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Schemes

1) Ek Bharat Shreshtha Bharat

About the scheme

- The initiative 'Ek Bharat Shreshtha Bharat' was announced by Prime Minister Narendra Modi on 31st October, 2015 to commemorate the 140th birth anniversary of Sardar Patel to **revive a sense of 'nationhood'**.
- The programme aims to **actively enhance interaction between people of diverse cultures** living in different States and UTs in India, with the objective of promoting greater mutual understanding amongst them.
- As per the programme, each year, **every State/UT would be paired with another State/UT** in India for reciprocal interaction between the people.
- It is envisaged through this exchange, that the knowledge of the language, culture, traditions and practices of different states will lead to an enhanced understanding and bonding between one another, thereby strengthening the unity and integrity of India.
- The broad objectives of the initiative are as follows:
 - **To CELEBRATE** the Unity in Diversity of our Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our Country;
 - **To PROMOTE** the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between States;
 - **To SHOWCASE** the rich heritage and culture, customs and traditions of either State for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity
 - **TO ESTABLISH** long-term engagements and,
 - **TO CREATE** an environment which promotes learning between States by sharing best practices and experiences.

Why in News?

- A webinar on the theme "Ek Bharat Shreshtha Bharat - Bihar and Mizoram" was organized recently.

2) SFURTI

About the scheme

- SFURTI (Scheme of Fund for Regeneration of Traditional Industries) was launched by the **Ministry of Micro Small and Medium Enterprises (MSME)** in 2005 with the view to **promote Cluster development**.

Objective of the Scheme

- To **organize the traditional industries and artisans into clusters** to make them competitive and provide support for their long term sustainability.
- To provide **sustained employment** for traditional Industry artisans and rural entrepreneurs.
- To **enhance marketability** of products of clusters by providing support for new products, design intervention and improved packaging, and also the improvement of marketing Infrastructure.
- To equip traditional artisans of the associated clusters with **improved skills and capabilities** through training and exposure visits.
- To **strengthen the cluster governance systems** with the active participation of the stakeholders, so that they are able to gauge the emerging challenges and opportunities and respond to them in a coherent manner.

Criteria for Selection of Clusters

- The selection of clusters will be based on their **geographical concentration** which should be around 500 beneficiary families of artisans/micro enterprises, suppliers of raw materials, traders, service providers, etc., located within one or two revenue sub-divisions in a District (or in contiguous Districts).
- The clusters would be from **khadi, coir and village industries, including leather and pottery**.
- The potential for growth in production and generation of employment opportunities will also be considered in selecting clusters under SFURTI.
- The geographical distribution of the clusters throughout the country, with **at least 10 per cent located in the North Eastern region**, will also be kept in view while selecting clusters.

Financial assistance & Nodal Agencies

- The financial assistance provided for any specific project shall be subject to a **maximum of Rs 8 crore.**
- The following agencies shall be designated as the Nodal Agencies for the Scheme:
 1. **Khadi and Village Industries Commission** - for Khadi and Village Industry clusters
 2. **Coir Board** - Coir based clusters

Who Can Apply

- Non-Government organizations (NGOs)
- Institutions of the Central and State Governments
- Semi-Government institutions
- Field functionaries of State and Central Govt.
- Panchayati Raj institutions (PRIs)

Why in News?

- Vice Chairman of Jammu and Kashmir Khadi Village and Industries Board reviewed the status of SFURTI Clusters in the Union territory recently.

3) UDAN scheme

About the scheme

- In 2017, the **Ministry of Civil Aviation** launched the Regional Connectivity Scheme (RCS) "UDAN" (Ude Desh Ka Aam Naagrik) which aims at **providing connectivity to un-served and under-served airports** of the country through revival of existing air-strips and airports to make **flying affordable** to the common man who want to travel to and fro the Tier 2 and Tier 3 cities of the country.
- UDAN has a unique market-based model. Airline routes are allocated to operators selected through a **competitive bidding mechanism.**
- Under the scheme, nearly half of the seats in UDAN flights are offered at subsidised fares, and the participating carriers are provided a certain amount of **viability gap funding (VGF)** - an amount shared between the Centre and the concerned states.
- The scheme also offers waiver of certain statutory charges and taxes on jet fuel to companies in order to offer affordable connectivity.
- The airport that will be renovated under this scheme will be chosen after referring

to the respective State government. Together with the State government the Central government will **revive the dysfunctional and unserved airports of the country.**

- The **Airports Authority of India (AAI)** is designated as the Implementing Agency under this Scheme.
- The scheme is now in its **fourth phase** with focus on bringing connectivity to priority areas like North East India, Jammu and Kashmir, Ladakh, hilly states in other parts of the country, and islands. Under UDAN 4, the operation of helicopters and seaplanes has also been incorporated.

Why in News?

- Recently, the Civil Aviation Minister flagged off the first helicopter service in Uttarakhand under the UDAN-RCS scheme.
- A total of 274 UDAN routes have been operationalized so far connecting 45 airports and 3 heliports since the launch of the first UDAN flight in 2017.

4) Formalisation of Micro Food Processing Enterprises

What's in the news?

- The **Ministry of Food Processing Industries** has launched the PM Formalisation of Micro food processing Enterprises Scheme (PM FME Scheme) for providing financial, technical and business support for upgradation of existing micro food processing enterprises.
- With an outlay of Rs. 10,000 crore, the scheme aims **coverage of two lakh enterprises over five years** from 2020-21 to 2024-2025.
- During the first year of implementation, the total expenditure will be borne by the Central government, but in successive years centre and states will share the expenditure in a 60:40 ratio.

About the scheme

- Under the scheme, **capacity building of entrepreneurs** will be undertaken through technical knowledge, skill training and hand holding support services. **Credit flow to micro food processing industries** will be strengthened along with **support for their integration with organised supply chains** by providing brand and marketing facilitation.

- Apart from individual entrepreneurs, support will also be extended to Farmer Producer Organizations (FPOs), SHGs, producers co-operatives and co-operative societies engaged in food processing activities.

Potential of the scheme

- The focus will be on **women and SC/ST owned units and those in Aspirational districts** and a **cluster-based approach** (e.g. Mango in UP, Tomato in Karnataka, Chilli in Andhra Pradesh, Orange in Maharashtra etc.) will be followed to reap the benefit of scale in terms of procurement of inputs, availing common services and marketing of products.
- The scheme provides for **credit linked grants** to enterprises with provision of seed capital to SHGs for meeting working expenses and purchase of small tools.
- The scheme is set to transform the unorganised micro food processing enterprises for the larger benefit of rural people and rural economy.

Role of Micro food processing industries

- Micro food processing industries represent the **unorganised food processing sector** comprising nearly 25 lakh units. **Nearly 74 percent of the total employment in the food processing sector** comes from these units.
- Micro food processing enterprises are a major contributor to the rural economy as nearly **66 percent of these units are located in rural areas** and **about 85 percent of them are family based enterprises supporting livelihood of households**.
- These units play a significant role in **checking rural-urban migration**.

5) Pradhan Mantri Gram Sadak Yojana

About PMGSY

- The Pradhan Mantri Gram Sadak Yojana (PMGSY), was launched in 2000 as **centrally sponsored scheme** to provide connectivity to unconnected habitations of **designated population size** (500+ in plain areas and 250+ in North-East, hill, tribal and desert areas as per Census, 2001) as part of a poverty reduction strategy.

- The **Ministry of Rural Development** along with state governments is responsible for the implementation of PMGSY.
- **Phase III** of PMGSY was approved by the Union Cabinet in 2019. It involves the consolidation of Through Routes and Major Rural Links connecting habitations to Gramin Agricultural Markets (GrAMs), Higher Secondary Schools and Hospitals.

Guiding Principles of PMGSY

- The spirit and the objective of the scheme is to provide good all-weather road connectivity to unconnected Habitations. A habitation which was earlier provided all-weather connectivity would not be eligible even if the present condition of the road is bad.
- The unit for this Programme is a **Habitation** and not a Revenue village or a Panchayat. A Habitation is a cluster of population, living in an area, the location of which does not change over time.
- The PMGSY shall cover **only the rural areas**. Urban roads are excluded from the purview of this Programme.

Funding pattern

- The Union Government bears **90% of the project cost** in respect of projects sanctioned under the scheme in North-Eastern and Himalayan States, whereas for other states the Union Government bears **60% of the cost**.

Initiatives related to PMGSY

- **Road Connectivity Project for Left Wing Extremism affected Areas (RCPLWEA):** It was launched in 2016 as a separate vertical under PMGSY to provide all-weather road connectivity with necessary culverts and cross-drainage structures in 44 districts (35 are worst LWE affected districts and 09 are adjoining districts), which are critical from security and communication point of view.
- **Meri Sadak mobile app:** It was launched to enable citizens to register complaints regarding the quality and pace of construction of PMGSY roads.

Why in News?

- The **Ministry of Rural Development** conducted a nationwide review of the Pradhan Mantri Gram Sadak Yojana.

6) Electronics manufacturing schemes

About

- In March 2020, to boost large-scale electronics manufacturing in India, the **Ministry of Electronics and Information Technology** notified the following schemes with a total outlay of almost Rs 48,000 crore.
 - **Production Linked Incentive Scheme (PLI)**
 - **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)**
 - **Modified Electronics Manufacturing Clusters Scheme (EMC 2.0)**
- The three schemes together will enable large-scale electronics manufacturing, a domestic supply chain ecosystem of components and a state-of-the-art infrastructure and common facilities for large anchor units and their supply chain partners.
- The schemes are expected to attract new investments worth at least Rs 50,000 crore in the sector, while generating more than five lakh direct and 15 lakh indirect jobs.

News in Detail

PLI scheme

- The Production Linked Incentive scheme has been notified for **Large Scale Electronics Manufacturing in India**. The scheme aims to attract large investments in the mobile phone manufacturing and specified electronic components, including Assembly, Testing, Marking and Packaging (ATMP) units.
- Under the PLI scheme, **4% to 6% incentive** will be provided on incremental sales of goods manufactured in India. These incentives will be offered for a period of 5 years subsequent to the base year (FY 2019-20).

SPECS

- The Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors has been notified with an aim to **strengthen the value chain for the manufacturing of electronic products in India**.
- The target segment comprises a **downstream value chain of electronic**

products, i.e., electronic components, semiconductor/ display fabrication units, ATMP units, specialized sub-assemblies and capital goods for manufacture of aforesaid goods. The scheme will lead to higher domestic value addition and strengthen the existing ecosystem of Electronics System Design and Manufacturing sector (ESDM) in India.

- Under the scheme, **financial incentives of 25% will be provided on capital expenditure** (on reimbursement basis) in new units and expansion/ modernization/ diversification of existing units.
- The scheme will be open for applications for a period of 3 years from the date of notification.

EMC 2.0

- The Modified Electronics Manufacturing Clusters scheme has been notified to **support creation of quality infrastructure** with a minimum area of 200 acres along with industry-specific facilities such as common facility centres, ready-built factory sheds/ plug-and-play facilities.
- This will attract major global manufacturers along with their supply chains to set up a production base in India.
- Under the scheme, **financial assistance of 50% of the project cost** will be provided to EMC projects subject to a ceiling of INR 70 Cr for every 100 acres of land while 75% of the project cost will be provided for Common Facility Centres (CFCs) subject to a ceiling of INR 70 Cr.
- The scheme will be open for applications for a period of 3 years from the date of notification.

Why in News?

- A total of 22 companies, including Samsung, Apple's three contract manufacturers Foxconn, Pegatron and Wistron, Lava and Micromax, have filed applications under the Production-Linked Incentive scheme that aims to boost local manufacturing of mobile phones and components.
- Under the scheme, domestic value addition was expected to grow from the current 15-20% to 35-40% in the case of mobile phones and 45-50% for electronic components.

7) Rashtriya Krishi Vikas Yojana

About the Scheme

- Rashtriya Krishi Vikas Yojana (RKVY) was initiated in 2007 as an umbrella scheme for **ensuring holistic development of agriculture and allied sectors**.
- It is aimed at strengthening infrastructure in Agriculture and Allied sectors to promote Agripreneurship and Agribusiness by facilitating financial aid and nurturing a system of business incubation.
- The scheme, launched by the **Ministry of Agriculture and Farmers' Welfare**, incentivizes states to increase public investment in Agriculture & allied sectors.
- In 2017, the government renamed RKVY as **Rashtriya Krishi Vikas Yojana-Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RKVY-RAFTAAR)**.

Objectives of RKVY-RAFTAAR

- The main objective of RKVY-RAFTAAR is to **develop farming as a main source of economic activity**. Some of the objectives also include:
 1. Risk mitigation, strengthening the efforts of the farmers along with promoting agri-business entrepreneurship through the creation of agri-infrastructure.
 2. Providing all the states with autonomy and flexibility in making plans as per their local needs.
 3. Helping farmers in increasing their income by encouraging productivity and promoting value chain addition linked production models.
 4. To reduce the risk of farmers by focusing on increasing the income generation through mushroom cultivation, integrated farming, floriculture, etc.
 5. Empowering the youth through various skill development, innovation and agri-business models.

Funding

- RKVY-RAFTAAR funds would be provided to the States as 60:40 grants between Centre and States (90:10 for North Eastern States and Himalayan States).

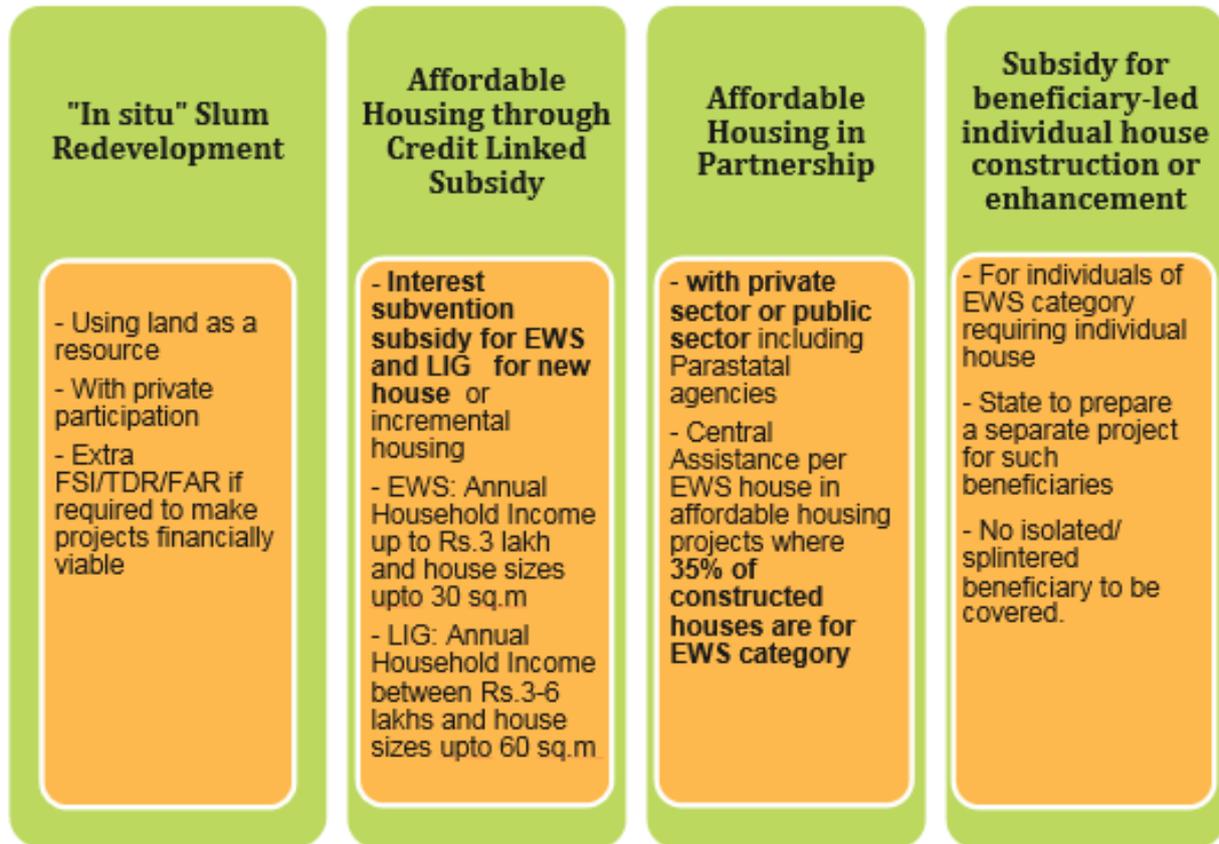
Why in News?

- The Union Government has launched the **Innovation and Agri-entrepreneurship Development programme** as a component under RKVY-RAFTAAR to promote innovation and agripreneurship by providing financial support and nurturing the incubation ecosystem.
- The programme targets start-ups in various categories such as agro-processing, artificial intelligence, digital agriculture, farm mechanisation, waste to wealth, dairy, fisheries, etc.

