, incomes go up quickly and more and more people have the money to buy the existing bunch of goods.
- As more and more money chases the existing set of goods, prices of such goods rise. In other words, inflation (which is nothing but the rate of increase in prices) increases.
- **To contain inflation**, a country's central bank typically **increases the interest rates** in the economy. By doing so, **it incentivises people to spend less and save more** because saving becomes more profitable as interest rates go up.
- However, **when growth contracts**, **people's incomes hit**. As a result, less and less money is chasing the same quantity of goods. This results in either the **inflation rate decelerating** or it actually **contracts (also called deflation)**.
- In such situations, a central bank **decreases interest rates so as to incentivise spending** and by that route boost economic activity in the economy.
- In the current **Monetary Policy, RBI has not raised the interest rates even when retail inflation is high** because RBI is facing an odd situation at present: **GDP is contracting even as inflation is rising.**
- This is happening because the pandemic has reduced demand, on the one hand, and disrupted supply on the other. As a result falling growth and rising inflation are happening at the same time.

Note:

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Economic Measures Taken by RBI

Why in News

Recently, the **Reserve Bank of India (RBI)** has taken various economic measures, which include **revising Priority Sector Lending (PSL) norms**, **increasing Loan to Value ratio (LTV) on gold loans** and introducing **online dispute resolution** mechanism **for digital payments.**

➢ The PSL guidelines were last reviewed by the RBI in April 2015.

Key Points

➢ **Revised PSL Norms:**
  ○ Provides **PSL status to start-ups**.
  ○ **Increases the borrowing limits for renewable energy sectors**, solar power and compressed biogas plants.
  ○ **Increased the targets for lending** to **'Small and Marginal Farmers'** and **'Weaker Sections'**.
  ○ Put in place the **incentive framework** for banks in order **to address the regional disparities in the flow of priority sector credit**.

➢ **Reasons for New PSL Norms:**
  ○ With a view to **aligning the guidelines with emerging national priorities** and bring a sharper **focus on inclusive development.**
  ○ It has been done with the **aim** to **encourage and support environment-friendly lending policies** to achieve **Sustainable Development Goals (SDGs).**

➢ **Loan to Value Ratio Increased:**
  ○ Currently, loans sanctioned by banks **against pledge of gold** ornaments and jewellery for non-agricultural purposes should not exceed 75% of the value of gold ornaments and jewellery.
  ○ However, with a view to mitigating the impact of **Covid-19** on households, RBI has decided to **increase the permissible LTV for such loans to 90%.**
  ○ This relaxation will be available until 31st March 2021.
  ○ Increase in LTV ratio will make banks and **Non-Banking Financial Companies (NBFCs)** more competitive as compared to money lenders.

● However, it also increases the risk of gold financing players as the gold is floating at a record high level. Any fall in gold prices will increase defaults.

➢ **Offline Retail Payments Scheme:**
  ○ RBI has unveiled a scheme of offline retail payments using cards and mobile devices to foster financial inclusion.
  ○ There has been a considerable growth in digital payments using mobile phones, cards and wallets. However, **lack of internet connectivity or slow internet**, especially **in remote areas, is a major impediment** in the adoption of digital payments.

➢ **Online Dispute Resolution:**
  ○ RBI has also Introduced an **Online Dispute Resolution (ODR) mechanism** for digital payments as the number of digital transactions is rising significantly giving rise to more disputes.

Priority Sector Lending

➢ The RBI mandates banks to lend a certain portion of their funds to specified sectors, like agriculture, Micro, Small and Medium Enterprises (MSMEs), export credit, education, housing, social infrastructure, renewable energy among others.
  ○ All **scheduled commercial banks** and **foreign banks** (with a sizable presence in India) are mandated to set aside 40% of their **Adjusted Net Bank Credit** (ANDC) for lending to these sectors.

➢ The idea behind this is to ensure that adequate institutional credit reaches some of the vulnerable sectors of the economy, which otherwise may not be attractive for banks from the profitability point of view.

Expansion of Emergency Credit Line Guarantee Scheme

Why in News

Recently, the government has expanded its **Emergency Credit Line Guarantee Scheme (ECLGS)** to cover loans given to larger firms as well as to self-employed people and professionals who have taken loans for business purposes.

➢ ECLGS was **rolled out in May 2020 as part of the Centre's Aatmanirbhar package** in response to the

Covid-19 crisis. The objective was to support **small businesses** struggling to meet their **operational liabilities** due to the imposition of a nationwide lockdown.

Key Points

➢ The ECLGS provides for the **Guaranteed Emergency Credit Line (GECL)** facility.

○ The GECL is **a loan for which 100% guarantee is provided by the National Credit Guarantee Trustee Company (NCGTC) to Member Lending Institutions (MLIs)** - banks, financial institutions and **Non-Banking Financial Companies (NBFCs).**

➢ The loans are **100% collateral-free.**

➢ The loans are extended in the form of additional **working capital term loan facility** in case of banks, and additional term loan facility in case of NBFCs **to eligible Micro, Small and Medium Enterprises (MSMEs)/ business enterprises and interested Pradhan Mantri Mudra Yojana (PMMY) borrowers.**

○ **First-time borrowers and Non-Performing Asset (NPA) accounts cannot raise funds** under the scheme.

○ **Working capital loans** are taken to finance a company's **everyday operations.** These loans are not used to buy long-term assets or investments.

○ A **term loan** is a loan from a bank for a specific amount that has a specified repayment schedule.

➢ The **tenor of loans** provided under the GECL facility is **four years** from the date of disbursement.

○ A **moratorium period of one year on the principal amount** is provided.

➢ **Interest rates** of banks and financial institutions have been capped at 9.25% per annum, while NBFCs can lend at a maximum of 14% per annum.

➢ The Scheme is **applicable** to all loans sanctioned under the GECL facility during the period from, **23rd May 2020 to 31st October, 2020**, or till an amount of ₹**3 lakh crore is sanctioned** under GECL, **whichever is earlier.**

➢ The scheme **has been expanded** to cover:

○ **Enterprises with a turnover up to ₹250 crore with outstanding loans up to ₹50 crore** (as on 29th February, 2020).

● The earlier limit was ₹100 crore and Rs 25 crore, respectively.

○ **Individual beneficiaries** including both **professionals** such as doctors, lawyers and chartered accountants, as well as **self-employed people** such as vendors or taxi drivers.

➢ The expansion of the limits has increased the maximum amount of loans that can be availed under the Scheme to ₹**10 crore (20% of 50 crore) from** ₹**5 crore (20% of 25 crore).**

➢ The changes in the ECLGS scheme are **likely to make an additional Rs 1 lakh crore eligible.**

➢ Till now, a total of around ₹**1.37 lakh crore has been sanctioned** under the scheme by member lending institutions to around 40 lakh accounts, of which around Rs 87,000 crore has been disbursed.

National Credit Guarantee Trustee Company Ltd

➢ NCGTC is a **private limited company** incorporated under the Companies Act, 1956 in 2014, established by the Department of Financial Services, Ministry of Finance, as a **wholly owned company of the Government of India**, to act as a common trustee company for multiple credit guarantee funds.

➢ **Credit guarantee programmes** are designed to share the lending risk of the lenders and in turn, facilitate access to finance for the prospective borrowers.

K.V. Kamath Committee on Restructuring of Loans

Why in News

The **Reserve Bank of India (RBI)** has set up a committee headed by **K.V. Kamath on restructuring of loans** impacted by the **Covid-19 pandemic.**

Key Points

➢ **Objective:** The Committee is tasked to **recommend parameters for one-time restructuring of corporate loans.**

○ The Committee will formulate **sector-specific resolution plans** for all accounts with total loan exposure of Rs.1,500 crore and above.

➢ **Background:** In the recent **Monetary Policy report**, RBI has allowed banks to restructure loans **to reduce the rising stress on incomes and balance sheets** of large corporates, **Micro, Small and Medium Enterprises (MSMEs)** as well as individuals.

➢ **Reasons:** A large number of firms that otherwise maintain a good track record are facing the challenge as their debt burden is becoming disproportionate, relative to their cash flow generation abilities.

○ This can potentially impact their long-term viability and pose significant financial stability risks if it becomes widespread. It may also lead to an increase in **Non-Performing Assets.**

➢ **Eligibility: Only those borrowers will be eligible for restructuring whose accounts were classified as standard and not in default for more than 30 days** with any lending institution as on 1st March, 2020.

○ All **other accounts** will be considered for restructuring under the **Prudential Framework** issued by the RBI in 2019, or the relevant instructions as applicable to specific categories of lending institutions where the prudential framework is not applicable.

○ The restructuring efforts **may or may not include a moratorium on instalment repayments.** RBI has left the decision of moratorium on banks, with an eye on averting such loans from slipping into non-performing assets.

Increased Fiscal Deficit

Why in News

As per the official data, the Centre's **fiscal deficit** for the first three months of fiscal 2020-21 **(April-June)** was ₹**6.62 lakh crore,** which is **83% of the budgeted target** for the year (₹7.96 lakh crore).

➢ As per the economists, the fiscal deficit **may end up as high as 8% of the Gross Domestic Product (GDP),** far **exceeding the budget's goal of 3.5%.**

Key Points

➢ **Fall in Income Component:**

○ The Union government has received ₹1.53 lakh crore (in terms of tax, non-tax revenue and loan recoveries) from April to June 2020.

○ This is **less than 7% of budget estimates** for the full year.

● When economic activity has been stopped because of the pandemic and lockdown, government revenues are also going to come down.

○ The Centre has also **transferred ₹1.34 lakh crore to States as their share of taxes,** which is ₹**14,588 crore lower** than the previous year.

DEEP CUT
Govt revenues, spending & deficit (₹ cr)

	Apr-Jun'19	Apr-Jun'20	%chg
Gross tax revenue	400,421	269,686	-32.6
Net tax revenue	251,411	134,822	-46.4
Corporate tax	70,640	54,212	-23.2
Income tax	96,927	62,123	-35.9
Central GST	116,805	55,047	-52.9
Customs	39,480	15,416	-61
Excise	36,951	35,347	-4.3
Total expenditure	721,705	815,944	13

BCCL

➢ **Increase in Expenditure:**

○ The Centre's total expenditure for April-June was ₹8.15 crore, almost **27% of budget estimates for the year.**

● Due to spending on free food grains and rural job programmes for millions of migrant workers.

○ There has been a **40% growth in the first quarter capital expenditure** to ₹88,273 crore.

● This is historically high (in comparison to data from the last 20 years), in terms of year-on-year percentage growth for the first quarter.

Note:

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- Increased capital expenditure implies increased spending on creation of assets such as infrastructure.

➢ **Borrowings:** The reduced collections have forced the government to raise the amount it's borrowing this fiscal to a record ₹**12 lakh crore from earlier estimates of** ₹**7.8 lakh crore** to meet spending needs.

Fiscal Deficit

➢ The **government describes fiscal deficit of India** as "the excess of total disbursements from the **Consolidated Fund of India**, excluding repayment of the debt, over total receipts into the Fund (excluding the debt receipts) during a financial year".

➢ In simple words, it is a **shortfall in a government's income compared with its spending.**
   ❍ The government that has a fiscal deficit is spending beyond its means.

➢ It is **calculated as a percentage of Gross Domestic Product (GDP)**, or simply as total money spent in excess of income.
   ❍ In either case, the income figure includes only taxes and other revenues and **excludes money borrowed to make up the shortfall.**

➢ **Formula:**
   ❍ **Fiscal Deficit** = Total **expenditure** of the government **(capital and revenue expenditure)** – Total **income** of the government (Revenue receipts + recovery of loans + other receipts).
   ❍ **Expenditure component:** The government in its Budget allocates funds for several works, including payments of salaries, pensions, etc. **(revenue expenditure)** and creation of assets such as infrastructure, development, etc. **(capital expenditure).**
   ❍ **Income component:** The income component is made of two variables, **revenue generated from taxes** levied by the Centre and the **income generated from non-tax variables**.
      - The taxable income consists of the amount generated from corporation tax, income tax, Customs duties, excise duties, **GST,** among others.
      - Meanwhile, the non-taxable income comes from external grants, interest receipts, dividends and profits, receipts from Union Territories, among others.

➢ It is **different from revenue deficit** which is only related to revenue expenditure and revenue receipts of the government.

➢ The government **meets the fiscal deficit by borrowing money.** In a way, the total borrowing requirements of the government in a financial year is equal to the fiscal deficit in that year.

➢ A **high fiscal deficit can also be good** for the economy if the money spent goes into the creation of productive assets like highways, roads, ports and airports that boost economic growth and result in job creation.

➢ The **Fiscal Responsibility and Budget Management Act, 2003** provides that the Centre should take appropriate measures to limit the **fiscal deficit upto 3% of the GDP by 31st March, 2021.**

➢ The **NK Singh committee (set up in 2016)** recommended that the government should target a fiscal deficit of 3% of the GDP in years up to March 31, 2020 cut it to 2.8% in 2020-21 and to 2.5% by 2023.

Transparent Taxation – Honoring the Honest

Why in News

Recently, the Prime Minister of India launched the **'Transparent Taxation - Honoring The Honest'** platform to honour the honest taxpayers of the country.

Key Points

➢ **The Transparent Taxation Platform:**
   ❍ It is aimed at **bringing transparency in income tax systems** and **empowering taxpayers**.
   ❍ The **main features** of the platform are **faceless assessment, faceless appeal and taxpayer charter.**
      - The **faceless assessment and taxpayer charter** will come into place immediately from the launch, while the **faceless appeal** is going to be applicable from 25th **September 2020.**
   ❍ **Faceless Assessment:** It aims to **eliminate the interface** between the taxpayer and the income tax department.

- There will be no need for the taxpayer to visit the income tax office or the officer.
- The selection of a taxpayer is possible through systems using analytics and **Artificial Intelligence.**
  ○ **Faceless Appeal:** Under the system, appeals will be randomly allotted to any officer in the country. The identity of the officer deciding the appeal will remain unknown.
  ○ **Taxpayer Charter:** This outlines the rights and responsibilities of both tax officers and taxpayers.
- ➤ **Other Recent Direct Tax Reforms:**
  ○ The **Central Board of Direct Taxes (CBDT)** has carried out several major tax reforms in direct taxes in recent years. The f**ocus of the tax reforms has been on reduction in tax rates and on simplification of direct tax laws**.
    - **Corporate Tax** rates were reduced from 30% to 22% in 2019. For new manufacturing units the corporate tax rates were reduced to 15%.
    - **Dividend Distribution Tax** was also abolished in 2019.
  ○ The CBDT has also taken several initiatives for bringing in **efficiency and transparency** in the functioning of the Income Tax (IT) Department, such as:
    - Bringing more transparency in official communication through the newly introduced **Document Identification Number (DIN)** wherein every communication of the Department would carry a computer generated unique document identification number.
    - **Pre-filing income tax returns** to increase the ease of compliance for taxpayers and to make compliance more convenient for individual taxpayers.
    - **Direct Tax Vivad se Vishwas Act, 2020** to provide for resolution of pending tax disputes.

Strong Balance of Payments

Why in News

According to the Ministry of Commerce and Industry, India's **Balance of Payments (BoP)** in 2020-21 is going to be very strong.

Key Points

- ➤ **Strong BoP:** The BoP is going to be strong on the back of **significant improvement in exports and a fall in imports.**
  ○ The exports in July 2020 is at about 91% export level of July 2019 figures.
  ○ Imports are still at about 70-71% level as of July 2020.
- ➤ **Trade Surplus in June 2020:** India's trade has turned surplus for the first time in 18 years as imports dropped by 47.59% in June 2020 as compared to June 2019.
  ○ The country posted a trade surplus of USD 0.79 billion in June 2020.
- ➤ **Domestic Manufacturing Being Boosted:** The government is taking steps to support and promote domestic manufacturing and industry.
  ○ It has **increased curbs on imports** of products and parts, especially from China, as part of its **Atmanirbhar Initiative**.
  ○ The government also reviewed all **Free-Trade Agreements (FTA)** done between 2009 and 2011 and found most of them to be **asymmetrical.**
    - FTAs done earlier have permitted foreign goods to come easily into the country but Indian goods have not been allowed reciprocal entry.
    - For example, European countries have opposed technical standards imposed by India on import of tyres, even as they have restricted export of tyres from India.
  ○ **Change in Mode of Manufacturing:** The government has also asked firms investing in the country to **stop having an "assembly workshop" approach** that has typically characterised Indian manufacturing.

Balance of Payment

- ➤ **Definition:**
  ○ BoP of a country can be defined as a **systematic statement of all economic transactions of a country with the rest of the world during a specific period usually one year**.
  ○ It indicates whether the country has a **surplus or a deficit on trade.**
    - When exports exceed imports, there is a **trade surplus** and when imports exceed exports there is a **trade deficit**.

Note:

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- ➤ **Purposes of calculation of BoP:**
  - ❍ Reveals the **financial and economic status** of a country.
  - ❍ Can be used as an **indicator** to determine whether the **country's currency value is appreciating or depreciating.**
  - ❍ Helps the government to decide on **fiscal and trade policies.**
  - ❍ Provides important information to analyze and understand the economic dealings of a country with other countries.

- ➤ **Components of BoP:**
  - ❍ For preparing BoP accounts, economic transactions between a country and the rest of the world are **grouped under Current account, Capital account and Errors and Omissions.** It also shows **changes in Foreign Exchange Reserves.**
    - ● **Current Account:** It shows export and import of **visibles** (**merchandise or goods which represent trade balance**) and **invisibles** (**non-merchandise**).
    - ● Invisibles include services, transfers and income.
  - ❍ **Capital Account:** It shows a **capital expenditure and income for a country.**
    - ● It gives a summary of the net flow of both private and public investment into an economy.
    - ● **External Commercial Borrowing (ECB)**, **Foreign Direct Investment**, **Foreign Portfolio Investment**, etc. form a part of the capital account.
  - ❍ **Errors and Omissions:** Sometimes the balance of payment does not balance. This imbalance is shown in the BoP as errors and omissions. It reflects the country's inability to record all international transactions accurately.
  - ❍ **Changes in Foreign Exchange Reserves:** Movements in the reserves comprises changes in the foreign currency assets held by the **Reserve Bank of India (RBI)** and also in **Special Drawing Rights (SDR)** balances.

- ➤ Overall the **BoP account can be a surplus or a deficit**. If there is a deficit then it can be bridged by taking money from the **Foreign Exchange Account**.
  - ❍ If the reserves in the forex account are falling short then this scenario is referred to as **BoP crisis.**

Contraction in Manufacturing: PMI

Why in News

According to the recent **IHS Markit India Manufacturing Purchasing Managers' Index (PMI),** India's manufacturing sector activity contracted at a faster pace in July 2020 than in June 2020.

Key Points

- ➤ **Manufacturing PMI:**
  - ❍ It stood at 46 in July 2020, down from 47.2 in June 2020.
    - ● In PMI parlance, a score above 50 means **growth**, while a score below that denotes **contraction**.
  - ❍ This is the **fourth straight month of contraction** for the Indian manufacturing sector. In April, the PMI had slipped into contraction mode, after remaining in growth territory for 32 consecutive months.
  - ❍ The manufacturing PMI showed some recovery in May, and further in June 2020, but it once again slipped in July 2020.

- ➤ **Reason for Contraction:**
  - ❍ The demand conditions remained subdued with some businesses still closed amid lockdown extensions due to emergence of new epicentres of **Covid-19 pandemic.**
    - ● Export orders have also witnessed a decline.

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.
  - ❍ IIP covers the **broader industrial sector** compared to PMI.
  - ❍ However, PMI is **more dynamic** compared to a standard industrial production index.

Note:

➢ **Effect:**
  ○ The re-acceleration of declines in the manufacturing sector is **undermining the trend towards economic stabilisation** seen over the past two months. The **firms have reduced both staff numbers as well as purchasing activity.**

Food System Vision 2050 Prize: Rockefeller Foundation

Why in News

The **Rockefeller Foundation has selected Naandi Foundation** (a Hyderabad based non-profit organisation), as one of the **top 10 'Visionaries'** in the world for the **Food System Vision 2050 Prize.**

➢ Naandi was recognised for its **Arakunomics model.**

Key Points

➢ **The Food System Vision Prize:**
  ○ It was launched by the **USA-based 'The Rockefeller Foundation',** in partnership with the other two organisations - SecondMuse and OpenIDEO- in 2019.
  ○ It is an invitation for organizations across the globe to **develop a Vision of the regenerative and nourishing** food system **that they aspire to create by the year 2050.**
  ○ **Food System Vision** is a story about the future that addresses the **following six interconnected themes:** Environment, Diets, Economics, Culture, Technology and Policy.
  ○ The notion is that by transforming food systems, following **challenges can be addressed:**
    ● A global population approaching 10 billion,
    ● Greenhouse gasses changing the climate,
    ● Pollution poisoning soil, air, and water.
  ○ **USD 2 million will be distributed to the Top Visionaries**, who will be eligible to receive a prize of **USD 2,00,000 each.**

➢ **Naandi Foundation (Arakunomics):**
  ○ The organisation was recognised for the application of **Arakunomics** model in regions of **Araku** (Andhra Pradesh), **Wardha** (Maharashtra) and **New Delhi,** leading to the Food Vision 2050 that follows an **"ABCDEFGH"** framework centring on:

Agriculture, **B**iology, **C**ompost, **D**ecentralised decision-making, **E**ntrepreneurs, **F**amilies, **G**lobal Markets, and '**H**eadstands (implying innovation)'.
  ○ Arakunomics is a new integrated **economic model** that ensures profits for farmers, quality for consumers through **regenerative agriculture.**
    ● It is based on work with tribal farmers in Araku for nearly 20 years.
    ● This economic model is a tribute to the tribal farmers of Araku region for the world class coffee produced and launched in Paris in 2017, as well as for the high carbon landscape transformation they did in over 955 villages, thereby planting 25 million trees.

Regenerative Agriculture

➢ "Regenerative Agriculture" describes farming and grazing practices that, among other benefits, **reverse climate change** by rebuilding soil organic matter and restoring degraded soil biodiversity – resulting in both carbon drawdown and improving the water cycle.

➢ The key to regenerative agriculture is that it **not only "does no harm" to the land but actually improves it**, using technologies that regenerate and revitalize the soil and the environment.

➢ Regenerative agriculture leads to healthy soil, capable of producing high quality, nutrient dense food while simultaneously improving, rather than degrading land, and ultimately leading to productive farms and healthy communities and economies.

➢ It is dynamic and holistic, incorporating **permaculture** (sustainable and self-sufficient agricultural ecosystems) and organic farming practices, including conservation tillage, cover crops, crop rotation, composting, mobile animal shelters and pasture cropping, to increase food production, farmers' income and especially, topsoil.

➢ It has been promoted **to counter loss of the world's fertile soil and biodiversity**, along with the loss of indigenous seeds and knowledge.

  ○ Arakunomics success in Araku led to Naandi replicating the model to support the livelihoods of farming communities in the villages of **Wardha – infamous for agrarian distress,** as well as later in **New Delhi,** as part of an **Urban Farms Co programme.**

- ❍ Naandi hopes to expand its "food-print" by creating thousands of farm livelihoods by transforming their agriculture over one million acres spread across India.
- ❍ Rockefeller Foundation will release USD 1,50,000 at present and the balance USD 50,000 after a three-month accelerator programme that is intended to help Naandi realise its vision.

Contraction in Core Sector Industries

Why in News

The **output of eight core industries** contracted for the **fourth consecutive month** - **shrinking by 15%** in June 2020.

- ➤ The eight core sector industries are **coal, crude oil, natural gas, refinery products, fertilisers, steel, cement and electricity.**
- ➤ These eight industries account for **40.27% in the Index of Industrial Production (IIP).**

Key Points

- ➤ **Contraction in Total Output:**
  - ❍ During **April-June 2020**, the sector's output **dipped by 24.6%** as compared to a positive growth of 3.4% in the same period previous year.
  - ❍ However, 15% contraction in June 2020 **implies some economic recovery** as in May 2020, the industries' output contracted by 22%.
  - ❍ Economists expect the **negative trend to continue for at least two more months.**
- ➤ **Industry-wise Performance:**
  - ❍ The **fertiliser industry is the only one which saw actual growth** in June, with output rising 4.2% in comparison to June 2019.
    - This, however, is lower than the May 2020 growth of 7.5%, but reflects the positive outlook in the agriculture sector where a normal monsoon is leading to expectations of a good kharif crop.
  - ❍ Rest seven sectors – coal (-15.5%), crude oil (-6.0), natural gas (-12%), refinery products (-9%), steel (-33.8%), cement (-6.9%), and electricity (-11%) – recorded negative growth in June.

- ● The **steel sector continues to remain the worst performer,** with a 33% drop in production in comparison to the previous year.

Index of Industrial Production

- ➤ The Index of Industrial Production (IIP) is an index that **shows the growth rates in different industry groups** of the economy in a fixed period of time.
- ➤ It is compiled and published monthly by the **National Statistical Office (NSO), Ministry of Statistics and Programme Implementation.**
- ➤ IIP is a **composite indicator** that measures the growth rate of industry groups classified under:
  - ❍ **Broad sectors,** namely, Mining, Manufacturing, and Electricity.
  - ❍ **Use-based sectors,** namely Basic Goods, Capital Goods, and Intermediate Goods.
- ➤ The **eight core sector industries represent about 40% of the weight** of items that are included in the IIP.
  - ❍ The eight core industries in **decreasing order** of their weightage: Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.
- ➤ **Base Year** for IIP calculation is **2011-2012.**
- ➤ **Significance of IIP:**
  - ❍ IIP is the **measure on the physical volume of production.**
  - ❍ It is **used by government agencies** including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
  - ❍ IIP remains extremely relevant for the calculation of the quarterly and advance **Gross Domestic Product (GDP) estimates.**

Way Forward

The positive impact from unlock is not as strong as the negative impact of the lockdown. The government needs to contain the spread of the coronavirus pandemic on a priority to make economic recovery sustainable.

Rising Imports from China

Why in News

According to the latest figures from **China's General Administration of Customs** (GAC), **Indian imports from China**, its largest trading partner in goods, are **on a rise** after the months of June and July.

Note:

Key Points

- India's imports from China had **fallen to a record low of USD 3.2 billion** both in the months of **April and May**, coinciding with the **pandemic** induced **lockdowns**.

- Imports **subsequently rose to USD 4.8 billion in June** and **further to USD 5.6 billion in July**, almost back to the pre-lockdown level of USD 5.8 billion reported in March.
  - It was mainly due to **increased import of Chinese medical supplies**.
  - **Online shoppers in India seem to prefer Chinese mobile phones and electronic gadgets** despite the environment of **anti-China sentiments** in the nation.
    - As per the Prime Day 2020 sale data of Amazon, an **e-commerce** giant, OnePlus, Oppo, Huawei's Honor and Xiaomi were among the top-selling smartphone brands in India.

- For the seven months of 2020, **India's imports from China have reached USD 32.2 billion**. However, It is **still down by 24.7% year-on-year,** mainly because of the record slump in April and May.

- **Two-way trade between both countries is USD 43.37 billion** and it continues to be **heavily tilted in China's favour**. **Indian exports account for USD 11 billion** and are **up 6.7% year-on-year**.

- China's **exports overall rose 7.2% in July**, beating most estimates, while imports fell 1.4% year-on-year.

- China noticed a **trade surplus of USD 62.33 billion**, surpassing the estimated USD 42 billion.
  - The major reason behind this was the **increased export of medical supplies and work-from-home equipment**.

Initiatives to Support Local Entrepreneurs

- **Amazon Karigar Store:**
  - In **2019**, on the eve of the **National Handloom Day** (7th **August**), Amazon announced the launch of the Karigar store which showcases over 55,000 products, including more than 270 arts and crafts from 20 states.
  - It will give prominence to India's handicrafts heritage by enabling weavers and artisans to showcase '**Made in India**' products to customers.

- **Saheli Programme:**
  - In November 2017, Amazon launched this programme with the **aim to empower and enable Indian women entrepreneurs to sell their products** across the country.
  - It was rolled out in partnership with **non-government social service entities** like **Self-Employed Women Enterprise** (SEWA) and **Impulse Social Enterprise**.

- **Amazon Launchpad:**
  - It is a **marketplace within a marketplace** as it works on two **levels to create value for both Amazon shoppers and up-and-coming brands**.
  - New companies get the **time and guidance** they need to fine-tune their business and **generate greater visibility** for their products while **shoppers enjoy early access to innovative products** from the latest startups.
    - Since startups tend to have limited time and resources, they often need additional support to drive traffic to their products and get their business off the ground.

- **Significance:**
  - In the wake of the **Covid-19 pandemic** and the **growing tensions between India and China**, it is important to boost the local market and make the economy less dependent on imports.
  - By boosting up the local entrepreneurs and talent, their **professions will become more profitable** enabling them to have a better life.
  - The country will also profit from it by the **reduced imports and a strong sustainable domestic market**, strengthening the economy.

New Proposals for Solar Power

Why in News

Recently, the **Ministry of New and Renewable Energy** has received proposals from various players for over **10 gigawatts (GW)** of fresh **solar** equipment manufacturing.

- Earlier, a **750 megawatt (MW) solar project** was also inaugurated in **Rewa, Madhya Pradesh**.

- These moves are in line with India's commitment to **attain the target of 175 GW of installed renewable energy capacity by 2022** including **100 GW of solar installed capacity**.

Key Points

- This **rise of interest in the domestic manufacture** of solar equipment coincides with **other measures of the government to promote domestic industry** like increasing **duties on imports across sectors, including solar power**.
  - There is a proposal of increasing customs duty to around **20-25% on solar equipment** and also for a **5% interest subvention scheme** for the domestic manufacturing of ingots, wafers and cells.
  - However, these duty changes should be in compliance with the **World Trade Organisation** (WTO) standards.
- **Solar Power and India:**
- There has been a **significant progress in solar capacity addition** since 2014, with India **progressively emerging as the world's third largest solar market**.
- However, the **domestic solar equipment manufacturing industry has largely failed** to capitalise on the opportunity.
  - **Despite a 20GW demand** for solar cell manufacturing, India's **current average annual capacity is only around 3GW**.

- **Nearly 80%** of the inputs and components are **imported from China** as it was the **top exporter of solar cells and modules to India in the Financial Year 2019-20**, accounting for USD1.68 billion of the product into the country.
- India has **implemented safeguard duties on import of solar equipment from China and Malaysia**, which have been **extended until July 2021** at a rate of around 15%.
  - However, a **safeguard duty is of limited duration** and will therefore not induce people to make long-term commitments in terms of investments.
- **Despite all these initiatives** to incentivise domestic production, the safeguard duty, domestic content requirement policy and an approved list of models and manufacturers, the **expected scale-up has not materialised**.
  - There are about **16 solar cell manufacturers in India** of which **only half have a manufacturing capacity of 100 MW or higher**.
- Reasons for Less Development of Solar Energy in India:
  - Solar cell manufacturing is a **complicated process** that is **technology and capital intensive** and it also **upgrades every 8-10 months**.
  - The **global market** of solar wafer and ingot manufacturing is **dominated by China**, whose companies **dominate the Indian solar components market too** with their competitive pricing

■■■

Note:

International Relations

Highlights

- *USA Bars Federal Agencies from Hiring H-1B Visa Holders*
- *USA Opposes Cuba in UNHRC*
- *Quadrilateral Dialogue: China, Nepal, Pakistan and Afghanistan*
- *Pakistan's New Map*
- *1947 Tripartite Agreement on Gurkha Soldiers*
- *Operation Breathing Space: India-Israel*
- *Beirut Explosion*
- *Loya Jirga: Grand Assembly of Afghanistan*

- *J&K Issue Raised at UNSC 47*
- *China's Presence Near Ecuador Waters*
- *India-Nepal Talks*
- *Israel-UAE Peace Deal*
- *Depsang Plains*
- *GCC Backs UN Arms Embargo on Iran*
- *75th Anniversary of Hiroshima Bombing*

USA Bars Federal Agencies from Hiring H-1B Visa Holders

Why in News

Recently, the **President of the USA** has signed an **executive order barring federal agencies from hiring H-1B visa holders** and other foreign workers in place of USA citizens or green card holders.

Key Points

➢ **H-1B Visas:**
  ○ The H-1B visa is a **non-immigrant visa** that **allows USA companies to employ foreign workers in speciality occupations** that require **theoretical or technical expertise**.
  ○ The **technology companies depend on it** to hire tens of thousands of employees each year from countries like **India and China** to **keep costs in check**.
    - Such jobs in developed countries **pay minimum wages**, which are not lucrative enough for employable individuals of these countries.

➢ **Executive Order:**
  ○ The executive order has asked the federal agencies to **stop replacing USA workers and green card holders with H-1B visa holders or other foreign workers**.

- A green card holder (**permanent resident**) is someone who has been **granted authorization to live and work** in the USA on a permanent basis.
○ The order has also directed all agencies under the federal government to **review the contracts they gave out in the two previous financial years and the performance** of such contracts or subcontracts.
  - The heads of departments will undertake an **audit and check whether the jobs could have been performed by the USA workers** and whether opportunities for domestic workers were impacted by such hiring.
○ The Department of Labour will also **finalise guidelines to prevent H-1B employers from moving H-1B workers to other employers' job sites** to displace American workers.
○ The order seems to be an extension of an earlier order in which the **entry of non-immigrant visa workers had been banned until the end of 2020**.

➢ **Background:**
  ○ The USA government under Trump leadership is moving towards a **more conservative work visa regime** under the **America First policy**.
  ○ It has **alleged Indian and Chinese IT companies of sending workers at very low cost**, which hurt the prospects of skilled workers in the USA.

Note:

drishti

❍ The immediate trigger was an announcement by the federally-owned **Tennessee Valley Authority (TVA)** that it would **outsource 20% of its technology jobs** to foreign countries.

   ● This action could result in **loss of jobs for up to 200 highly-skilled American tech workers** in Tennessee and could also lead to possible **leaking of sensitive user data and theft of intellectual property**, detrimental to national security.

➢ The USA government has held that **outsourcing of jobs should be avoided** as far as possible because it is especially detrimental in the middle of a **pandemic**, which has already cost millions of Americans their jobs.

➢ **Impact on Indian Workers in the USA:**

   ❍ The H-1B visa is the most sought-after among Indian IT professionals.

   ❍ Apart from workers hired by federal agencies, the order will also **impact workers of Indian companies that are on contract** with federal agencies.

      ● Bigger federal agencies such as state-run banks give the contract for supply and maintenance of their databases and other services to bigger Indian companies such as Infosys, TCS or Wipro.

➢ **Impact on the USA:**

   ❍ The order comes at a time when there is a **huge shortage of STEM** (Science, Technology, Engineering and Mathematics) **skills in the USA** that workers on short-term non-immigrant visas like **H-1B and L-1 help bridge**.

   ❍ Such a measure **could slow down the recovery phase of the USA** as countries start unlocking.

USA Opposes Cuba in UNHRC

Why in News

Recently, the USA has urged the **United Nations** (UN) members not to support Cuba's bid to join the **United Nations Human Rights Council** (UNHRC).

Key Points

➢ The USA has accused Cuba of "**trafficking**" its doctors under the guise of humanitarian missions.

❍ Cuba's **sale of medical services** is its **main source of foreign exchange.**

❍ Cuba has a generally respected healthcare system with 90,000 medical workers for a population of 1.1 crore.

❍ It has a **high life expectancy** (79.74 years in 2016) and a **low infant mortality rate** (around 4.76 deaths per 1,000 live births in 2013).

❍ It also sends its doctors abroad to tackle outbreaks, as it did during the **Ebola epidemic of 2014-16** and **Covid-19 pandemic**.

➢ Cuba has applied to fill one of the **regional vacancies for 2021-2023.**

   ● It was a member of the UNHRC in **2014-2016** and **2017-2019.**

➢ The USA and Cuba have had a strained relationship since the **Cuban Revolution** in 1959.

   ❍ The USA **severed diplomatic ties** with Cuba after the revolution.

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❍ It had also placed a **trade embargo** on Cuba which was **eased in 2000** and again in **2014.** Travel restrictions, trade sanctions, restrictions on remittances to Cuba were partially lifted during these times.

❍ The sanctions were **reinstated in 2017.**

❍ The Cuba-USA relationship also suffered during the **Cuban Missile crisis in 1962.**

❍ The USA **accuses** Cuba of **human rights violations** and **dictatorship** as it has a leftist authoritarian regime.

Note:

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○ A large number of Cubans have **migrated to the USA** after the Cuban revolution. This includes **supporters of the overthrown regime**, those whose **property had been confiscated** by the present Cuban socialist government and those in search of **better employment** and **living conditions.**

○ Earlier, the **USA had also criticized Qatar and South Africa for accepting doctors** from Cuba to battle Covid-19.

    ● It had also **blacklisted Cuba's Defence Minister,** accusing him of human rights violations and supporting socialist Venezuelan President.

India and Cuba

➢ India shares **close, warm and historical relation**s with Cuba and both countries are founding members of the **Non-Aligned Movement.**

➢ In 1959, the Cuban-Argentinean guerrilla commander **Ernesto Che Guevara** paid a **diplomatic visit to India** and was welcomed by the then **Prime Minister Jawaharlal Nehru.**

United Nations Human Rights Council

➢ It is a UN body whose mission is **to promote and protect human rights around the world.**

➢ **Function:**

○ **Universal Periodic Review** mechanism which serves to assess the human rights situations in all United Nations Member States.

○ **Advisory Committee** which serves as the Council's "think tank" providing it with expertise and advice on thematic human rights issues**.**

○ **Complaint Procedure** which allows individuals and organizations to bring human rights violations to the attention of the Council.

○ It also works with the **UN Special Procedures** established by the former Commission on Human Rights.

    ● The **special procedures of the Human Rights Council** are independent human rights experts with mandates to report and advise on human rights from a thematic or country-specific perspective.

➢ **Membership**: The UNHRC has **47 members** elected for staggered three-year terms on a regional group basis from 5 groups.

○ To become a member, a country must receive the votes of at least 96 of the 191 states of the UN General Assembly (an absolute majority).

○ The members are elected by direct and secret ballot for a period of **three years,** with a maximum of two consecutive terms.

○ In electing Council members, the resolution provides that General Assembly members "shall take into account the candidates' contribution to the promotion and protection of human rights and their voluntary pledges and commitments made thereto."

○ The UNHRC holds **regular sessions** three times a year, in March, June and September.

➢ The **USA withdrew from UNHRC in 2018**, accusing it of bias and hypocrisy.

○ **Venezuela** in 2019 won a seat on the council for 2020-2022 despite criticism of its human rights record. This was also highly opposed by the USA.

➢ In 2019, India supported the resolutions in the **UN General Assembly** calling for the lifting of USA sanctions against Cuba.

➢ India and Cuba agreed to collaborate in the areas of **biotechnology, homoeopathy and the traditional system of medicine** during the visit of the President of India to Cuba in 2019.

Quadrilateral Dialogue: China, Nepal, Pakistan and Afghanistan

Why in News

Recently, China convened a **quadrilateral dialogue** with the Foreign Ministers of Afghanistan, Nepal and Pakistan.

Key Points

➢ **Four-point Plan:**

○ China proposed a **four-point plan** to **contain the Covid-19 pandemic**, **boost economic recovery** and resumption of the **Belt and Road Initiative (BRI)** infrastructure projects.

○ The **four-point plan included:**

    ● To **share consensus** in fighting the pandemic as good neighbours.

- To **learn from China and Pakistan's joint prevention and control model** of the pandemic.
- To look at opening up **green channels** as soon as possible by the four countries.
- **Green channel is the route** followed in passing through customs in an airport, etc by passengers claiming to have no dutiable goods to declare.
○ **China's expertise to the three countries in fighting Covid-19.** It also included the vaccines that are being developed, to be shared with the three countries.
○ Pakistan, Nepal and Afghanistan **actively supported** the four-point cooperation initiative proposed by China.
➢ **Other Discussed Issues:**
○ China also proposed extending the **China-Pakistan Economic Corridor (CPEC)** to Afghanistan, as well as taking forward an economic corridor plan with Nepal, called the **Trans-Himalayan Multi-dimensional Connectivity Network**.
○ All the four countries **supported the maintenance of multilateralism**, strengthened the role of the **World Health Organisation (WHO)**, backed the **realisation of a ceasefire in Afghanistan** during the epidemic, and the peace and reconciliation process in Afghanistan.
➢ **Concerns for India:**
○ China asked the three countries at the quadrilateral meet to **take advantage of their geography, strengthen exchanges and connectivity** between the four countries and central Asian countries, and **safeguard regional peace and stability.**
○ The remarks assume significance as it came amid the **border tensions between India and China.**
○ The quadrilateral meeting also came at a time of d**eepening concerns over the India-Nepal relationship** due to border disputes at **Kalapani region**.
- Nepal's Prime Minister K.P. Oli also accused India of trying to destabilize his government.

Pakistan's New Map

Why in News

Recently, **Pakistan** has released a new political map which includes all of Jammu and Kashmir (J&K), Ladakh, Sir Creek and Junagadh.

➢ The map has been released on the eve of the first anniversary (5th August 2020) of the **abrogation of special status** to **Jammu and Kashmir** under **Article 370.**

Sir Creek
➢ It is a 96 km long strip of water disputed between India and Pakistan in the **Rann of Kutch marshlands.**
➢ The dispute lies in the **interpretation of the maritime boundary line between Kutch and Sindh**.
○ Pakistan claims the line to follow the eastern shore of the estuary while India claims a centerline.
- There are differing interpretations of paragraphs 9 and 10 of the Bombay Government Resolution of 1914 signed between the then Government of Sindh and Rao Maharaj of Kutch.
➢ India insists that Sir Creek should be divided between the two countries according to the **Thalweg principle.**
○ Under international law, a thalweg is the middle of the primary navigable channel of a waterway that defines the boundary line between states.
➢ The **International Boundary in the Sir Creek area and International Maritime Boundary line** (IMBL) between India and Pakistan **have not been demarcated**.

Siachen Glacier
➢ The Siachen Glacier is part of **Ladakh** which has now been <u>converted into a Union Territory</u>. It is the **second-longest glacier in the world's non-polar areas.**
➢ It is **located in the eastern Karakoram range** in the Himalayas, just northeast of Point NJ9842 where the Line of Control (LOC) between India and Pakistan ends.
➢ It lies immediately south of the great drainage divide that separates the Eurasian Plate from the Indian subcontinent in the extensively glaciated portion of the Karakoram sometimes called the **"Third Pole".**
➢ It is the world's highest battlefield.

Federally Administered Tribal Areas
➢ It was a **semi-autonomous tribal region** in northwestern Pakistan that existed from 1947. In 2018, it was merged with the neighbouring province of **Khyber Pakhtunkhwa.**

Note:

Key Points

➢ **New Map:**

   ○ The map **depicts the entire J&K as a disputed territory** and **does not show any borders in the east of Kashmir.**

     ● Pakistan has also **renamed Kashmir Highway** in Islamabad as **Srinagar Highway.**

   ○ It claims the **Siachen, regions of Sir Creek** and the **erstwhile state of Junagadh in Gujarat** as part of Pakistan's territory.

     ● This is not the first time Pakistan has tried to portray Junagadh as part of its territory. The 2012 Atlas of Pakistan also portrayed Junagadh as a Pakistan's territory.

   ○ The map also shows the **Federally Administered Tribal Areas (FATA)** as being part of Khyber Pakhtunkhwa province.

➢ **India's Response:**

   ○ India has called Pakistan's move as an **exercise in political absurdity**, which lays untenable claims to the Indian territories.

   ○ These assertions have neither legal validity nor international credibility and it only confirms the reality of Pakistan's obsession with territorial aggrandisement supported by cross-border terrorism.

➢ **Concerns for India:**

   ○ This is the second time in the recent past where India's neighbouring country has published a new map claiming India's territories. Nepal was the first country to do so.

     ● Nepal published its news map claiming the territories of the **Kalapani region.**

   ○ The closeness of Nepal, Pakistan towards China.

   ○ Recently, China also changed the status quo along the **Line of Actual Control (LAC)** in the western sector in its favour.

1947 Tripartite Agreement on Gurkha Soldiers

Why in News

    Recently, the Nepal's Foreign Minister has said that the **1947 Tripartite Agreement between India, Nepal and** the United Kingdom (that deals with the military service of Gurkha soldiers from Nepal) has become redundant.

➢ He also said that Nepal would prefer to handle the matter bilaterally with India and the United Kingdom.

Key Points

➢ **The Tripartite Agreement:**

   ○ In 1947, when India became independent, it was decided to **split Gurkha regiments** between the **British and Indian armies.**

     ● From the first quarter of the 19th century, Gurkhas had served under the British, first in the armies of the East India Company, and then the British Indian Army.

     ● East India Company first recruited Gurkhas after suffering heavy casualties during the **Anglo-Nepalese War** also known as the **Gurkha War**. The war ended with the signing of the **Treaty of Sugauli in 1816.**

   ○ It ensured that Gurkhas in British and Indian service **would enjoy broadly the same conditions of service** as that of British and Indian citizens.

     ● The services include all perks, remuneration, facilities and pension schemes etc.

   ○ Gurkha recruitment was the first window that was opened to **Nepali youth to go abroad.**

➢ **Issues Involved:**

   ○ The objection from Nepal regarding the Gurkhas serving in the Indian military has become prominent in the backdrop of **Nepal-India territorial dispute over the Kalapani region** of Pithoragarh district that Nepal claims as its own.

     ● Nepal has responded by publishing a new map that included the disputed territories of Kalapani region.

   ○ The issue became a talking point after Indian Army Chief remarked that Nepal's strong protest against **Indian road construction in the Limpiadora-Kalapani-Lipulekh** area was at the behest of a third party (China).

     ● The Napelese people believe that **Indian Army Chief, who is granted the honorary post** of a General in the Nepal Army has hurt the sentiments of the Nepali Gurkha Army personnel who lay down their lives to protect India.

○ Also the Gurkha veterans have been alleging that the United Kingdom has been discriminating against them in terms of pay, pension and other facilities.

● The British government started providing equal pay and pension to Gurkhas in 2007.

Gurkhas in British Army

➢ After the 1947 Tripartite Agreement, the British Army amalgamated the Gurkha regiment into combined **Royal Gurkha Rifles (RGR).** Currently, the Gurkhas comprise up to 3% of the British Army. In 2015 they **completed 200 years of service in British Army**.

➢ The Gurkhas are **recruited every year at the British Gurkha camp at Pokhara in Nepal,** for the British Army and for the counter-terror arm of the **Singapore Police Force.**

➢ Their **signature weapon of Gurkhas, Khukri,** forms part of the Gurkha **regimental insignia in Britain as well as in India.**

Operation Breathing Space: India-Israel

Why in News

Recently, an Israeli team arrived in India with a multi-pronged mission, codenamed **Operation Breathing Space** to work with Indian authorities on the **Covid-19** response.

Key Points

➢ **Development of Test Kits:**

○ India's **Defence Research and Development Organisation (DRDO)** and **Israel's defence ministry research and development team** are working together to develop **four different kinds of rapid testing kit for Covid-19** which can give the result within **30 seconds.**

➢ **Types of Tests:**

○ The tests include an **audio test, a breath test, thermal testing, and a polyamino test** which.

● In the **audio test,** a patient's voice would be recorded and evaluated through artificial intelligence and machine learning.

● In the **breath test the patient** will blow into a tube that will detect the virus using terra-hertz (high frequency) waves.

● **Thermal testing** will enable identification of the virus in a saliva sample.

● **Polyamino acids test** seeks to isolate proteins related to Covid-19.

➢ **India Specific Approach:**

○ The kits will be jointly developed after trials on Indian Covid-19 patients. The tests have already been tried on a small sample of Israeli patients.

➢ **Other Assistance:**

○ The Israeli team has brought **robotic equipment**, and **wrist monitors** that will help doctors and nurses monitor a patient without increasing risks of infection to themselves.

○ The team has also brought **83 advanced respirators** to help patients with severe symptoms.

➢ **Benefits:**

○ The success of rapid tests will help India's overworked health-care professionals, who are experiencing fatigue. It will also help to address the public impatience over the Covid-19 test.

○ The quicker test will help authorities to take quicker prevention measures, which will reduce the spread of the virus among people.

Beirut Explosion

Why in News

Recently, a **massive explosion** took place in **Beirut, capital of Lebanon**, which left more than hundred people dead and more than 4,000 injured, according to the reports until now.

Key Points

➢ There were two explosions in the central port area of Beirut which occurred barely within minutes of each other within nearby buildings.

➢ The blast affected residents living as far as 10 kilometres away from the site and was felt upto 250 Km.

➢ The blast created **seismic waves** equivalent to a magnitude 3.3 earthquake.

➢ The blasts were likely triggered by over **2,700 tonnes of ammonium nitrate** that had been **confiscated and stored** by authorities near the port for over six years.

➢ A **two-week state emergency** has been imposed in Beirut following the blast.

Note:

Impact of the Blast

➢ **Economic:** Lebanon is an **import-dependent country.** The **badly damaged port** facility is Lebanon's largest maritime gateway and it will make **essential items expensive** and **threaten food security** in the country.

  ○ Lebanon has already been struggling with a huge **economic meltdown**, with the **rapid devaluation of the local currency** and a **volatile exchange rate on the black market** fueling **inflation**, **shuttering businesses, unemployment** and **poverty**.

  ○ It had also **defaulted on a Eurobond repayment** in March 2020.

  ○ It is in talks with the **International Monetary Fund** for a USD 10 billion loan program.

  ○ The blast will pose an additional **financial burden of rebuilding the city.**

➢ **Political:** Lebanon faced **nationwide protests** against **corruption, economic mismanagement** and **sectarian politics** in October 2019**,** which forced the **resignation of then-Prime Minister** Saad Hariri.

  ○ This blast along with the growing economic crisis can **again cause social unrest.**

➢ **Health:** The country's health system is **already burdened** with the patients of **Covid-19** pandemic and the victims of blast will add to this.

International Response

➢ Lebanon has been offered help by various countries like the **USA, Germany, France , Iran, EU, Turkey etc.**

➢ Along with giving aid, the President of **France**, Emmanuel Macron has decided to visit Lebanon.

  ○ This move is seen as a message of fraternity and solidarity from France.

  ○ Earlier, France's top diplomat had scolded Lebanon's political elite for being too "passive" in the face of an economic crisis and the pandemic.

➢ Lebanon has also been offered humanitarian aid by its neighbour **Israel**, whom it has bitter relations with.

  ○ Israel sees **Hezbollah, the militant group of Lebanon as a threat to its northern borders.'**

  ○ **Hezbollah** is one of the Middle East's **most powerful and successful guerrilla organizations.** It is the strongest member of Lebanon's pro-Syrian opposition bloc who pitted **against the pro-Western government** led by Saad Hariri.

Ammonium Nitrate

➢ **Ammonium Nitrate (NH_4NO_3)** is a **nitrogen-rich white, crystalline chemical** which is **soluble in water.**

➢ **Uses:**

  ○ A common chemical ingredient of **agricultural fertilisers.**

  ○ An ingredient for the production of **anaesthetic gases** and **cold packs.**

  ○ Main ingredient in the manufacture of **commercial explosives** used in mining and construction.

➢ **As Explosive:**

  ○ Main component of the explosive composition known as **ANFO- Ammonium Nitrate Fuel Oil.**

  ○ **Pure** ammonium nitrate is **not an explosive** on its own. For Ammonium nitrate to be explosive, a **primary explosive or detonator** like **RDX or TNT** is required.

  ○ Many **Improvised Explosive Devices** (IEDs) used by terrorists around the world have ANFO as the main explosive.

  ○ Stored ammonium nitrate is a fire hazard and can explode in two ways.

    ● It may come in contact with some explosive mixture.

    ● Due to the **oxidation process** at large scale, heat may be generated starting a fire and then explosion. This seems to be the **primary likely cause of the incident at Beirut port.**

➢ **Explosions in Past:**

  ○ In the majority of terror attacks in India, including those in Pulwama, **Varanasi,** Malegaon, Pune, Delhi, Hyderabad, and Mumbai, ammonium nitrate has been used along with initiator explosives like RDX.

  ○ There have been **accidental explosions of ammonium nitrate** causing large numbers of fatalities. Eg. China in 2015 and in Texas in 1947.

➢ **Regulations:**

  ○ **Global:** It is classified as an **oxidising content** (Grade 5.1) under the **United Nations classification of dangerous goods.**

    ● **The United Nations Committee of Experts on the Transport of Dangerous Goods** categorizes the types of dangerous goods, under **nine classes** like Explosive Materials, Inflammable liquids, Easily oxidising contents etc.

Note:

○ **India:** In India, the manufacture, conversion, bagging, import, export, transport, possession for sale or use of ammonium nitrate is covered under '**The Ammonium Nitrate Rules, 2012'**.

● **The Explosives Act, 1884**, define ammonium nitrate as the "compound with formula NH_4NO_3 including **any mixture or compound having more than 45% ammonium nitrate by weight** including emulsions, suspensions, melts or gels but excluding emulsion or slurry explosives and non explosives emulsion matrix and fertilizers from which the ammonium nitrate cannot be separated".

● **Storage of ammonium nitrate in large quantities in populated areas is illegal** in India.

● For the manufacture of ammonium nitrate, an Industrial licence is required under the **Industrial Development and Regulation Act, 1951.**

● A license under the Ammonium Nitrate Rules, 2012 is also required for any activity related to ammonium nitrate.

Lebanon

➢ It is a country in **Western Asia,** bordered by Syria to the north and east and Israel to the south, while Cyprus lies west across the Mediterranean Sea.

➢ Lebanon was conquered by the **Ottomans** in the 16th century and remained under their rule for the next 400 years.

➢ Following the empire's collapse after World War I, it came under **the control of French**, from which it gained independence in **1943**.