8) Pradhan Mantri Awas Yojana (Urban)

About:

- The Pradhan Mantri Awas Yojana (Urban) Programme was launched by the **Ministry of Housing and Urban Poverty Alleviation (MoHUPA)** which envisions **Housing for All by 2022**, when the Nation completes 75 years of its Independence.
- It was launched in 2015 to provide central assistance to implementing agencies through States and UTs for providing houses to all eligible families/beneficiaries.
- PMAY(U) adopts a **demand driven approach** wherein the Housing shortage is decided based on demand assessment by States/Union Territories.
- The Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:
 1. Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource
 2. Promotion of Affordable Housing for weaker section through credit linked subsidy
 3. Affordable Housing in Partnership with Public & Private sectors
 4. Subsidy for beneficiary-led individual house construction /enhancement



Beneficiaries

- Beneficiaries include **economically weaker sections (EWS), low-income groups (LIGs) and Middle Income Groups (MIGs)**.
- The EWS/LIG/MIG categories are defined as follows:
 - EWS households with an annual income upto Rs. 3.00 lakhs.
 - LIG households with an annual income between Rs. 3.00 lakhs to Rs. 6.00 lakhs.
 - MIG households with an annual income between Rs. 6.00 lakhs to Rs. 18.00 lakhs.
- EWS category of beneficiaries is eligible for assistance in all four verticals of the Missions whereas LIG and MIG categories are eligible under only Credit linked subsidy scheme (CLSS) component of the Mission.
- The beneficiary family should not own a pucca house and the beneficiary family should not have availed of central assistance under any housing scheme from Government of India.

Implementation:

- Mission is implemented as **Centrally Sponsored Scheme (CSS)** except for the

component of credit linked subsidy which will be implemented as a Central Sector Scheme.

- **All statutory towns** as per Census 2011 and towns notified subsequently would be eligible for coverage under the Mission.
- The Mission also promotes **women empowerment** by providing the ownership of houses in the name of female member or in joint name.
- Preference is also given to differently abled persons, senior citizens, SCs, STs, OBCs, Minority, single women, transgender and other weaker & vulnerable sections of the society.

Why in News?

- The Union Cabinet chaired by the Prime Minister has given its approval for developing of Affordable Rental Housing Complexes (ARHCs) for urban migrants / poor as a **sub-scheme** under Pradhan Mantri Awas Yojana – Urban (PMAY – U).

About Affordable Rental Housing Complexes

- ARHCs will create a new ecosystem in urban areas making **housing available at**

affordable rent close to the place of work.

- Target beneficiaries of the scheme would be workers who come from rural areas or towns to work in manufacturing, hospitality, health, construction, etc.

How does it work?

- Under the programme, about 1.03 lakh completed government-funded houses across cities that were yet to be allotted to beneficiaries under existing schemes would be converted into the rental housing complexes for economically productive use.
- The **urban local bodies** in cities would decide the rent amount to be charged.
- The vacant housing complexes would be converted through **25-year concession agreements** and the concessionaire would repair or retrofit the homes, maintain the rooms and address any pending infrastructure needs like water, sewerage, roads, etc.

Private partnership

- The scheme would also create a **conducive environment for entities to develop AHRCs on their own vacant land** which will enable new investment opportunities and promote entrepreneurship in the rental housing sector.
- Special incentives like use permission, 50% additional FAR/FSI [floor area ratio and floor space index], concessional loan at priority sector lending rate, tax reliefs at par with affordable housing etc. will be offered to private/public entities to develop ARHCs on their own available vacant land for 25 years.
- An expenditure of ₹600 crore is estimated in the form of technology innovation grant which will be released for projects using identified innovative technologies for construction. Approximately, 3 lakh beneficiaries will be covered initially.

9) Pradhan Mantri Adarsh Gram Yojana

About the scheme

- Pradhan Mantri Adarsh Gram Yojana (PMAGY) aims at **integrated development of selected villages having more than 50% Scheduled Caste (SC)**

population through implementation of existing scheme of Central and State Governments in a convergent manner and by utilization of gap filling funds provided as Central Assistance.

- The scheme was launched in **2009-10** on a pilot basis, for the integrated development of 1000 villages in 5 States viz. Himachal Pradesh, Bihar, Rajasthan, Tamil Nadu and Assam and further extended in 2015 to another 1500 villages in 11 states.
- The Government of India is planning to cover **all the eligible 26968 villages by the end of 2024-25.**
- Works and programmes taken up under PMAGY in the identified States include inter alia, construction of village roads, community halls/meeting places, community toilets, drainage works, installation of hand pumps, solar powered street lights, drinking water scheme etc.
- As per scheme, for a village to be declared as Adarsh village a **minimum of three of the targets listed below** have to be achieved by the end of the third year of implementation of PMAGY:-
 1. As far as possible, elimination of poverty, but reduction in its incidence by at least 50% within three years.
 2. Universal adult literacy
 3. 100% enrolment and retention of children at the elementary stage (I-VIII).
 4. Reduction of infant mortality rate (per thousand live births) to 30 and maternal mortality rate (per lakh) to 100, by 2012.
 5. Village should fulfill the Nirmal Gram Puraskar norms of the Deptt. Of Drinking Water Supply, M/o Rural Development, ie, these villages should be 100 % open defecation free
 6. Access to safe drinking water facility to all villagers on a sustainable basis.
 7. 100% institutional deliveries for pregnant women
 8. Full immunisation of children
 9. Achieving all weather road connectivity to the village
 10. 100% registration of deaths and births in the village
 11. No child marriages, and child labour
 12. No public consumption of liquor and other intoxicating substances

13. 100% allotment of Pradhan Mantri Gramin Awaas Yojana (PMGAY) houses to all eligible families
- The identified socio-economic indicators, known as **Monitorable Indicators**, are to be improved so that the disparity between SC and non-SC population is eliminated and the level of indicators is raised to at least that of the National average.

Why in News?

- Several projects have been identified in the Union Territory Jammu and Kashmir under Pradhan Mantri Adarsh Gram Yojana.

10) Pradhan Mantri Bhartiya Janaushadhi Pariyojana

About PMBJP

- Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a campaign launched by the **Department of Pharmaceuticals** (under the Ministry of Chemicals and Fertilizers) to **provide quality medicines at affordable prices to the masses**.
- In September 2015, an existing 'Jan Aushadhi Scheme' was revamped as 'Pradhan Mantri Jan Aushadhi Yojana' and in November, 2016, to give further impetus to the scheme, it was again renamed as "Pradhan Mantri Bhartiya Janaushadhi Pariyojana".
- PMBJP stores have been set up to provide **generic drugs**, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- **Bureau of Pharma PSUs of India (BPPI)** is the implementing agency for PMBJP.

Objectives of PMBJP

- Making quality medicines available at affordable prices for all, particularly the poor and disadvantaged, through exclusive outlets "**Jan Aushadhi Kendras**", to reduce out of pocket expenses in healthcare.
- Create awareness among the public regarding generic medicines.
- Create demand for generic medicines through medical practitioners.
- Create awareness through education and awareness programs that high price need not be synonymous with high quality.

Who can open a Jan Aushadhi Kendras?

- State Governments or any organization / reputed NGOs / Trusts / Private hospitals / Charitable institutions / Doctors / Unemployed pharmacists/ individual entrepreneurs are eligible to apply for new Jan Aushadhi stores.
- The applicants shall have to employ one B Pharma / D Pharma degree holder as Pharmacist in their proposed store.
- They can be set up at any suitable place within Government hospital or Private hospital premises or anywhere outside the premises.

Why in News?

- More than 5 crores Jan Aushadhi Suvidha Oxo-Biodegradable Sanitary Napkins were distributed from Jan Aushadhi Kendras to underprivileged women at a minimum price of Rs.1 each.

Related Information

What are generic drugs?

- When a company develops a new drug — often after years of research — it applies for a patent, which **prohibits anyone else from making the drug for a fixed period**.
- To recover the cost of research and development, companies usually price their brand- name drugs on the higher side.
- Once the patent expires, other manufacturers duplicate and market their own versions of the drug.

Cost-effectiveness of generic medicines

- Since the manufacture of these generic drugs do not involve a repeat of the extensive clinical trials to prove their safety and efficacy, it **costs less to develop them**. Generic drugs are, therefore, **cheaper**.
- However, because the compounds in the generic versions have the same molecular structure as the brand-name version, they provide the **same clinical benefits** as its brand-name version. The generic drug has the **same "active ingredient"** as the brand-name drug. This ingredient is the one that cures the patient; and other, "inert ingredients", which give the drug its colour, shape or taste, vary from the brand-name drug to the generics.
- In addition, multiple applications for generic drugs are often approved to market a single product; this creates

competition in the marketplace, typically resulting in lower prices. **Typically results in prices about 85% less than the brand-name.**

About BPPI

- The Bureau of Pharma PSUs of India comprising all the Pharma CPSUs under

the Department of Pharmaceuticals was established in 2008.

- It aims to bring about effective collaboration and cooperation in furthering the working and resources of these organizations.

Initiatives

1) Swasthya portal

What's in the news?

- The **Ministry of Tribal Affairs** has launched the e-portal on tribal health and nutrition named 'Swasthya'.
- The portal **provides all health and nutrition related information of the tribal population of India on a single platform.**
- Swasthya will also curate innovative practices, case studies, and best practices collected from different parts of India to facilitate the exchange of evidence, expertise and experiences.

2) Samagra Shiksha

About the scheme

- Samagra Shiksha is an overarching programme for the school education sector extending from **pre-school to class 12**. The scheme has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.
- It subsumes the three Schemes of **Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE)**.
- The Integrated Scheme **envisages the 'school' as a continuum** from pre-school, primary, upper primary, secondary to senior secondary levels.
- It was introduced in the Union Budget, 2018-19.

Objectives

- The major objectives of the Scheme are
 1. Provision of quality education and enhancing learning outcomes of students;
 2. Bridging Social and Gender Gaps in School Education;
 3. Ensuring equity and inclusion at all levels of school education;
 4. Ensuring minimum standards in schooling provisions;
 5. Promoting Vocationalisation of education and
 6. Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009;

Why in News?

- A short course entitled **Integrated Multi-disciplinary Professional Advancement Course for Teachers (IMPACT)** was recently conducted under Samagra Shiksha in the Union Territory of Jammu and Kashmir.
- The programme focused on enhancement of teaching skills and sensitivity for integrating social concerns.

3) Umbrella entity for retail payments

What's in the news?

- The RBI has released a framework for setting up of a new umbrella entity for retail payments in the country including net and Aadhar-based payments and remittances as well as ATMs and point of sale payment services.
- Currently, only the **National Payments Corporation of India (NPCI)**, a not-for-profit company, performs this role.

Significance

- The RBI's move is a bid to reduce the risk of having just one player handling such a vast area of finance. Besides, the RBI is worried that this could lead to **monopolistic behaviour**.
- The new umbrella entity will minimize concentration risk and at the same time **foster innovation** through competition leading to improved access and customer experience.
- The risk of system failure was witnessed when a leading fintech faced an outage in services in March 2020 that affected millions of customers.

New entity

- The entity will have to have a **minimum paid-up capital of Rs 500 crore** and **no single promoter group** will be allowed to have **more than 40 per cent stake** in the new payments entity. **Any investor with 25 per cent or more investment** will be considered as a **promoter**.
- Applicants must also have at least three years of experience in the payments ecosystem.
- The formation of the umbrella entity has been authorised under the **Payment and Settlement Systems Act, 2007**.

About NPCI

- NPCI was incorporated in 2008 as an umbrella organization for operating retail payments and settlement systems in India.
- It is an initiative of **the RBI and Indian Banks' Association (IBA)** under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.
- It has been incorporated as a **"Not for Profit" Company** under the Companies Act 2013.
- It has changed the way payments are made in India through a bouquet of retail payment products such as **RuPay card, Immediate Payment Service (IMPS), Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), BHIM Aadhaar, National Electronic Toll Collection (NETC Fastag) and Bharat BillPay.**

4) National Strategy for Financial Education

What's in the news?

- The Reserve Bank of India has released its National Strategy for Financial Education (NSFE): 2020-2025 document.
- It is aimed at **creating a financially aware and empowered India.**
- This NSFE for the period 2020-2025, the second one after the 2013-18 NSFE, has been prepared by the **National Centre for Financial Education (NCFE)** in consultation with all the Financial Sector Regulators (RBI, SEBI, IRDAI and PFRDA) and other stakeholders.

Objectives of the programme

- The strategic objectives include **inculcating financial literacy concepts** among various sections of the population through financial education to make them an important life skill. Besides **encouraging active savings behaviour**, it will **encourage participation in financial markets** to meet financial goals and objectives.
- The strategy will develop credit discipline and encourage availing credit from formal financial institutions as per requirement. It

will improve usage of digital financial services in a safe and secure manner.

- The objectives include managing risk at various life stages through relevant and suitable **insurance cover** besides planning for old age and retirement through coverage of suitable pension products.
- It also includes knowledge about rights, duties and avenues for **grievance redressal**. It will improve research and evaluation methods to assess progress in financial education.

'5 C' approach

- To achieve these strategic objectives, the document recommends adoption of a **'5 C' approach** for dissemination of financial education through emphasis on development of relevant **Content** (including curriculum in schools, colleges and training establishments), developing **Capacity** among the intermediaries involved in providing financial services, leveraging on the positive effect of **Community led model** for financial literacy through appropriate **Communication Strategy**, and lastly, enhancing **Collaboration** among various stakeholders.
- The strategy also suggests adoption of a robust monitoring and evaluation framework to assess the progress made.

Related Details

About NCFE

- National Centre for Financial Education is a **Not for Profit Company** promoted by the RBI, SEBI, IRDAI and PFRDA.
- The objective of the company is to promote Financial Education across India for all sections of the population.

5) NCC Expansion

About NCC

- The National Cadet Corps (NCC) is a youth development movement.
- It is a **Tri-Services Organisation**, comprising the Army, Navy and Air Wing, providing opportunities to the youth of the country for their all-round development with a sense of Duty, Commitment, Dedication, Discipline and Moral Values so that they become able leaders and useful citizens.

- The NCC provides exposure to the cadets in a wide range of activities., with a distinct emphasis on Social Services, Discipline and Adventure Training. The NCC is **open to all regular students of schools and colleges on a voluntary basis.**
- The NCC came into existence under the National Cadet Corps Act XXXI of 1948.
- The motto of NCC is:“ **UNITY AND DISCIPLINE**”.
- NCC is headed by the Director General (DG), an Army Officer of the rank of Lieutenant General.
- The NCC operates under the **Ministry of Defence.**

Why in News?

- The Ministry of Defence has approved a proposal of the National Cadet Corps for a major expansion scheme in all the border and coastal districts.
- A total of one lakh cadets from 173 border and coastal districts will be inducted in the NCC. **One-third of the cadets would be girl cadets.**
- The proposal on NCC expansion was announced by Prime Minister Narendra Modi in his Independence Day address.

Significance

- Restructuring of the NCC was one of the key recommendations of the **Committee of Experts (CoE) headed by Lt Gen DB Shekatkar (Retd)** which submitted its report in 2016.
- In the coastal regions, where youth are already familiar with the sea, the training will increase interest in careers in Navy, Coast Guard and also Merchant shipping avenues.
- In the border area, the trained cadets can play an important role in various contingencies and also in supporting roles to the Armed forces in various roles.

6) Swachh Survekshan

What is Swachh Survekshan?

- Launched in 2016, Swachh Survekshan is a **ranking exercise** taken up by the Government of India to assess rural and urban areas for their levels of cleanliness and active implementation of **Swachh Bharat** mission initiatives in a timely and innovative manner.

- It is also aimed at inculcating a spirit of healthy competition among cities towards becoming India's cleanest cities.

Who conducts the survey?

- The **Ministry of Housing and Urban Affairs** takes up the Swachh Survekshan in urban areas and the **Department of Drinking Water and Sanitation** in rural areas.
- The **Quality Council of India (QCI)** is in charge of evaluating the performance of the participating cities.

Why in News?

- The **Ministry of Housing and Urban Affairs** has released the Swachh Survekshan 2020 (urban) report.

Highlights of the report

- Swachh Survekshan 2020 is the fifth edition of the annual cleanliness urban survey conducted by the Ministry of Housing and Urban Affairs.
- It covered 4,242 cities, 62 cantonment boards and 92 Ganga towns and saw unprecedented participation of 1.87 crore citizens.
- **Indore** is India's cleanest city in Swachh Survekshan 2020. The city has bagged the top spot for the fourth time in a row. Gujarat's **Surat** on second spot and Maharashtra's **Navi Mumbai** on third.

Related Details

Quality Council of India

- QCI was set up in 1997 jointly by the **Government of India and the Indian Industry.**
- Its mandate is to establish and operate a national accreditation structure and promote quality through National Quality Campaign.
- The **Ministry of Commerce & Industry** is the nodal ministry for QCI.
- Chairman of QCI is appointed by the **Prime Minister** on the recommendations of the industry to the Government.

About Swachh Bharat Abhiyan

- Swachh Bharat Mission (SBM), launched on 2nd October 2014, is a massive mass movement that seeks to create a Clean India by October 2, 2019 (150th birth anniversary of Mahatma Gandhi).
 - It has 2 components - urban and rural.
1. **SBM Urban** aims for the elimination of open defecation, conversion of unsanitary toilets to pour flush toilets, eradication of

manual scavenging, municipal solid waste management and bringing about a behavioural change in people regarding healthy sanitation practices.

2. **SBM Rural** aims to make India an open defecation free country. It seeks to improve the levels of cleanliness in rural areas through Solid and Liquid Waste Management activities and making Gram Panchayats Open Defecation Free (ODF), clean and sanitised.
 - The urban component of the mission is implemented by the **Ministry of Housing and Urban Affairs**, and the rural component by the **Department of Drinking Water and Sanitation, Ministry of Jal Shakti**.

Phase II of SBM Rural

- In 2020, the Union Cabinet approved the **Phase II of the Swachh Bharat Mission (Grameen)** till 2024-25
- It will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and Solid and Liquid Waste Management (SLWM). The program will also work towards ensuring that no one is left behind and everyone uses a toilet.

ODF+ and ODF++

- The Union Ministry of Housing and Urban Affairs (MoHUA) launched the **ODF+ and ODF++** programmes towards sustaining and maintaining the toilets built under SBM Urban.
- It aims to further scale up and sustain the work undertaken by the cities after achieving the ODF status under Phase I of the SBM-Urban.
- Cities that have been certified ODF at least once, on the basis of the ODF protocols, are eligible to declare themselves as SBM-ODF+ & SBM-ODF++.
- While ODF+ focuses on **toilets with water, maintenance and hygiene**, ODF++ focuses on toilets with **sludge and septage management**.

7) “Transparent Taxation-Honouring the Honest” platform

What’s in the news?

- Prime Minister Narendra Modi has launched the “**Transparent Taxation -- Honouring the Honest**” platform aimed

at easing compliance and expediting refunds, benefiting honest taxpayers.

- Three main features of the platform are **faceless assessment, faceless appeal and taxpayers' charter**.

Objectives

- The faceless assessment system seeks to eliminate corrupt practices by doing away with the territorial jurisdiction of income-tax offices. With the help of technology, the cases of scrutiny will now be **allocated randomly to any official in any part of the country**. The document identification numbers will be issued from the central database.
- Review of orders will also be done by another team at some other place, chosen randomly using data analytics and artificial intelligence.
- The platform would instil a **sense of fairness and fearlessness in the taxpayers**.

Taxpayers' charter

- The taxpayers' charter outlines the **rights and duties of an honest taxpayer**.
- It also defines the commitment of the tax department and the expectations from the taxpayers.
- Mr. Modi said taxpayers' charter was also a vital step in the country's development, in terms of bringing about a balance between the responsibilities and the taxpayers' duties and also fixing the government's responsibilities.
- He appealed to those not paying taxes despite the capability to come forward and commit themselves to the cause of making the country self-reliant.
- Although the taxpayer base had expanded by 2.5 crore in the past six-seven years, it was a matter of grave concern that **only about 1.5 crore people were paying income-tax** in a country of over 130-crore population.

8) Offline Card Payment scheme

What's in the news?

- The RBI has permitted **small value offline transactions** through cards and mobile devices for single payments of **up to Rs 200 on pilot basis**.
- The scheme is aimed at encouraging customers to opt for digital payments even

in those places where the internet connectivity is poor.

News in Detail

- Under the pilot scheme, authorised Payment System Operators (PSOs) – banks and non-banks – will be able to provide offline payment solutions using cards, wallets or mobile devices for remote or proximity payments **without any Additional Factor of Authentication (AFA)**.
- The pilot scheme should be undertaken till March 31, 2021 and the RBI would decide on formalising such a system based on the experience gained under the pilot.
- The PSO shall send real-time transaction alerts to users as soon as transaction details are received.

Significance

- The absence of, or erratic, internet connectivity, especially in remote areas, is a major impediment for adoption of digital payments.
- Availability of options to make offline payments, using cards, wallets or mobile devices could boost the adoption of digital payments.

Online Dispute Resolution

- Meanwhile, the RBI also said Payment System Operators (PSOs) will have to implement Online Dispute Resolution (ODR) as there is an increase in the number of disputes and grievances as digital transactions rise significantly.
- PSOs are required to introduce ODR systems in a phased manner. To begin with, authorised PSOs shall be required to implement ODR systems for failed transactions in their respective payment systems.
- Based on the experience gained, ODR arrangements will be extended to other types of disputes and grievances.

9) Chunauti

What's in the news?

- The **Ministry of Electronics and Information Technology** has launched "Chunauti"- **Next Generation Start-up Challenge Contest** to further boost startups and software products with special focus on Tier-II towns of India.

- The government has earmarked a budget of Rs. 95.03 Crore over a period of three years for this programme.

Objective

- The programme aims to **identify around 300 startups** working in identified areas and provide them **seed funds of upto Rs. 25 Lakh and other facilities**.
- They will get incubation facilities, mentorship, security testing facilities, access to venture capitalist funding, industry connect as well as advisories in legal, Human Resource (HR), IPR and Patent matters.
- Under this challenge the Ministry of Electronics and IT will invite startups in the following areas of work:
 1. Edu-Tech, Agri-Tech & Fin-Tech Solutions for masses
 2. Supply Chain, Logistics & Transportation Management
 3. Infrastructure & Remote monitoring
 4. Medical Healthcare, Diagnostic, Preventive & Psychological Care
 5. Jobs & Skilling, Linguistic tools & technologies

10) 'eSanjeevani'

About 'eSanjeevani'

- Launched in 2009 by the **Ministry of Health & Family Welfare** 'eSanjeevani' is a **web-based comprehensive telemedicine solution**. It aims to provide healthcare services to patients in their homes.
- Besides enhancing the quality of medical services, addressing issues about uneven distribution and shortage of infrastructural as well as human resources, eSanjeevani also aims to make healthcare services equitable by **bridging the digital divide** that exists between the urban vs. rural, rich vs. poor etc.
- eSanjeevani can also be used to provide **medical education** to interns, people across Various Common Service Centers (CSCs), etc.
- The portal was designed & developed by the **Centre for Development of Advanced Computing (C-DAC)**, a premier R&D organization of the Ministry of Electronics and Information Technology (MeitY).

Services provided

- eSanjeevani platform has enabled two types of telemedicine services viz.
 1. Doctor-to-Doctor (eSanjeevani) and
 2. Patient-to-Doctor (eSanjeevani OPD) Tele-consultations.

eSanjeevani

- It is being implemented under the **Ayushman Bharat Health and Wellness Centre (AB-HWC)**. It aims to implement Doctor-to-Doctor teleconsultation in all the 1.5 lakh Health and Wellness Centres in conjunction with identified Medical College hospitals in a 'Hub and Spoke' model.
- States have identified and set up dedicated 'Hubs' in Medical Colleges and District hospitals to provide teleconsultation services to 'Spokes', i.e SHCs, PHCs and HWCs.

eSanjeevani OPD

- Owing to the ongoing COVID-19 pandemic, the Health Ministry launched the second tele-consultation service enabling patient-to-doctor telemedicine through 'eSanjeevaniOPD'.
- This service is available as an Android mobile application as well. This has made it convenient for the people to avail of the health services without having to travel.
- This e-health service is offered free of cost and has proved a boon in containing the spread of COVID while simultaneously enabling provisions for non-COVID essential healthcare.

Why in News?

- "eSanjeevani" and "eSanjeevaniOPD" platforms have completed 1.5 lakh tele-consultations.

11) Jal Jeevan Mission

About Jal Jeevan Mission

- Launched in 2019, the chief objective of the Mission is to provide **Functional Household Tap Connection (FHTC) to every rural household by 2024** and thereby ensuring potable water supply in adequate quantity i.e. @ **55 lpcd** (Litres per capita per day) of prescribed quality on a long-term and regular basis.



- This Mission is under the **Department of Drinking Water and Sanitation, Ministry of Jal Shakti**.
- It focuses on **integrated demand and supply-side management** of water at the local level.
- The programme also implements **source sustainability measures** as mandatory elements, such as recharge and reuse through greywater management, water conservation and rainwater harvesting.
- The Jal Jeevan Mission is based on a **community approach** to water and will include **extensive Information, Education and Communication (IEC)** as a key component of the mission.
- JJM looks to create a **Jan Andolan** (People's Movement) for water, thereby making it everyone's priority.
- The fund sharing pattern is 90:10 for Himalayan and North-Eastern States; 50:50 for other States and 100% for UTs.

Why in News?

- Union Minister of Jal Shakti reviewed the implementation of Jal Jeevan Mission.

12) 'Namath Basai' programme for tribal children

About Namath Basai

- Namath Basai is the **Kerala State government's** unique programme of **teaching tribal children in their mother tongue**.
- The programme, implemented by the **Samagra Shiksha Kerala (SSK)**, has succeeded in retaining hundreds of tribal children in their online classes by making them feel at home with the language of instruction.

- The SSK has distributed some 50 laptops exclusively for Namath Basai. Pre-recorded classes are offered through a YouTube channel.

Why in News?

- The Namath Basai programme, introduced recently, received overwhelming response in Attappady, Kerala.
- Classes are being offered in **three tribal languages** (Irula, Muduka and Kurumba) in Attappady. Namath Basai in Irula means 'our language'.
- Namath Basai is being introduced in the tribal belts of Wayanad and Idukki in Kerala as well.

Benefits of the scheme

- Teaching in the tribal language has to a good extent **stopped students from dropping out**, which is quite usual in tribal hamlets.
- This scheme will go a long way in **preserving the ethnic culture and language of the tribespeople**.
- The learning experience is made more down to earth and children could feel what they were being instructed.

Environment

1) Pesticides Ban

What are Pesticides?

- Pesticides are **chemical substances** that are meant to control pests.
- Pesticides include **herbicides** for destroying weeds and other unwanted vegetation, **insecticides** for controlling a wide variety of insects, **fungicides** used to prevent the growth of molds and mildew, **disinfectants** for preventing the spread of bacteria, and **compounds** used to control mice and rats.

Why in News?

- The Centre had issued a draft order **banning the manufacturing and sale of 27 widely-used pesticides**, which includes 12 insecticides, 8 fungicides and 7 herbicides on grounds of the grave risk they pose to humans and animals.

What are the banned pesticides?

- The list of pesticides includes **monocrotophos, methomyl and Malathion carbofuran**, three pesticides that contain ingredients classified as “extremely hazardous” or “highly hazardous” by the World Health Organization.
- These pesticides have long been banned across several countries however, their use continues heavily in India despite they pose grave risk to humans and animals.
- The other 24 pesticides include **chlorpyrifos, quinalphos, thiram and zineb** that are known to disrupt the body’s endocrine (hormone) system and are categorised as harmful by the European Union.

What are the alternatives available to farmers?

- There are three types of alternatives available to the farmers.
 - **Integrated Pest Management (IPM) techniques:** Under IPM, simple hand-picking, light traps, pheromone traps, sticky traps, glue boards etc. are used to control pests.
 - **Bio-pesticides:** Neem-based biopesticides, which are environment-friendly, are very effective cost-wise and yield-wise. It’s bitter taste keeps pests away from plants.

- Adopting **newer molecular target-specific low toxicity pesticides**

2) People’s Biodiversity Register

About Biological Diversity Act, 2002

- The Biological Diversity Act (BDA) aims at the **conservation of biological resources, managing its sustainable use and enabling fair and equitable sharing benefits** arising out of the use and knowledge of biological resources with the local communities.
- The Act was enacted to meet the obligations under **Convention on Biological Diversity (CBD)**, to which **India is a party**.

Objectives of the Act

- To **protect India’s rich biodiversity and associated knowledge** against their use by foreign individuals and organizations without sharing the benefits arising out of such use.
- To check **bio-piracy**.
- *Biopiracy describes a practice in which indigenous knowledge of nature, originating with indigenous peoples, is used by others for profit, without permission from and with little or no compensation or recognition to the indigenous people themselves.*

Salient features of the Act

- The Act provides for setting up of a **National Biodiversity Authority (NBA)** (Headquartered in Chennai), **State Biodiversity Boards (SBBs)** and **Biodiversity Management Committees (BMCs)** in local bodies.
- The NBA deals with all matters relating to **requests for access by foreign individuals, institutions or companies**, and transfer of results of research to any foreigner. Its **approval will be required** before obtaining any intellectual property right on an invention based on a biological resource from India, or on its traditional knowledge.
- The State Biodiversity Boards (SBBs) constituted by the State Governments deal with all matters relating to **access by Indians for commercial purposes**.

- Any offence under this Act is **non-bailable and cognizable**.

About Biodiversity Management Committees

- The Biological Diversity Act is one of the rare central environmental legislations which **directly empower locally elected representatives** in biodiversity governance.
- The Act mandates the constitution of committees by local self-governments to manage local biodiversity called Biodiversity Management Committees (BMC) within their area of jurisdiction.
- Once constituted, the BMC must prepare a **Peoples' Biodiversity Register (PBR)** in consultation with local people. A PBR comprehensively documents traditional knowledge of local biological resources.
- The BMC is the **custodian of these resources**, and any industry that extracts biological resources from these areas has to **share part of its revenue with the local community**.
- Unlike other committees that have experts as members, BMC members are farmers, fisher folk, academicians and other community members who are **nominated by elected representatives**.
- An important power of BMC members is to **levy collection fees** on commercial users for the removal of biological resources occurring in their jurisdiction. This means if any person or company is taking biological resources such as fish or medicinal plants for commercial purposes, BMC can levy a fee.

Why in News?

- Though the Biological Diversity Act aligns with the spirit of decentralisation, even after two decades of its existence, the progress achieved by this law in decentralising biodiversity governance has been far from satisfactory.
- Field research shows **lack of interest among local bodies** in engaging with the mandates under BDA.
- The Biological Diversity Rules prescribe the preparation of the People's Biodiversity Register as the first priority of BMCs. However, these registers have become a mere formality.

Significance of PBR

- It has the scope to become the ultimate tool for a **people-centric environment impact assessment process** that allows communities living next to the resource to remain the real commanders.
- The main feature of PBR is that it **records local biodiversity which may be something that is not available at any other place**. This exercise has the potential to familiarise local communities with the vast uses and users of the same and different natural resources and related knowledge in their jurisdiction.
- Another important use of PBR is its **potential to safeguard local and traditional knowledge**.

Way Forward

- BMCs, local-elected bodies and states should effectively use PBR as it is a multifaceted resource. It can be used to increase people's participation in biodiversity stewardship and governance.
- BMCs and PBRs are ways to gear up local self-governments towards building a resilient local environment.

3) Ganga river pollution

Context

- The Ganga is one of the rivers that host a huge population of over 338 million with about 100 cities and many of the country's busiest and largest commercial and industrial hubs situated on its banks.
- **Dense urban centres and industries, domestic sewage** as well as **industrial effluents** from surrounding towns play a major role in contaminating river Ganga.

Issues with conventional methods

- Conventional methods are being used to reduce the pollution load in wastewater before it is discharged into the river, however
 1. They are **less effective** in removing all types of contaminants
 2. They are **expensive** and require **high energy input**
 3. They also **produce large amounts of sludge** that requires further handling
- In view of this, **bioremediation of wastewater with the help of microalgae** has gained attention in recent years as an economic and eco-friendly method.

Bioremediation

- Bioremediation is a branch of biotechnology that **employs the use of living organisms**, like microbes and bacteria, in the removal of contaminants, pollutants, and toxins from soil, water, and other environments.

About microalgae

- Microalgae are **unicellular species** which exist individually, or in chains or groups. They are typically found in **freshwater and marine systems**.
- Depending on the species, their sizes can range from a few micrometres (μm) to a few hundreds of micrometres. Unlike higher plants, microalgae **do not have roots, stems and leaves**.
- Microalgae, capable of performing photosynthesis, are important for life on earth; they **produce approximately half of the atmospheric oxygen**.
- They can remove inorganic and organic pollutants, heavy metals, pesticides and pathogens from the wastewater,
- They can also be used to **generate biofuel**.

Why in News?

- Researchers at the College of Engineering Roorkee in Uttarakhand have found that two algal species—**Hydrodictyon reticulum** and **Chlorella vulgaris**—are highly effective in accumulating heavy metals and pesticides and in removing pathogens from water.

4) Report on Leopard

Indian Leopard

- Indian Leopard (*Panthera pardus*) is a subspecies of leopard that is found in many areas of the Indian subcontinent.
- It is listed under **VULNERABLE** category by IUCN, **Schedule I** of the Wildlife (Protection) Act, 1972 and included in **Appendix I** of CITES.
- Like other leopard subspecies, the **pattern of rosettes** (marks on body) is **unique** to each individual and can be used to tell them apart.

Conservation Issues

- Leopards are **highly adaptable** and because of this, they are found in diverse tracts across the globe. The Indian leopards are found in the **Himalayas**,

mangroves, and even in the arid regions of Rajasthan.

- It is estimated that 12,000-14,000 leopards occur in India, and the population is the most genetically diverse/outbred out of all the subspecies in Asia.
- However, the population has been severely affected by poaching for skins and body parts for the illegal wildlife trade; there were more than 3,000 leopards poached in India between 1994 and 2010.
- Leopards also die due to accidents on roads passing through and around protected areas.