➢ Lebanon witnessed **civil war** from **1975-1990** that was a result of conflict between various factions like the **Christians**, the left-wing **Druze** and the **Muslims** and was interspersed with **Israeli invasions targeting the palestinian** militants in Lebanon.

➢ The present government in Lebanon is **confessionalist parliamentary democracy.**

○ **Confessionalism** is a system of government which apportions seats in its legislature to different groups of people strictly based on demographic composition.

Loya Jirga: Grand Assembly of Afghanistan

Why in News

Recently, a three-day **Loya Jirga-grand assembly** has been called in Afghanistan to decide on freeing about 400 Taliban fighters convicted for serious crimes including murder and abductions.

Loya Jirga

➢ It is a **mass national gathering** that brings together representatives from the various ethnic, religious, and tribal communities in Afghanistan.

➢ It is a highly respected **centuries-old consultative body** that has been **convened at times of national crisis or to settle national issues.**

➢ According to the Afghan Constitution, a Loya Jirga is considered the **highest expression** of the Afghan people. It is **not an official decision-making body** and its **decisions are not legally binding.**

➢ However, the Loya Jirga's decision is seen as final, with the president and parliament expected to respect the ruling.

Key Points

➢ **Need for Convening Loya Jirga:**

○ The Loya Jirga has been convened after the Afghanistan President refused to release the Taliban prisoners. This threatened the **derailment of intra-Afghan talks**, tentatively scheduled for 10th August 2020 in Doha (Qatar).

● The Taliban has also threatened of more bloodshed if the prisoners are not released.

○ The USA believes that the talks between the Afghanistan government and Taliban will lead to reduction of violence and direct talks, resulting in a peace agreement and an end to the war in Afghanistan.

➢ **Background:**

○ The prisoner exchange is a part of the agreements signed by the **USA and Taliban** and the USA and Afghanistan government in February 2020.

○ However, these were delayed for several months, and the intra-Afghan talks that were scheduled on 10th March had to be put off. Few argue that the **current Afghanistan President Ashraf Ghani**

is deliberately delaying peace talks with the Taliban to retain power because it is speculated that **negotiations could seek a neutral interim government that** may cost Mr.Ghani his post.

❍ The USA announced to withdraw its forces and reduced its strength to about 8000, after pushing for the Afghanistan government to release the Taliban prisoners, and for the Taliban to release Afghan soldiers and civilians in its custody.

❍ Over the past few weeks, the USA government has been keen to speed up the Taliban-Afghan reconciliation process, with an eye on the November 2020 Presidential elections.

➢ **India's Interests in Afghanistan:**

❍ India has a **major stake** in the stability of Afghanistan. India has invested considerable resources in Afghanistan's development. **E.g.** the **Afghan Parliament, the Zaranj-Delaram Highway,** Afghanistan-India Friendship Dam (**Salma Dam**) among others.

❍ India **favours the continuation of the current Afghanistan government in power**, which it considers a strategic asset vis-à-vis Pakistan.

● An increased political and military role for the Taliban and the expansion of its territorial control should be of great concern to India since the Taliban is widely believed to be a protégé of Pakistan.

❍ Afghanistan is the **gateway to Central Asia.**

❍ Withdrawal of the USA troops could result in the **breeding of the fertile ground for various anti-India terrorist outfits** like Lashkar-e-Taiba or Jaish-e-Mohammed.

HELPING HAND

India's pledged assistance to Afghanistan stands at $3.1 billion since November 2001.

Infrastructure projects with Indian help:

1 A 218 km-road project from Zaranj to Delaram in south-western Afghanistan.

2 A 220 kV DC transmission line from Pul-e-Khumri to Kabul.

3 The Salma Dam power project in Herat province.

4 The Afghan parliament and the Indira Gandhi Institute of Child Health and Habibia School, both in Kabul.

5 A 220/110/20 kV substation at Chimtala.

J&K Issue Raised at UNSC

Why in News

Recently, **China** has called India's move in **Jammu and Kashmir** (J&K) "illegal and invalid" and **raised the issue at the United Nations Security Council** (UNSC) in New York (USA).

➢ On 5th August 2019, the President of India promulgated the **Constitution (Application to Jammu and Kashmir) Order, 2019** effectively abrogating the **special status accorded to J&K** under the provision of **Article 370**.

➢ **5th August 2020** marks the **one year anniversary** of that move. On its eve, **Pakistan released a new political map** that includes all of J&K, Ladakh, Sir Creek and Junagadh.

Key Points

➢ **China's Stand on Kashmir:**

❍ The Kashmir issue is a **dispute left over from history** between Pakistan and India, which is an objective fact established by the UN Charter, relevant Security Council resolutions and bilateral agreements between Pakistan and India.

❍ **Any unilateral change** to the status quo in the Kashmir region is **illegal and invalid**.

❍ Kashmir region issue should be **properly and peacefully resolved through dialogue and consultation** between the parties concerned.

➢ **India's Reaction:**

❍ India has noted the Chinese comments and held that **Beijing has "no locus standi" on the matter** and is advised not to comment on the internal affairs of other nations.

● **India and China** are holding talks over the disengagement along the **Line of Actual Control** (LAC).

➢ **UN's Response:**

❍ The J&K issue has been raised at the UNSC three times in the last one year but there has been no concrete solution to it yet.

❍ UN human rights experts have called on India to **take urgent action to address the alarming human rights situation** in the region.

Note:

- **If India fails** to take any genuine and immediate steps to resolve the situation, meet the obligations to investigate historic and recent cases of human rights violations and prevent future violations, then the **international community should step up**.

➢ **Amnesty International India Report**:

- **Amnesty International** in its report has urged the **National Human Rights Commission** (NHRC) and the **National Commission for Women** (NCW) to set up offices in J&K to facilitate easy access to the complaint filing process for the local people.
  - NHRC has been asked to appoint a special monitor for the region and to take up cases pending with the erstwhile State Commission.
  - NCW has been recommended to set up a J&K cell for addressing problems faced by women.
  - The report held that people in J&K do not have any way of redressal of the violations of their rights after the closure of the State Commission in 2019.

- It also **called on the government** to release all political leaders, journalists and activists from detention; restore 4G mobile Internet; decongest prisons and start an independent investigation into attacks on journalists.

- The report **acknowledged that there may be security concerns** that merit restrictions on the right to freedom of expression.

- It suggested that **curbs should be for a limited timeframe and as per the International Covenant on Civil and Political Rights (ICCPR)**, to which India is a state party.

Amnesty International

➢ It is an **international Non-Governmental Organization** (NGO) founded in London on 28th May 1961.

➢ It seeks to publicise violations by governments and other entities of rights recognized in the **Universal Declaration of Human Rights** (1948), especially freedom of speech and of conscience and the right against torture.

➢ It also **works with intergovernmental human rights bodies** to expand and enforce human rights protections in international law.

➢ In **1977**, it was awarded the **Nobel Prize for Peace**.

China's Presence Near Ecuador Waters

Why in News

Recently, **Ecuador** has expressed an **official discomfort** over the sighting of a flotilla of 260 mostly **Chinese fishing vessels** near the Galapagos archipelago (a part of Ecuador).

➢ The flotilla also consisted of **some Liberia and Panama-flagged vessels** which was detected in an international water corridor situated between two areas of Ecuadorian jurisdiction– 200 miles away from both the **Galapagos Islands and mainland Ecuador.**

Galapagos Archipelago

➢ **Location:**

- The Galapagos Islands, spread over almost **60,000 sq km**, are **a part of Ecuador**.

- These are located in the **Pacific Ocean** around 1,000 km away from the South American continent.

➢ **Protection Status:**

- Ecuador made a part of the Galapagos a **wildlife sanctuary in 1935**, and the sanctuary became the **Galapagos National Park in 1959**.

- In 1978, the islands became **UNESCO's first World Heritage Site**.

➢ **Wildlife:**

- It contains aquatic species such as **manta rays and sharks** which have been endangered by commercial fishing.

- It also hosts a wide array of aquatic wildlife, including marine iguanas, fur seals, and waved albatrosses.

- Also, the giant tortoises found here – **'Galápagos'** in old Spanish– give the islands its name.

Note:

> **Significance:**
> ○ The British naturalist Charles Darwin made key observations in 1835 that shaped his theory of evolution.
> ○ Darwin described the islands as a "world in itself".

Key Points

> **Past Occurrences:**
> ○ Ecuador has stated that the situation is **repeated every year** and such vessels reach the **outer limit of the archipelago**, outside the country's exclusive zone.
> ○ In 2019, 245 Chinese fishing vessels were sighted in the area where Ecuador's writ does not extend.
> ○ In 2017, a Chinese ship had entered Ecuador's waters and its authorities seized the ship.
> • That time Ecuador had discovered **300 tonnes of wildlife** on board, mostly the critically endangered scalloped hammerhead sharks.
> • It has been observed that the two-thirds of hammerhead shark fins found in Hong Kong markets come from the Galapagos area.

> **Reasons:**
> ○ Chinese ships are **frequent** in Ecuador's waters during august month of the year as the **cold Humboldt Current brings in nutrients** that lead to a **high congregation** of marine species.

The Humboldt Current

- The Humboldt Current, also called the **Peru Current**, is a **cold, low-salinity ocean current** that flows north along the western coast of South America.
- The Humboldt Current is a **highly productive** ecosystem. It is the most productive eastern boundary current system. It accounts for roughly **18-20%** of the total worldwide marine fish catch.

> **Conflicts with Other Countries:**
> ○ Chinese vessels have also run into trouble with other countries in the region.
> ○ In 2016, **Argentina's** coast guard chased and sank a vessel that it claimed had been illegally fishing in the South Atlantic Ocean.

> **Diplomatic Consequences:**
> ○ The matter has been escalated to a diplomatic level and Ecuador has officially expressed its **"discomfort"** to China.
> ○ Ecuador has also stated that it will **discuss the threat with Peru, Chile, Colombia, and Panama** – coastal countries of the region that have also been affected in the past.
> ○ The USA, which is already opposing China on multiple fronts, expressed its support for Ecuador. The USA has also expressed that it is against any aggression directed towards **economic and environmental sovereignty**.

> **China's Stand:**
> ○ China maintains that it is a **"responsible fishing nation"** with a "zero tolerance" policy toward illegal fishing.
> ○ It also stated that China respects Ecuador's measures t**o protect the environment and preserve marine resources**.

India-Nepal Talks

Why in News

The ambassadors of **India and Nepal** are likely to meet in Kathmandu (Nepal) to review projects funded by the Indian government.

> The meeting is likely to take place via videoconference in view of the **Covid-19** pandemic situation.

Note:

Key Points

➢ This meeting will be a part of **India- Nepal Joint Oversight Mechanism.**

○ The mechanism was established in **2016** to review ongoing bilateral economic and development projects.

○ The government of **India** has allocated ₹**800 crore** in **budget 2020-21** for **projects** in Nepal.

○ These projects include building **roads in the Terai region**, helping Nepal in its **post-earthquake (2015) reconstruction** work, building railway lines, a police training academy, a polytechnic college, an oil pipeline and border check posts.

○ Recently, a Memorandum of Understanding (MoU) was signed between India and Nepal for the **construction of a sanitation facility at the Pashupatinath Temple**, Kathmandu.

➢ This meeting is important in light of recent **tensions between India and Nepal.**

○ In 2017, Nepal signed up to **China's Belt and Road Initiative (BRI),** which sought to create highways, airports and other infrastructure in the country. **BRI was rejected by India** and this move of Nepal was seen as an inclination towards China.

○ In 2019, a **new political map of India**, made after the bifurcation of the state of Jammu and Kashmir (J&K) into the Union Territories of J&K and Ladakh, showed Kalapani, Lipulekh and Limpiyadhura as part of Pithoragarh district in Uttarakhand state.

● India and Nepal have border disputes over Kalapani - Limpiyadhura - Lipulekh trijunction between India-Nepal and China and Susta area (West Champaran district, Bihar).

○ **Nepal objected** strongly against this map and opinionated that the issue should be resolved through negotiations.

○ Further, the **inauguration of a road up to Lipulekh Pass** (for **Kailash Mansarovar Yatra)** by the Indian government on the border with China sparked more protests from Nepal.

○ In retaliation, **Nepal released a new map** that includes all the disputed territories claimed by India.

Israel-UAE Peace Deal

Why in News

Recently, the President of the USA has announced that **Israel and the United Arab Emirates** (UAE) have **agreed to establish full diplomatic ties** as part of a deal to **halt the annexation of occupied land sought by the Palestinians** for their future state.

➢ Both the UAE and Israel are the **USA's close allies in West Asia**.

Key Points

➢ The UAE has become the **first Gulf Arab state** to do so and only the **third Arab nation to have active diplomatic ties with Israel**.

○ **Egypt** made a peace deal with Israel in **1979**, followed by **Jordan** in **1994**.

Note:

➢ Under the deal, **Israel would suspend its plans to annex large parts of the occupied West Bank**.

  ○ The West Bank is **sandwiched between Israel and Jordan**. One of its major cities is **Ramallah**, the **de facto administrative capital of Palestine**.

  ○ Israel took control of it in the **Six-day Arab-Israeli war, 1967** and has over the years established settlements there.

➢ A **joint statement from the USA, the UAE and Israel** has been issued which says that **delegations would meet in the coming weeks** to sign deals on direct flights, security, telecommunications, energy, tourism and health care.

  ○ Both nations will also partner on fighting the **Covid-19 pandemic** together.

➢ It **remains unclear** what prompted Israel and the UAE to make the announcement now.

  ○ In June 2020, the UAE's ambassador to the USA **warned that Israel's plan to annex the Jordan Valley and other parts of the occupied West Bank** would **upend Israel's efforts to improve ties** with Arab nations.

➢ **Background:**

  ○ **Formed in 1971**, the **UAE is a USA-allied federation of seven sheikhdoms** on the Arabian Peninsula which **did not recognise Israel** over its occupation of land home to the Palestinians.

  ○ The **UAE relied on white-collar** (people who perform professional, desk, managerial or administrative work) **Palestinians** in creating its nation and **maintained its stance that Israel should allow the creation of a Palestinian state** on land it seized in the **1967 war.**

  ○ In recent years, **ties between Gulf Arab nations and Israel have quietly grown**, in part over their **shared enmity of Iran** and the **Lebanese militant group Hezbollah**.

  ○ The **UAE also shares Israel's distrust of Islamist groups** like the **Muslim Brotherhood** and the **militant group Hamas** that holds the Gaza Strip.

➢ **Impact on the UAE:**

  ○ The deal **smoothens the UAE's international campaign** to be seen as a beacon of tolerance in the Middle East despite being governed by autocratic rulers.

  ○ It **puts the UAE out first in a regional recognition race** among neighbouring Gulf Arab states.

➢ **Impact on Israel:**

  ○ The announcement **justifies** the year-long claims of Israeli Prime Minister Benjamin Netanyahu that his **government enjoys closer ties to Arab nations** than publicly acknowledged.

  ○ The deal gives Netanyahu a **domestic boost** at a time when Israel's coalition government is facing infighting and the possibility of early elections.

➢ **Impact on the USA:**

  ○ The recognition **grants a diplomatic win** to the USA President Donald Trump ahead of the November election.

    ● Neither his efforts to bring the war in Afghanistan to an end nor efforts to bring peace between Israel and the Palestinians have been successful yet.

➢ **For Palestine:**

  ○ For Palestinians, who long have relied on Arab backing in their struggle for independence, the announcement **marked both a win and setback** for the **Israel-Palestine relations**.

    ● While the deal **halts Israeli annexation plans**, the Palestinians have repeatedly **urged Arab governments not to normalize relations with Israel until a peace agreement** establishing an independent Palestinian state is reached.

Depsang Plains

Why in News

Recently, India and China have held talks at the **Major General-level** to discuss issues concerning the **strategic Depsang Plains**.

➢ The talks were held at **Daulat Beg Oldie (DBO)** and were limited to Depsang to discuss issues of varying claims and also blocking patrols by each other.

Key Points

➢ **About the Meeting:**

  ○ This was the first high level talks post **Galwan clash** of 15th June 2020.

    ● Military talks since then have been limited to Corps Commander level.

Note:

○ The meeting **only discussed routine patrolling patterns** by both sides as part of border management **leaving aside disengagement or de-escalation**.

➢ **Depsang Plains:**

○ The Depsang Plains along with **Pangong Tso** are the **two major areas** of concern in the ongoing standoff along the **Line of Actual Control (LAC)** in **eastern Ladakh.**

○ Despite the strategic importance of the Depsang Plains, the series of military talks held so far have focussed on the standoff areas at **Galwan, Gogra Hotsprings and Finger area of Pangong Tso**.

○ Depsang is one of the few places on the LAC where **tank manoeuvres are possible**.

● During the **1962 war**, Chinese troops **occupied the Plains**. In **2013**, Chinese troops **came 19 km inside and pitched tents** resulting in a 21-day standoff.
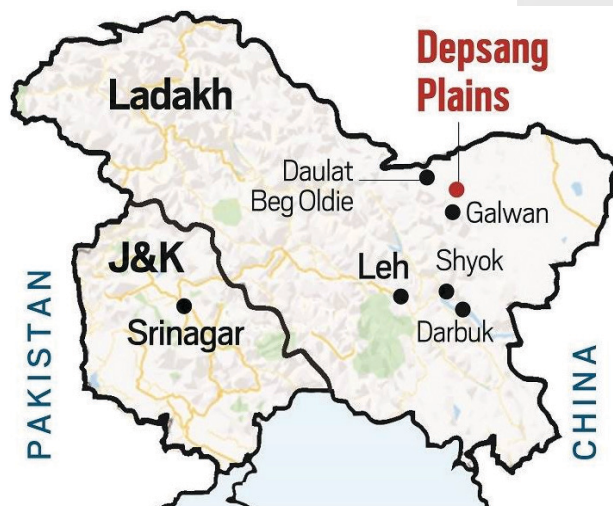
➢ **Issues:**

○ There is a **heavy Chinese presence** at a crucial area called the **Bulge**, in the Depsang Plains.

○ Chinese troops have **blocked the Indian Army patrols** from reaching the various patrolling points.

○ There has also been a **build-up of tanks and armoured vehicles** on the Chinese side very close to the LAC.

➢ **Threats:**

○ It **threatens Indian positions** at Burtse and Raki Nala inside Indian territory and further DBO by bringing Chinese troops closer to the 255 km long crucial **Darbuk-Shyok-DBO road**.

○ Depsang is also close to the **Karakoram Pass**, overlooking the very strategic **Saltoro Ridge** and **Siachen glacier**.

➢ **Challenges:**

○ While addressing the **India@75 Summit** organised by the **Confederation of Indian Industries** (CII), the External Affairs Minister of India held that **reaching an understanding with China** is a huge challenge before Sino-Indian relations.

● Both countries are **demographically very unique** with the billion-plus populations.

○ There is a **parallel but differential rise** happening at a time when both are **neighbours as modern states** which puts a huge premium on reaching some kind of equilibrium or understanding between the two.

GCC Backs UN Arms Embargo on Iran

Why in News

Recently, the **Gulf Cooperation Council** (GCC) has sent a letter to the **United Nations Security Council** (UNSC) backing an **extension of its arms embargo on Iran**, just two months before it is set to expire.

Key Points

➢ The GCC has **alleged that Iran had not ceased or desisted from armed interventions** in neighbouring countries, directly and through organisations and movements armed and trained by Iran.

➢ **Allegation on Iran:**

○ The UN, the USA and other armament experts have accused Iran of **providing arms to Yemen's Houthi rebels**.

○ Iran **allegedly arms Hezbollah fighters in Lebanon and Syria** and also provides **weapons to Shiite militias in Iraq** and **terrorist groups in Bahrain, Kuwait and Saudi Arabia**.

○ The letter also mentioned **Iran's shootdown of a Ukrainian passenger plane** and its **navy accidentally killing 19 sailors** in a missile strike during an exercise.

○ Iran also is **suspected of launching an attack on Saudi Arabia's oil industry** in September 2019.

Gulf Cooperation Council

➢ It is a **political and economic alliance** of countries in the Arabian Peninsula.

➢ It was **established in 1981** to foster socioeconomic, security, and cultural cooperation.

➢ **Members:** Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE).

  ❍ All these member countries of the GCC come under the **Persian Gulf Region**.

➢ **Arms Embargo:**

  ❍ In **2010**, the **UN banned Iran from purchasing foreign-made weapons** like fighter jets, tanks and warships amid tensions over Iran's nuclear program.

    ● The embargo **blocked Iran from replacing its ageing equipmen**t, much of which had been purchased before the **1979 Islamic Revolution.**

    ● An earlier embargo had **targeted Iranian arms exports**.

  ❍ In **2015**, under **Iran's nuclear deal** (**Joint Comprehensive Plan of Action**), the **UN agreed to end the arms embargo in October 2020**.

    ● In **2018**, the **USA unilaterally withdrew from the deal** as a part of the maximum pressure campaign to hurt Iran's already ailing economy.

  ❍ **Internal Conflict in GCC:** Even though the GCC has offered a unified statement, it **remains affected by internal conflict** among the member nations. For example:

    ● **Qatar crisis**, which saw Bahrain, Egypt, Saudi Arabia and the Emirates cut diplomatic ties with Qatar and launch a boycott of the nation beginning in 2017.

    ● **Qatar has had good relations with Iran** and has used its airspace while sharing a vast offshore oil and gas field with Tehran (Iran's capital).

    ● Qatar is **home to the massive Al-Udeid Air Base** and the forward headquarters of the USA military's Central Command.

  ❍ **Oman** also has had **close ties to Iran** and has served as an **interlocutor between Tehran and the West**.

  ❍ On the other hand, **Bahrain, Saudi Arabia and the UAE are suspicious of Iran** and accuse it of stirring up dissent among Shiite populations in the region.

➢ **Iran's Stand:**

  ❍ Iran has **denied the various accusations** of its involvement in arms supply.

  ❍ Iran has **condemned the GCC letter** and called it an irresponsible statement that serves the USA's interests.

  ❍ It has also **criticized the GCC countries for being "among the largest arms buyers in the region and the world,"** even amidst the economic downturn caused by the **Covid-19 pandemic**.

75th Anniversary of Hiroshima Bombing

Why in News

Japan marked the **75 years of the atomic bombing** on **Hiroshima** on **6th August 2020.**

➢ Survivors, relatives and foreign dignitaries attend the anniversary of Hiroshima every year to honour victims of the bombings and call for **world peace.**

Key Points

➢ **About:**

  ❍ On **6th August 1945,** a USA bomber dropped the **uranium fission bomb**, codenamed **Little Boy**, on **Hiroshima**, a city in Japan.

  ❍ Three days later it dropped another bomb codenamed **Fat Man**, on **Nagasaki**.

  ❍ The explosion and resultant firestorms are believed to have killed around 80,000 people in Hiroshima and around 40,000 people in Nagasaki.

  ❍ Thousands more died in the following years due to the **exposure to radiation** from the blast and

also from the **black rain** that fell in the aftermath of the explosions.

○ **Long-term effects** of the attack included birth defects, malnutrition, cancer and other illnesses

○ This bombing marked the end of **World War II**, with **Japan surrendering** to the **Allies** on 14th August 1945.

● The Allies were one of the two major alliances during World War II, led by **Great Britain, the USA** and the **Soviet Union.**

● The other alliance, **Axis** was led by **Germany, Italy,** and **Japan.**

➢ **Aftermath:**

○ The attacks were widely criticized around the world for being **crimes against humanity.**

○ Some historians argue that the **bombings ultimately saved lives** by avoiding a land invasion that might have been significantly more deadly.

● The USA has never apologised for the bombings.

○ However, in Japan, the attacks are widely **regarded as war crimes** because they targeted civilians indiscriminately and caused unprecedented destruction.

○ After the war, Hiroshima tried to reinvent itself as a **City of Peace** and continues to **promote nuclear disarmamen**t around the world.

○ The survivors of this attack are known as "**Hibakusha**", many of whom suffered physically and psychologically after the attack.

○ Japan's wartime experience has led to a **strong pacifist movement in the country**. At the annual Hiroshima anniversary, the government usually reconfirms its commitment to a **nuclear-free world**.

● Japan signed the **Treaty on the Non-Proliferation of Nuclear Weapons** in February 1970.

Note:

Science and Technology

Highlights

- Volcanoes on Venus
- Schizophrenia and its Possible Cause
- RaTG13 Sarbecovirus
- Phase II/III Clinical Trials of Covishield
- Russian Covid Vaccine: Sputnik V
- Mega Covid-19 Testing Lab
- Aspirin to Prevent Cataract

- Electronic Vaccine Intelligence Network
- IMD Forecasts Surplus Rains
- SFTS Infection in China
- Bharat Air Fibre: Wireless Internet
- Time Capsules
- Space X Capsule Returns Safely
- Perseids Meteor Shower

Volcanoes on Venus

Why in News

According to a recent study, published in Nature Geoscience, **Venus is still geologically active.**

Key Points

➢ The study identified 37 active **volcanoes**, in the form of ring-like structures known as **coronae**, on the surface of Venus.
  ❍ The coronae form when plumes of hot material deep inside the planet rise through the mantle layer and crust.

➢ Earlier, it was believed that the surface of Venus had **no geological activity.** However, scientists have known for some time that Venus has a younger surface than planets like Mars and Mercury, which have cold interiors.

➢ The new study will help to identify target areas for future missions such a**s Europe's EnVision** that is scheduled to launch in 2032.
  ❍ **EnVision aims** at determining the level and nature of the geological activity and the sequence of events that generated the surface features of Venus.

Venus

➢ It is the **second closest planet to the sun** and the **sixth-largest planet** in the solar system. It is also known as **earth's twin.**

➢ It is the **hottest planet in the solar system** and its extreme temperatures (450º C) and acidic clouds make it an **unlikely place for life.**

➢ **Along with Uranus** it **spins backwards** with respect to other planets i.e. Its **sun rises in the west** and sets in the east.

➢ Along with Mercury it has **no moons and no rings.**

Schizophrenia and its Possible Cause

Why in News

Recently, the **Schizophrenia Research Foundation** (SCARF) and **Jeevan Stem Cell Foundation, Chennai** have carried out a pilot study on people of specific ethnicity with **schizophrenia**.

➢ The study finds an **association of specific alleles** (variants of specific genes) **with the disease**.

Key Points

➢ **Findings of the Current Study:**
  ❍ It holds that HLA is important for the proper functioning of the immune system and its variations can lead to immunological abnormalities.

Note:

drishti

- In **autoimmune diseases**, when the body creates **antibodies against the NMDA receptors** in the brain, these antibodies disrupt normal brain signalling and cause brain swelling or encephalitis affecting both men and women and can lead to schizophrenia.
- The **N-methyl-D-aspartate (NDMA) receptor** is a glutamate receptor and ion channel protein **found in nerve cells** and is **important for memory functions**.

Schizophrenia

➢ It is the descriptive term for a **group of psychotic disorders in which personal, social and occupational functioning deteriorate** as a **result of disturbed thought processes, strange perceptions, unusual emotional states, and motor abnormalities**.

➢ It is a **debilitating** (making someone very weak and infirm) disorder. The **social and psychological costs** of schizophrenia are **tremendous**, both to patients as well as to their families and society.