TRAFFIC

- TRAFFIC is a leading **non-governmental organisation** working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.
- Founded in 1979, it is a joint program of the **World Wildlife Fund (WWF)** and the **International Union for Conservation of Nature (IUCN)**.
- TRAFFIC's goal is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.
- It is headquartered in Cambridge, United Kingdom.

Why in the news?

- TRAFFIC has released a study on Leopard poaching and its illegal trade in India.
- The paper titled "**SPOTTED' in Illegal Wildlife Trade: A Peek into Ongoing Poaching and Illegal Trade of Leopards in India**" reveals that of the total of 747 leopard deaths between 2015-2019 in India, 596 were linked to illegal wildlife trade and activities related to poaching.
- The highest numbers of poaching incidents were reported from the States of **Uttarakhand and Maharashtra**.
- In the illegal trade, the skin of the leopard is the most demanding one, and its bones are sold as tiger bones as they have a larger international demand for traditional medicines.

5) National Green Tribunal

About NGT

- It is a **statutory body** established in 2010 under the National Green Tribunal Act 2010.

- It is a specialized body equipped with the necessary expertise to **handle environmental disputes** involving multi-disciplinary issues.
- The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be **guided by principles of natural justice**.
- The Tribunal is vested with the **powers of a civil court** under the Code of Civil Procedure for discharging its functions but it can make its own rules.
- It provides speedy environmental justice and helps reduce the burden of litigation in the higher courts.

What is the Tribunal's composition?

- The Tribunal has a presence in **five zones**- North, Central, East, South and West. The Principal Bench is situated in the North Zone, headquartered in **Delhi**.
- The Central zone bench is situated in Bhopal, East zone in Kolkata, South zone in Chennai and West zone in Pune.
- The Tribunal is headed by the **Chairperson** who sits in the Principal Bench and has **at least ten but not more than twenty judicial members** and **at least ten but not more than twenty expert members**.

Tribunal's Jurisdiction

- The NGT deals with civil cases under the seven laws related to the environment, these include
 1. The Water (Prevention and Control of Pollution) Act, 1974
 2. The Water (Prevention and Control of Pollution) Cess Act, 1977
 3. The Forest (Conservation) Act, 1980
 4. The Air (Prevention and Control of Pollution) Act, 1981
 5. The Environment (Protection) Act, 1986
 6. The Public Liability Insurance Act, 1991 and
 7. The Biological Diversity Act, 2002
- Two important acts - **Wildlife (Protection) Act, 1972** and **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** have been kept out of NGT's jurisdiction.
- The Tribunal has jurisdiction **over all civil cases involving a substantial question relating to the environment**. Additionally, any person aggrieved by an

order/direction of any of the Appellate Authorities under the legislations mentioned above can also challenge them before the National Green Tribunal.

Are decisions of the Court binding?

- **Yes**, decisions of the Tribunal are binding. The Tribunal's orders are enforceable as the powers vested are the same as in a civil court under the Code of Civil Procedure, 1908.

Are decisions of the Tribunal final?

- The Tribunal has powers to review its own decisions. If this fails, the decision can be challenged before the **Supreme Court within ninety days**.

National Clean Air Programme (NCAP)

- NCAP is a pollution control initiative that was launched by the **Ministry of Environment, Forest and Climate Change** in January 2019. This is the first ever effort in the country to frame a national framework for air quality management with a time-bound reduction target.
- It aims to reduce particulate matter (**PM_{2.5} and PM₁₀**) pollution by **20-30% in 122 cities by 2024**, with 2017 as the base year for comparison.
- The **Central Pollution Control Board (CPCB)** executes this nation-wide programme.

Implementation

- Under NCAP, **122 non-attainment cities** have been identified across the country based on the **Air Quality data from 2014-2018**.
- Apart from experts from the industry and academia, the programme is a collaboration between the Ministry of Road Transport and Highways, Ministry of Petroleum and Natural Gas, Ministry of New and Renewable Energy, Ministry of Heavy Industry, Ministry of Housing and Urban Affairs, Ministry of Agriculture, Ministry of Health, NITI Aayog, and Central Pollution Control Board.
- **City specific action plans** have been prepared which include measures for strengthening the monitoring network, reducing vehicular/industrial emissions, increasing public awareness etc.
- Implementation of the city specific action plans are regularly monitored by Committees at Central and State level

namely Steering Committee, Monitoring Committee and Implementation Committee.

- Air quality of cities is monitored by **State Pollution Control Boards** which publishes their results from time to time.

Why in the news?

- Expressing disapproval over the timeline to reduce air pollution, the National Green Tribunal has directed the Environment Ministry to modify the National Clean Air Programme considering adverse effects of pollution on public health and in view of constitutional mandate of fundamental right to breathe clean air.
- The tribunal has directed the Ministry to reduce the timelines to achieve the targets of the programme and increase the target of reduction.
- The tribunal also directed the CPCB and state pollution control boards to ensure assessment and installation of the requisite number of real time online continuous Ambient Air Quality Monitoring systems within six months.

5) Human-Elephant Conflict Management

About Elephants

- There are two species of elephants, **African and Asian**, and while they are similar in physiology, they are too biologically different to interbreed.
- According to IUCN, the Asian elephant is classified as **endangered** with less than 40,000 remaining worldwide.
- The African elephant (Forest and Savannah) is a **vulnerable** species with less than 400,000 remaining worldwide.

Man-Animal conflict

- **India** has the largest number of wild Asian Elephants, estimated at 29,964 according to the **2017 census by Project Elephant** which is almost 60% of the global Asian Elephant population.
- **Project Elephant** was launched by the Government of India in the year 1991-92 as a Centrally Sponsored Scheme to provide financial and technical support to major elephant bearing States in the country for protection of elephants, their habitats and corridors.

- A similar initiative is the **Monitoring the Illegal Killing of Elephants (MIKE) programme** that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.
- The MIKE Programme was established by the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** in 1997.
- Among the states, the highest population was recorded in Karnataka (6,049), followed by Assam and Kerala.
- Over 500 people and 100 elephants die every year due to conflict with each other,, which include poaching for ivory or meat, poisoning, electrocution and collision with trains, while property worth millions are damaged.
- **Loss of natural habitat and fragmentation** have been bringing wild elephants closer to human habitations, sparking human-elephant conflicts.

Why in the news?

- To ease these issues, the Ministry of Forests, Environment, and Climate Change has published a document titled '**Best Practices of Human-Elephant Conflict Management in India**' to prevent and mitigate Human-Elephant conflict.
- The document includes best practices followed in the country to offer strategies which provide site-specific solutions.
- Some strategies which are mentioned in the document are:
 1. Bio-fencing (made of thorny plants) in West Bengal, Assam and Tamil Nadu,
 2. Elephant-proof trenches in Tamil Nadu,
 3. Hanging fences and rubble walls in Karnataka,
 4. Playing the sound of bees or carnivores in Assam,
 5. SMS alerts to nearby villagers about the whereabouts of elephants,

Challenges

- There are about **30 elephant reserves** across the country covering about 65,000 sq km but the reserves and corridors have poor legal protection, which means that forest land in such areas can easily be **diverted for any non-forest purpose** like infrastructure development projects etc.

- **Population management** is the key issue because only 22% of the elephant habitat is under protected area. Majority of elephant corridors are under non-protected areas due to which elephants migrate to the other areas because it requires fodder around 300kg.
- In Eastern India, due to various problems like mining, increasing cultivation, decline in bamboo forest cover, the human-elephant issue has reached its peak.

Way Forward

- The pre-existing corridors need to be enlarged. The **translocation of animals** from a densely populated region to a less populated region can help in minimising the conflict to some extent.
- Wildlife management should be prioritized along with the economic development and decisions regarding both should go hand in hand along with various scientific decisions.
- Mitigation measures should be implemented by policy makers as well as via community participation.

6) Project Lion and Project Dolphin

What's in the news?

- In his Independence Day address, Prime Minister Narendra Modi announced that the central government will launch **Project Lion** and **Project Dolphin** using modern technology to replicate the success of Project Tiger.
- Lion and Dolphin are very important species of the ecosystem and it maintains a balance between the various marine as well as terrestrial species.

Project Dolphin

- Project Dolphin will involve **conservation of oceanic as well as Gangetic river dolphins and the aquatic habitat** through the use of modern technology, specially in enumeration and anti-poaching activities.
- The project will boost the biodiversity as well as help provide livelihoods and it will also help to boost tourism.
- The 10-year Project Dolphin will involve local populations that are dependent on the river systems to reduce water

pollution, encourage sustainable fishery and other livelihood options.

- The project will not only protect dolphins, but will also **promote a healthy river ecosystem** that is likely to help protect other species in the river.

About Ganges river dolphin

- The Ganges river dolphin (*Platanista gangetica gangetica*) is **one of the five river dolphins** found in the world. The species is found in the **Ganga and Brahmaputra river basins** of India, Nepal and Bangladesh.
- They feed majorly on fish, but are **blind**. Instead they use **echolocation** to detect food and navigate, and, to a very small extent, communication.
- In 2009, the government declared Ganges river dolphin as the **National aquatic animal**.
- Despite being a protected species under the Wildlife Protection Act, 1972, its numbers had dwindled over the last century due to indiscriminate fishing, poaching and development of barrages and dams along with the habitat of the dolphins.
- Their population is estimated to be less than 2000 individuals.
- **Protection Status:** IUCN Red List: **Endangered**; CITES: **Appendix I**; Wildlife Protection Act (1972): **Schedule I**.

About Project Lion

- Project Lion would involve **conservation of the Asiatic Lion, and its landscape**.
- It will entail habitat development, engage modern technologies in lion management and address the issues of disease in lions and its associated species through advanced world-class research and veterinary care.
- It will also address **human-wildlife conflict** and will be inclusive involving local communities living in the vicinity of lion landscape.

Asiatic Lion

- **Gir National Park and Wildlife Sanctuary** in Gujarat, is the **only abode of the Asiatic lion**.
- As per Forest Department data, Gir National park has registered nearly 30% increase in asiatic lions' population. The number of lions have increased from 523

lions in 2015 to estimated 674 lions in 2020.

- **Protection Status:** IUCN Red List: **Endangered**; CITES: **Appendix I**; Wildlife (Protection) Act 1972: **Schedule I**.

Flora and Fauna

1) Tree loss in Arunachal threatens hornbills



Hornbills

- Hornbills are a family of tropical and sub-tropical birds which are found extensively in Africa, Asia and Melanesia.
- Famously dubbed as the '**Farmers of the Forest**', these frugivores (fruit-eating birds) help in **seed dispersal** of several endemic trees and are important for survival and upkeep of entire forests.
- In India, **9 subspecies** of hornbills are found. They are: The Great Hornbill, Rufous-necked Hornbill, Wreathed Hornbill, Narcondam Hornbill, Malabar Pied Hornbill, Oriental Pied Hornbill, White-throated Brown Hornbill, Malabar Grey Hornbill, and the Indian Grey Hornbill.
- Five species are found in the **northeastern states** of which the Wreathed hornbill, Rufous-necked hornbill and the White-throated brown hornbill are restricted to this region within India, although they have a wider distribution in South-east Asia.

- The Narcondam hornbill is found only on **Narcondam island** (part of the Andaman Islands) **in the Bay of Bengal**.
- The Indian grey hornbill occurs in the **Indian subcontinent**, while the Malabar Pied Hornbill is found only in **India and Sri Lanka**.
- The Malabar grey hornbill is **endemic to the Western Ghats**.

Papum Reserve Forest (RF)

- It is an Important Bird Area (IBA) in **Arunachal Pradesh**. It lies adjacent to **Pakke Tiger Reserve** of Arunachal Pradesh. Pakke is also the **only Hornbill sanctuary in India**.
- This forest typically contains Sub-tropical Dry Evergreen and Semi-evergreen Forests, while the higher areas are under Subtropical Broadleaf Hill Forest cover.
- It is very special to the Hornbill population as this reserve forest is home to 3 hornbills subspecies; i.e. **Great, Wreathed and Oriental Pied**.

Why in the news?

- In the last 5 years (2013-2017), the papum reserve forest has declined by 24% of its

total forest area. Annually this forest is losing upto 8 sq.km.

- Illegal logging, deforestation, ethnic conflicts, agricultural expansion, conversion to plantations etc. have caused the hornbill population of the region to decline in drastic ways.
- The hornbills are hunted here by local tribes for using their beaks and feathers to use them as headgear. There has been a push to **promote synthetic feathers and beaks** among these tribes so that they stop hunting hornbill species.
- Experts have been asking to promote conservation and maintenance of these forests to conserve these hornbill species.

2) Fishing cat collaring project

Fishing Cat



- About twice the size of a typical house cat, Fishing cats live primarily in **wetland areas**, both marshes and swamps.
- The fishing cat is an adept swimmer and enters water frequently to prey on fish as its name suggests.
- In India, fishing cats are mainly found in the **mangrove forests of the Sundarbans, on the foothills of the Himalayas along the Ganga and Brahmaputra river valleys and in the Western Ghats.**
- **Protection Status:** IUCN Red List: **Vulnerable**; CITES: **Appendix II**; Wildlife Protection Act (1972): **Schedule I.**
- Stronger conservation efforts are needed to reverse the rapidly declining numbers of the fishing cat due to loss of its preferred wetland habitats. Prevention of indiscriminate trapping, snaring and poisoning is also needed.

Coringa Wildlife Sanctuary

- Coringa Sanctuary, a part of Godavari Mangroves in **Andhra Pradesh**, was

declared in 1978 as a wildlife sanctuary to conserve the mangrove vegetation of the estuary.

- The sanctuary is formed in the delta and estuary region of **Godavari river** which merges into the Bay of Bengal.
- The Coringa Sanctuary is the **second-largest stretch of mangroves along the Eastern Coast of India** (after the Sunderbans in West Bengal), with a unique ecosystem, flora and fauna, rare mangrove species, as also otters, fishing cats, sea turtles etc.
- It is also adobe to many migratory bird species coming from Europe, North and Central Asia.

Why in the news?

- A team of experts from Wildlife Institute of India (WII) is preparing to put Geographic Information Systems (GIS) collars on fishing cats in Coringa Wildlife Sanctuary.
- Coringa has around 115 fishing cats. This project will help us to understand the species' ecology, home range, behaviour in different seasons, feeding habits, threats, movements and use of space.

Wildlife Institute of India

- Wildlife Institute of India was established in 1982 as an autonomous institute of the **Ministry of Environment, Forest & Climate Change (MoEF&CC).**
- Its primary mandates are to:
 - carry out scientific and applied research on various issues of wildlife and biodiversity conservation,
 - build capacity in the field of wildlife management and conservation planning,
 - provide technical inputs to MoEF&CC and other stakeholders.
- WII helps in conducting Tiger Census every four years along with the National Tiger Conservation Authority (NTCA).
- WII is headquartered at **Dehradun**, Uttarakhand.

3) Barn owls

About Barn Owls



- They are the most spread owls around the world.
- According to IUCN status it is under **LEAST CONCERN** category.
- The nocturnal (active in the night) barn owls are **natural rat hunters**, armed with a powerful auditory mechanism.

Why in the news?

- Three pairs of barn owls shipped to the Lakshadweep Islands from Kerala in 2019

have proven helpful to stop the menace of rats in coconut plantations where economic loss due to rats is pegged at ₹6.04 crore annually.

- The Lakshadweep Administration had embarked on the **'Pilot project on Biological Control of Rodents (Rats) by Using Barn Owls in Kavaratti Island'** after studies revealed the shocking extent of damage caused by rats to the island's coconut yield and economy.
- The rats in these islands are prone to stay on the trees and damage the crop extensively. There are no natural predators in the island to keep the rats at bay.
- Since Lakshadweep Islands follow an **organic way of farming, use of pesticides is banned**. Hence the idea of **bio-control agents** was very much essential to protect the coconut yield and stay efficiently organic.

Agriculture

1) Diverse millet culture

Millets & the Indian Sub-Continent

- Millets are a group of small seeded grasses used as cereals. The Indian sub-continent has had a rich heritage of growing them and until very recently millets formed a very large part of our food basket.
- Sadly, the production of millets has not been given much attention over the years and our agricultural policies have systematically encouraged production of wheat & rice at the cost of millets and coarse cereals.
- There is a **reduction in the total area under millet cultivation**. While in 1965-66 it stood at almost 37 million hectares, it was down to 14.72 million hectares in 2016-17.

Socio-Economic Context of Millets

- Millets were considered the **food of the poor** due to their **ability to grow even in the most marginalised of lands**, compared to other crops like paddy or wheat which needed more fertile lands and more focus on irrigation and crop management.
- Millets were also **ideal for rain-fed conditions and saline soils**.

Renewed focus

- A **declining diversity in diet** which was traditionally a part of our food culture had many significant impacts in terms of the **nutrition status amongst women and children**.
- The recent trends show a **renewed interest in millets**. The government policies are also starting to reflect this renewal. Millets have been included in the **public distribution system in Odisha** and the government is also promoting millets under the **National Food Security Act**.
- At the behest of the Indian government, the **UN Food and Agricultural Organisation** has approved its proposal to declare the **year 2023 as the International Year of Millets**.