➢ **Onset:** It typically begins in **late adolescence** or **early adulthood**.

➢ **Symptoms:**
  ○ **Positive Symptoms:** These are **pathological excesses** or **bizarre additions** to a person's behaviour like delusions, disorganised thinking and speech, heightened perception and hallucinations and inappropriate affects.
  ○ **Negative Symptoms:** These are **pathological deficits** and include poverty of speech, blunted and flat affect (Showing less or no emotions), loss of volition (inability to start or complete a course of action) and social withdrawal.
  ○ **Psychomotor Symptoms:** Less spontaneous moves or making odd grimaces (extremely distorted and particular facial expression) and gestures.

➢ **Causes:**
  ○ **Schizophrenia's cause is not exactly known** yet. There are various studies among groups of varied ethnicities across the world, on the possible causes and other relations.
    - These **studies have shown associations of the disease with different alleles** related to the **Human Leukocyte Antigen** (HLA).
    - HLA is an important part of the immune system and related to a **group of genes on chromosome six**.

- HLA genes are **extremely variable** and are very **different across human populations**.
○ However, the **specific allele** that was found to be associated with schizophrenia **varied from group to group**.

➢ **Treatment:**
  ○ **Therapy and support** can help people learn social skills, cope with stress, identify early warning signs of relapse and prolong periods of remission.

○ Researchers found a **higher frequency of HLA class I alleles** in individuals with schizophrenia.
  - Individuals carrying these alleles **could be susceptible** to schizophrenia.
○ They also found a **negative correlation with some alleles** which were found in **lower frequency** in individuals with schizophrenia.
  - These could be **protective alleles** in schizophrenia.
○ For the first time, the **amino acids level in HLA molecules** among the patients were also studied.
○ Researchers held that the **reasons or causes for schizophrenia are not entirely clear**, but **perhaps selection and 'memory' of past selection pressures** (infections) play a role in its onset.
  - However, there is a need for further studies of the exact factors causing the disorder. The occurrence of different alleles itself is not a problem but finding the exact allele causing it, is a challenge.
○ Earlier studies had indicated that **different alleles may be involved in different ethnic groups.** For example, studies in Saudi Arabia, Tunisia and Japan point to involvement of different alleles responsible for risk factor to schizophrenia.

RaTG13 Sarbecovirus

Why in News

According to a recent study published in **Nature Microbiology**, the **novel coronavirus** (SARS-CoV-2) has been **circulating unnoticed in bats for decades**.

➢ Bats have been the '**primary reservoirs**' for SARS-CoV-2, which is likely to have **diverged from closely related bat viruses called the RaTG13 sarbecovirus**, 40-70 years ago.
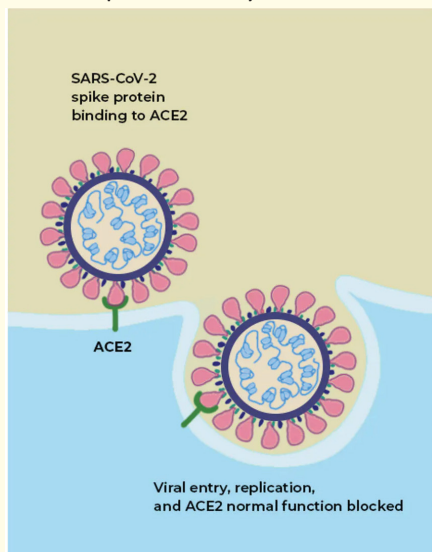
Key Points

➢ The current study **confirms an earlier Chinese study** and also **suggests the probable time of divergence** of the two viruses.

- ❍ Based on the **nearly 96% genome sequence identity** between SARS-CoV-2 and RaTG13, it was held that **an origin in bats is probable for the Covid-19 outbreak**.

➢ **RaTG13 and SARS-CoV-2 share a single ancestral lineage** and estimate that SARS-CoV-2 **genetically diverged from related bat sarbecoviruses** in **1948, 1969 and 1982**.

- ❍ The ability of the **spike protein in the virus to bind to Angiotensin-Converting Enzyme 2 (ACE2) human receptors** is an ancestral train within bats.
- ❍ This was also the case with the bat sarbecoviruses related to the **2002 Severe Acute Respiratory Syndrome (SARS)** lineage.
- ❍ This single lineage **of these viruses circulating in bats** with properties allowed it to infect human cells.

Angiotensin-Converting Enzyme 2 (ACE2)

➢ ACE2 is a protein on the surface of many cell types.

➢ It is an enzyme that cuts the larger protein angiotensinogen for regulation of functions in the cell.

➢ ACE2 acts as a cellular doorway – a receptor – for the SARS-CoV-2 virus.

➢ The SARS-CoV-2 virus binds to ACE2, using the spike-like protein on its surface, like a key being inserted into a lock – prior to entry and infection of cells.

SARS-CoV-2 spike protein binding to ACE2

ACE2

Viral entry, replication, and ACE2 normal function blocked

➢ **SARS-CoV-2 has not arisen from recombination** of any sarbecovirus.

- ❍ **Recombination:** It is a process by which pieces of **deoxyribonucleic acid** (DNA) are broken and recombined to produce new combinations of alleles (forms of a gene). This recombination process creates genetic diversity at the level of genes that reflects differences in the DNA sequences of different organisms.

➢ **Challenging Assumptions:**

- ❍ The study **challenged the idea of pangolins serving as an intermediate host.**
  - • It is possible that pangolins **could have been a medium** for the transmission to humans, but there is **no evidence that pangolins facilitated adaptation** to humans by being an intermediate host.
  - • Current evidence suggests the **virus evolved in bats and enabled itself to replicate** in the upper respiratory tract of both humans and pangolins.

➢ **Concerns:**

- ❍ The long divergence period raises the **possibility of other undocumented virus lineages circulating** in horseshoe bats that have the potential to jump from bats to humans.
  - • **Due to the lack of better sampling**, it is impossible to estimate whether or how many of these additional lineages exist.
  - • The **diversity and dynamic process of recombination** amongst lineages in the bat reservoir makes **identifying viruses difficult**.
- ❍ Many species of bat harbour several viruses which can **cross over to new hosts**. With the disruptions of their habitats, humans will face more such threats.

Phase II/III Clinical Trials of Covishield

Why in News

Recently, the **Drugs Controller General of India** (DCGI) has given approval to the **Serum Institute of India (SII), Pune** to conduct **Phase II/III clinical trials** of **Covishield** in India.

➢ **SII is the world's largest maker of vaccines** and it has a **tie-up with AstraZeneca**, the **Swedish-British pharma giant**, to manufacture the **Covid-19** vaccine for **low- and middle-income countries**.

Key Points

➢ **Covishield:**

➢ It is the name given to an **Oxford-AstraZeneca Covid-19 vaccine candidate** which is technically referred to as **AZD1222** or **ChAdOx 1 nCoV-19**.

➢ It is **already being tested in the UK, South Africa and Brazil**, where participants are being administered two doses nearly a month apart.

➢ It had **triggered an immune response** in humans against the **novel coronavirus** in early trials and is considered to be one of the global frontrunners for the Covid-19 vaccine.

➢ **Background:**

   ○ The **Subject Expert Committee** (SEC) for **Covid-19 related therapies** of the **Central Drugs Standard Control Organisation** (CDSCO) felt that the **SII needed to take a 'pan India' approach** while considering trial sites.

   ○ It recommended that **authorisation** to market Covishield **should be granted after considering clinical data generated from both the India and international trials**.

➢ **Trials:**

   ○ SII can now start its larger phase II/III trials, ahead of other vaccine candidates like **Bharat Biotech's Covaxin** and **Zydus Cadila's ZyCov-D** which are still in **phase I/II trials**.

      ● However, the **exact timings of trial beginning are not clear** yet. It would take at least a week to get the ethics committee's approval before starting the trials. If everything goes well, the vaccine could be out by the end of 2020.

   ○ The trials for Covishield will have **around 1,600 participants at 18-odd sites across the country** including those identified by the **National Biopharma Mission and Grand Challenges India Programme**.

   ○ Earlier this year, India and the USA decided to collaborate on Covid-19 Vaccine Trials.

➢ **Current Trend in India:**

   ○ India continues to improve the **Case Fatality Rate** (CFR-number of deaths per positive case) and maintain its global position of having **one of the lowest Covid-19 fatalities rates**.

      ● The **current CFR is 2.11%**.

Grand Challenges India Programm

➢ It is a **partnership framework** for the **Department of Biotechnology** (DBT) in India, its **Biotechnology Industry Research Assistance Council** (BIRAC) and the Bill and Melinda Gates Foundation.

   ○ **BIRAC is a Public Sector Enterprise**, set up by the DBT.

➢ **Aim:** To launch **joint initiatives aimed at catalyzing innovative health and development research** within India.

National Biopharma Mission

➢ It is an **industry-academia collaborative mission** for **accelerating biopharmaceutical development** in the country.

➢ It was **launched in 2017** at a total cost of ₹**1500 crore** and is **50% co-funded** by **World Bank** loan.

➢ It is being **implemented by the BIRAC**.

Russian Covid Vaccine: Sputnik V

Why in News

Recently, Russia has become the first country to officially register a **Covid-19 vaccine** and has declared it ready for use.

Key Points

➢ The vaccine has been called **Sputnik V**, named after the **first artificial Earth satellite, Sputnik-I** launched by the Soviet Union.

➢ It is the **first Covid-19 vaccine to be approved.**

   ○ However, a Chinese vaccine had been cleared for 'limited use' before this. It is an **adenovirus vector vaccine** approved to be administered only on soldiers of the **People's Liberation Army**.

➢ The Russian vaccine has outrun other Covid-19 vaccines like **Oxford-AstraZeneca, Moderna and Pfizer** which are still in trials.

   ○ India's **Covaxin** has been approved for human clinical trials. Another Indian vaccine **ZyCoV-D** has entered phase I/II of clinical trials.

Note:

➢ This vaccine has been developed by Moscow's **Gamaleya Institute** in collaboration with Russia's defence ministry.

➢ The vaccine is based on the **DNA** of a **SARS-CoV-2** type **adenovirus**, a common cold virus.
  ○ The vaccine uses the weakened virus to deliver small parts of a pathogen and stimulate an immune response.
  ○ The vaccine is administered in two doses and consists of two types of human adenovirus, each carrying an **S-antigen of the new coronavirus**, which enter human cells and produce an **immune response.**

➢ Russian officials have said that large-scale production of the vaccine will start in September and mass vaccination may begin as early as October.

➢ **Adenovirus Vector Vaccine:**
  ○ In this vaccine, adenovirus is used as a tool to deliver genes or vaccine antigens to the target host tissue.
  ○ **Adenovirus:** Adenoviruses (ADVs) are **DNA viruses** ranging from 70-90 nanometre in size, which induce many illnesses in humans like cold, respiratory infection, etc.
  ○ Adenoviruses are preferred for vaccines because their DNA is **double-stranded** which makes them **genetically more stable** and the chances of them changing after injection are lower.
    ● The **rabies vaccine** is an adenovirus vaccine.
  ○ However, there are drawbacks of adenovirus vector vaccines like **pre-existing immunity in humans, inflammatory responses,m etc.**
    ● Just as human bodies develop immune responses to most real viral infections, they also develop immunity to adenoviral vectors. Since adenoviral vectors are based on natural viruses that some humans might already have been exposed to, these vaccines **might not work for everyone**.

➢ **Concerns Regarding the Vaccine:**
  ○ Experts expressed concerns over the safety and efficacy of the vaccine due to its **extremely fast production and lack of published data** on the vaccine.

○ Russia has only made **public** the **results of phase-I** of the clinical trials, which it claimed were successful and produced the desired immune response.

○ The human trials, which take several years in normal circumstances, have been completed in less than two months for Sputnik V. The late-phase human trials are important because the vaccine's efficacy can differ on different population groups.
  ● Russia, however, has claimed that this was made possible due to the fact that its Covid-19 vaccine candidate closely resembled a vaccine for **Middle East Respiratory Syndrome (MERS)** disease, caused by another coronavirus, that had already been tested extensively.

➢ **Use in India:**
  ○ Russia has claimed that around 20 countries have shown interest in the Sputnik V vaccine, including India.
    ● India has also **partnered with the USA** for development of Covid-19 vaccine.
  ○ The approval for a vaccine is given by the **Central Drugs Standard Control Organisation** (CDSCO).
    ● CDSCO can ask Russia **to conduct late-phase human trials,** usually both phase-2 and phase-3, on an **Indian population.**
    ● This is the usual requirement for all vaccines developed outside of India.
  ○ CDSCO can also give **emergency authorisation** without late-phase trials, considering the extraordinary situation.
    ● The drug **remdesivir** was recently granted similar emergency approval to be used as a therapeutic on novel coronavirus patients.
  ○ However, this is unlikely as vaccines are given to a large number of people and the risks involved are much higher.
  ○ There are also issues in manufacturing the vaccine as there is **no agreement for its production in India right now.**
    ● Pune-based **Serum Institute of India, the world's largest manufacturer of vaccines by volume**, has already entered into tie-ups with developers to mass-produce their vaccines. Other Indian companies have also done similar agreements but there is none with Russia.

Note:

Mega Covid-19 Testing Lab

Why in News

The **Council of Scientific and Industrial Research (CSIR)** is working on developing mega labs to speed up testing as well as improve the accuracy of testing for **Covid-19** positive cases.

Key Points

➢ Large machines, called **Next Generation Sequencing (NGS) machines** will be modified to sequence 1,500-3,000 viral genomes at a go for detecting the novel coronavirus (SARS-CoV-2) in these labs.

❍ These machines are also used for **sequencing human genomes.**

❍ The NGS also found **two lineages of coronaviruses** which were unknown in Indian populations so far.

➢ The CSIR has partnered with the US-based Illumina, a company that specialises in the manufacturing of NGS machines.

❍ Five NGS machines are currently available in India.

➢ So far, 3,086 sequences of the virus isolated from humans have been shared by 57 countries, with India sharing **nine whole genome sequences of the novel coronavirus (SARS-CoV-2)** with the **Global Initiative on Sharing All Influenza Data (GISAID).**

➢ **Benefits:**

❍ **Accuracy:** The NGS tests have a sensitivity of 97.53% as compared to 70%-80% accuracy of the **Reverse Transcription Polymerase Chain Reaction** (RT-PCR) and 50% accuracy of antigen tests.

● These tests detect the possible presence of the virus even in several instances where the RT-PCR tests miss out on them.

● This is primarily because the RT-PCR test identifies the SARS-CoV-2 virus by exploring only specific sections of the virus whereas the genome method can read a **bigger chunk of the virus genome** and thereby provide **more certainty.**

❍ **Confirmation:** NGS identified cases as either positive and negative when RT-PCR found them to be **'inconclusive'**. So, this can also be used as a **confirmatory test.**

❍ **Reliability:** It can also trace the evolutionary history of the virus and track mutations more reliably.

● This can help identify more places where **SARS-COv-2** viruses differ from other related viruses.

❍ **Mass Testing:** According to the **Indian Council of Medical Research** (ICMR), the NGS tests can space up from the present approx. 7.5 lakh tests per day to at least **a million per day.**

● Unlike the RT-PCR that needs **primers and probes**, which is a key hurdle in operationalising such tests on a mass scale early on in the pandemic, the NGS does not need primers and probes and only needs **custom reagents**.

● **Primers** are short sequences of DNA used to amplify a particular DNA sequence. A **probe** is a small radioactively or fluorescently labelled DNA sequence used to identify a particular DNA sequence.

● **Reagent** for DNA is designed to easily prepare DNA extracts from animal tissues that can be used directly in PCR.

❍ **Other Uses:** Establishing "hubs" capable of **whole-genome sequencing** would help track significant mutations in the virus and can be repurposed for any kind of outbreak, be they of viral or bacterial origin.

● NGS can also be used to develop **new diagnostic tests for Covid-19.**

❍ **Surveillance and Tracing:** Due to the limited accuracy and capacity of existing tests, a sizeable population is **falsely negative**. NGS can help in serving a larger purpose of continuous surveillance of large pools like industrial hubs, commercial establishments or places where an outbreak is likely.

Testing for Covid-19

➢ Different methods of testing are being experimented in the country to trace **Covid-19** infection. Some of these include:

❍ **RT PCR Tests**

❍ **Rapid Antigen Detection Tests**

❍ **RTnPCR Tests**

❍ **Feluda Tests**

❍ **ELISA Antibody Tests**


Note:

Aspirin to Prevent Cataract

Why in News

Recently, scientists from the **Institute of Nano Science & Technology (INST)** have developed **nanorods from the NonSteroidal Anti-Inflammatory Drug (NSAID) Aspirin to prevent cataracts** in an economical and less complicated way.

➢ **Aspirin** is a popular medication used **to reduce pain, fever or inflammation** and now it has been found to be an effective non-invasive small molecule-based nanotherapeutics against cataract.

➢ INST is an **autonomous institute** under the Department of Science and Technology, Government of India.

Key Points

➢ **Cataract:**
   ○ It is a major **form of blindness** that occurs when the **structure of crystallin proteins that make up the lens** in human eyes **deteriorates**.
   ○ Such deterioration causes damaged or disorganised proteins to aggregate and forms a milky blue or brown layer, which ultimately **affects lens transparency**.
   ○ As with **ageing and under various conditions**, the lens protein **crystallin aggregates to form opaque structures** in the eye lens, which **impairs vision and causes cataract**.

Cataract

Healthy eye — Clear lens

Eye with cataract — Lens clouded by cataract
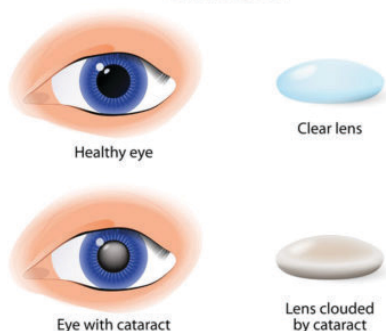
   ○ Thus, **prevention of the formation of these aggregates as well as their destruction** in the early stage of disease progression is a major treatment strategy for cataracts.

➢ **Usage of Aspirin:**
   ○ The scientists have used the **anti-aggregation ability of self-build aspirin nanorods** as an effective non-invasive small molecule-based nanotherapeutics against cataract.
   ○ It **prevents the protein from aggregation** through biomolecular interactions, which convert it into coils and helices and consequently fail to aggregate.

➢ **Significance:**
   ○ Aspirin nanorods due to their **nano-size** are expected to enhance the bioavailability, improve drug loading, lower toxicity, etc.
   ○ Hence, **the delivery of the aspirin nanorods as eye drops** is going to serve as an **effective and viable option** to treat cataract non-invasively.
   ○ It is **easy to use and a low-cost alternative nonsurgical treatment** method and will benefit patients in developing countries who cannot access expensive cataract treatments and surgeries.

Electronic Vaccine Intelligence Network

Why in News

The **Electronic Vaccine Intelligence Network (eVIN)** is being used by the State/UT governments in India **to monitor the supply chain of Covid response material.**

Key Points

➢ **About:** It is an **indigenously developed technology system** that **digitizes vaccine stocks** and monitors the temperature of the cold chain through a smartphone application.

➢ **Objective:** It is **aimed at strengthening immunization supply chain systems** across the country.
   ○ eVIN aims to support the Government of India's **Universal Immunization Programme** by providing **real-time information on vaccine stocks and flows, and storage temperatures** across all cold chain points in these states.

➢ **Implemented by:** It is being implemented under the **National Health Mission (NHM)** by the Ministry of Health and Family Welfare in partnership with the **United Nations Development Programme (UNDP).**

Note:

➢ **The integrated solution combines:**
  ❍ **Technology :** Online real-time information on vaccine stocks and storage temperature to facilitate **evidence-based decision-making.**
  ❍ **Governance:** Systemizing record keeping, upgrading logistics and encouraging good practices to **ensure efficient vaccine logistics management.**
  ❍ **Human Resources:** To **empower the state cold chain network** by building the capacities of handlers and managers at each stage of vaccine supply.

Universal Immunization Programme
➢ It was launched by **the government in 1985,** to prevent mortality and morbidity in children and pregnant women against **12 vaccine-preventable diseases.**
➢ Under UIP free of cost vaccination is provided against twelve vaccine-preventable diseases i.e. Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, Hepatitis B, Pneumonia , Meningitis due to Haemophilus Influenzae type b (Hib), Measles, Rubella, Japanese Encephalitis (JE) and Rotavirus diarrhoea.
➢ The programme is **one of the largest health programmes in the world**. Despite being operational for many years, UIP has been able to fully immunize only 65% of children under 1 year of age.

IMD Forecasts Surplus Rains

Why in News

According to the **India Meteorological Department (IMD),** rainfall in the "second half of the **monsoon**" is likely to be 104% of the **Long Period Average (LPA)**.
➢ This falls within the "normal" range of rainfall.

Key Points

➢ **Long Period Average (LPA):** It is the **average rainfall recorded during the months from June to September, calculated during the 50-year period**, and is kept as a **benchmark** while forecasting the quantitative rainfall for the monsoon season every year.
  ❍ IMD maintains an independent LPA for **every homogeneous region** of the country, which ranges from 71.6 cm to 143.83 cm.

Normal Conditions
La Niña Conditions
El Niño Conditions
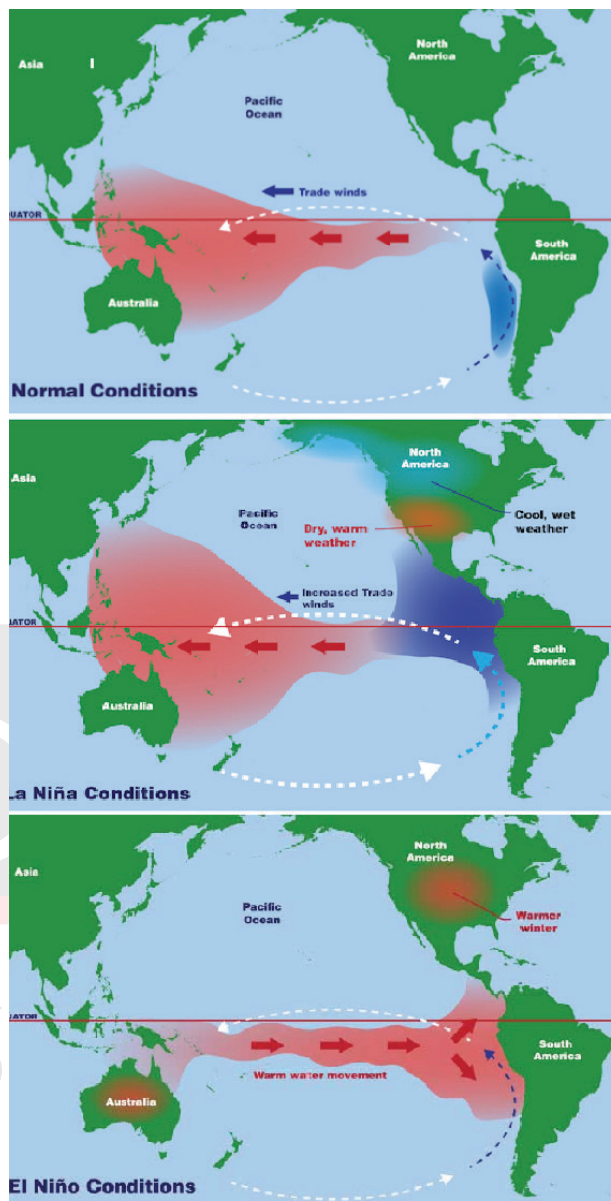
➢ IMD maintains five rainfall distribution categories on an all-India scale. These are:
  ❍ **Normal or Near Normal:** When percent departure of actual rainfall is +/-10% of LPA, that is, between 96-104% of LPA.
  ❍ **Below Normal:** When departure of actual rainfall is less than 10% of LPA, that is 90-96% of LPA.
  ❍ **Above Normal:** When actual rainfall is 104-110% of LPA.
  ❍ **Deficient:** When departure of actual rainfall is less than 90% of LPA.
  ❍ **Excess:** When departure of actual rainfall is more than 110% of LPA.

Note:

➢ This year increased rainfall is attributed to the commencement of **La Nina** like conditions by the second half of the monsoon season.

○ La Nina is a climate pattern that describes periods of **below-average sea surface temperatures** across the **east-central Equatorial Pacific.**

○ La Nina is considered to be the counterpart to El Nino, and its impacts tend to be **opposite those of El Niño.**

○ Together, they form the **"cold" (La Nina) and "warm" (El Nino)** phases of the **El Nino-Southern Oscillation (ENSO).**

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

SFTS Infection in China

Why in News

Recently, deaths and infections have been reported due to the **Severe Fever with Thrombocytopenia Syndrome** (SFTS) in **East China's Jiangsu and Anhui provinces**.

➢ The new health threat emerges amidst the ongoing **Covid-19 pandemic** which also emerged in China first.

Key Points

➢ SFTS is caused by the **Severe Fever with Thrombocytopenia Syndrome Virus** (SFTSV) which belongs to the *Bunyavirus* family and is transmitted to humans through **tick bites**.

○ A **tick** called **Asian Longhorned Tick** (*Haemaphysalis longicornis*) is believed to be the **primary vector** (carrier) of the virus.

○ The virus is often **transmitted to humans from animals** like goats, cattle, deer and sheep and **regular**

contact with these animals makes farmers, hunters and pet owners vulnerable to the disease.

○ Despite being infected by the virus**, animals generally do not show any symptoms** associated with SFTSV.

➢ **Origin and Spread:**

○ The virus was **first identified in China over a decade ago** and the **first few cases** were reported in rural areas of Hubei and Henan provinces **in 2009**.

○ Researchers identified the virus by **examining blood samples obtained from a cluster of people exhibiting similar symptoms**.

○ The virus eventually **travelled to other East Asian nations**, including **Japan and South Korea**, significantly raising the total number of cases.

○ **Due to more awareness about the health risks posed by tick bites**, the fatality rate of the infection has started to drop significantly**.**

➢ **Incubation Period:**

○ It is the **interval between being infected and showing symptoms**. For SFTS, the incubation period is **anywhere between 7 and 13 days.**

○ The disease usually **spreads between March and November** and the total number of infections generally **peaks between April and July**.

➢ **Symptoms:**

○ Fever, fatigue, chill, headache, nausea, myalgia (muscle pain), diarrhoea, vomiting, abdominal pain, gingival haemorrhage, conjunctival congestion, etc.

○ **Early warning signs** include severe fever, **thrombocytopenia** (low platelet count) and **leukocytopenia** (low white blood cell count).

○ More **serious cases** include multi-organ failure, hemorrhagic manifestation and the appearance of symptoms related to **Central Nervous System** (CNS) diseases.

● The CNS consists of the **brain and the spinal cord** and it controls most functions of the body and mind.

➢ **Prevention:**

○ **Avoid wearing shorts** while walking through tall grass, the woods, and any other environment where ticks are likely to thrive.

○ **Using tick-repellent lotions and sprays** on the exposed body parts.