Millets -- Good for Health, Farmers, & Environment

- According to a recent study, in the coming years there will be a **reduction in**

production rates of various cereal crops **due to climate change**. The only crops that could withstand these climate vagaries and not see a negative impact on yield are millets.

- Millets have a **double value in tackling climate change** because they **contribute to both adaptation and mitigation**.
- Millets **survive in much higher temperatures** than most crops and **can survive with much less water** (1/4 of the water required by rice). Their overall resilience makes them **climate smart** and a good adaptation strategy for farmers.
- Millets also are farmed with **minimal fertilizers and pesticides**, so they have a **lower carbon footprint**. Millets compared to rice **reduces Greenhouse gases (GHGs) by 2% to 13%**.
- Millets are also **highly nutritious** and have the potential to be a solution to the nutrition crisis facing the country.
- A study by **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)** found that children grew up to 50% more in weight and height parameters on a millet based diet.
- Millets are also being hailed as the **solution for many lifestyle diseases** like diabetes, high blood pressure, digestive disorders, gluten allergies and much more.

2) Pokkali rice

What is it?

- It is a unique **saline tolerant rice** grown in coastal areas of central **Kerala**.
- The Pokkali Rice is called **Clever man's rice**. A farmer must utilize the naturally available ecological system as fertilizer to cultivate the rice variety.
- The crop grows to a height up to 1 meter making them naturally flood resistant.
- Pokkali rice cultivation has been evolved through ages by the farmers of the area for the maximum utilization of available resources without affecting the ecosystem.
- It has been given a **GI tag** from Kerala.

Rice-Prawn Culture

- Pokkali Rice and Prawn are cultured in the same field. Both are **mutually complementary**.
- During high salinity the prawn farming takes over which feeds on leftovers of post paddy harvest.
- The rice crop, which gets no other fertilizer or manure, draws nutrients from the prawn's excrement and other remnants.

Saline tolerance properties

- A team of researchers, including scientists from Jawaharlal Nehru University (JNU), has found that the high expression of a specific gene – **OsIF** – stabilizes the plant's photosynthetic machinery in high salinity conditions, thereby playing a crucial role in pokkali's tolerance to salty conditions.

Why in the news?

- Ever since Cyclone Amphan has hit the coasts of West Bengal, the coastal regions have seen severe sea-water incursion which has left crops damaged.
- Hence, with the help of local Science Clubs, the farmers of 24 North Parganas district in West Bengal are sowing Pokkali rice from Kerala which is known for its salt water tolerance.

Significance

- Wide range of such adaptations of these indigenous rice varieties as well as their ability to thrive under harsh climatic conditions, conserving them is **critical in promoting climate-resilient agriculture**.

Economy

1) GST Compensations

What is it?

- The GST regime, launched on July 1, 2017, introduced a uniform indirect tax structure across the country by merging various state and local-level levies.
- Under the **GST compensation Act 2017**, states are guaranteed full compensation for any revenue loss for the **first five years** after the introduction of the GST.
- For the purpose of calculating the compensation amount in any financial year, year **2015-16 will be assumed to be the base year**, from which revenue will be projected. The growth rate of revenue for a state during the five-year period is assumed to be **14% per annum**.
- Any shortfall has to be compensated from the receipts of **Compensation Cess** levied on luxury goods and sin products such as liquor, cigarettes, aerated water, automobiles, coal and other tobacco commodities.

BLEAK OUTLOOK

Compensation cess
collected in Apr-Jul of FY21
₹21,747 crore



₹3 trn

Total requirement for states
(taking into account Covid impact)

Gap ₹2.35 trn

Note: Numbers given by Finance Secretary
A B Pandey at a presser
Source: Controller General of Accounts

Revenue shortfall

- The goods and services tax revenue has slowed to a trickle on account of a slowing economy, the COVID pandemic and subsequent lockdowns.

- As a result, the collections will not be enough to meet the committed 14% annual increase in states' GST revenue, as provided in the constitutional amendment.
- The centre has computed this shortfall at an estimated **Rs 2.35 lakh crore** but determined that **only Rs 97,000 crore of that is on account of GST implementation, the rest is due to the pandemic**

Background

- In 2020, the Centre presented two options before the states to bridge their estimated GST revenue shortfall in FY21, both involving the states themselves borrowing from the market in the year.
- The loans will be serviced via the proceeds of the relevant **compensation cess**, which will apply on the specified demerit goods for a **year or more beyond the current end date of FY22**.

Key details of the two options

Option 1:

- The shortfall arising out of GST implementation (calculated at Rs 97,000 crore approximately) will be borrowed by States through issue of debt under a Special Window coordinated by the Ministry of Finance.
- The interest on the borrowing under the Special Window will be paid from the **Compensation cess** as and when it arises until the end of the transition period (2022). After the transition period, principal and interest will also be paid from proceeds of the Cess, by extending the Cess beyond the transition period for such period as may be required.
- **The state will not be required to service the debt or to repay it from any other source.**
- The borrowing under this special window will not be treated as debt of the state for any other norms prescribed by the Finance Commission.

Option 2:

- The entire shortfall of Rs 2,35,000 crore (including the Covid-impact portion) may be borrowed by States through issue of market debt.

- The **interest shall be paid by the States from their resources.**
- The **centre will repay principal** on such debt from **compensation cess** proceeds collected after the transition period ends in July 2022.
- To the extent of the shortfall arising due to implementation of GST (Rs 97,000 crore), the borrowing will not be treated as debt of the state.
- The states were asked to convey their choice to the Council. All the States have given their preference for Option-I.

Why in News?

- The Ministry of Finance (MoF) has permitted as many as 20 states, who have exercised Option-1, to raise ₹68,825 crore through borrowings to meet the GST revenue shortfall.
- The Union government has also granted **additional borrowing permission equivalent to 0.50 per cent of Gross States Domestic Product, GSDP** to the states choosing Option-I to meet GST compensation shortfall to help them in mobilising additional financial resources.

2) MSME- the catalyst of development

Context

- In developing countries like India, where the majority of the population resides in the rural areas, Micro, Small and Medium Enterprises (MSMEs) are crucial - socially and economically. Because these enterprises are **widely dispersed across rural areas**, they are extremely important for rural economic development and they have the **ability to absorb a significant number of workers.**
- Further, these enterprises play a key role as a **place for entrepreneurship and business skill development**, especially in rural areas due to their easy accessibility.
- The MSME sector contributes about **45% of India's manufacturing sector output and 40 % of the nation's exports.**
- In the emerging markets, **most formal jobs are generated by Small and Medium Enterprises (SMEs)**, which create **seven out of 10 jobs.**

New Definition of MSMEs

- Recently, the government has changed the basic definition of MSME and also **ends the difference between the manufacturing and services sector.**
- Till now, MSMEs are categorised based only on the investment in machinery or equipment. The new classification has **raised the investment limit** and included **annual turnover** as an additional criteria.
 1. Accordingly, units having investment less than Rs 1 crore and turnover less than Rs 5 crore will be called **Micro units.**
 2. Investment between Rs 1 and Rs 10 crore and turnover of Rs 5 crore to Rs 50 crore will be categorised as **Small Enterprises.**
 3. Units having investment between Rs 10 crore but up to Rs 50 crore and turnover between Rs 50 crore and Rs 250 crore will now be known as **Medium Enterprises.**

Rationale for the move

- It has been a long-standing demand from industry to hike the investment limits, as with inflation, units often cross the threshold that will bring them benefits. To prevent this, they either run their operations at a reduced level or incorporate multiple units so that turnover is distributed in a way that they remain within the threshold that will give them the benefits.
- With the revised definitions of MSMEs, they **will not have to worry about growing their size and can still avail benefits.**
- The new definition also **excluded exports from counting of turnover** which will encourage the MSMEs to export more and more without fearing to lose the benefits of a MSME unit.

Programmes for the growth and development of the MSME sector

Prime Minister's Employment Generation Programme

- This is a credit-linked subsidy programme, launched by the **Ministry of MSME**, aimed at **generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector** by helping traditional artisans and unemployed youth.
- At the national level, the Scheme is being implemented by **Khadi and Village Industries Commission (KVIC)**, a statutory organization under the

administrative control of the Ministry of MSME.

- Under the scheme, loans are being provided by all Public Sector Banks, selected Private Sector Banks and Co-operative Banks with margin money subsidy being given by the Ministry of MSME through KVIC.

Scope

- The scheme is applicable to all viable projects in **rural as well as urban areas**, under the Micro enterprises sector.
- The maximum cost of the project admissible under the manufacturing sector is **Rs.25 lakhs** and the business/services sector is **Rs.10 lakhs**.
- Only one person from a family is eligible for obtaining financial assistance under the scheme.
- Assistance under the Scheme is available **only for new projects**.

Eligible Entrepreneurs / Borrowers

- Any individual, above 18 years of age
- The beneficiaries should have passed at least VIII standard, for setting up of project costing above Rs.10 lacs in the Manufacturing Sector and above Rs. 5 lacs in the business /Service Sector,
- Self Help Groups
- Institutions registered under Societies Registration Act, 1860
- Production Co-operative Societies
- Charitable Trusts

Solar Charkha Mission

- Launched in 2018 by the **Ministry of MSME**, it aims to ensure inclusive growth by generation of employment, especially for women and youth, and sustainable development through **establishing solar charkha clusters in rural areas**.
- Each spinner will be given two charkhas of 10 spindles each. On an average, it is considered that such clusters will have about 1000 charkhas. A cluster with full capacity will provide direct employment to 2042 artisans.
- These solar charkhas are to be operated using **solar power** which will help in development of Green Economy and generate sustainable employment for the artisans.
- The scheme also aims to boost rural economy and help in **arresting migration** from rural to urban areas. It is envisaged

to generate direct employment for nearly one lakh persons in the approved 50 clusters across the country.

- The **Khadi and Village Industries Commission (KVIC)** is implementing the programme.

CHAMPIONS portal

- *Refer Pulse June 2020 edition*

Credit Guarantee Scheme for Micro and Small Enterprises (CGMSE)

- Of all the problems faced by the MSMEs, non-availability of timely and adequate credit at a reasonable interest rate is one of the most important.
- CGMSE, launched in 2000, facilitates credit to the MSE units by covering **collateral-free credit facility** (term loan and/or working capital) extended by eligible lending institutions to new and existing micro and small enterprises.
- The Ministry of Micro, Small and Medium Enterprises and Small Industries Development Bank of India (SIDBI), established a Trust named **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)** to implement the scheme.

3) ASEAN-India Free Trade Agreement

AIFTA

- The ASEAN-India Free Trade Agreement (AIFTA) is a free trade agreement consisting of the 10 member states of the Association of Southeast Asian Nations (ASEAN) and India.
- The initial framework agreement was signed in Bali, Indonesia, on October 8, 2003, and the final agreement was signed on August 13, 2009. The free trade area came into effect on **January 1, 2010**.

Why in News?

- India and ASEAN countries have agreed to **review the ASEAN India free trade agreement** to make it more user friendly, simple and facilitative. The review will make AIFTA modern with contemporary trade facilitative practices, and streamlined customs and regulatory procedures.
- It would also help realise the true bilateral trade potential between India and the 10-

member nation bloc of Southeast Asian countries.

- India's annual trade deficit with ASEAN is close to **\$24 billion**.

Related information About ASEAN



Image: ASEAN

- The Association of Southeast Asian Nations, or ASEAN, is a regional & intergovernmental organisation of 10 countries of Southeast Asia.
- ASEAN was established in 1967 in Bangkok, Thailand, with the signing of the **ASEAN Declaration (Bangkok Declaration)**.
- Its members are **Thailand, Malaysia, Laos, Cambodia, Indonesia, Singapore, Myanmar, Philippines, Brunei and Vietnam**.
- The organisation aims to accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership. They work towards the progress of the southeast Asia region.

4) Purchasing Managers' Index

What is PMI?

- Purchasing Managers' Index is an economic indicator which indicates the business activity & economic health of both the **manufacturing and service sectors**.
- PMI of India is published by Japanese firm **Nikkei** but compiled and constructed by **IHS Markit**, a London-based global information provider.
- PMI is an **investor sentiment tracking index** and is more dynamic in nature. They are derived from monthly surveys of about 400 private companies.
- Variables used for calculating the PMI are: Output, New Orders, Employment, Input Costs, Output Prices, Backlogs of Work, Export Orders, Quantity of Purchases, Suppliers' Delivery Times, Stocks of Purchases and Stocks of Finished Goods.
- PMI, which is usually released at the **start of the month**, serves as a leading indicator of economic activity. It comes before the official data on industrial output, core sector manufacturing and GDP growth.

How to read PMI?

- While PMI >50 implies an expansion of business and economic activity, PMI <50 means contraction.

Why in News?

- According to the latest PMI data, India's manufacturing sector activity contracted at a slightly faster pace in July. Manufacturing PMI stood at 46 in July, down from 47.2 in June.
- This is the fourth straight month of contraction for the Indian manufacturing sector.

5) Market Intervention Scheme (MIS)

What is it?

- Market Intervention Scheme is a price support mechanism implemented on the request of State Governments for **procurement of perishable and horticultural commodities** in the event of a fall in market prices.
- MIS is implemented by the **Department of Agriculture & Cooperation**.
- The Scheme is implemented when there is at least **10% increase in production or 10% decrease** in the ruling rates over the previous normal year.

- It works in a similar fashion to Minimum Support Price based procurement mechanism for food grains, but is an **ad hoc mechanism**.
- **Objective:** To intervene in the market to protect the growers of their commodities from making distress sale in the event of a bumper crop during the peak arrival period when the prices tend to fall below economic levels and cost of production.
- **Pattern of Assistance:** The amount of loss is shared on a 50:50 basis between the Central government and the State government (on a 75:25 basis in case of North-Eastern States).
- **Eligibility:** State / UT government ready to share the loss on 50:50 basis between the Central government and the State government (75:25 basis in case of North-Eastern States).

Why in News?

- In Jammu and Kashmir, the Market Intervention Scheme was launched in 2019 with an objective to provide optimum prices to the Apple growers.
- In view of the overwhelming response, the Jammu and Kashmir government has written to the Centre to extend the benefit of the scheme.

6) RBI surplus transfer

Background

- According to **Section 47 of the RBI Act**, profit of the RBI has to be transferred to the government periodically.
- However, before transferring, some amount of the profit is kept aside for maintaining reserves of the RBI.

What constitutes RBI's reserves?

- RBI's reserves fall under four main heads: **the Contingency Fund (CF), the Currency and Gold Revaluation Account (CGRA), the Asset Development Fund (ADF) and the Investment Revaluation Account (IRA)**.
- CF is the corpus created to take care of unexpected and unforeseen contingencies, including depreciation in the value of securities held, systemic risks and risks arising out of monetary and exchange rate policy operations.

- The ADF corpus is meant to be drawn upon for investments in subsidiaries and to meet internal capital expenditure etc.
- Of these, the CGRA and the IRA are 'notional' in the sense that they are there to reflect the movements in the market prices of the asset classes (mainly gold, foreign currency and investments) to which they relate. No cash flow is involved in their case and the net credit balance in the CGRA account only indicates the unrealized or potential gain from the disposal by sale of those assets today.

Why in News?

- The RBI Board has approved the transfer of ₹57,128 crore as surplus to the government for the accounting year 2019-20. It has decided to maintain a **Contingency Fund of 5.5 percent** as the minimum threshold as recommended by the **Bimal Jalan committee**.
- In 2019, the central bank had transferred ₹1.76 lakh crore, which included ₹1.23 lakh crore as dividend and ₹52,637 crore of excess provisions.

Bimal Jalan Committee

- The Bimal Jalan Committee on Economic Capital Framework was set up in 2018 to assess the adequate size of capital reserves that the RBI should hold.

Recommendations of the committee

- The committee, in its final report submitted in 2019, recommended that the RBI should maintain a **Contingent Fund between 5.5-6.5% of the RBI's total assets**.
- The committee also recommended transferring the full net income of the RBI of Rs 1,23,414 crore for the fiscal year 2018-19 to the Centre.

7) GST council

About GST Council

- Goods & Services Tax Council is a **constitutional body** under Article 279A of the amended Constitution, for making recommendations to the Union and State Government on issues related to Goods and Service Tax.
- The Council was introduced by the **Constitution (One Hundred and First Amendment) Act, 2016**.

- The GST Council is chaired by the **Union Finance Minister** and other members are the Union State Minister of Revenue or Finance and Ministers in-charge of Finance or Taxation of all the States.

Mandate of GST Council

- The Goods and Services Tax Council shall make recommendations to the Union and the States on—
 1. the **taxes, cesses and surcharges** levied by the Union, the States and the local bodies which may be subsumed in the goods and services tax;
 2. the goods and services that may be **subjected to, or exempted** from the goods and services tax;
 3. the **threshold limit of turnover** below which goods and services may be exempted from goods and services tax;
 4. the **rates including floor rates with bands** of goods and services tax;
 5. the date on which the goods and services tax be levied on **petroleum crude, high speed diesel, motor spirit (commonly known as petrol), natural gas and aviation turbine fuel**.
- **Quorum:** **One-half** of the total number of Members of the Goods and Services Tax Council shall constitute the quorum at its meetings.
- **Voting share:** Every decision of the Goods and Services Tax Council shall be taken at a meeting, by a majority of **not less than three-fourths** of the weighted votes of the members present and voting, in accordance with the following principles, namely: —
 1. the vote of the **Central Government** shall have a weightage of **one-third** of the total votes cast, and
 2. the votes of all the **State Governments** taken together shall have a weightage of **two-thirds** of the total votes cast, in that meeting.
- No act or proceedings of the Goods and Services Tax Council shall be invalid merely by reason of—
 1. Any vacancy in, or any defect in, the constitution of the Council; or
 2. Any defect in the appointment of a person as a Member of the Council; or
 3. Any procedural irregularity of the Council not affecting the merits of the case.

- **Dispute adjudication:** The Goods and Services Tax Council shall establish a mechanism to adjudicate any dispute
 1. Between the Government of India and one or more States; or
 2. Between the Government of India and any State or States on one side and one or more other States on the other side; or
 3. Between two or more States, arising out of the recommendations of the Council or implementation thereof.

Why in News?

- Public health groups, along with doctors and economists, have urged the GST Council to increase **compensation cess** on all tobacco products. The additional revenue could significantly contribute to the increased need for compensation by different States during the pandemic and to disburse the dues already owed by the Centre.
- A ₹1 compensation cess per stick of bidis and significant cess increases on cigarettes and smokeless tobacco products are expected to generate additional tax revenue to the tune of ₹50,000 crores.

Ill effects of tobacco usage

- India has the **second largest number of tobacco users** in the world – of these at least 12 lakh die every year from tobacco-related diseases. The total direct and indirect cost of diseases attributable to tobacco use was a staggering ₹1.04,500 crores in 2011 or 1.16% of India's GDP.
- Increasing taxes on all tobacco products will not only **reduce their affordability** and therefore **consumption**, but also to **limit the increasing health and fatal damages** caused by tobacco.
- Tobacco smoking is a known risk factor for many respiratory infections and increases the severity of respiratory diseases.

WHO's recommendation

- The World Health Organisation (WHO) recommended total taxes to represent **at least 75% of the retail price** for all tobacco products.
- Currently, the total tax burden (tax expressed as a percentage of final retail prices) was only 49.5% for cigarettes, and 63.7% for smokeless tobacco in India, well below the minimum recommended by the WHO.

Organisations

1) UN Human Rights Council

About the council

- The Human Rights Council is an inter-governmental body within the United Nations system.
- The Council's mandate is to promote "universal respect for the protection of all human rights and fundamental freedoms for all" and "address situations of violations of human rights, including gross and systematic violations, and make recommendations thereon."
- It has the ability to discuss all thematic human rights issues and situations that require its attention throughout the year.
- The Council was created by the United Nations General Assembly in **2006**. It replaced the former United Nations Commission on Human Rights.
- The headquarters of UNHRC is in **Geneva, Switzerland**.

Membership

- The Council is made of **47 Member States**, which are elected by the majority of members of the General Assembly of the United Nations through **direct and secret ballot**.
- The Council's Membership is based on **equitable geographical distribution**.
- Members of the Council serve for a period of **three years** and are **not eligible for immediate re-election after serving two consecutive terms**.

Why in News?

- Members of the Human Rights Council held an online conference recently.

2) Asian Development Bank

About ADB

- The Asian Development Bank (ADB) was founded in 1966 with the primary mission of fostering growth and cooperation

among countries in the Asia-Pacific Region.

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

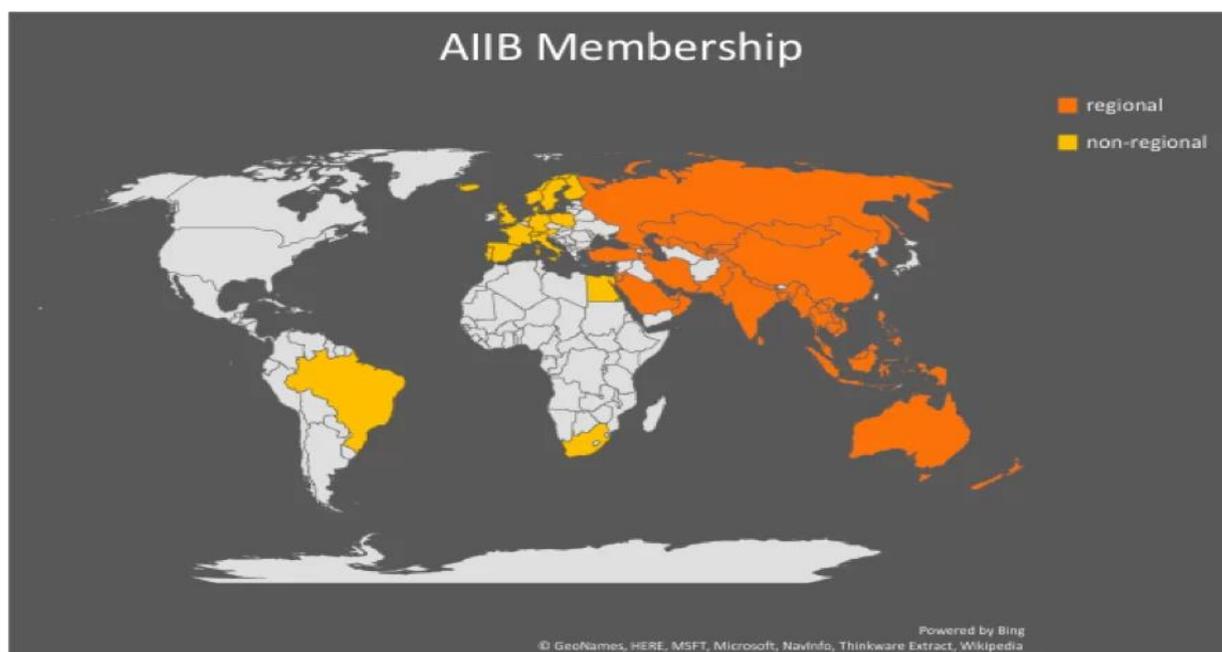
Why in News?

- Election Commissioner Ashok Lavasa resigned from his post to join the Asian Development Bank as vice-president.
- Mr. Lavasa has submitted his resignation to President Ram Nath Kovind.

3) Asian Infrastructure Investment Bank

About AIIB

- The Asian Infrastructure Investment Bank (AIIB) is an international development bank that provides financing for infrastructure projects in Asia.
- Headquartered in **Beijing**, it began operations in 2016.
- It includes 103 members worldwide (**India** is a founder member of AIIB).
- AIIB consists of two classes of membership: **regional and non-regional members**. Regional members hold **75% of the total voting power** in the Bank.
- **China** is the largest shareholder with 26.64 per cent voting shares in the bank. **India** is the second largest shareholder with 7.6 per cent voting shares followed by **Russia** 6.0 per cent.
- **India** has been the largest borrower of AIIB.



Why in News?

- L&T Infrastructure Finance Company Ltd. (LTIF) has received the first tranche of \$50 million of the total \$100 million **External commercial borrowing (ECB)** loan from Asian Infrastructure Investment Bank.
- This development marks AIIB's first loan to a **non-banking financial company (NBFC)** in India.
- L&T Infrastructure Finance is a leading arranger and financier of renewable energy in India.

What are External Commercial Borrowings?

- ECBs are commercial loans raised by eligible resident entities from recognised non-resident entities.
- Most of these loans are provided by foreign commercial banks and other institutions.
- As per the latest ECB framework, all eligible borrowers can raise ECBs up to **USD 750 million** or equivalent per financial year under the automatic route.
- The minimum average maturity period (MAMP) has been kept at **3 years** for all ECBs, except the borrowers specifically permitted to borrow for a shorter period.

Who are eligible?

- **All entities eligible to receive FDI** are eligible borrowers under the ECB window.
- Additionally, Port Trusts, Units in SEZ, SIDBI, EXIM Bank, registered entities engaged in micro-finance activities, viz., registered not for profit companies,

registered societies/trusts/cooperatives and **non-government organisations** can also borrow under this framework.

- Any entity who is a resident of a country which is **Financial Action Task Force (FATF) or International Organization of Securities Commissions (IOSCO) compliant** will be treated as a recognised lender.

What is a Non-Banking Financial Company (NBFC)?

- An NBFC is a company registered under the **Companies Act, 1956** which provides banking services without meeting the legal definition of a bank.
- They engage in the business of loans and advances, acquisition of shares, bonds, etc. issued by Government or local authority. They also deal in other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business.
- NBFC does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property.
- Housing Finance Companies, Merchant Banking Companies, Stock Exchanges, Companies engaged in the business of stock-broking/sub-broking, Venture Capital Fund Companies, Nidhi Companies,

Insurance companies and Chit Fund Companies are examples of NBFCs.

- The working and operations of NBFCs are regulated by **the RBI**.

What is the difference between banks & NBFCs?

- NBFCs lend and make investments and hence their activities are similar to that of banks; however there are a few differences:
 1. NBFC cannot accept demand deposits;
 2. NBFCs cannot issue cheques drawn on itself;
 3. Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in the case of banks.

4) International Labour Organisation

About ILO

- The International Labour Organization (ILO) was created in 1919, as part of the **Treaty of Versailles** that ended World War I.
- It became the **first specialized agency of the UN** in 1946.
- ILO is the **only tripartite U.N. agency** which brings together governments, employers and workers of 187 member States, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
- **India** is a founder member of the ILO.
- It is headquartered in Geneva, Switzerland.

Eight core conventions of ILO

- The ILO Governing Body has identified eight “fundamental” Conventions, covering subjects that are considered to be **fundamental principles and rights at work** which are as follows
 1. Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
 2. Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
 3. Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol)
 4. Abolition of Forced Labour Convention, 1957 (No. 105)
 5. Minimum Age Convention, 1973 (No. 138)

6. Worst Forms of Child Labour Convention, 1999 (No. 182)
7. Equal Remuneration Convention, 1951 (No. 100)
8. Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

India and the ILO

1. Freedom of Association and Protection of Right to Organised Convention (No.87)
 2. Right to Organise and Collective Bargaining Convention (No.98)
- These **two have not been ratified by India while the other six have been ratified by India.**

Conventions related to child labour

- The ILO estimates that there are 152 million children in child labour, 73 million of whom are in hazardous work. Seventy per cent of all child labour takes place in agriculture and is mostly related to poverty and parents’ difficulties finding decent work.
- The two ILO Conventions on child labour are Convention No.138 on Minimum Age and Convention No. 182 on the Worst Forms of Child Labour.
- These Conventions are “**fundamental**” **Conventions**. This means that, under the **ILO Declaration on Fundamental Principles and Rights at Work**, all ILO member States have an obligation to respect, promote and realize the abolition of child labour, **even if they have not ratified the Conventions in question.**

Convention No. 138

- The aim of ILO Convention No.138 on the minimum age is the effective abolition of child labour by requiring countries to:
 1. Establish a minimum age for entry into work or employment; and
 2. Establish national policies for the elimination of child labour.

Convention No. 182

- Convention No. 182 calls for the prohibition and elimination of the worst forms of child labour, including slavery, forced labour and trafficking. It prohibits the use of children in armed conflict, prostitution, pornography and illicit activities such as drug trafficking, and in hazardous work.

Why in News?

- **ILO Convention No. 182** became the first ILO Convention to achieve universal

ratification in the ILO's 101-year history, following ratification by the Kingdom of Tonga.

- India ratified the Convention No. 182 in 2017.

Way forward

- Current efforts have to be stepped up significantly to achieve the ambitious goal

of total abolition of the scourge of child labour by 2025.

- As the United Nations designated 2021 as the **International Year for the Elimination of Child Labour**, governments must seize the moment to instil hope in future generations.

Science and Technology

1) Polio Vaccination

Polio

- Polio, or poliomyelitis, is a disabling and life-threatening disease caused by the **poliovirus**.
- The virus **spreads from person to person** and can infect a person's spinal cord, causing paralysis.
- Poliovirus is **very contagious**. It is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system.
- There is **no cure for polio**, it can only be prevented by **immunization**.

Types and Vaccines

- There are **three wild types of poliovirus (WPV) – type 1, type 2, and type 3**. There are two vaccines used to protect against polio disease, **oral polio vaccine and inactivated poliovirus vaccine**.
- The oral polio vaccine (OPV) involves a **weakened poliovirus which is orally administered**. It is used in many countries to protect against polio disease and has been essential to the eradication effort.
- Inactivated Poliovirus Vaccine (IPV) involves an **inactivated (killed) poliovirus administered via injection**.

Vaccine-derived poliovirus (VDPV)

- When a child is immunized with oral polio vaccine, the weakened vaccine-virus replicates in the intestine for a limited period, thereby developing immunity by building up antibodies.
- During this time, the vaccine-virus is also excreted. In areas of **inadequate sanitation**, this excreted vaccine-virus can spread in the immediate community, before eventually dying out.
- On rare occasions, if a population is seriously under-immunized, the vaccine-virus can genetically change into a form that can paralyse – known as a **vaccine-derived poliovirus (VDPV)** which causes Vaccine derived Polio.
- VDPV are usually observed in children with **primary immunodeficiency**. Such

children are unable to mount an immune response and are, therefore, unable to clear the intestinal vaccine virus infection.

- This condition **doesn't happen with Inactivated Poliovirus Vaccine** as it doesn't contain live viruses. IPV involves an inactivated poliovirus administered via injection.

Eradication of Polio

- **Wild poliovirus type 2 and Wild poliovirus type 3** have been declared as eradicated worldwide in 2015 and 2019 respectively.
- **Type 1 wild poliovirus** is still in circulation and is restricted to **Afghanistan and Pakistan**.

Why in the news?

- Instances of vaccine derived poliovirus (VDPV) have seen a spike between 2010 and 2019.

How can this be contained?

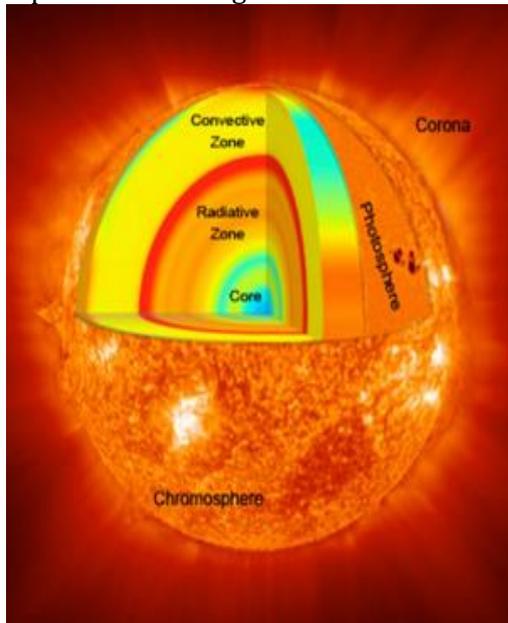
- Efforts to **enhance vaccine coverage** in all parts of the world is needed which will lessen the risk of VDPV in the community.
- The **World Health Organization** suggests the **need to phase out OPV usage** in all countries to avoid the risk of VDPV and instead **shift to Inactivated Polio Vaccine** to maintain immunity levels in the population.
- Though **IPV is costlier and requires a trained health worker** to be administered, it can stop wild poliovirus transmission.

2) The magnetic field of the Sun measured

About the Sun

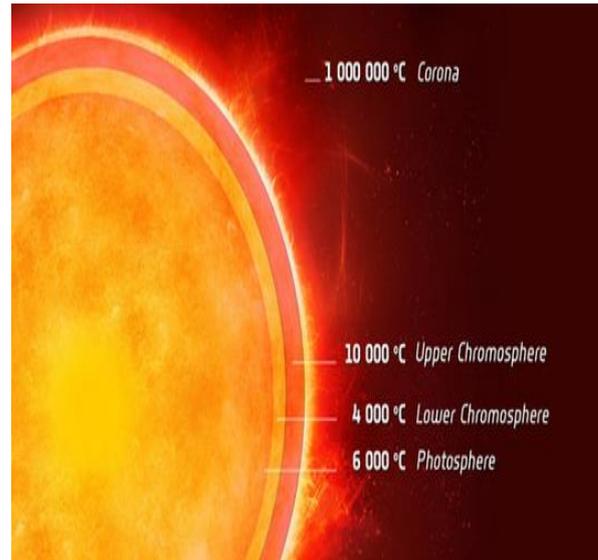
- The Sun can be split into two regions: **Interior and Atmosphere**.
- The **interior** is a sphere with radius $R = 7 \times 10^8 \text{m}$. There are three main parts to the Sun's interior:
 1. The **core** is at the **centre**. It is the **hottest region**, where the **nuclear fusion** reactions that power the Sun occur.
 2. The **radiative (or radiation) zone** - Its name is derived from the way energy is carried outward through this layer, carried by photons as thermal radiation.

3. The **convective (or convection) zone** - It is also named after the dominant mode of energy flow in this layer; heat moves upward via roiling convection.