- ➢ **Treatment:**
  - ❍ There is **no vaccine to treat the disease yet**. However, the **antiviral drug Ribavirin is known to be effective** in treating the illness.
    - ● Ribavirin is also used to treat **Crimean-Congo Haemorrhagic Fever** (CCHF) which is also **transmitted by ticks**.
- ➢ **Current Case Fatality Rate:**
  - ❍ It rests between **approximately 16%-30%**.
  - ❍ SFTS has been **listed among the top 10 priority diseases blueprint** by the **World Health Organisation** (WHO) due to its fast spreading rate and high fatality rate.
    - ● **WHO's Research and Development Blueprint** identifies diseases and pathogens that have the **potential to cause a public health emergency but lack effective treatments and vaccines**.
    - ● This watchlist for priority research and development includes **Ebola**, several other hemorrhagic fevers, **Zika**, **Nipah**, **Middle East respiratory syndrome coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS)** and **disease X**, which represents the need to prepare for an **unknown pathogen** that could cause a serious epidemic.

Bharat Air Fibre: Wireless Internet

Why in News

Recently, **Bharat Air Fibre Services** have been inaugurated at **Akola in Maharashtra** providing the residents **wireless internet connections** on demand.

Key Points

- ➢ The Bharat Air Fibre services are being **introduced by Bharat Sanchar Nigam Limited (BSNL)** as a part of the **Digital India** initiative by the Government of India. It is **being scaled pan-India**.
- ➢ **Aim:** To **provide BSNL fibre-to-the-home (FTTH) wireless connectivity up to a range of 20 km** from the BSNL points of presence.

- ➢ **Features:**
  - ❍ The **connectivity speed is 100 Mbps** and BSNL is offering **various broadband plans in wireline and wireless segments**.
    - ● There is a huge demand for high-speed broadband service in the present situation as there is the **migration** of people from metro cities to rural areas due to the **Covid-19 pandemic**.
    - ● The service is becoming popular due to **Work from Home** (WFH), **e-learning, online shopping, gaming and entertainment**, etc. amidst **lockdowns**.
  - ❍ BSNL is also providing **unlimited free voice calling**.
- ➢ **Mechanism:** It provides high-speed broadband to subscribers of remote areas by **bridging the gap of last-mile connectivity through radio waves**.
  - ❍ A vast network of **Optical Fibre** has been laid by BSNL up to nearest Telephone Exchange or Mobile Tower and from there the connectivity is provided to subscribers over wireless.
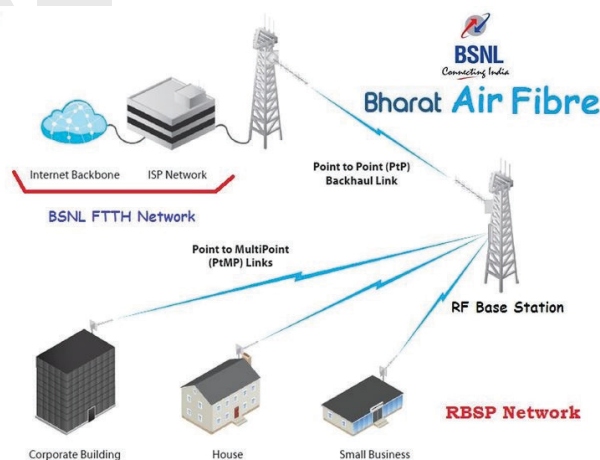
- ➢ **Benefits:**
  - ❍ Customers at remote locations will be benefitted as BSNL comes with the **cheapest services** with the support of **Telecom Infrastructure Partners** (TIPs).
  - ❍ These services are **wireless** and there are **very low chances of interruption** in services locally.
  - ❍ BSNL is **tying up with local entrepreneurs/ unemployed youth** on a revenue sharing basis thereby **generating employment** in rural areas.
    - ● They will earn a regular monthly income of about one lakh per month thereby **becoming self-reliant** under the **Aatmanirbhar Bharat** initiative.

Note:

❍ This service could be a game-changer for rural areas as with a little **integration of Internet of Things** (IoT) **and sensors**, the **moisture content of soil can be known** on a real-time basis, so that **irrigation can be planned**, resulting in **saving of water and thereby increasing productivity**.

❍ Sensors can be **tied to the neck of dairy cattle, enabling continuous recording of body temperature** so as to know the exact time when milk output is best.

Time Capsules

Why in News

The Ram Janmabhoomi Teerth Kshetra Trust has denied reports about placing of a time capsule under the ground at Ram Temple construction site in Ayodhya.

➢ The Time Capsule, also known as **Kaal Patra**, was supposed to contain the history of Ayodhya and Rama Janma Bhoomi Movement.

Key Points

➢ Time Capsule is a **container** of any size or shape, which **accommodates documents,** photos and artefacts typical **of the current era** and is **buried underground**, for **future generations to unearth.**

➢ To ensure that the capsules do not decay they are **built using special engineering techniques** like **steel or aluminium encasing, vacuuming, use of acid-free paper**, etc.

➢ The time capsules mostly **have a scheduled time for reopening,** and are supposed to be buried again after opening, with people of the future adding their own contributions to the time capsule.

➢ The **International Time Capsule Society (ITCS)**, based in the USA and formed in 1990, is **now defunct** but continues estimating the number of time capsules in the world.

❍ As per its database, there are **10,000-15,000 times capsules worldwide.**

Famous Time Capsules in the World

➢ **Samuel Adams and Paul Revere Time Capsule:** It is the **oldest known time capsule** from 1795 (USA).

➢ **The "Century Safe" :** The **world's first planned time capsule** was established at Philadelphia Centennial Exposition (USA) in 1876. It was opened and resealed in 1976.

➢ **The Crypt of Civilization in Georgia:** It was built around 1940 at Oglethorpe University in Brookhaven, Georgia and is scheduled for opening in the year 8113 AD. It is a project to preserve all human knowledge and was the brainchild of **Thornwell Jacobs**, also known as **father of time capsules.**

➢ **The Voyager and Voyager II Spacecraft:** They are currently circling on the **edge of our solar system**. These capsules were created by NASA to be seen by future generations.

Time Capsules In India

➢ **Outside the Red Fort:** This was placed underground in 1972 by the then Prime Minister Indira Gandhi, was dug out by the subsequent government in 1977. It raised a **controversy** as it was said to glorify Gandhi Nehru family in indian History.

➢ **At IIT Kanpur Campus**: This time capsule was buried on 6th March, 2010 containing details on IIT Kanpur in the form of documents, photographs, and films.

➢ **At The Alexandra Girls' English Institution, Mumbai:** It was set up in the 19th century and is scheduled to be opened in 2062. It contains information on the school.

➢ **At Jalandhar's Lovely Public University:** It was buried in January 2019 and contains 100 items that represent modern-day technology in India.

Significance

➢ Time Capsules are intended as a **method of communication with future** people.

➢ They are also supposed to help future **archaeologists, anthropologists, or historians** in knowing about the past human civilisation.

Note:

drishti

Criticism

➢ Most intentional time capsules are filled with a **lopsided view of history.** They are often **politically motivated** and **glorify** the people who planted them.

➢ They can not be regarded as facts and are **not very reliable.** The information in time capsules has to be verified with other sources of information.

➢ Many time capsules which have been unearthed were filled with **junk telling little** about the people of the time.

Space X Capsule Returns Safely

Why in News

Recently, two **National Aeronautics and Space Administration** (NASA) astronauts **Doug Hurley and Bob Behnken** have returned to earth in their **SpaceX Dragon** capsule named **Endeavour**, in less than a day after departing the **International Space Station** (ISS).

➢ Their capsule parachuted into the **Gulf of Mexico** about **40 miles off the coast of Pensacola**, **Florida Panhandle** (USA), which was one of the approximate locations.
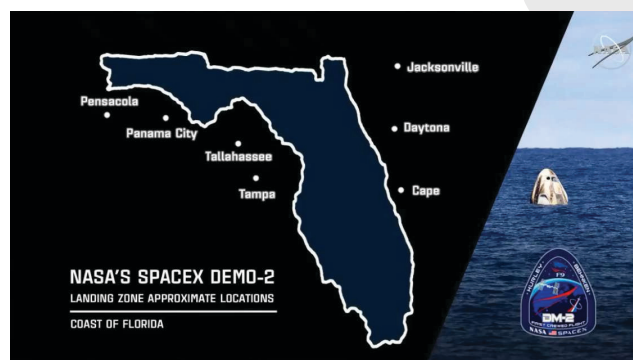
Key Points

➢ It was the **first splashdown by the USA astronauts in 45 years**, with the **first commercially built and operated spacecraft** to carry people to and from orbit.

○ The last time NASA astronauts returned from space to water was on **24th July 1975**, in the Pacific to end a **joint USA-Soviet mission** known as the **Apollo-Soyuz**.

● The Apollo-Soyuz Test Project was the **first spaceflight to include two participating**

nations working together with their own national spacecraft.

● The **Americans sent up an Apollo command module**, while the **Soviet launched a Soyuz spacecraft**.

➢ **Space X Crew Dragon:**

○ It is a **reusable spacecraft** developed and manufactured by American aerospace manufacturer **SpaceX**.

● SpaceX is a **private company founded in 2002 by Elon Musk**. Its **headquarters** is located in **Hawthorne, California** (USA).

○ It is the **fifth class of the USA spacecraft** to take human beings into orbit, after the **Mercury, Gemini, Apollo and Space Shuttle programs**.

○ The rocket **Falcon 9** was launched from **NASA's Kennedy Space Center** on **31st May 2020** and carried the spaceship into the orbit.

○ The whole mission was carried out under the **Demo-2 Mission** of NASA and SpaceX.

➢ **Significance:**

○ It clears the way for **another SpaceX crew launch** and **possible tourist flights** from 2021.

○ SpaceX has now become the **first private company to send humans to orbit** who have spent more than two months on the space station.

○ The landmark mission **marked the first time the USA space agency launched humans from American soil** since its **shuttle program retired in 2011**.

● Since then, the USA has **relied on Russia's space program** to launch its astronauts to the space station.

Perseids Meteor Shower

Why in News

The Perseids meteor shower will be active from 17th-26th August 2020.

➢ This is an **annual celestial event** and is considered the best meteor shower, as many bright meteors and fireballs shoot through the sky making it easy for people to watch it from Earth.

Key Points

➢ **Meteor:** It is a **space rock or meteoroid** that enters Earth's atmosphere.

- ○ Meteoroids are objects in space that range in size from dust grains to small asteroids.
  - Most of them are pieces of other, larger bodies that have been broken or blasted off. These come from **comets, asteroids, planets and the Moon.**
- ○ When **meteoroids enter Earth's atmosphere** (or that of another planet, like Mars) at high speed and **burn up**, the fireballs or "shooting stars" are called **meteors**.
  - As the space rock falls towards the Earth, the resistance or drag of the air on the rock makes it extremely hot.
  - As it passes through the atmosphere, it leaves behind **streaks of glowing gas (shooting star)** that are visible to the observers.
  - **Fireballs** are larger explosions of light and colour that can persist longer than an average meteor streak. This is due to the fact that fireballs originate from larger particles of cometary material.
- ○ When a meteoroid survives its journey through the atmosphere and hits the ground, it's called a **meteorite.**

➢ **Meteor Shower:**

- ○ When **Earth encounters many meteoroids** at once, it is called a meteor shower.
  - **Comets**, like Earth and the other planets, also orbit the sun. Unlike the nearly circular orbits of the planets, the orbits of comets are usually quite lop-sided.
  - As a comet gets closer to the Sun, **some of its icy surfaces boils off, releasing lots of particles of dust and rock (meteoroids).**
  - This comet debris gets **scattered** along the comet's path, especially in the **inner solar system** (includes planets Mercury, Venus, Earth and Mars) as the sun's heat boils off more and more ice and debris.

- Then, several times each year as **Earth** makes its journey around the sun, its orbit **crosses the orbit of a comet, encountering a bunch of comet debris.**

- ○ Meteor showers are **named from the constellation where the meteors appear to be coming from**. So, for example, the **Orionids Meteor Shower,** which occurs in **October** each year, appears to be originating near the **constellation 'Orion the Hunter'.**
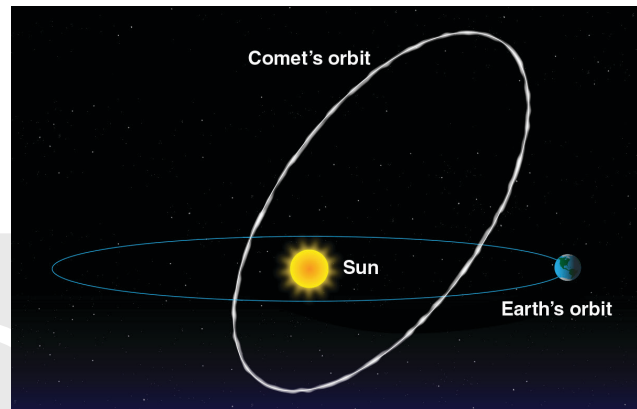
➢ **Perseids Meteor Shower:**

- ○ It peaks every year in **mid-August**. It was first observed over 2,000 years ago.
- ○ The Perseids occur as the **Earth runs into pieces of cosmic debris left behind by the comet Swift-Tuttle.**
  - Swift-Tuttle was discovered in **1862** by **Lewis Swift and Horace Tuttle** and takes **133 years to complete one rotation** around the sun.
- ○ The cloud of debris is about 27 km wide and at the peak of the display, between 160 and 200 meteors streak through the Earth's atmosphere every hour as the pieces of debris, travelling at some 2.14 lakh km per hour, burn up a little less than 100 km above the Earth's surface.
- ○ It gets its name from the **constellation Perseus.**
- ○ **Pollution and monsoon clouds** make the **Perseids difficult to view from India.**

■■■

Note:

Environment and Ecology

Highlights

- Landslide near Eravikulam National Park
- Agatti Island of Lakshadweep
- Effects of Sea Level Rise
- Dhole Conservation
- Investment to Reduce Plastic Waste in India

- Biofuel Day
- World Elephant Day
- Seed Bombs: Solution to Man-Animal Conflict
- Hornbill Habitat Loss
- Pokkali Rice: Kerala

Landslide near Eravikulam National Park

Why in News

Recently, **landslides** have been reported at the **Nayamakkad tea estate** at Pettimudy which is located about **30 km from Munnar**, adjacent to the **Eravikulam National Park (ENP), Kerala.**

Key Points

➤ **Features of ENP:**
  ○ It is located in the **High Ranges (Kannan Devan Hills) of the Southern Western Ghats** in **Idukki District, Kerala**.
  ○ It spreads over an area of **97 square km** and hosts **South India's highest peak, Anamudi** (2695 m), in its southern area.
  ○ It was declared as **Eravikulam-Rajamala Wildlife Sanctuary in 1975** and was elevated to the status of a **National Park in 1978**.

➤ **Topography:**
  ○ Three major types of **plant communities** found in the park are: **Grasslands, Shrub Land and Shola Forests** (mosaic of montane evergreen forests and grasslands).
    - The park represents the **largest and least disturbed stretch of unique Montane Shola-Grassland vegetation** in the Western Ghats.
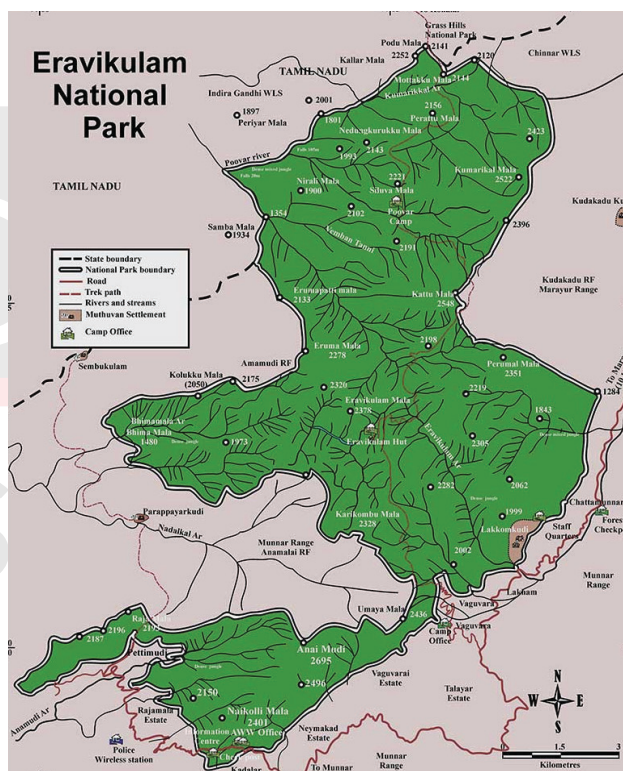
➤ **Flora:**
  ○ It houses the special **Neelakurinji flowers** (*Strobilanthes kunthianam*) that **bloom once every 12 years** and the next sighting is expected to be in **2030**.

➤ **Fauna:**
  ○ The park holds the **largest viable population of the endangered Nilgiri Tahr** (*Nilgiritragus hylocrius*).

➤ **Significance:**

Note:

○ It is **regionally important** as a **catchment area for both east** (tributaries of River Pambar) and **west** (tributaries of River **Periyar** and **Chalakkudy**) **flowing rivers**.

Landslides

➢ A landslide is defined as the **movement of a mass of rock, debris or earth down a slope**. Landslides are a type of **mass wasting** (a geomorphic process) which denotes any down-slope movement of soil and rock under the direct influence of gravity.

➢ **Causes:** Slow weathering of rocks as well as soil erosion, earthquakes and volcanic activity.

➢ Continent-wise, **Asia suffers the maximum damages/losses** due to landslides and within that, **South-Asian nations are the worst sufferers including India** which is one of the worst affected by landslides.

Agatti Island of Lakshadweep

Why in News

Recently, the southern bench of the **National Green Tribunal** (NGT) has granted an interim stay on felling of coconut trees on **Agatti Island** in Lakshadweep.

Key Points

➢ **Background:**

○ Recently, a **petition was moved in the NGT** over **indiscriminate cutting of coconut trees** for a beach road.

○ The tree-felling was violating the Union Territory's (UT) **Integrated Island Management Plan (IIMP)**.

● IIMP was formulated on the basis of a report submitted by the **Supreme Court**-appointed Expert Committee, headed by **Justice R.V. Raveendran**, a former judge of the SC.

● IIMP includes holistic island development plans prepared by the **National Centre for Sustainable Coastal Management** (NCSCM) for implementation by coastal States/ UTs.

● The IIMP **undertakes scientific approaches**, coupled with **indigenous knowledge** for the better management of the islands and its resources.

➢ **Concerns:**

○ Due to the large scale cutting of the coconut trees, local residents are **affected by losing income** from the tree produces.

○ It also poses an **environmental challenge** because the trees on the coastline act as a **green belt** to protect the rest of the island during **cyclones** and other natural calamities.

Agatti Island

➢ It is at a **distance of 459 km** (248 nautical miles) from **Kochi (Kerala)** and is located to the **west of Kavaratti Island**.

○ **Kavaratti is the capital** of the UT of Lakshadweep.

➢ **Fishing is the most important industry** of Agatti which is perhaps the only island besides Minicoy getting surplus fish.

Note:

Effects of Sea Level Rise

Why in News

Recently, a study in the journal *Scientific Reports* made predictions that a large population and assets will be globally affected as a consequence of the **Sea Level Rise (SLR).**

Key Points

➢ SLR is a consequence of climate change, which is predicted to **increase coastal flooding by 2100.**

➢ The global population potentially exposed to episodic coastal flooding will increase **from 128-171 million to 176-287 million by 2100**.
  ○ **0.5-0.7%** of the **world's land area** is at risk of **episodic coastal flooding** by 2100, impacting 2.5-4.1% of the population.

➢ The value of **global assets exposed** to coastal flooding is projected to be between USD 6,000-9,000 billion or **12-20% of the global GDP**.

➢ Globally, of the **68% area that is prone** to coastal flooding, over **32%** can be attributed to **regional SLR.**

➢ For most of the world, **flooding** incidents that are typically associated with a 1 in a 100-year event could occur **as frequently as 1 in 10 years,** primarily as a result of SLR.

Sea Level Rise

➢ SLR is an increase in the level of the world's oceans due to the effects of climate change, especially **global warming**, induced by **three primary factors:**
  ○ **Thermal Expansion:** When water heats up, it expands. About half of the SLR over the past 25 years is attributable to **warmer oceans** simply occupying more space.
  ○ **Melting Glaciers:** Higher temperatures caused by global warming have led to **greater-than-average summer melting** of large ice formations like mountain glaciers as well as **diminished snowfall** due to later winters and earlier springs. That creates an imbalance between runoff and ocean evaporation, causing sea levels to rise.
  ○ **Loss of Greenland and Antarctica's Ice Sheets:** As with mountain glaciers, increased heat is causing the massive ice sheets that cover Greenland and Antarctica to melt more quickly and also move more quickly into the sea.

➢ Global sea level has been **rising over the past century** and the rate has accelerated in recent decades. The average global sea level has risen 8.9 inches **between 1880 and 2015.** That's **much faster than in the previous 2,700 years**.

➢ **Regional SLR:** SLR is not uniform across the world. Regional SLR may be higher or lower than Global SLR due to **subsidence, upstream flood control, erosion, regional ocean currents, variations in land height** and **compressive weight of Ice Age glaciers**.

➢ Sea level is primarily measured using **tide stations** and **satellite laser altimeters.**

➢ Earlier, IPCC released '**The Special Report on the Ocean and Cryosphere in a Changing Climate**' which underlined the dire **changes taking place in oceans**, glaciers and ice-deposits on land and sea.
  ○ The report expects **oceans to rise between 10 and 30 inches by 2100** with temperatures warming **1.5°C.**

➢ **Impacts of SLR:**
  ○ **Coastal Flooding:** Globally, eight of the world's 10 largest cities are near a coast, which is threatened by coastal flooding. **Jakarta (Indonesia)** is being known as the world's **fastest-sinking city**, by about 25 cm into the ground every year. Other cities that regularly feature in the lists endangered by climate change include Guangzhou, Jakarta, Miami, **Mumbai** and Manila.
  ○ **Destruction of Coastal Biodiversity:** SLR can cause destructive **erosion, wetland flooding, aquifer and agricultural soil contamination with salt** and **lost habitat for biodiversity**.
  ○ **Dangerous Storm Surges:** Higher sea levels are coinciding with more dangerous **hurricanes** and typhoons leading to loss of life and property.
  ○ **Lateral and Inland Migration: Flooding** in low-lying coastal areas is forcing people to migrate to the higher ground causing **displacement** and **dispossession** and in turn a **refugee crisis worldwide.**
  ○ **Effect on Communications Infrastructure:** The prospect of higher coastal water levels threatens basic services such as internet access.
  ○ **Threat to Inland Life:** Rising seas can contaminate soil and groundwater with salt threatening life farther away from coasts.

Note:

- ❍ **Tourism and Military Preparedness:** Tourism to coastal areas and military preparedness will also be negatively affected by an increase in SLR.
- ➢ **Adaptation Strategies to the Threat of SLR:**
  - ❍ **Relocation:** Many coastal cities have planned to adopt relocation as a mitigation strategy. For example, Kiribati Island has planned to shift to Fiji, while the **Capital of Indonesia is being relocated from Jakarta to Borneo.**
  - ❍ **Building Sea wall:** Indonesia's government launched a coastal development project called a **Giant Sea Wall** or **'Giant Garuda'** in 2014 meant to protect the city from floods.
  - ❍ **Building Enclosures:** Researchers have proposed **Northern European Enclosure Dam** (NEED), enclosing all of the North Sea to protect 15 Northern European countries from rising seas. The **Persian Gulf,** the **Mediterranean Sea**, the **Baltic Sea**, the Irish Sea, and the Red Sea are also identified as areas that could benefit from similar mega enclosures.
  - ❍ **Architecture to Steer Flow of Water:** Dutch City Rotterdam built barriers, drainage and innovative architectural features such as a **'water square'** with temporary ponds.
- ➢ **Suggestions:**
  - ❍ Reducing future greenhouse gas emissions should be the long-term goal to keep SLR in check.
    - ● The **Paris Agreement** provides a clear vision on limiting global warming and thus, SLR.
  - ❍ Some of the steps in this direction would include:
    - ● Switching from fossil fuels to **clean alternatives** like solar and wind energy.
    - ● Instituting **carbon taxes** on industries and subsidies for reducing the carbon footprint.
    - ● **Carbon sequestration** by geoengineering and natural methods like restoring peatland and wetland areas to capture existing greenhouses gases.
    - ● **Afforestation** and reducing deforestation.
    - ● Subsidizing research on climate change.

Dhole Conservation

Why in News

Karnataka, Maharashtra and Madhya Pradesh rank high in the conservation of the **endangered Dhole** in India, according to a new study.

- ➢ This study was conducted by scientists from the **Wildlife Conservation Society-India, the University of Florida, the Wildlife Conservation Trust, and the National Centre for Biological Sciences.**

Key Points

- ➢ In this study, the scientists explored the conservation tenets of **retention**, **recovery** and **restoration** of **dholes in India.**
- ➢ **Karnataka, Maharashtra** and **Madhya Pradesh** were found to be **adequately equipped** for **consolidating forest habitats** and **recovering populations of Dhole** by **increasing prey density** and **reducing the pressure on forests.**
- ➢ **Arunachal Pradesh, Chhattisgarh, Odisha, Telangana** and **Goa** are suggested to i**ncrease financial investments** in the forest and wildlife sectors, and **reduce the ease of granting forest clearances** for infrastructure projects.
- ➢ **Improving habitat conditions** and **prey densities** in the Eastern Ghats of Andhra Pradesh, Telangana and Odisha would strengthen the link between dhole populations in the Western Ghats and central India.

Dhole

- ➢ **About:** Dhole (*Cuon alpinus*) is a **wild carnivorous** animal belonging to the **canine** family, found in **Central, South, East Asia,** and **Southeast Asia.**
  - ❍ They are also known as **Asian wild dogs.**
- ➢ **Ecological role:** Dholes play an important role as apex predators in forest ecosystems.
- ➢ **Conservation Status**: It is under the **International Union for Conservation** of Nature's **'endangered'** category.
  - ❍ The species is protected under **Schedule 2 of the Wildlife Protection Act 1972** and under **Appendix**

Note:

2 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

○ In India**, the first conservation breeding centre** for dhole was built at the **Indira Gandhi Zoological Park (IGZP)** in 2014.

➢ **Threats:**

○ **Ongoing habitat loss:** Due to deforestation and fragmentation of forest corridors.

○ **Depletion of prey base:** Ungulates are main prey of dholes whose population is rapidly decreasing due to excessive hunting and habitat loss.

○ **Persecution due to livestock predation** and **disease transfer** from domestic and feral dogs.

Investment to Reduce Plastic Waste in India

Why in News

A Singapore-based-NGO namely **'Alliance to End Plastic Waste'** plans to invest between **USD 70 million to 100 million** in India over the **next five years** to **reduce plastic waste**.

➢ Overall, the Alliance has a **USD 500 million budget** for environmental projects including the USD 100 million for India. The rest is for South East Asia and China.