- The **atmosphere** lies on top and has the following layers (from innermost to outermost):
1. The **photosphere** is about 300 km thick. Most of the **Sun's visible light** that we see originates from this region. It is the boundary between the Sun's interior and the solar atmosphere.
 2. The **chromosphere** is about 2000 km thick. We only see this layer and the other outer layers during an eclipse. It is the lower **region of the solar atmosphere**.
 3. The **corona** is the upper **region of the solar atmosphere**. The upper corona gradually turns into the **solar wind**, a flow of plasma that moves outward through our solar system into interstellar space. The solar wind is, in a sense, just an extension of the Sun's atmosphere that engulfs all of the planets.

The puzzle of the solar atmosphere



- The temperature at the **core** of the Sun is nearly **15 million degrees Celsius**, while that at its surface layer, **photosphere**, is merely **5,700 degrees C**.
- The natural thing to expect is that still further outwards, in its atmosphere, known as the corona, the temperatures would be comparable to that at the surface (photosphere).
- However, the **temperature of the corona is much higher**.
- It starts increasing outside the photosphere, reaching a value of about **one million degrees or more in the corona**.

Eruptions of the Sun

- Another puzzle is a set of questions about the mechanisms of eruptions of the Sun, such as **solar flares** and **coronal mass ejections**. These are driven by **magnetic reconnections** happening in the Sun's corona.
1. Solar flares are an **explosion of energy** caused by tangling, crossing or reorganizing of magnetic field lines near sunspots (darker and cooler spots).
 2. Coronal Mass Ejections (CMEs) are **large expulsions of plasma and magnetic field** from the Sun's corona.
- Magnetic reconnection is a process where oppositely directed magnetic field lines connect and some of the magnetic energy is converted to heat energy and also kinetic energy which leads to the generation of heating, solar flares, solar jets, etc.

Why in News?

- Significant advancement has been made by an international team of solar physicists who have **measured the global magnetic field of the Sun's corona for the very first time.**

News in Detail

- Since popular attempts to explain the above solar puzzles invoke the magnetic field of the corona, the present work will help understand and verify these theories better.
- The team used the improved measurements of the **Coronal Multi-channel Polarimeter (CoMP)** and advanced data analysis to measure the coronal magnetic field.
- CoMP is an instrument operated by the **High Altitude Observatory of the U.S. at Mauna Loa Solar Observatory, Hawaii.**
- It is very important to measure the coronal magnetic fields regularly since the solar corona is highly dynamic and varies within seconds to a minute time scale.
- While photospheric magnetic fields are measured regularly from space, the measurement of global coronal magnetic fields was missing in the past since the coronal magnetic fields are very weak.

3) Dengue fever

About Dengue

- Dengue is a **mosquito-borne viral infection.**
- Dengue virus is transmitted by female mosquitoes mainly of the species **Aedes aegypti** and, to a lesser extent, **Ae. albopictus.**
- These mosquitoes are **also vectors of chikungunya, yellow fever and Zika viruses.**
- Dengue is found in **tropical and sub-tropical climates** worldwide, mostly in urban and semi-urban areas.
- The virus responsible for causing dengue is called **dengue virus (DENV)** which belongs to the **Flaviviridae family.**
- There are **four DENV serotypes**, meaning that it is possible to be infected four times.

Signs and symptoms

- Dengue is a severe, **flu-like illness** that affects infants, young children and adults, but **seldom causes death.**

- Symptoms usually last for 2–7 days, after an incubation period of 4–10 days after the bite from an infected mosquito.

Treatment

- There is **no specific treatment** for dengue fever.
- Fever reducers and pain killers can be taken to control the symptoms of muscle aches and pains, and fever.

Vaccination against dengue

- The first dengue vaccine, **Dengvaxia (CYD-TDV)** was licensed in 2015 and has now been approved by regulatory authorities in ~20 countries.

Why in News?

- A latest research study has shown that tests specific to check for dengue sometimes led to a positive SARS-CoV-2 test.
- The study used dengue antibody- positive serum samples from 2017 (pre-dating the COVID-19 outbreak) and produced false-positive results in SARS-CoV-2 IgG/IgM rapid strip tests.
- The scientists warn that this could lead to misdiagnosis and skew public health responses in places where dengue is endemic and known to seasonally spike.

Further research needed

- Because the viruses that cause dengue and coronaviruses belong to entirely different families, it is not expected for one to show affinity to the other.
- However, the above finding prompts deeper investigation into whether there are crucial similarities in the structure of these viruses.
- Better understanding of the relationship between the two viruses could help understand variations in mortality.
- **India and Brazil** are highly endemic for dengue as are many parts of southeast Asia.
- Further research may explain the relatively lower per million mortality in India and Brazil compared to Europe and the United States, where there's little dengue.

4) Mars 2020 Mission

Mission Overview

- The Mars 2020 rover mission is part of **NASA's Mars Exploration Program**, a

long-term effort of robotic exploration of the Red Planet.

- The Mars 2020 mission addresses high-priority science goals for Mars exploration, including key questions about the potential for life on Mars.
- The **Perseverance rover** is the centrepiece of NASA's Mars 2020 mission.

About the Perseverance rover

- Perseverance is the biggest, most sophisticated Mars rover ever built — a car-size vehicle bristling with cameras, microphones, drills and lasers.
- The rover will hunt for **signs of habitable environments on Mars while searching for signs of past microbial life.**



- The plutonium-powered, six-wheeled rover will drill down and **collect tiny geological specimens** that will be **brought back to the earth in about 2031 by a series of missions.**
- The analysis of Martian rocks on Earth will likely provide a reliable indication of whether life on Mars is feasible in the past or at present.
- Perseverance will explore the **Jezero Crater**, which is an ancient lakebed where microbial life could have developed.

MOXIE

- Perseverance carries a unique instrument, MOXIE or **Mars Oxygen ISRU Experiment**: which for the first time will manufacture molecular oxygen on Mars using carbon dioxide from the carbon-dioxide-rich atmosphere.
- ISRU means **In Situ Resource Utilization**: or the use of local resources to meet human needs or requirements of the spacecraft.

- Without ISRU, exploration of Mars in the future decades will be incredibly expensive and thereby impossible.
- If astronauts have to carry oxygen or water or rocket fuel for their journey for a two-year journey to Mars and back, the cost will be understandably excessive.

Ingenuity Mars Helicopter



- The Ingenuity Mars Helicopter is a technology demonstration, carried by the Perseverance rover. A technology demonstration is a project that seeks to test a new capability for the first time, with limited scope.
- The rover will release the **mini helicopter** that will attempt the **first powered flight on another planet**, and test out other technology to prepare the way for future astronauts.
- The flight will be challenging because **Mars' thin atmosphere** (which is **99% less dense** than Earth's) makes it difficult to achieve enough lift.

Why in News?

- NASA successfully launched its Mars Perseverance Rover on an **Atlas V rocket** from Cape Canaveral Air Force Station in Florida on July 30, 2020.
- It will land at Jezero Crater in about seven months, on February 18, 2021.
- Two other **NASA landers** are also operating on Mars — 2018's **InSight** and 2012's **Curiosity** rover.

5) Electronic Vaccine Intelligence Network

What is it?

- eVIN (Electronic Vaccine Intelligence Network) is an **indigenously developed technology system in India** that digitizes vaccine stocks and monitors the

temperature of the cold chain through a smartphone application.

- It is aimed at strengthening immunization supply chain systems across the country.
- Introduced in 2015, the eVIN is being implemented under the **National Health Mission (NHM) by the Ministry of Health and Family Welfare.**
- eVIN aims to provide **real-time information on vaccine stocks and flows, and storage temperatures across all cold chain points in the country.** The network also **geo-tags health centres** and maintains facility-level dashboard.
- eVIN has reached 32 States and Union Territories (UTs) and will soon be rolled-out in the remaining States and UTs of Andaman & Nicobar Islands, Chandigarh, Ladakh and Sikkim.

Why in News?

- The Union Health Ministry announced that the eVIN network is being repurposed for the delivery of the COVID-19 vaccine.

Related information

National Health mission

- The National Health Mission was launched by the **Ministry of Health and Family Welfare** in 2013 subsuming the **National Rural Health Mission and National Urban Health Mission.**

Objective

- NHM envisages **achievement of universal access to equitable, affordable & quality health care services** that are accountable and responsive to people's needs.

Components

- The main programmatic components include

1. **Health System Strengthening** in rural and urban areas
2. **Reproductive-Maternal- Neonatal-Child and Adolescent Health (RMNCH+A)**
3. **Communicable and Non-Communicable Diseases.**

- The National Health Mission seeks to ensure the achievement of the following indicators.

1. Reduce Maternal Mortality Rate (**MMR**) to **1/1000** live births
2. Reduce Infant Mortality Rate (**IMR**) to **25/1000** live births
3. Reduce Total Fertility Rate (**TFR**) to **2.1**
4. Prevention and **reduction of anemia** in women aged 15–49 years
5. Prevent and **reduce mortality & morbidity** from communicable, non-communicable; injuries and emerging diseases
6. Reduce household **out-of-pocket expenditure** on total health care expenditure
7. Reduce annual incidence and mortality from **Tuberculosis** by half
8. Reduce prevalence of **Leprosy** to <1/10000 population and incidence to zero in all districts
9. Annual **Malaria** Incidence to be <1/1000
10. Less than 1 per cent **microfilaria** prevalence in all districts
11. **Kala-azar** Elimination by 2015, <1 case per 10000 population in all blocks

Reports and Indices

1) Steep decline in maternal mortality ratio

Maternal Mortality Ratio

- Maternal Mortality Ratio (MMR) is defined as the number of maternal deaths during a given time period per **1,00,000 live births** during the same time period.
- Maternal mortality in a region is a measure of reproductive health of women in the area.
- As per the **World Health Organization**, maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management.
- The **target 3.1 of Sustainable Development Goals (SDG)** set by the United Nations aims to reduce the global maternal mortality ratio to **less than 70 per 1,00,000 live births**.

Why in News?

- According to the **special bulletin on Maternal Mortality in India 2016-18**, released by the **Office of the Registrar General's Sample Registration System (SRS)**, the Maternal Mortality Ratio in India has declined to 113 in 2016-18 from 122 in 2015-17 and 130 in 2014-2016.
- The MMR of various States according to the bulletin includes Assam (215), Bihar (149), Madhya Pradesh (173), Chhattisgarh (159), Odisha (150), Rajasthan (164), Uttar Pradesh (197) and Uttarakhand (99). The southern States registered a lower MMR — Andhra Pradesh (65), Telangana (63), Karnataka (92), Kerala (43) and Tamil Nadu (60).

Registrar General of India

- The office of Registrar General and Census Commissioner of India was founded in 1961 by the **Ministry of Home Affairs** for arranging, conducting and analysing the results of the demographic surveys of India, including census and linguistic survey.

2) Export Preparedness Index

What's in the news?

- **NITI Aayog** in partnership with the Institute of Competitiveness has released the Export Preparedness Index (EPI) 2020.

About EPI

- The report examines export preparedness and performance of Indian states. EPI also intends to identify challenges and opportunities; enhance the effectiveness of government policies; and encourage a facilitative regulatory framework.
- The structure of the EPI includes **4 pillars: Policy; Business Ecosystem; Export Ecosystem; Export Performance**. The rationale behind selection of each of them are given below:
 1. **Policy:** A comprehensive trade policy provides a strategic direction for exports and imports.
 2. **Business Ecosystem:** An efficient business ecosystem can help states attract investments and create an enabling infrastructure for individuals to initiate start-ups.
 3. **Export Ecosystem:** This pillar aims to assess the business environment, which is specific to exports.
 4. **Export Performance:** This is the only output-based pillar and examines the reach of export footprints of States and Union Territories.
- The index also took into consideration **11 sub-pillars** -- export promotion policy; institutional framework; business environment; infrastructure; transport connectivity; access to finance; export infrastructure; trade support; R&D infrastructure; export diversification; and growth orientation.

What EPI says about the Economy?

- **Gujarat, Maharashtra and Tamil Nadu** occupy the top three ranks, respectively.
- **Six of eight coastal states feature in the top ten rankings**, indicating the presence of strong enabling and facilitating factors to promote exports.
- In the landlocked states, **Rajasthan** has performed the best, followed by Telangana and Haryana. Among the Himalayan states, **Uttarakhand** is the highest, followed by Tripura and Himachal Pradesh. Across the

Union Territories, **Delhi** has performed the best, followed by Goa and Chandigarh.

Other key figures

- At present, **70 per cent of India's export has been dominated by five states** – Maharashtra, Gujarat, Karnataka, Tamil Nadu and Telangana.
- Many **northeastern states** were able to export more by focusing on their **indigenous product baskets**. This shows that a focused development of such baskets (like spices) can drive exports on one hand and also improve farmer incomes on the other in these states.

India's exports profile

- India's per capita exports are USD 241, compared to South Korea's USD 11,900 and China's USD 18,000, so there is a huge potential for growth of India's exports.
- India's merchandise exports have witnessed growth from USD 275.9 billion in 2016-17 to USD 331.0 billion in 2018-19.
- However, the COVID-19 crisis dealt a major blow to the current fiscal. Consequently, India's exports shrank by 60 per cent in April 2020.

Challenges faced

- Export promotion in India faces three fundamental challenges:
 1. **Intra- and inter-regional disparities** in export infrastructure;
 2. **Poor trade support and growth orientation** among states; and
 3. **Poor R&D infrastructure** to promote complex and unique exports.

Way Forward

- There is a need to emphasize on key strategies to address these challenges: a joint development of export infrastructure; strengthening industry-academia linkages; and creating state-level engagements for economic diplomacy.
- These strategies could be supported by revamped designs and standards for local products and by harnessing the innovating tendencies to provide new use cases for such products, with adequate support from the Centre.

3) Environment Performance Index

About EPI

- Environment Performance Index (EPI) is a **biennial index** released by **Yale and Columbia Universities** in collaboration with the **World Economic Forum and European Commission**.
- Using **32 performance indicators** across 11 issue categories, the EPI ranks **180 countries on environmental health and ecosystem vitality**.
- These indicators provide a gauge at a national scale of how close countries are to established environmental policy targets.

Why in News?

- Environmental Performance Index 2020 was released recently.

EPI 2020

- India secured **168 rank** in EPI 2020 with a score of **27.6 out of 100**. India's rank was **177 in 2018**.
- The 2020 EPI features **new metrics** that gauge **waste management, carbon dioxide emissions from land cover change, and black carbon emissions** – all important drivers of climate change. **Denmark** ranks first in the latest EPI.
- The 2020 EPI reveals that global progress on climate change has been halting.
- Meeting the goals set out in the 2015 Paris Climate Change Agreement requires sustained cuts in emissions of all greenhouse gases, and the 2020 EPI finds that **no country is decarbonizing quickly enough** to meet these climate change goals.
- Some of India's neighbours do excel on individual greenhouse gas reductions, most notably **Sri Lanka** on methane and **Pakistan** on fluorinated gases.

Environmental health should be top agenda

- All South Asian countries, except Afghanistan, were ahead of India in the ranking.
- India scored **below the regional average score** on all five key parameters on **environmental health**, including air quality, sanitation and drinking water, heavy metals and waste management.
- It has also scored below the regional average on parameters related to **biodiversity and ecosystem services** too.

Way forward

- India needs to **re-double national sustainability efforts** on all fronts, according to the index.
- The country needs to focus on a wide spectrum of sustainability issues, with a **high-priority to critical issues** such as air and water quality, biodiversity and climate change.

Polity

1) Inclusion of more languages in Governance

Constitutional provisions related to Official languages

- **Part XVII** of the Indian constitution deals with the official languages in Articles 343 to 351.
- Indian Constitution consciously avoided the use of the phrase '**national language**'. However, it clearly defines the '**official language**' of Union of India under Article 343(1).
- The Constitution provides for **Hindi language in Devanagari script** to be the official language of the union. [**Article 343(1)**]
- However, it also stated that the use of **English** would continue as an official language for **15 more years** (till 25 January 1965), and after 15 years, Parliament can enact a law to provide for continued use of English language for specific purposes. [**Article 343(2)**]
- The constitution leaves it upon the **state legislature** to choose any one or more languages spoken in the state, and/or Hindi to be used for all or any of the official purposes of that State.

Official Languages Act, 1963

- As the end of the fifteen years drew closer, there were widespread protests in the southern states for continuation of English as an official language.
- Keeping in mind the protests, the Government of India enacted **Official Language Act in 1963** which provides for **continuing the use of English in official work even after 25 January 1965**.
- The Act also lays down that both **Hindi and English shall compulsorily be used** for certain specified purposes such as resolutions, rules, general orders, notifications, press communiqués, administrative and other reports, licenses, tenders, etc.
- In 1967, the Act was further amended to allow Hindi and English to continue as official languages **indefinitely**.

Why in News?