Alliance to End Plastic Waste

➢ Alliance to End Plastic Waste was **founded in 2019** as a **nonprofit organisation** to help solve this serious and complex issue – 8 million tons of plastic waste entering the ocean every year.

➢ Nearly **fifty companies across the plastics value chain** have joined the Alliance and together they have **committed to invest USD 1.5 billion** towards solutions that will prevent the leakage as well as recover and create value from plastic waste.

Key Points

➢ **World Nature Conservation Day:**

○ The investment to end plastic waste in India was announced on the **World Nature Conservation Day (28th July).**

○ It is celebrated **every year to create and increase awareness** about the importance of natural resources.

○ The day also encourages people to save and protect Earth's natural resources that are fast-depleting owing to over-exploitation and even misuse.

➢ **Ongoing Initiatives in India:**

○ Currently, 'Alliance to End Plastic Waste' is working on the **Project Aviral** which aims **to reduce plastic waste in the Ganga river**.

● Aviral seeks to pilot an approach to address **waste management challenges**. In particular, it will focus on strengthening an integrated **plastic waste** management system.

➢ **Worldwide Initiatives:**

○ UN-Habitat Waste Wise Cities (WWC):

● Alliance to End Plastic Waste is also collaborating with the UN-Habitat to implement solutions toward a circular economy, creating business and livelihood opportunities while enhancing resource recovery.

● It intends to use the **UN-Habitat Waste Wise Cities (WWC) Tool** to map waste flows and assess potential plastic leakage from waste management systems.

● The collaboration supports the WWC Challenge to clean up and establish sustainable waste management in 20 cities around the world by 2022.

● It is also expected to identify short- and long-term pathways to increase the amount of plastic waste collected, recycled and recovered.

○ **Zero Plastic Waste Cities Initiative:**

● It is also implementing the **Zero Plastic Waste Cities initiative** in **India and Vietnam** which aims to tackle the plastic issue by improving and supplementing municipal waste management, repurposing collected waste and preventing it from flowing into the ocean.

● It will also develop sustainable social businesses that improve the livelihoods of many while preventing plastic waste from escaping into the environment.

● The two initial cities involved in this project are **Puducherry** in **India** and **Tan An** in the Mekong Delta region of **Vietnam**.

Note:

Plastic Waste

➢ **Global Scenario:**

   ○ Over **8.3 billion tonnes** of plastic has been produced **since 1950**, and about **60%** of that has ended up in landfills or in the natural environment.

   ○ **Only 9%** of all plastic waste ever produced has been **recycled** and about **12%** has been **incinerated**, while the remaining **79% has accumulated** in landfills, dumps or the natural environment.

   ○ Plastic waste, whether in a river, an ocean, or on land can persist in the environment for centuries, hence by **2050, the amount of plastic in seas and oceans across the world will weigh more than the fish.**

➢ **Indian Scenario:**

   ○ India currently generates around **26,000 tonnes of plastic waste every day** and over **10,000 tonnes** of which is **not collected**.

   ○ India's per capita plastic consumption of **less than 11 kg**, is nearly a tenth of the United States of America (109 kg).

   ○ For India, bringing plastic waste back into the supply chain could bring **annual benefits of Rs.40 lakh crore in 2050.**

➢ **Global as well as Indian Government's Interventions:**

   ○ The **Group of 20 (G20)** environment ministers, agreed to adopt a new implementation framework for actions to tackle the issue of marine plastic waste on a global scale.

   ○ **Plastic Waste Management Rules, 2016** state that every local body has to be responsible for setting up infrastructure for **segregation**, collection, processing, and disposal of plastic waste.

   ○ **Plastic Waste Management (Amendment) Rules 2018** introduced the concept of **Extended Producer Responsibility (EPR).**

     • EPR is a policy approach under which producers are given a significant financial and physical responsibility (with respect to segregation and collection of waste at the source) for the treatment or disposal of post-consumer products.

     • A new national framework on plastic waste management is in the works, which will introduce third-party audits as part of the monitoring mechanism.

Biofuel Day

Why in News

 World Biofuel Day is observed on **10th August every year.**

Key Points

➢ **Theme for 2020**: *"Biofuels towards Atmanirbhar Bharat".*

➢ **Objective:** To **create awareness** about the importance of non-fossil fuels as an alternative to conventional fossil fuels and to **highlight** the various efforts made by the Government in the **Biofuel** sector.

➢ **Celebrated by:** Ministry of Petroleum and Natural Gas **since 2015**.

➢ Biofuels programme is also in synergy with Government of India's initiative of **Atmanirbhar Bharat.**

Government Initiatives to Promote Biofuels

➢ **Biofuel:** Any hydrocarbon fuel that is produced from an organic matter (living or once living material) in a short period of time (days, weeks, or even months) is considered a biofuel**.**

➢ **Blending of Biofuels: Ethanol Blended Petrol (EBP) programme,** Administrative price mechanism for ethanol, Simplifying the procurement procedures by **Oil Marketing Companies (OMCs)**, amending the provisions of Industries (Development & Regulation) Act, 1951 etc. are some of the initiatives taken to **promote blending of biofuels.**

➢ Researchers at the **International Centre for Genetic Engineering and Biotechnology (ICGEB)** are developing a method to use **cyanobacterium for biofuel production**.

➢ Recently, the **Central government** has also allowed the **conversion of surplus rice to ethanol.**

➢ **Initiatives by Department of Biotechnology, Ministry of Science and Technology:**

   ○ Development of 2G Ethanol and transfer of the technology to **OMCs**.

   ○ Development of Indigenous Cellulolytic Enzyme for the production of biofuels.

   ○ Strengthened the international collaboration to accelerate innovation in Sustainable Biofuel

Note:

drishti

through multilateral programs like **Atal Innovation Mission (AIM)** and **Biofuture Platform.**

➢ **Pradhan Mantri JI-VAN Yojana, 2019:** The objective of the scheme is to create an ecosystem for setting up commercial projects and to boost Research and Development in the 2G Ethanol sector.

➢ **GOBAR (Galvanizing Organic Bio-Agro Resources) DHAN scheme, 2018:** It focuses on managing and converting cattle dung and solid waste in farms to useful compost, biogas and bio-CNG, thus keeping villages clean and increasing the income of rural households.

○ It was launched under Swachh Bharat Mission (Gramin).

➢ **Repurpose Used Cooking Oil (RUCO):** It was launched by **Food Safety and Standards Authority of India (FSSAI)** and aims for an ecosystem that will enable the collection and conversion of used cooking oil to biodiesel.

➢ **National Policy on Biofuels, 2018:**

○ The Policy categorises biofuels as "Basic Biofuels" viz. **First Generation (1G) bioethanol & biodiesel and "Advanced Biofuels"- Second Generation (2G) ethanol, Municipal Solid Waste (MSW)** to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category.

○ 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, unfit for human consumption for ethanol production.

○ The Policy allows **use of surplus food grains for production of ethanol** for blending with petrol with the approval of National Biofuel Coordination Committee.

○ With a thrust on **Advanced Biofuels**, the Policy indicates a viability gap funding scheme for **2G ethanol Bio refineries** of ₹5000 crore in 6 years in addition to additional tax incentives, higher purchase price as compared to 1G biofuels.
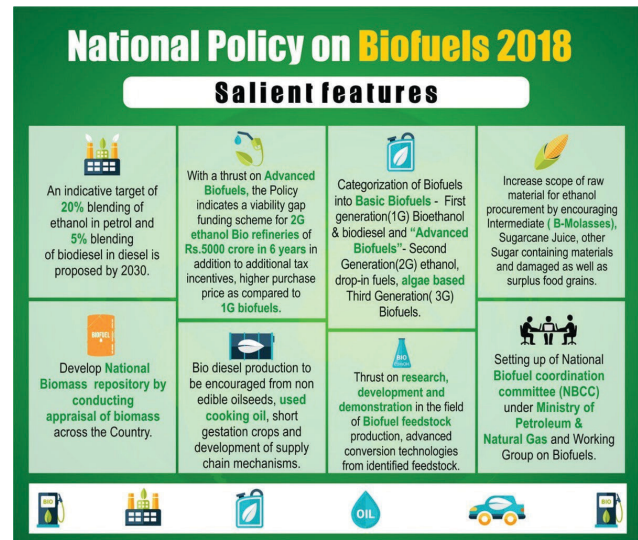
World Elephant Day

Why in News

The **World Elephant Day** is celebrated on **12th August every year** to spread awareness for the conservation and protection of the largest mammal on land.

➢ The day was **launched in 2012** to bring attention to the urgent plight of **Asian and African elephants**.

Key Points

➢ **Asian Elephants:** There are **three subspecies** of Asian elephant which are the **Indian, Sumatran and Sri Lankan**.

○ **Global Population:** Estimated 20,000 to 40,000.

○ The **Indian subspecies has the widest range** and accounts for the majority of the remaining elephants on the continent.

● There are **around 28,000 elephants in India** with around **25% of them in Karnataka**.

○ **IUCN Red List Status: Endangered.**

○ **Wildlife (Protection) Act, 1972**: Schedule I.

➢ **African Elephants:** There are **two subspecies of African elephants**, the **Savanna (or bush) elephant** and the **Forest elephant.**

○ **Global Population:** Around 4,00,000.

○ **IUCN Red List Status: Vulnerable**.

○ Earlier in July 2020, **Botswana (Africa) witnessed the death of hundreds of elephants**.

Note:

- **Concerns:**
  - Escalation of poaching.
  - Habitat loss.
  - **Human-elephant conflict**.
  - Mistreatment in captivity.
  - Abuse due to elephant tourism.
- **Steps Taken for Conservation:**
  - Plans and programmes to **arrest their poachers and killers**.
  - **Declaration and establishment of various elephant reserves** across the states. For example, **Mysuru and Dandeli elephant reserves** in Karnataka.
  - Clean areas from **lantana and eupatorium** (**invasive species**) as they prevent the growth of grass for elephants to feed on.
  - Barricades to **prevent man-elephant conflicts**.
  - Measures for establishment of a **cell to study forest fire** prevention.
  - **Gaj Yatra** which is a **nationwide awareness campaign** to celebrate elephants and highlight the necessity of **securing elephant corridors**.
  - The **Monitoring the Illegal 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.
  - **Project Elephant:** It is a **centrally sponsored scheme** and was launched in February 1992 for the **protection of elephants**, their habitats and corridors.
    - The **Ministry of Environment, Forest and Climate Change** provides the financial and technical support to major elephant range states in the country through the project.
  - Even *mahouts* (people who work with, ride and tend an elephant) **and their families** play an important part in the welfare of elephants.

Seed Bombs: Solution to Man-Animal Conflict

Why in News

Recently, **Odisha's Athagarh Forest Division** has started **casting seed balls (or bombs)** inside different reserve forest areas to enrich food stock for wild elephants.

- This has been done to **prevent man-elephant conflict.**
  - On the eve of the **World Elephant Day 2020,** the Ministry for Environment, Forest and Climate Change has launched a **portal on Human-Elephant Conflict called 'Surakhsya'.**
  - Further, the Government has taken **initiative for fodder and water augmentation** in forest areas so that animals get food and water in forest areas and not come outside. **LiDAR technology** is being used for the same.

Seed Bomb

- A seed bomb is a **little ball generally made up of a combination of compost, clay and seeds.**
  - The compost and clay act as a carrier for the seeds so they can be launched over walls or fences and into inaccessible areas such as wasteland or railways.
  - The **compost offers nutrients** for the seeds to germinate and grow strong during their infancy and the **clay binds the seed bomb**, making it hard enough not to break when it hits the ground.
- It is used in **revegetation and reforestation** of the fragile ecosystems.
- The plantation technique wherein seed balls are sprayed using aerial devices, including planes, helicopters or drones, is known as **aerial seeding.**
- **Recent Initiatives:**
  - **Udaipur** has been chosen for experimenting with the seed bombing technique to increase forest cover in Rajasthan.
  - The **Haryana government** has employed aerial seeding techniques to improve green cover in the **Aravalli** area of the State.

Key Points

- Villagers who bear the brunt of the elephant attacks have come forward to prepare the bamboo seed balls and scatter them in 38 reserve forests under the Athagarh Forest Division.
- The **growth in bamboo plantations is expected to meet the needs of the elephants**, which often stray out of the forests and raid human habitations.

➢ Athagarh Forest Division is **one of the worst-hit areas** as far as man-elephant conflict is concerned.

  ❍ Elephants frequently raid villages coming under Athagarh and Khuntuni range and damage standing paddy crops. Even fruit-bearing trees and vegetable plants are not spared.

  ❍ The situation becomes extremely volatile when any human gets killed by elephants.

➢ In 2019, the division had thrown seed balls using 950 kg of bamboo seeds inside the forest. The survival rate ranged from 50-60%.

Hornbill Habitat Loss

Why in News

A study based on satellite data has indicated a **high rate of deforestation** in majo**r hornbill habitats** in **Arunachal Pradesh** and a part of **Assam**.

Papum Reserve Forest

➢ Papum Reserve Forest is geographically situated in the south west of East Kameng district in **Arunachal Pradesh**.

➢ It is surrounded by **Itanagar Wildlife Sanctuary** to the east and **Pakke Wildlife Sanctuary** to the west.

➢ It is a part of the **Indo-Burma Biodiversity hotspot** in India.

  ❍ There are four Biodiversity Hostpots in India : **Himalaya, Indo-Burma, Sundalands and Western Ghats and Sri Lanka.**

➢ Papum Reserve Forest forms part of the **Eastern Himalayas Endemic Bird Area**.

  ❍ An **Endemic Bird Area** is an *area* of land identified by BirdLife International as being important for habitat-based bird conservation because it contains the habitats of restricted-range bird species.

  ❍ **BirdLife International** is a global partnership of non-governmental organizations that strives to conserve birds and their habitats.

➢ It is covered by **Subtropical Dry Evergreen** and **Semi-evergreen Forests**, while the higher areas are under **Subtropical Broadleaf Hill Forest** cover.

Key Points

➢ The study fine-scale satellite imagery to assess **Papum Reserve Forest (RF)** adjoining **Pakke Tiger Reserve** (Pakhui Tiger Reserve) in Arunachal Pradesh.

➢ The results show the loss and degradation of critical hornbill habitat in the biologically rich forests of the Indian Eastern Himalaya.

➢ The satellite data pointed to alarming deforestation rates in Papum RF with annual loss rates as high as 8.2 sq.km. as per estimates from 2013-2017 where **forest cover declined to 76%** of the total RF area.

➢ According to the **Global Forest Watch** 2020 report, Arunachal Pradesh lost 1,110 sq.km. of primary forest from 2002-2019.

➢ These areas are affected by **illegal logging** and **ethnic conflict.**

➢ The forests are under pressure due to **agricultural expansion, conversion to plantations or logging.**

Hornbills

➢ The **hornbills** (Bucerotidae) are a family of birds found in **tropical and subtropical Africa and Asia.**

➢ India is home to **nine species of hornbills.** The northeastern region has the highest diversity of hornbill species within India.

➢ Papum RF is a nesting habitat of three species of hornbills: th**e great hornbill (*Buceros bicornis*), wreathed hornbill (*Aceros undulatus*)**and the **Oriental pied hornbill** *(Anthracoceros albirostris*), Wreathed and Oriental Pied. The 862 sq.km. Pakke reserve houses a fourth species, the **Rufous-necked hornbill (*Aceros nipalensis* species are found here.**

➢ The **great hornbill** is the **state bird of Arunachal Pradesh and Kerala.**
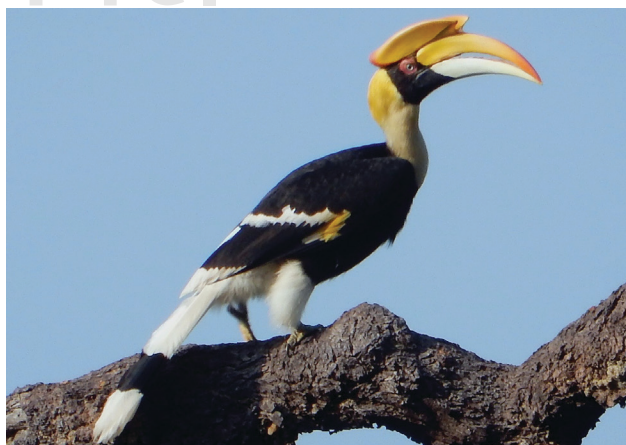
➢ **Significance:**

  ❍ They are the cultural symbols of some ethnic communities in the northeast, specifically the **Nyishi** of Arunachal Pradesh.

Note:

drishti

❍ They are referred to as 'forest engineers' or 'farmers of forest' for playing **a key role in dispersing seeds of tropical trees** and indicate the prosperity and balance of the forest they build nests in.

➢ The **Hornbill festival** celebrated in **Nagaland** is named after the bird – Hornbill which is the most revered and admired bird for the Nagas.

➢ **Conservation Status:**

❍ Currently, 26 out of the 62 species (40%) of hornbills are **Globally Threatened** or **Near Threatened** with extinction, with all other species listed as **Least Concern,** according to the **International Union for Conservation of Nature (IUCN) Red List** of Threatened Species**.**

❍ The **great hornbill** is evaluated as **vulnerable.**

❍ It is protected at the highest level under **Schedule I of the Wildlife Protection Act, 1972.**

➢ **Threats:**

❍ Hornbills are **hunted** for their casques — upper beak — and feathers for adorning **headgear**. They are also **poached** for their **meat** and **medicinal value** of their body parts.

● A conservation programme promoting the use of **fibre-glass beaks for headgear** instead of real hornbill casques has helped reduce some threat to it.

❍ Illegal logging i.e. cutting of tall trees where the hornbill birds nest and feed has led to **destruction of its natural habitat**.

Pokkali Rice: Kerala

Why in News

 Farmers in West Bengal are experimenting with the pokkali variety of rice to tide over a crisis-like situation created by **severe seawater incursion into paddy fields** in the **Sundarbans** (owing to **Cyclone Amphan)**.

➢ **Vyttila-11 varieties of pokkali seedlings** were brought from **Kerala.**

Key Points

➢ The pokkali variety of rice is **known for its saltwater resistance** and flourishes in the rice paddies of coastal **Alappuzha, Ernakulam and Thrissur districts of Kerala.**

❍ The **single-season paddy** is raised in saltwater fields between June and November followed by a season of fish-farming.

➢ The uniqueness of the rice has brought it the **Geographical Indication (GI) tag** and is the subject of continuing research.

❍ Several foreign research institutes, including the **International Rice Research Institute in the Philippines**, have been studying pokkali's gene pools and have identified a portion of DNA on one of its chromosomes that is crucial for salt tolerance.

➢ Given its ability to thrive under harsh climatic conditions and produce high yield, it can help in promoting **climate-resilient agriculture**.

➢ Pokkali has **medicinal properties** and its **higher value of antioxidants** and **low carbohydrate content** makes it preferable to those on a low sugar diet.

➢ **Vyttila-11** is the latest variety of pokkali developed by the **Kerala Agricultural University.**

❍ It yields about **5 tonnes per hectare.**

❍ The crop duration is about **110 days.**

➢ **Other GI Tag Registered Varieties from Kerala:** Kaipad, Wayanad Jeerakasala, Wayanad Gandhakasala, Palakkadan Matta and Navara.

➢ Further, the **Kuttanad below-sea level farming system** has been recognised by the **Food and Agriculture Organisation of the United Nations (FAO)** as a **Globally Important Agricultural Heritage System (GIAHS).**

❍ It is unique as it practices **rice cultivation below sea level.**

Globally Important Agricultural Heritage Systems

➢ Globally Important Agricultural Heritage Systems (GIAHS) was started by the FAO to safeguard and support the world's agricultural heritage systems.

➢ GIAHS are outstanding landscapes of aesthetic beauty that combine agricultural biodiversity, resilient ecosystems and a valuable cultural heritage.

➢ **Three recognised GIAHS sites in India:**

❍ **Pampore Saffron** Heritage of **Kashmir.**

❍ **Koraput Traditional Agriculture** of **Odisha.**

❍ **Kuttanad Below Sea Level** Farming System of **Kerala.**

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History

National Flag of India

Why in News

India will celebrate its **74th Independence Day in 2020** and like every year the Prime Minister of India will **hoist the National Flag at the Red Fort** to commemorate the day.

Key Points

➢ **Design:** The design of the **Indian tricolour** is largely attributed to **Pingali Venkayya**, an Indian freedom fighter.

  ○ He proposed a basic design of the flag, consisting of **two red and green bands** to symbolise the **two major communities, Hindus and Muslims.**

    ● Mahatma Gandhi arguably suggested adding a **white band to represent peace and the rest of the communities** living in India and a **spinning wheel** to symbolise the progress of the country.

  ○ He passed away in 1963 and was posthumously **honoured with a postage stamp in 2009** for his contribution towards Indian freedom struggle. In **2014**, his name was also **proposed for the Bharat Ratna**.

➢ **Chronology:**

  ○ **1906:** Arguably, the **first national flag of India** is said to have been hoisted on **7th August 1906, in Kolkata** at the Parsee Bagan Square (Green Park).

    ● It comprised **three horizontal stripes of red, yellow and green, with Vande Mataram** written in the middle. The red stripe on the flag had symbols of the sun and a crescent moon and the green strip had eight half-open lotuses.

  ○ **1907: Madame Cama** and her group of exiled revolutionaries hoisted an Indian flag in **Germany in 1907** which was the **first time when an Indian flag was hoisted in a foreign land.**

  ○ **1917: Dr Annie Besant and Lokmanya Tilak** adopted a new flag as part of the **Home Rule Movement.** It had five alternate red and four green horizontal stripes and seven stars in the *Saptarishi* configuration. A white crescent and star occupied one top corner and the other had Union Jack.

  ○ **1931:** The **Congress Committee met in Karachi** and adopted the tricolour (that of **Pingali Venkayya**) as India's national flag. **Red was replaced with saffron** and the order of the colours was changed. The flag was to have **no religious interpretation.**

    ● **Saffron** on top symbolises **"strength and courage"**, **white** in the middle represents **"peace and truth"** and **green** at the bottom stands for **"fertility, growth and auspiciousness of the land"**.

    ● The **Ashok Chakra with 24 spokes** replaced the spinning wheel as the emblem on the flag. It is intended **"to show that there is life in movement and death in stagnation".**

    ● The National Flag should be rectangular in shape with a **length to width ratio of 3:2.**

➢ **Constitutional and Legal Aspect:**

  ○ The Constituent Assembly adopted the **motion of national flag on 22nd July 1947**.

    ● The motion proposed that "the National Flag of India shall be horizontal tricolour of **deep saffron (Kesari), white and dark green in equal proportion**." The white band was to have a wheel in navy blue (the *charkha* being replaced

by the *chakra*), which appears on the abacus of the **Sarnath Lion Capital of Ashoka.**

○ One of the minor committees of the Constituent Assembly, the **Ad-hoc Committee on the National Flag** was headed by **Dr Rajendra Prasad.**

○ The **Part IV-A of the Constitution** (which consists of only one Article 51-A) specifies the **eleven Fundamental Duties**. According to **Article 51A (a),** it shall be the duty of every citizen of India to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

○ A person who is convicted for the following offences under the **Prevention of Insults to National Honour Act of 1971** is disqualified to contest in the elections to the Parliament and state legislature for 6 years.

● Offence of insulting the National Flag.

● Offence of insulting the Constitution of India.

● Offence of preventing the singing of the National Anthem.

Quit India Movement

Why in News

On 8th Aug 2020, India completed 78 years of **Quit India Movement** also known as **August Kranti.**

➢ Taking inspiration from the Quit India Movement, the Prime Minister gave a call for the **revival of its spirit** of the Quit India Movement by coining a new slogan *karenge aur karake rahenge* in place of Gandhi's slogan of *karo ya maro* (Do or Die).

➢ The aim of this slogan is to achieve the goal of building a "**New India**" by **2022**.

Key Points

➢ **About:** On 8th August 1942, **Mahatma Gandhi** gave a clarion call to end the British rule and launched the **Quit India Movement** at the session of the **All-India Congress Committee in Mumbai.**

○ Gandhiji gave the call **"Do or Die"'** in his speech delivered at the **Gowalia Tank Maidan,** now popularly known as August Kranti Maidan.

○ **Aruna Asaf Ali** popularly known as the 'Grand Old Lady' of the Independence Movement is known

for hoisting the Indian flag at the Gowalia Tank Maidan in Mumbai during the Quit India Movement.

○ The slogan 'Quit India' was coined by **Yusuf Meherally**, a socialist and trade unionist who also served as Mayor of Mumbai.

● Meherally had also coined the slogan "Simon Go Back".

➢ **Causes:**

○ The **immediate cause** for the movement was the **collapse of Cripps Mission.**

○ The British assumption of unconditional support from India to British in **World War II** was not taken well by the **Indian National Congress.**

○ The anti-British sentiments and demand for full-independence had gained popularity among indian masses.

○ The two decades of mass movement which were being conducted on a much more radical tone under the leadership of the various associated and affiliated bodies of the Congress, like **All India Kisan Sabha, Forward Bloc** etc. had already **prepared the ground** for the movement.

○ There were **militant outbursts** happening at several places in the country which got channelized with the Quit India Movement.

○ The **economy was also in shatters** as a result of World War II.

➢ **Demands**

○ The demand was to end the British rule in India with immediate effect to get the cooperation of Indians in World War-II against fascism.

○ There was a demand to form a **provisional government** after the withdrawal of the Britishers.

➢ **Phases:** The movement had three phases

○ **First Phase** urban revolt, marked by strikes, boycott and picketing, which were quickly suppressed.

● There were **strikes and demonstrations** all over the country and workers provided the support by not working in the factories.

● Gandhiji was soon imprisoned at **Aga Khan Palace in Pune** and almost all leaders were arrested.

○ In the **second phase,** the focus shifted to the **countryside**, which witnessed a major **peasant rebellion**, marked by **destruction of communi-**

cation systems, such as railway tracks and stations, telegraph wires and poles, **attacks** on government buildings or any other visible symbol of colonial authority.

- The **last phase** witnessed the formation of **national governments or parallel governments** isolated pockets (Ballia, Tamluk, Satara etc.)

➢ **Spontaneous Violence:** The movement saw **violence** at some places which was not premeditated.

➢ **Future Leaders:** Underground activities were taken by leaders that included **Ram Manohar Lohia, J.P. Narayan, Aruna Asaf Ali, Biju Patnaik, Sucheta Kriplan**i, etc which later emerged as prominent leaders.

➢ **Women Participation:** Women took active participation in the movement. Female leaders like **Usha Mehta** helped set up an underground radio station which led to the awakening about the movement.

➢ **Support:**

- **Muslim League, the Communist Party of India and the Hindu Mahasabha did not support the movement.** The Indian bureaucracy also did not support the movement.
  - The League was not in favour of the British leaving India without partitioning the country first.
  - The Communist party supported the British since they were allied with the Soviet Union.
  - The **Hindu Mahasabha** openly opposed the call for the **Quit India Movement** and boycotted it officially under the apprehension that the movement would create internal disorder and will endanger internal security during the war.
- Meanwhile, Subhas Chandra Bose, organised the **Indian National Army** and the Azad Hind government from outside the country.
- As **C Rajagopalachari** was not in favour of complete independence, he resigned from the INC.

Outcomes

➢ The Quit India movement was **violently suppressed** by the British – people were shot, lathi-charged, villages burnt and enormous fines imposed.

➢ Over 100000 people were arrested and the **government resorted to violence** in order to crush the agitation.

➢ The Britishers declared the **INC** to be an **unlawful association.**

Cripps Mission

➢ **Japanese aggression** in South-East Asia, keenness of British Government to secure the **full participation of India in the war,** mounting **pressure from China and the United States,** as well as from the **Labour Party** in Britain, led British Prime Minister **Winston Churchill** to send Cripps Mission to India in **March 1942.**

➢ Under Stafford Cripps, the mission was sent to **resolve the Indian question of a new constitution and self-government.**

➢ **Main proposals** of the mission were:

- An Indian Union with a **dominion status** would be set up; it would be free to decide its relations with the Commonwealth and free to participate in the United Nations and other international bodies.
- **A constituent assembly** would be convened after the war to frame a new constitution.
- Members of the assembly **partly elected** by the provincial assemblies and partly nominated by the princes.
- Any province not willing to accept the constitution would be given **'the same full status as the Indian Union',** - designed to appease the Muslim League's call for Pakistan.
- The constitution making body and the British Government would negotiate a **treaty to effect the transfer of power** and to safeguard racial and religious minorities.

➢ The Indian National Congress, however, was not satisfied as its **demand for immediate complete independence had been rejected.**

➢ Mahatma Gandhi said that Cripps' offer of Dominion Status after the war was a **"post-dated cheque drawn on a failing bank''.**

➢ New leaders like **Aruna Asaf Ali** emerged out of the vacuum of leadership.

➢ While the Quit India campaign was **crushed in 1944,** with the British refusing to grant immediate independence, saying it could happen only after the war had ended, they came to the important realization that **India was ungovernable in the long run** due to the cost of World War II.

Note:

➢ It changed the **nature of political negotiations with British** the, ultimately paving the way for **India's independence**.

Abanindranath Tagore

Why in News

The **National Gallery of Modern Art (NGMA), New Delhi** has organised a **virtual tour** titled **"The Great Maestro - Abanindranath Tagore"** to commemorate the 150th birth anniversary of Abanindranath Tagore on 7th August 2020.

Key Points

➢ **Birth**: Abanindranath Tagore took birth in a **family of Tagores of Jorasanko in Kolkata in 1871.**
  ○ He was a **nephew of Rabindranath Tagore.**

➢ **Abanindranath Ideology:**
  ○ In his youth, Abanindranath **received training in European and Academic style from European artists.**
  ○ However, during the last decade of the **19th century**, he developed **distaste for the corporeality of European naturalism** (which represented things closer to the way one sees them - inspired by the principles of natural science)**.**
    ● **Mughal miniatures** influenced his visual ideas deeply.
    ● Another source of inspiration came from the **visit of the Japanese philosopher and aesthetician Okakura Kakuzo** to Kolkata in 1902.
  ○ He leaned towards painting images with historic or literary allusions.

➢ **Prominent Figure of Modern Indian Art:**
  ○ Towards the end of the nineteenth century, a stronger connection was established between art and nationalism. Many painters tried to develop a style that could be considered both modern and Indian.
  ○ **Raja Ravi Varma** was one of the first artists who tried to create a style that was both modern and national.
    ● He mastered the Western art of oil painting and realistic life study, but painted themes from Indian mythology.

➢ **However, in Bengal, a new group of nationalist artists gathered around Abanindranath Tagore.**
  ○ They **rejected the art of Ravi Varma** as imitative and westernised, and declared that such a style was unsuitable for depicting the nation's ancient myths and legends.
  ○ They felt that a genuine Indian style of painting had to **draw inspiration from non-Western art traditions,** and try to capture the **spiritual essence of the East.**

➢ **Bengal School of Painting:**
  ○ It is also called the **Renaissance School or the Revivalist School,** as it **represented the first modern movement of Indian art.**
  ○ It rediscovered the glories of Indian art and consciously tried to produce what it considered a truly Indian art inspired by the creations of the past.
  ○ Its l**eading artist was Abanindranath Tagore** and its theoretician was E.B. Havell, the principal of the Calcutta School of Art.
  ○ They broke away from the convention of oil painting and the realistic style, and turned for inspiration to **medieval Indian traditions of miniature painting** and the ancient art of **mural painting in the** Ajanta caves.
  ○ They were **also influenced by the art (wash technique) of Japanese artists** who visited India at that time to develop an **Asian Art movement.**

➢ **Associated Pupils:** Nandalal Bose and Kshitindranath Majumdar

➢ **Popular Paintings:** Bharat Mata, My Mother, Journey's End, etc.

➢ **Popular Books:** Rajkahini, Nalak, etc.

➢ **Death:** He died on 5th December, 1951.

National Gallery of Modern Art

➢ NGMA was established in **1954**, at the Jaipur House, New Delhi.

➢ It is run and administered as **a subordinate office to the Ministry of Culture**, Government of India.

➢ One of its objectives is to acquire and preserve works of modern art from the 1850s onward.

Note:

Geography

Highlights

- *Sunspots*
- *Indonesia's Mt. Sinabung Erupted*

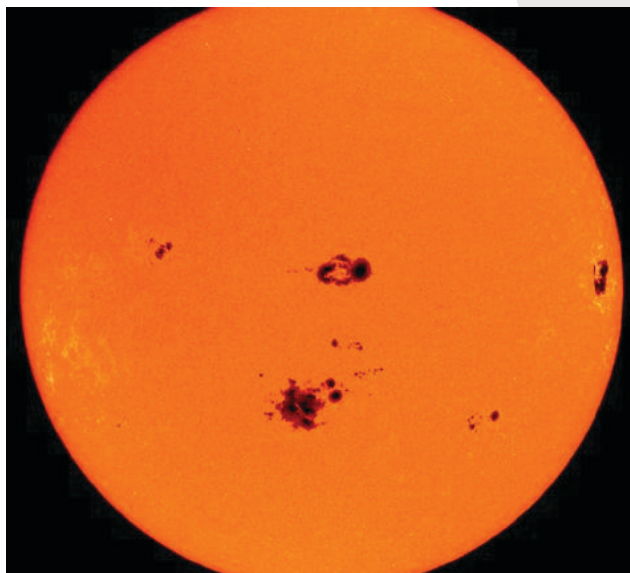- *Dwarf Planet Ceres*

Sunspots

Why in News

A massive **Sunspot group 'AR2770'**, which was detected recently, has **emitted minor space flares.**

➢ These flares have **not caused any major impact on the Earth**. However, these have **led to minor waves of ionization** to ripple through the **Earth's upper atmosphere.**

Key Points

➢ **Sunspots:**

❍ Sunspots (some as large as 50,000 km in diameter) are areas that **appear dark on the surface of the Sun (photosphere).** They appear dark because they are **cooler than other parts of the Sun's surface**.

- However, the temperature of a sunspot is still very hot —around 6,500 degrees Fahrenheit.

- **Photosphere** is a visible surface of the Sun, from which is emitted most of the Sun's light that reaches Earth directly.

❍ They are relatively cool because they **form at areas where magnetic fields are particularly strong**. These magnetic fields are so strong that they keep some of the heat within the Sun from reaching the surface.
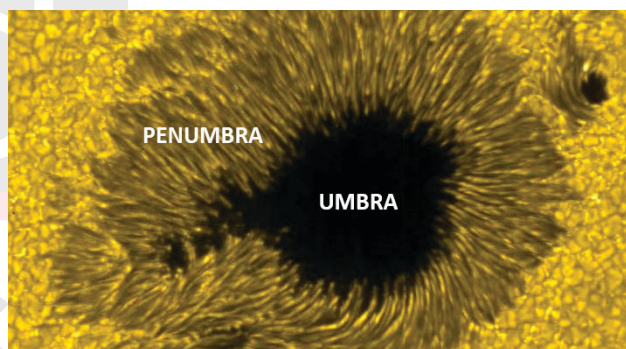
PENUMBRA

UMBRA

- Magnetic field in such areas is about **2,500 times stronger than Earth's.**

❍ They typically **consist of a dark region** called the 'umbra', which is **surrounded by a lighter region** called the **'penumbra'.**

❍ In every **solar cycle**, the **number of Sunspots increases and decreases.**

- The **current solar cycle**, which **began in 2008,** is in its **'solar minimum'** phase, when the number of Sunspots and solar flares is at a routine low.

➢ **Solar Flares:**

❍ The **magnetic field lines near sunspots often tangle, cross, and reorganize.** This can cause a **sudden explosion of energy called a solar flare.**

Note:

- ❍ The solar flare explosion's energy can be **equivalent** to a trillion **'Little boy'** **atomic bombs dropped on Hiroshima and Nagasaki in 1945.**
- ❍ Solar flares release a lot of radiation into space. Solar flares, when powerful enough, **can disrupt satellite and radio transmission on the Earth**, and more severe ones can cause **'geomagnetic storms'** that can **damage transformers in power grids.**
- ❍ A geomagnetic storm is a **major disturbance of Earth's magnetosphere** that occurs when there is a very efficient **exchange of energy from the solar wind into the space surrounding Earth**.
  - ● Magnetosphere is a region around the Earth dominated by the Earth's magnetic field.
  - ● It protects the Earth from solar and cosmic radiation as well as erosion of the atmosphere by the solar wind - the constant flow of charged particles streaming off the Sun.
- ➤ Solar flares are sometimes accompanied by a **Coronal Mass Ejection (CME).**
  - ❍ CMEs are huge bubbles of radiation and particles from the **Sun's Corona (outermost region of the Sun's atmosphere).** They explode into space at very high speed when the Sun's magnetic field lines suddenly reorganize.
  - ❍ They can trigger intense light in the sky on Earth, called **auroras.**
    - ● Some of the energy and small particles travel down the magnetic field lines at the north and south poles into Earth's atmosphere.
    - ● There, the particles **interact with gases in the atmosphere resulting in beautiful displays of light in the sky**. Oxygen gives off green and red light. Nitrogen glows blue and purple.
    - ● The aurora in Earth's northern atmosphere is called an **aurora borealis or northern lights.** It's southern counterpart is called an **aurora australis or the southern lights.**
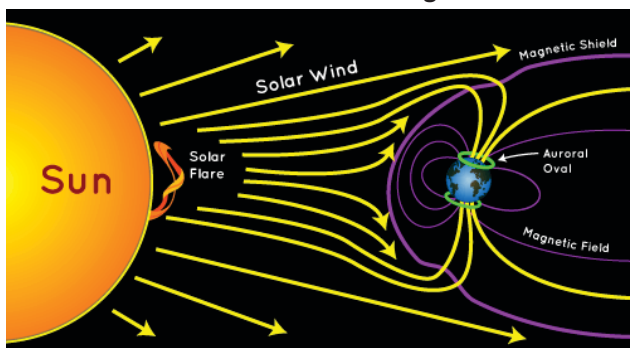
Solar Cycle

- ➤ The Sun is a huge ball of electrically-charged hot gas. This charged gas moves, generating a powerful magnetic field. The Sun's magnetic field goes through a cycle, called the solar cycle.
- ➤ **Every 11 years or so**, the Sun's magnetic field completely flips. This means that the Sun's north and south poles switch places. Then it takes about another 11 years for the Sun's north and south poles to flip back again.
- ➤ The **solar cycle affects activity on the surface of the Sun, such as sunspots** which are caused by the Sun's magnetic fields. As the magnetic fields change, so does the amount of activity on the Sun's surface.
- ➤ One way to track the solar cycle is by counting the number of sunspots. **The beginning of a solar cycle is a solar minimum**, or **when the Sun has the least sunspots.** Over time, solar activity—and the number of sunspots—increases.
- ➤ The **middle of the solar cycle is the solar maximum,** or when the Sun has the most sunspots. As the cycle ends, it fades back to the solar minimum and then a new cycle begins.

Indonesia's Mt. Sinabung Erupted

Why in News

Recently, Mt. Sinabung, an active **volcano on Indonesia's Sumatra island** has erupted.

- ➤ Mount Sinabung is located in Karo regency, North Sumatra.

Key Points

- ➤ **Mt. Sinabung:**
  - ❍ It is among more than **130 active volcanoes in Indonesia**, which is prone to seismic upheaval due to its location on the **Pacific's Ring of Fire.**
  - ❍ The volcano **was dormant for 400 years** before exploding in 2010. It exploded again in 2014 and 2016.
- ➤ **Ring of Fire:**
  - ❍ The Ring of Fire, **also referred to as the Circum-Pacific Belt**, is a path along the Pacific Ocean **characterized by active volcanoes and frequent earthquakes.**

Note:

STRAITS TIMES GRAPHICS

○ It t**races boundaries between several tectonic plates**—including the Pacific, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.

○ **75% of Earth's volcanoes** i.e. more than 450 volcanoes are located along the Ring of Fire. **90% of Earth's earthquakes** occur along its path.

○ The abundance of volcanoes and earthquakes along the Ring of Fire is **caused by the amount of movement of tectonic plates** in the area.

● Along much of the Ring of Fire, plates overlap at convergent boundaries called **subduction zones.** That is, the plate that is underneath is pushed down, or subducted, by the plate above. As rock is subducted, it melts and becomes magma. The abundance of magma so near to Earth's surface gives rise to conditions ripe for volcanic activity.

● A significant exception is the border between the Pacific and North American Plates. This stretch of the Ring of Fire is a **transform boundary**, where plates move sideways past one another. This type of boundary generates a large number of earthquakes as tension in Earth's crust builds up and is released.
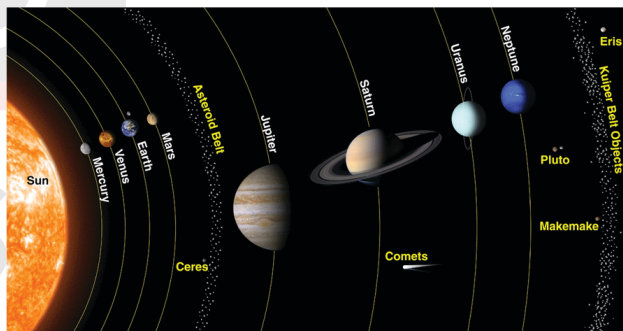

Dwarf Planet Ceres

Why in News

As per the data collected by **NASA's Dawn spacecraft,** dwarf planet **Ceres** reportedly has **salty water underground.**

➤ **Dawn (2007-18)** was a **mission** to the **two** most massive bodies in the main **asteroid belt - Vesta** and **Ceres.**

Key Points

➤ **Latest Findings:**

○ The scientists have given **Ceres** the status of an "**ocean world**" as it has a big **reservoir of salty water underneath its frigid surface.**

● This has led to an increased interest of scientists that the **dwarf planet was maybe habitable or has the potential** to be.

● **Ocean Worlds** is a term for **'Water in the Solar System and Beyond'.**

○ The salty water originated in a **brine reservoir** spread hundreds of miles and about 40 km beneath the surface of the Ceres.

Note:

❍ Further, there is an evidence that Ceres remains **geologically active** with **cryovolcanism - volcanoes oozing icy material.**

● Instead of molten rock, cryovolcanoes **or salty-mud volcanoes release frigid, salty water sometimes mixed with mud.**

➤ **Subsurface Oceans on other Celestial Bodies:** Jupiter's moon Europa, Saturn's moon Enceladus, Neptune's moon Triton, and the dwarf planet Pluto.

❍ This provides scientists a means **to understand the history of the solar system.**

➤ **Ceres:**

❍ It is the **largest object in the asteroid belt** between Mars and Jupiter.

● It was the **first member of the asteroid belt** to be discovered when **Giuseppe Piazzi spotted it in 1801**.

❍ It is the **only dwarf planet located in the inner solar system** (includes planets Mercury, Venus, Earth and Mars).

● Scientists classified it as a **dwarf planet in 2006.**

❍ It has a **diameter of about 950 km**, which is **more than one-fourth of Earth's moon.**

● It takes **1,682 Earth days, or 4.6 Earth years**, to make **one trip around the sun.**

● It completes one **rotation around its axis** every **9 hours.**

❍ It **does not have any moon or rings.**

❍ It has a 92 km wide **crater named Occator** located in its northern hemisphere.

Dwarf Planets

➤ According to the **International Astronomical Union (IAU)**, which sets definitions for planetary science, a dwarf planet is a celestial body that - orbits the sun, has enough mass to assume a nearly round shape, has not cleared the neighborhood around its orbit and is not a moon.

➤ The f**irst five recognised dwarf planets** are **Ceres, Pluto, Eris, Makemake** and **Haumea.**

■■■

Security

Highlights

- *Draft Defence Production and Export Promotion Policy 2020*
- *Naval Innovation and Indigenisation Organisation*
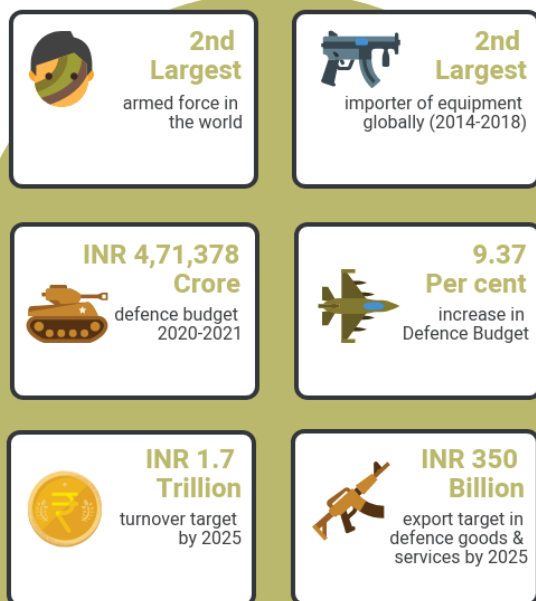- *OPV Sarthak*
- *Bru Resettlement Issue*

Draft Defence Production and Export Promotion Policy 2020

Why in News

Recently, the Ministry of Defence has formulated a **draft Defence Production and Export Promotion Policy 2020 (DPEPP 2020)**.

➢ The DPEPP 2020 is envisaged as an overarching guiding document to provide a **focused, structured** and significant thrust to **defence production capabilities** of the country for **self-reliance and exports**.

Indian Defence Sector At a Glance

2nd Largest armed force in the world

2nd Largest importer of equipment globally (2014-2018)

INR 4,71,378 Crore defence budget 2020-2021

9.37 Per cent increase in Defence Budget

INR 1.7 Trillion turnover target by 2025

INR 350 Billion export target in defence goods & services by 2025

Overall defence production in India has increased from **USD 6.4 billion** in 2013-2014 to **USD 11.4 billion** in 2018-2019

Key Points

➢ **Goals and Objectives:**

○ To achieve a **turnover** of ₹**1,75,000 crore** including **export of** ₹**35,000 crore** in Aerospace and Defence goods and services by **2025**.

○ To develop a **dynamic, robust and competitive Defence industry**, including **Aerospace and Naval Shipbuilding industry** to cater to the needs of armed forces with quality products.

○ To **reduce dependence on imports** and take forward **Make in India** initiatives through domestic design and development.

○ To **promote the export of defence products** and become part of the global defence value chains.

○ To create an environment that encourages research and development (R&D), rewards innovation, creates Indian **Intellectual Property (IP)** ownership and promotes a robust and self-reliant defence industry.

➢ **Outlined Strategies:**

○ **Procurement Reforms:**

- A **Project Management Unit (PMU)** will be set up for the development and production of technologies involved, life cycle costs and maintenance requirements of platforms, equipment and weapon systems.

- It also aims to **move away from licensed production to design, develop and produce indigenously**.

- It also aims to own the design rights and IP of the systems projected in the **Long Term Integrated Perspective Plan (LTIPP)** and a **Technology Assessment Cell (TAC)** would be created.

Note:

- The TAC would also assess the industrial capability for design, development and production, including re-engineering for production of major systems such as armoured vehicles, submarines, fighter aircraft, helicopters and radars with the major industries in the country.
  - ○ Indigenization And Support to MSMEs/Startups:
    - The **indigenization policy** aims to create an industry ecosystem to indigenize the imported components (including alloys and special materials) and sub-assemblies for defence equipment and platforms manufactured in India. 5,000 such items are proposed to be indigenized by 2025.
    - More than 50 startups are currently developing new **'fit-for-military-use'** technologies/products.
- ➤ **Optimize Resource Allocation:**
  - The share of domestic procurement in overall Defence procurement is about **60%**.
  - In order to enhance procurement from domestic industry, the procurement needs to be **doubled from the current ₹70,000 crore to ₹1,40,000 crore by 2025**.
  - ○ Investment Promotion and Ease of Doing Business:
    - India is already a **large aerospace market** with rising passenger traffic and increasing military expenditure, as a result of which the demand for aircraft (fixed and rotary wings) is increasing.
    - The opportunities in the aerospace industry have been identified in the following segments, aircraft build work, aircraft Maintenance, Repair and Overhaul (MRO), helicopters, engine manufacturing and MRO work, line replaceable units, **Unmanned Aerial Vehicles** (UAVs) and upgrades and retrofits.
    - The **improvement in market size, demographic dividend and availability of diverse skill sets** are evident from **India's ranking in the World Bank's 'Ease of Doing Business' report.**
    - The **investments in the defence sector** need to be on a regular basis to sustain the regular supply of orders.
  - ○ Innovation and R&D:
    - **Innovations for Defence Excellence (iDEX)** has been operationalized to provide necessary incubation and infrastructure support to the startups in the defence area.
  - iDEX would be further scaled up to engage with **300 more startups** and develop 60 new technologies/products during the **next five years**.
  - **Mission Raksha Gyan Shakti** was launched to promote a greater culture of innovation and technology development and file a greater number of patents in Defence Public Sector Undertakings (DPSUs), Ordnance Factory Board (OFB). It would be scaled up for promoting the creation of **Intellectual Property** in the sector and its commercial utilization.

Naval Innovation and Indigenisation Organisation

Why in News

Recently, the **Naval Innovation and Indigenisation Organisation** (NIIO) has been launched by the Defence Minister of India.

Key Points

- ➤ **Objective:** To foster innovation and indigenisation for self-reliance in defence in keeping with the vision of **Atmanirbhar Bharat**.
  - ○ It will put in place dedicated structures for the end-users to interact with academia and industry.
- ➤ **Structure:** The NIIO is a **three-tiered organisation**.
  - ○ **Naval Technology Acceleration Council** (N-TAC) will bring together the twin aspects of innovation and indigenisation and provide apex level directives.
  - ○ **Working group under the N-TAC** will implement the projects.
  - ○ **Technology Development Acceleration Cell** (TDAC) has been created for induction of emerging disruptive technology in an accelerated time frame.
- ➤ Indian Navy already has a functional **Directorate of Indigenisation** (DoI) and the new structures will build upon the **ongoing indigenisation initiatives**, as well as focus on innovation.

Note:

➢ A **compendium** (concise collection of information) of **Indian Navy's indigenisation perspective plans** titled '**SWAVLAMBAN**' has also been released.

➢ The **Draft Defence Production and Export Promotion Policy 2020** envisages Service Headquarters establishing an **Innovation and Indigenisation Organisation** within existing resources.

➢ The defence minister highlighted the Indian Navy's **significant progress in indigenous design of warships** and suggested to **focus on design and development of armaments**.

  ○ The Navy has an **in-house design bureau**, which has made **progress in designing the 'float' and 'move' (propulsion) components**.

  ○ However, there is a **heavy reliance on imports for armaments**, called the **'fight' component**.

OPV Sarthak

Why in News

Recently, an **Offshore Patrol Vessel (OPV) for the Indian Coast Guard (ICG)** has been launched and named as **Indian Coast Guard Ship 'Sarthak'.**

➢ OPV Sarthak is the **4th in the series of the indigenous project for 05 OPVs.**

➢ OPVs are **long-range surface ships** capable of coastal and offshore patrolling, policing maritime zones, control and surveillance, anti-smuggling and anti-piracy operations with limited wartime roles.

Key Points

➢ **Development:** OPV Sarthak has been **designed and built indigenously** by M/s Goa Shipyard Limited (GSL) in line with the government's vision of **Make in India**.

  ○ It has about **70% indigenous content** thus providing the necessary fillip to the **Indian shipbuilding industry** and a giant leap towards achieving **Atmanirbar Bharat.**

➢ **Features:**

  ○ The ship is fitted with **state-of-the-art navigation and communication equipment**, sensor and machinery.

○ It is designed to embark and carry a twin-engine helicopter, four high-speed boats and one inflatable boat for swift boarding and search and rescue operations.

○ It is also capable of carrying limited **pollution response equipment** to undertake **oil spill** pollution response at sea.

➢ **Use:**

  ○ The ship will be deployed extensively for **Exclusive Economic Zone (EEZ)** surveillance, coastal security and other duties as enshrined in the Coast Guard charter of duties, to safeguard the maritime interests of the nation.

Indian Coast Guard

➢ The Indian Coast Guard was formally inaugurated on **19th August 1978**. It operates under the **Ministry of Defence.**

➢ The organization is **headed by the Director-General Indian Coast Guard (DGICG)** exercising his overall command and superintendence from the Coast Guard **headquarters** located at **New Delhi.**

➢ For effective command and control, the **Maritime Zones of India are divided into five Coast Guard Regions**, namely North-West, West, East, North-East and Andaman and Nicobar, with the respective Regional Headquarters located at Gandhinagar, Mumbai, Chennai, Kolkata and Port Blair.

➢ Further, it keeps an eye on the **Indian EEZ.**

➢ ICG has been a pioneer in inducting indigenous assets which has enabled it to remain operationally available throughout the year.

  ○ The mere presence of ICG units at sea serves **dual objectives** of **"Deterrence"** and **"Reassurance"**.

  ○ It deters people with ill-intent and at the same time reassures the maritime community, as they are aware that ICG will swiftly respond to any distress call or life-threatening situation at sea.

➢ The deterrence created by the ICG is **not limited to the Indian waters,** but collaboration with friendly littoral states as per provisions of bilateral cooperation agreements resulted in successful apprehension and seizure of drugs in **Indian Ocean Region (IOR).**

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Social Issues

Highlights

- *Muslim Women Rights Day*
- *World Tribal Day*
- *Universal Ratification to Child Labour Convention*
- *Vitamin D Deficiency in India*
- *Anganwadi Services*
- *SC Verdict on Hindu Women's Inheritance Rights*
- *UN Report on the Impact of Covid-19 on Children*

Bru Resettlement Issue

Why in News

Recently, three organisations representing the Bru community have **rejected the sites proposed for their resettlement by the Joint Movement Committee (JMC).**

➢ JMC is an umbrella group of **non-Bru community** in **Tripura** which comprises the Bengali, Mizo, Buddhist Barua and some other communities.

➢ The three organisations include Mizoram Bru Displaced Peoples' Forum, Mizoram Bru Displaced Peoples' Coordination Committee and Bru Displaced Welfare Committee.

Key Points

➢ **JMC's Actions:** On 21st July 2020, the JMC had submitted a memorandum to the Tripura government specifying six places in Kanchanpur and Panisagar subdivisions of North Tripura district for resettlement of Brus.

  ○ **Limiting the number of families:** Proposal of limiting the number to 500 families at most be settled in these places.

  ○ **Limited Resources:** According to JMC, Tripura does not have enough space and resources to accommodate Bru.

➢ **Arguments by Bru Community Representatives:**

  ○ This action of site selection by the JMC is completely unjustified as they were not a part of the **quadrilateral agreement.** Also, the sites proposed by the JMC are unconnected by road and electricity and too far from hospitals, schools and other facilities.

  ○ They have insisted on resettling some 6,500 families in clusters of at least 500 families at each of the **sites of their choice**, seven in North Tripura district and five in the adjoining Dhalai district.

  ○ They have also **rejected the demand for inclusion of four JMC members** in the monitoring team for the resettlement of the Bru, as they are having no connection or involvement in the issue of either repatriation to Mizoram or resettlement in Tripura during the last 23 years.

Background

➢ **Bru or Reang** is a community indigenous to Northeast India, living mostly in **Tripura, Mizoram and Assam.** In **Tripura,** they are recognised as a **Particularly Vulnerable Tribal Group** (PVTG).

➢ In **Mizoram**, they have been targeted by groups that do not consider them indigenous to the state. In 1997, following **ethnic clashes**, nearly 37,000 Brus fled Mamit, Kolasib and Lunglei districts of Mizoram and were **accommodated in relief camps in Tripura.**

➢ Since then, 5,000 have returned to Mizoram in eight phases of repatriation, while 32,000 still live in six relief camps in North Tripura.

  ○ In June 2018, community leaders from the Bru camps signed an agreement with the Centre and the two-state governments, providing for repatriation in Mizoram but most camp residents rejected the terms of the agreement.

  ○ According to them, the agreement does not guarantee their safety in Mizoram.

➢ **The Centre, the governments of Mizoram and Tripura and leaders of Bru organisations signed a quadripartite agreement in January** (2020) to let the

Note:

remaining 35,000 refugees who have stayed back to be **resettled in Tripura.**

○ The rehabilitation package offered included financial assistance of ₹4 lakh and land for constructing a house for each family.

Muslim Women Rights Day

Why in News

Recently, **1ˢᵗ August** has been recorded as **"Muslim Women Rights Day"** in the country's history to mark **first anniversary** of the passage of **Muslim Women (Protection of Rights on Marriage) Act, 2019.**

➢ The law made triple talaq a **criminal offence**.

Triple Talaq

➢ Triple talaq is a practice mainly **prevalent among India's Muslim community** following the **Hanafi Islamic school of law**.

➢ Under the practice, a Muslim man can divorce his wife by simply uttering "talaq" three times but women **cannot** pronounce triple talaq and are required to move a court for getting divorce under the **Sharia Act, 1937**.

➢ Triple talaq divorce is **banned** by many Islamic countries, including **Pakistan, Bangladesh and Indonesia**.

Key Points

➢ Provisions of the Muslim Women (Protection of Rights on Marriage) Act, 2019:

○ It makes all declaration of talaq, including in written or electronic form, to be **void (i.e. not enforceable in law) and illegal**.

○ It also makes a declaration of talaq a **cognizable offence (**only if information relating to the offence is given by a married woman against whom talaq has been declared), attracting up to **three years** imprisonment with a fine.

- A cognizable offence is one for which a police officer may arrest an accused person without warrant.

○ The Magistrate may grant bail to the accused. The bail may be granted only after hearing the woman (against whom talaq has been pronounced), and if the Magistrate is satisfied that there are reasonable grounds for granting bail.

○ The offence may be compounded (i.e. the parties may arrive at a compromise) by the Magistrate upon the request of the woman (against whom talaq has been declared).

○ A Muslim woman against whom talaq has been declared, is entitled to seek subsistence allowance from her husband for herself and for her dependent children.

➢ **Constitutional Provisions:**

○ The Triple Talaq was held to be **violative of Article 14 (the right to equality)**, which is held by the Supreme Court from **Shah Bano case (1986) to Shayara Bano case in 2017**.

○ **Article 25** of the Constitution guarantees religious freedom as Freedom of Practice and Propagation of Religion. Like all other Fundamental Rights, it is **subject to restrictions** and does not protect religious practices that can negatively affect the welfare of citizens.

- Hence, Article 25 is **overridden** by Article 14, which guarantees the Right to Equality as triple talaq denies a Muslim woman's equality before the law.

- Article 25 is also **subject to Article 15 (1)** which states that the State "shall not discriminate against any citizen on grounds only of religion, race, caste, sex…". Since triple talaq does not work in the favour of women, it violates Article 15 (1) of the Constitution.

World Tribal Day

Why in News

The World Tribal Day or **International Day of the World's Indigenous Peoples** is observed on **9ᵗʰ August** every year.

Key Points

➢ **Aim:** To **promote and protect the rights of the world's indigenous population** and to acknowledge the contributions that indigenous people make towards world issues such as environmental protection.

➢ **Background:** The day recognises the **first meeting** of the **United Nations Working Group on Indigenous Populations in Geneva in 1982.**

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○ It has been celebrated every year since 1994, in accordance with the declaration by the United Nations.

➢ **Theme 2020: Covid-19 and Indigenous People's Resilience.**

➢ Tribes in India:

○ According to the 2011 census, tribals make up 8.6% of India's population.

○ There are over 700 tribal groups in India, out of which around 75 are **Particularly Vulnerable Tribal Groups (PVTGs).**

● The **Gond** comprises the largest tribal group of India

○ The **largest number (62)** of tribal communities **are found in Odisha.**

○ **No Tribe** has been identified in **Haryana, Punjab, Chandigarh, Delhi and Puducherry.**

➢ **Constitutional Provisions:**

○ **Article 342(1):** The **President** may with respect to any State or Union Territory (UT) and where it is a State, after consultation with the Governor, by public notification, specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe (ST) in relation to that State or the UT.

○ **Article 15: Prohibition of discrimina**tion on grounds of **religion, race, caste, sex or place of birth only**.

○ **Article 16:** Equality of opportunity in matters of public employment.

○ **Article 46:** Promotion of educational and economic interests of Scheduled Castes (SCs), STs and other weaker sections.

○ **Article 335:** Claims of SCs and STs to services and posts.

○ **Article 338-A:** The **National Commission for Scheduled Tribes** has been set-up under this article.

○ **5th and 6th Schedule:** Administration and control of Scheduled and Tribal Areas.

➢ **Legal Provisions:**

○ **Protection of Civil Rights Act, 1955:** Against untouchability.

○ **Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989:** To prevent the commission of offences of atrocities against the SC and ST members.

○ **Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996:** To provide for the extension of the provisions of Part IX of the Constitution relating to the Panchayats to the Scheduled Areas.

○ **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006:** To recognize and vest the forest rights and occupation in forest land in forest-dwelling STs and other traditional forest dwellers.

➢ **Committees Related to Tribal Communities:**

○ **Lokur Committee** (1965).

○ **Bhuria Commission** (2002-2004).

○ **Xaxa Committee** (2013).

Universal Ratification to Child Labour Convention

Why in News

Recently, **International Labour Organization (ILO)'s** convention on **Worst Forms of Child Labour** also known as **Convention No. 182** received **universal ratification** after the **Kingdom of Tonga** ratified the same.

Key Points

➢ **Universal Ratification:**

○ It means ratification by all the members of an organisation. **Convention No. 182** has received ratification from all the 187 members of ILO.

Note:

- ➢ **Child Labour:**
  - ○ The ILO **defines** child labour as work that deprives children of their childhood, their potential and their dignity, and that is harmful to their physical and mental development.
  - ○ In the least developed countries, slightly **more than one in four children (ages 5 to 17)** are engaged in labour that is considered detrimental to their health and development.
  - ○ The eradication of child labour is part of the **Sustainable Development Goal** Target 8.7.
  - ○ The **UN General Assembly** has declared **2021 as the year for the elimination of child labour.**
- ➢ **Convention No. 182:**
  - ○ The convention was **adopted by ILO** member states meeting in Geneva **in 1999.**
  - ○ It **aims** to **protect children from the worst forms of child labour**, which include slavery, prostitution, trafficking, deployment of children in armed conflict and other conditions that compromise their overall well-being.
- ➢ **Other International Laws on Child Labour:**
  - ○ **The UN Convention on the Rights of the Child, 1989:** It contains the idea that children are not just objects who belong to their parents and for whom decisions are made, or adults in training. Rather, **they are human beings** and **individuals** with their own rights.
  - ○ **Minimum Age Convention 1973:** It aims to prevent the employment of children below a lower age threshold.
    - ● Both **Convention No. 182** and the **1973 Minimum Age Convention** are among the **eight core ILO Conventions** regarded as embodying the spirit of the 1998 declaration on fundamental principles and rights at work.
  - ○ **India ratified the Convention No. 182** and the **1973 Minimum Age Convention** in 2017.
- ➢ **Impact of Laws on Child Labour:**
  - ○ According to ILO**, incidence of child labour and its worst forms dropped** by almost 40% between 2000 and 2016 as ratification rates on child labour laws increased and countries adopted laws and policies.
  - ○ The conventions have resulted in **significant increases in enrolments in primary education.**

- ○ These conventions also **provide the necessary framework to counteract the predominance of informality** in the conditions of work and ought to be a priority for governments.
- ➢ **Challenges Related to Child Labour:**
  - ○ The Sustainable Developmental Goal (SDG) aims at **complete abolition of child labour by 2025.** However, still an **estimated 152 million are trapped in child labour and 72 million of them are engaged in hazardous work.**
  - ○ The **Covid-19 pandemic i**s also threatening the reversal of recent gains, with widespread job losses, deterioration in conditions of work, decline in household incomes and temporary school closures.

Vitamin D Deficiency in India

Why in News

Researchers have claimed that **Vitamin D deficiency can negatively affect Covid-19 high-risk patients**, particularly those who are diabetic, have heart conditions, pneumonia, obesity and those who smoke.

- ➢ It is also associated with **infections** in the **respiratory tract** and **lung injury.**

Key Points

- ➢ India has a large population suffering from Vitamin D deficiency among the public **irrespective of their location (urban or rural), age or gender, or whether they are poor or even rich.**
  - ○ This is **despite India being a tropical nation** getting abundant sunshine, which is a precursor to Vitamin D formation in the body.
- ➢ According to an analysis published in the **Indian Journal of Endocrinology and Metabolism** in 2017, the level of Vitamin D in people from different states of India ranged between 3.15 nanogram/millilitre to 52.9 ng/ml, which was **considerably lower than the needed level of 30-100 ng/ml.**
  - ○ Vitamin D level among south Indians is 15.74–19.16 ng/ml.
  - ○ **Females showed consistently lower levels** than males.
- ➢ Vitamin D deficiency also occurs **among people of the Indian sub-continental origin settled in Great Britain.**

❍ This suggests a **correlation between the genetics of people of this region** and Vitamin D metabolism.

> **Vitamin D**
>
> ➢ Vitamin D is a **fat-soluble vitamin** which is **naturally present in very few foods** like fatty fish and fish liver oils, beef liver, cheese and egg yolks.
>
> ➢ It is also **produced endogenously** when **ultraviolet rays from sunlight strike the skin** and trigger Vitamin D synthesis.
>
> ❍ The sunlight triggers a chemical reaction to a cholesterol-based molecule and converts it into **calcidiol in the liver** and **into calcitriol in the kidney.**
>
> ❍ These molecules technically called **25-OHD are physiologically active.**
>
> ➢ **Role:**
>
> ❍ Vitamin D **maintains** adequate **Calcium and phosphate concentrations in blood.** It **prevents the weakening of bones.**
>
> ❍ Vitamin D has other roles in the body, including **cell growth, neuromuscular and immune function** and **reduction of inflammation.**
>
> ➢ **Required Amount:**
>
> ❍ The level of **25-OHD** in the range **30-100 ng/ml** is thought to be **sufficient** for a healthy body, levels between 21-29 ng/ml are considered insufficient and levels below 20 ng/ml mean the individual is deficient in the Vitamin.
>
> ➢ **Effects of Deficiency:**
>
> ❍ **Rickets** in children and **osteomalacia** (softening of bones) in adults.
>
> ❍ **Osteoporosis** in which bones can become thin, brittle or deformed.

➢ According to data by the **National Nutrition Monitoring Bureau (NNMB),** over the last 50 years, the **Calcium levels** in average Indian populations have plummeted from **700 units per day to 300-400**.

❍ The normal needed level of Calcium is **800-1,000 units per day.**

❍ **Vitamin D helps in the absorption of Calcium by the body** which is needed by the body to **maintain strong bones**.

❍ It is also needed for **muscles to move** and **for nerves to carry messages** between the brain and every body part.

❍ It helps **release hormones and enzymes** that affect almost every function in the human body.

❍ This deficiency of Calcium stands in contrast to the fact that India **produces the maximum amount of milk per day** in the world which is a **rich source of Calcium**.

Nutrition in India

➢ A major chunk of the population in India suffers from **hidden hunger** and malnutrition and nutrition deficiencies.

❍ Hidden hunger occurs when the quality of food people eat does not meet their nutrient requirements, so the food is deficient in micronutrients such as the vitamins and minerals that they need for their growth and development.

➢ Over 80% of adolescents in India suffer from **hidden hunger** according to UNICEF's report, **Adolescents, Diets and Nutrition: Growing Well in a Changing World, 2019**.

❍ In India, **63% of children below 5 years in urban areas (72% in rural areas) are found to be anaemic and 55% of women and 24% of men are found to be anaemic.**

➢ The production, procurement and distribution system for food in India has still not been able to address the food security issues in India.

❍ For example, the **food being provided to the poor** (Pradhan Mantri Garib Kalyan Yojana) during **Covid-19** contains pulses and cereals but **lacks vegetables, raw or cooked.**

➢ The balanced diet is still unaffordable for many Indians.

❍ As per **FAO's State of Food Security and Nutrition in the World 2020**, a **nutrient-adequate meal** costs ₹**25 per meal** and a 'healthy diet' **about** ₹**100 per day.**

Government Initiatives

➢ Mid-day meal scheme to combat nutrition deficiencies in poor school-going children.

➢ Feeding programmes under the **Integrated Child Development Services** through anganwadis.

➢ National Food Security Act (NFSA) and the Public Distribution System (PDS) to ensure the food requirement of the poor section of society.

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- ➢ **POSHAN Abhiyaan** to reduce stunting, under-nutrition, anaemia and low birth weight babies.
- ➢ **Biofortification** for various crops like carrots (**Madhuban Gajar**), wheat (**MACS 4028**) etc. in order to ensure nutritional security.

Suggestions

- ➢ The Central and State governments need to **consult nutrition experts and institutions** to advise and suggest the type of nutritive items that can be added to the current 'ration' food given to the poor, and the meals given to school children.
  - ○ The **meals given to the poor or children should include vegetables** like spinach and other green leafy vegetables, beans, peas, carrots, tomato, potato, milk/curd and fruits like bananas, and omega 3 and 6 fatty acids (and an egg).
- ➢ Besides Vitamin D and Calcium, **food rich in other micronutrients** (such as B complex Vitamins, plus Fe, Zn, I, Se, Zn) should be offered to the poor, so that **immunity against any infection is ensured.**
  - ○ Such an addition takes care of what is called '**hidden hunger**' in poorly nourished people.
- ➢ The government can **mass supply free-of-charge Vitamin D, other vitamins and Calcium**, in consultation with medical and public health experts to the public.
  - ○ Many Indian pharmaceutical companies manufacture these. Procuring these supplements from Indian companies will fall in line with the '**Make in India**' initiative of the government.
- ➢ The consumption of **Seaweed** can be very beneficial. Seaweeds are **vegetarian and rich in vitamins, minerals, Iodine** and **Omega 3 fatty acids**. As India has a **long coastline,** these can be affordable **nutritional supplements** for Indians.
- ➢ Schools can have their **students stand in sunlight** for 20-30 minutes daily and encourage physical exercise and games for an hour per day.
- ➢ Further, it is important to **raise awareness** about the importance of healthy eating and nutritional requirements of the human body.
- ➢ Dealing with Vitamin D and Calcium deficiency is the foremost step in meeting the **Sustainable Development Goals** of ending Hunger (SDG-2) and ensuring good health and well-being for all (SDG-3).

Anganwadi Services

Why in News

Recently, the **Right to Food Campaign** has given a memorandum to the Minister for Women and Child Development to resume **provision of hot-cooked meals and ensure implementation of Anganwadi services.**

Right to Food

- ➢ It is recognized as a part of **Right to Life and Personal Liberty (Article 21)** by the **National Human Rights Commission.**
- ➢ **The Directive Principles of the State Policy** in **Article 39a**, require the State to direct its policies towards securing that all its citizens have the right to an adequate means of livelihood.
- ➢ **The National Food Security Act (NFSA), 2013,** gives the right to food but it is not universal.
  - ○ It legally entitles up to **75%** of the rural population and **50%** of the urban population to receive subsidized food grains under the **Targeted Public Distribution System**.
- ➢ In *People's Union for Civil Liberties versus Union of India & Others case 2001*, the Supreme Court explicitly established a constitutional **human right to food** and determined a **basic nutritional floor** for India's impoverished millions.

Anganwadi

- ➢ Anganwadi is a **centrally sponsored scheme** implemented by the States/UTs which serves as a rural child and maternal care centre in India.
- ➢ It was started in 1975 as part of **the Integrated Child Development Services program** to combat **child hunger and malnutrition.**
- ➢ Anganwadi centres provide a package of six services: **supplementary nutrition, pre-school non-formal education, immunisation, health check-up, nutrition and health education** and **referral services.**
- ➢ The beneficiaries under the Anganwadi Services Scheme are identified on the basis of **Aadhaar**.

Key Points

- ➢ **Recommendations:**
  - ○ The memorandum suggested that **Anganwadi services** (like community-managed growth

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monitoring, supplementary nutrition, **immunisation**, etc.) should be delivered either within the **daycare centres** or **at the houses of the beneficiaries.**

- ○ It also recommended a **comprehensive package of cooked food and dry rations.**
- ○ It also sought **protective gear for frontline health workers** such as **Accredited Social Health Activist (ASHA)** and Anganwadi workers.

➢ **Background:** Following the nationwide **lockdown** on March 25, the **Integrated Child Development Scheme (ICDS)** implemented at anganwadis was **discontinued**.

- ○ It impacted nearly 14 lakh anganwadis and over 8 crore beneficiaries (children under six years and pregnant women and lactating mothers).
- ○ The Ministry of Women and Child Development asked State governments and Union Territories to extend **food security** allowance to each beneficiary.
- ○ According to the **POSHAN COVID-19 Monitoring report for India** compiled in June 2020, by **UNICEF**, **World Food Programme** and the **World Bank**, 10 of the 14 most populous States **did not conduct community management of acutely malnourished children** and **eight States were unable to measure growth parameters of children under six years.**

SC Verdict on Hindu Women's Inheritance Rights

Why in News

Recently, the **Supreme Court** (SC) has expanded the Hindu women's right to be the **coparcener** (joint legal heir) and inherit ancestral property on terms equal to male heirs.

➢ The judgment pertains to the **Hindu Succession (Amendment) Act, 2005**.

Key Points

➢ **Current Ruling:**

- ○ It ruled that a **Hindu woman's right to be a joint heir to the ancestral property is by birth** and does not depend on whether her father is alive or not.
  - ● **Coparcenary** (joint-heirship) **is by birth**, so the father doesn't need to be living as on 9th

September 2005, when the **Hindu Succession (Amendment) Act** was enacted.

- ○ The SC expanded and promoted the amendments done in 2005 which removed the **discrimination as contained in Section 6 of the Hindu Succession Act, 1956** by giving equal rights to daughters.
- ○ It also **directed High Courts to dispose of cases involving this issue within six months** since they would have been pending for years.

➢ **Hindu Succession Act, 1956:**

- ○ The **Mitakshara school of Hindu law** codified as the **Hindu Succession Act, 1956** governed **succession and inheritance of property** but only **recognised males as legal heirs**.
- ○ It **applied to everyone who is not a Muslim, Christian, Parsi or Jew** by religion. **Buddhists, Sikhs, Jains and followers of Arya Samaj, Brahmo Samaj**, are also **considered Hindus** for this law.
- ○ In a Hindu Undivided Family, several legal heirs through generations can exist jointly. Traditionally, **only male descendants** of a common ancestor along with their mothers, wives and unmarried daughters are considered a joint Hindu family. The **legal heirs hold the family property jointly**.

➢ **Hindu Succession (Amendment) Act, 2005:**

- ○ The 1956 Act was **amended in September 2005** and **women were recognised as coparceners** for property partitions arising from 2005.
  - ● Section 6 of the Act was amended to make a daughter of a coparcener also a coparcener by birth "in her own right in the same manner as the son".
  - ● It also gave the daughter the same rights and liabilities "in the coparcenary property as she would have had if she had been a son".
- ○ The law **applies to ancestral property and to intestate succession** in personal property, where **succession happens as per law and not through a will**.
- ○ **Background for the Amendment:**
  - ● The **174th Law Commission Report** had recommended the reform in Hindu succession law.

Note:

- Before the 2005 amendment, **Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu** had made this change in the law and **Kerala had abolished the Hindu Joint Family System in 1975**.

➢ **Government's Stand:**
  ❍ The Solicitor General of India has **argued in favour of an expansive reading of the law to allow equal rights for women**.
  ❍ He **criticised the Mitakshara coparcenary 1956 law** because it contributed to **discrimination on the ground of gender** and was also **oppressive** and **negated the fundamental right of equality** (**Articles 14 to 18**) guaranteed by the Constitution of India.

Schools of Hindu Laws:

Mitakshara Law School	Dayabhaga Law School
The term Mitakshara is derived from the name of a **commentary written by Vijnaneswara**, on the **Yajnavalkya Smriti**.	The term Dayabhaga is derived from a **similarly named text written by Jimutavahana**.
It is **observed in all parts of India** and **subdivided** into the Benares, the Mithila, the Maharashtra and the Dravida schools.	It is observed in **Bengal and Assam**.
A son, by birth acquires an interest in the ancestral property of the joint family.	A son has **no automatic ownership** right by birth but **acquires it on death of his father**.
All the members **enjoy coparcenary rights during the father's lifetime**.	Sons **do not enjoy coparcenary rights when the father is alive**.
A coparcener's **share is not defined** and **cannot be disposed of.**	The share of **each coparcener is defined** and **can be disposed of**.
A **wife cannot demand partition** but has the **right to a share in any partition between her husband and her sons**.	Here, the **same right does not exist for the women** because the **sons cannot demand partition** as the father is the absolute owner.

UN Report on the Impact of Covid-19 on Children

Why in News

According to the recently released **UN Report on the Impact of Covid-19 on Children,** almost **24 million children could drop out** or not have access to school next year due to the **economic impact of Covid-19.**

Key Points

➢ **Impact:** The Covid-19 pandemic will impact the children all over the world in multiple ways:
  ❍ **Economic:** An estimated **42-66 million children could fall into extreme poverty** as a result of pandemic
    - The economic loss might reach 1**6,000 USD of lost earnings over a student's lifetime**, translating over time into 10 trillion USD of lost earnings globally.
  ❍ **Learning:** 188 countries have imposed countrywide school closures, affecting more than **1.5 billion children and youth.**
    - More than two-thirds of countries have introduced a national distance learning platform, but among l**ow-income countries the share of distance learning is only 30%.**
    - **Online learning** is **not accessible** for poor children, children from remote and conflict areas and children with disabilities.
    - A **loss of learning** by **one-third** (equivalent to a three-month school closure) **during Grade 3** might result in 72% of students falling so far behind that by Grade 10 they will have dropped out or will not be able to learn anything in school.
  ❍ **Survival:** Economic hardship experienced by families as a result of the global economic downturn could result in **hundreds of thousands of additional child deaths** in 2020,
    - This will reverse the last 2 to 3 years of progress in reducing infant mortality within a single year.
  ❍ **Health: Rising malnutrition** is expected as 368.5 million children across 143 countries **rely on school meals** for a reliable source of daily nutrition.

- There is a reduced access to essential reproductive, maternal, newborn and child health interventions.
- **Suspension of all polio vaccination campaigns worldwide** and **measles immunization campaigns** in at least 23 countries will set back the decades-long effort to eliminate these diseases.
- The effects of physical distancing measures and movement restrictions on children's **mental health** represent another cause for concern.

○ **Safety:** Lockdowns and shelter in place measures come with heightened risk of children witnessing or suffering **violence and abuse.**

- Children's reliance on online platforms for distance learning has also increased their **risk of exposure to inappropriate content** and **online predators.**
- Susceptibility to **child marriage, early pregnancy and gender-based violence** will also increase.

➢ **Uneven Distribution of Impact:** The Covid-19 Pandemic has i**ncreased the existing socioeconomic disparities.**

○ During the second quarter of 2020, **86%** of children at the **primary level** have been effectively out of school in **poor countries**, compared to just **20%** in **highly developed countries**.

○ The Covid-19 crisis is likely to **increase the financing gap between** education budgets and the money available to reach the **Sustainable Development Goal** of **quality education by up to one-third.**

- The low and middle incomes already faced a **USD 148-billion** of the said financial gap.

○ Apart from the poor children, other **vulnerable groups of children** like migrants, the displaced, refugees, minorities, slum-dwellers, children living with disabilities, children living in refugee settlements, and children in institutions are likely to face a more severe impact.

○ The impact of Covid-19 is going to be more damaging for girls than boys, widening **gender inequality.**

○ Earlier this year, **the Global Education Monitoring Report, 2020** was released by UNESCO which highlighted that the Covid-19 had worsened the inequalities in education systems worldwide.

Suggestions

➢ Immediate rollout or **expansion of social assistance** to families, preferably through the use of universal child grants to prevent extreme poverty.

➢ **Securing food supply chains** and local food markets, to protect children from a food security crisis.

➢ Urgent **adaptation of standard physical distancing and lockdown strategies** in low-income and high population density settings.

➢ Prioritizing the **continuity of child-centred services,** schooling, nutrition programmes, immunization and other maternal and newborn care, and community-based child protection programmes with a particular focus on **equity of access.**

➢ Putting in place **specific protections for vulnerable children**.

➢ Providing practical **support to parents and caregivers** to support the mental health and learning of the children.

➢ Ensuring that **children, adolescents and young people have access to Covid- 19 testing, treatment and vaccines** as and when they become available.

■■■

Key Points

Details
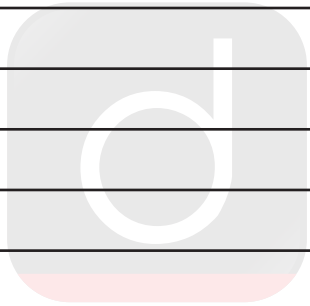
Summary

Key Points

Details

Summary