- Chief Justice of India S.A. Bobde recently said that the Central government should consider amending the Official Languages Act of 1963, to include **scheduled languages** other than Hindi and English as **official language of the Government of India**.
- Scheduled languages are those languages which are listed in the **8th schedule of the Constitution** and are given official recognition and encouragement by the Central government. However, all official communication and publication of rules and notifications by the Central government are in Hindi and English.
- Chief Justice of India said that people in various parts of the country might not know either English or Hindi and communication by the Central government in vernacular languages will come to their aid.
- The court was hearing an appeal filed by the Union of India challenging the legality of a Delhi High Court judgment to translate the draft Environment Impact Assessment (EIA) notification of 2020 into all 22 vernacular languages in the Eighth Schedule of the Constitution.

Eighth Schedule

- The Eighth Schedule to the Constitution consists of the following 22 languages:
- Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.
- Of these languages, 14 were initially included in the Constitution.
- The Sindhi language was added in 1967. Thereafter three more languages viz., Konkani, Manipuri and Nepali were included in 1992. Subsequently, Bodo, Dogri, Maithili and Santhali were added in 2004.

Advantages of Recognition in Eighth Schedule

- If included in the Eighth Schedule, the language would get the following benefits:
 1. Recognition from the Sahitya Akademi

2. Members of Parliament (MP) and Member of the Legislative Assembly (MLA) could use it in Parliament and State Assemblies, respectively
3. Option to take competitive exams in that language including all-India competitive examinations like the Civil Services exam
4. Special funds from the Central government.

2) DNA Technology (Use and Application) Regulation Bill, 2019

About

- The DNA Technology Regulation Bill was introduced in the Lok Sabha in July 2019. The Bill was then referred to the Parliamentary Standing Committee on Science and Technology.

Objectives

- The Bill seeks to create a **regulatory framework for obtaining, storing and testing of DNA samples of human beings**, mainly for the purposes of criminal investigations, and with the objective of establishing the identity of a person.
- DNA testing is already being used for a variety of purposes, such as criminal investigations, establishment of parentage, and search for missing people.
- The proposed law seeks to bring in a **supervisory structure** to oversee these practices, and frame guidelines and rules so that the DNA technology is not misused.
- Nearly 60 countries have enacted similar legislation, with the U.S. bringing in law as far back as 1994.

Need for the Bill

- **DNA testing** is currently being done on an **extremely limited scale** in India, with approximately 30-40 DNA experts in 15-18 laboratories undertaking less than 3,000 cases per year, which represent 2-3% of the total need.
- The Bill will help in **identifying unidentified deceased**, including disaster victims and **apprehend repeat offenders** for heinous crimes such as rape and murder.
- The Bill is urgently required as its applications would be also to enable

identification of missing children. As per the National Crime Records Bureau, annually 100,000 children go missing.

Highlights of the Bill

- **Use of DNA Data**
- Under the Bill, **DNA testing is allowed only in respect of matters listed in the Schedule** to the Bill. These include offences under the Indian Penal Code, 1860, and for civil matters such as paternity suits.
- Further, the Schedule includes DNA testing for matters related to establishment of individual identity.

Collection of DNA

- While preparing a DNA profile, bodily substances of persons may be collected by the investigating authorities. **Authorities are required to obtain consent** for collection in certain situations.
- For arrested persons, authorities are required to obtain written consent if the offence carries a punishment of up to seven years. If the **offence carries more than seven years of imprisonment or death, consent is not required.**
- Further, if the person is a victim, or relative of a missing person, or a minor or disabled person, the authorities are required to obtain the written consent of such victim, or relative, or parent or guardian of the minor or disabled person. If consent is not given in these cases, the authorities can approach a **Magistrate** who may order the taking of bodily substances of such persons.

DNA Data Bank

- The Bill provides for the establishment of a **National DNA Data Bank and Regional DNA Data Banks**, for every state, or two or more states.
- DNA laboratories are required to share DNA data prepared by them with the National and Regional DNA Data Banks.
- Every Data Bank will be required to maintain indices for the following categories of data: (i) a crime scene index, (ii) a suspects' or undertrials' index, (iii) an offenders' index, (iv) a missing persons' index, and (v) an unknown deceased persons' index.

Removal of DNA profiles

- The Bill states that the criteria for entry, retention, or removal of the DNA profile will be specified by regulations.
- However, the Bill provides for removal of the DNA profiles of the following persons: (i) of a suspect if a police report is filed or court order given, (ii) of an undertrial if a court order is given, and (iii) on written request, for persons who are not a suspect, offender or undertrial, from the crime scene or missing persons' index.

DNA Regulatory Board

- The Bill provides for the establishment of a **DNA Regulatory Board, which will supervise the DNA Data Banks and DNA laboratories.**
- The **Secretary, Department of Biotechnology**, will be the ex officio Chairperson of the Board.
- The Board will comprise additional members including: (i) experts in the field of biological sciences, and (ii) Director General of the National Investigation Agency and the Director of the Central Bureau of Investigation.

Functions of the Board

- The functions of the Board include: (i) advising governments on all issues related to establishing DNA laboratories or Data Banks, and (ii) granting accreditation to DNA laboratories.
- Further, the Board is required to ensure that all information relating to DNA profiles with the Data Banks, laboratories, and other persons are kept confidential.

DNA laboratories

- Any laboratory undertaking DNA testing is required to obtain **accreditation from the Board.**
- The Board may revoke the accreditation for reasons including failure to: (i) undertake DNA testing, or (ii) comply with the conditions attached to the accreditation.

Offences

- The Bill specifies penalties for various offences, including: (i) for disclosure of DNA information, or (ii) using DNA samples without authorization.
- For instance, disclosure of DNA information will be punishable with imprisonment of up to three years and fine of up to one lakh rupees.

Why in News?

- A draft report of the parliamentary standing committee on science and technology has flagged some alarming provisions of the DNA Bill that could be misused for caste or community-based profiling.

Concerns about the Bill

- Access to such intrusive information **can be misused to specifically target individuals and their families** with their own genetic data. This is particularly worrying as it could even be used to incorrectly link a particular caste/community to criminal activities.
- The committee, in its draft report, pointed out that the DNA profiles **can reveal extremely sensitive information of an individual** such as pedigree, skin colour, behaviour, illness, health status and susceptibility to diseases.

Privacy concerns

- The report has also flagged **disregard to an individual's privacy** and other safeguards.
- While there is a good case for a DNA database of convicts, so that repeat offenders may be easily identified, there is no legal or moral justification for a database with DNA of the other categories as noted above, given the high potential for misuse.

'Perfunctory consent'

- The Bill refers to consent in several provisions, but in each of those, a **magistrate can easily override consent**, thereby in effect, making consent perfunctory.
- There is also **no guidance in the Bill on the grounds and reasons of when the magistrate can override consent**, which could become a fatal flaw,

Right to be forgotten

- The Bill permits retention of DNA found at a crime scene in perpetuity, **even if conviction of the offender has been overturned.**
- The committee has urged the government to amend the provisions to ensure that if the person has been found innocent his DNA profile has to be **removed immediately** from the data bank.

- The committee has recommended that **independent scrutiny** must be done of the proposals to destroy biological samples and remove DNA profiles from the database.
- The Bill also provides that **DNA profiles for civil matters** will also be stored in the data banks, but without a clear and separate index. The committee has questioned the necessity for storage of such DNA profiles, pointing out that this violates the fundamental right to privacy and does not serve any public purpose.

3) Centre forms National Council for Transgender Persons

Transgender Persons (Protection of Rights) Act, 2019

- **Definition:** The act defines a transgender person as one whose gender does not match the gender assigned at birth. It includes transmen and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra.
- **Certificate of identity:** The Act allows **self perception of gender identity**. But it mandates that each person would have to be recognised as 'transgender' on the basis of a certificate of identity issued by a **District Magistrate**.
- **Welfare measures by the government:** The Act states that the relevant government will take measures to ensure the full inclusion and participation of transgender persons in society. It must also take steps for their rescue and rehabilitation, vocational training and self-employment, create schemes that are transgender sensitive, and promote their participation in cultural activities.
- **Prohibition against discrimination:** The Act prohibits the discrimination against a transgender person, including denial of service or unfair treatment in relation to education, employment, healthcare, access to, or enjoyment of goods, facilities, right to movement, right to reside, rent, or otherwise occupy property, opportunity to hold public or private office and access to a government or private establishment in whose care or custody a transgender person is.

- **Right of residence:** Every transgender person shall have a right to reside and be included in his household.
- **Employment:** No government or private entity can discriminate against a transgender person in employment matters, including recruitment, and promotion.
- **Offences and penalties:** The Act recognizes the following offences against transgender persons: (i) forced or bonded labour (excluding compulsory government service for public purposes), (ii) denial of use of public places, (iii) removal from household, and village, (iv) physical, sexual, verbal, emotional or economic abuse. Penalties for these offences vary between six months and two years, and a fine.
- The Act makes it mandatory to constitute the **National Council for Transgender persons (NCT)** which will advise the central government as well as monitor the impact of policies, legislation and projects with respect to transgender persons. It will also redress the grievances of transgender persons.

Major Judgements

- **National Legal Services Authority of India (NALSA) Vs. Union of India Case** under which the Supreme Court for the very first time recognised transgendered persons as a **"third gender"** and directed the government to safeguard their rights and extend certain reservations for admission into education institutions and public appointments to third gender persons.
- In the **Navtej Singh Johar Vs. Union of India Case**, Supreme Court decriminalised some part of **Section-377 of Indian Penal Code** that barred even consensual homosexual sex between adults, thereby strengthening transgender rights.
- In this case, the Supreme Court introduced the concept of the **Doctrine of progressive realisation of rights** which mandates that the laws of a country should be in consonance with its modern ethos, it should be "sensible" and "easy to apply".
- Using this legal doctrine, then Chief Justice of India Dipak Misra held that once a right is recognised and given to the public, it

cannot be taken back by the state at a later date. Once a step is taken forward, there is no going back.

Criticisms of the current Act

- **Against the Spirit of Self Perceived Identity:** The act does not have a clear definition regarding how the District Magistrate will actually examine the person or their documents to certify them as a transgender and it is also considered as a violation of privacy.
- **It does not mention any punishments for rape or sexual assault** of transgender persons as according to Section 375 of the Indian Penal Code stands, rape is something that only a man can do to a woman.
- **No Reservation:** In the **NALSA judgement**, the state and central govts were asked to extend backward class reservation to transgenders in education and public employment. But the act fails to address that issue.
- **Lighter Sentences:** There are lighter punishments for several criminal offences, such as "sexual abuse" and "physical abuse" if they are committed against transgender people in comparison to females.
- A **transgender commission at the national level is not enough**. There is need for a welfare board for transgender, and a helpline number for those in distress at regional and local levels.

Why in News?

- The Ministry of Social Justice and Empowerment has constituted the National Council for Transgender Persons, a requirement under the Transgender Persons (Protection of Rights) Act, 2019.

Composition

- The **Union Minister of Social Justice & Empowerment** will be Chairperson (ex-officio) and **Union Minister of State for Social Justice & Empowerment** will be Vice-Chairperson (ex-officio).
- Members would include officials of various Ministries and the NITI Aayog.
- The council also includes **five nominated members from the transgender community**.

Functions

- The National Council shall perform the following functions, namely:—
1. To advise the Central Government on the formulation of policies, programmes, legislation and projects with respect to transgender persons;
 2. To monitor and evaluate the impact of policies and programmes designed for achieving equality and full participation of transgender persons;
 3. To review and coordinate the activities of all the departments of Government and other Governmental and non-Governmental Organisations which are dealing with matters relating to transgender persons; and
 4. To redress the grievances of transgender persons.

Additional Details

LGBTQ in Art & Culture

- In the **temples of Khajuraho**, there are images of people engaged in homosexual acts.
- **Indian epics like Ramayana and Mahabharata** also refer to instances of homosexuality.
- **Sanskrit**, one of the oldest languages in the world **uses three genders:** masculine, feminine, and gender-neutral in its grammar.

Way Forward

- More State level initiatives are needed for augmenting the welfare of transgenders like:
 1. Tamil Nadu established a transgender **welfare board** in 2008.
 2. Kerala brought the '**State Policy for Transgenders in Kerala 2015**' to provide the "right to live with dignity." It was the first state to have a transgender policy.
 3. Andhra Pradesh also announced **pension scheme** for transgender community.
- **Child Protection laws:** The abandonment of children is a punishable offence under Section 317 of IPC (Indian Penal Code). This section is applicable if the abandoned child is under the **age of twelve years**; The age limit of child for this offence need to be increased to 18 years as abandonment of transgender children usually takes place between 12 and 18 years.

4) Epidemics Disease Act 1897

Context

- In the absence of any new legislation to fight epidemics, Indian States had to resort to the Epidemic Diseases Act that was enacted in 1897 to manage coronavirus outbreak, so that Health Ministry advisories are enforceable.

History of the 1897 Epidemic Diseases Act

- The Epidemic Diseases Act was enacted in 1897 by the colonial government to **control the outbreak of the deadly bubonic plague in Bombay.**
- Using powers conferred by the Act, authorities would search suspected plague cases in homes and among passengers, with forcible segregations, evacuations, and demolitions of infected places.
- The law arms the State with emergency powers that allow it to carry out search operations as well as penalise people violating the provisions of the law.

Provisions of the 1897 Epidemic Diseases Act

- The Act aims to provide “for the better prevention of the spread of Dangerous Epidemic Diseases.”
- **Section 2** empowers state governments/UTs to take special measures and formulate regulations for containing the outbreak.
- **Section 2A** empowers the central government to inspect any ship leaving or arriving in port and for the detention of any person sailing or arriving therein.
- **Section 3** provides penalties for disobeying any regulation or order made under the Act. These are according to section 188 of the Indian Penal Code (Disobedience to order duly promulgated by a public servant).
- **Section 4** gives legal protection to the implementing officers acting under the Act.
- The Epidemic Diseases Act is routinely enforced across the country for dealing with outbreaks of diseases such as swine flu, dengue, and cholera.

Current relevance of the Act

- As the coronavirus pandemic engulfed the country, this 123-year-old act was invoked to control the spread of the virus.

- Most Indian states notified regulations under the act authorising government officials to admit, isolate and quarantine people in certain situations.
- Drawing from the act, many states took measures, such as the closing of schools, malls, gyms, institutional and home quarantine, in order to mitigate the crisis.

Recent amendments

- The act was amended by way of an ordinance in April 2020. The amendment aimed primarily at **protecting healthcare personnel** engaged in combating the coronavirus and **expanded powers of the central government** to prevent the spread of such diseases.
- It made acts of violence against healthcare personnel and damage to property, including a clinical establishment, quarantine facility or a mobile medical unit, during an epidemic punishable with imprisonment upto five years and fine upto Rs 2 lakh.
- Later, the ordinance was passed by both houses of Parliament and received the assent of the President on 28 September 2020, thereby bringing into effect the **Epidemic Diseases (Amendment) Act, 2020**, which incorporates the afore-discussed changes.

Limitations of the Epidemic Diseases Act

- Despite recent amendments, the act has major limitations in this era of changing dynamics in public health emergency management.
- The act **fails to define a “dangerous epidemic disease.”** There is no clarity on the criteria that need to be applied for declaring a disease as “dangerous” or “epidemic.”
- The act focuses on government’s powers during an epidemic, but **does not specify its duties** in controlling/preventing an epidemic, nor does it enunciate any **rights available to the citizens** in the event of an outbreak.
- In a landmark judgment of the Supreme Court, *Justice K S Puttaswamy (Retd) and Anr v Union of India and Ors (2017)*, the **right to privacy was held to be an intrinsic part of the right to life under Article 21 of the Constitution.**

- The Epidemic Diseases Act does not provide for procedural guarantees against any abuse of state power regarding **privacy infringement**. There is a fear of the law being misused for profiling, mass quarantine and targeting of individuals.
- It is evident that the act is merely regulatory in nature and **lacks a scientific approach** to tackle epidemics like COVID-19. It is also silent on the **ethical aspects and human rights principles**, which deserve to be protected even during an epidemic outbreak.

Towards a Holistic Law

- A modern law with a **focus on robust public health infrastructure** is the need of the hour. Preparedness related to planning, coordination, communication, surveillance and rights of citizens during a public health emergency must be addressed by a new holistic legislation.
- **Public-private partnership (PPP) models** in healthcare can go a long way in ensuring a strong health infrastructure.
- Further, setting up of a **public health regulatory authority** that lays down standards, uniformity and coordination in measures during an epidemic outbreak is also imperative.
- The authority may be entrusted with planning a comprehensive lockdown strategy, maintaining supply lines, ensuring essential services, relief and support to those in distress. It may also be given its **own dedicated cadre of personnel**, on the lines of the National Disaster Response Force (NDRF).
- The new act must contemplate **adequate autonomy to states** to design and enforce responses as per their local assessment and magnitude of the outbreak. Effective micro-level management at the district, block and panchayat level is needed.
- Most importantly, the new act must ensure **proportionality and reasonableness in the state's response**, whether it is quarantine, isolation, surveillance or data collection. Even in emergencies, rights and laws must not be ignored.

Way Forward

- The **National Disaster Management Guidelines (NDMG)** of 2008 has recommended repealing the Epidemic

Diseases Act and substituting by an Act which takes care of the prevailing and foreseeable Public health needs including international spread of diseases.

- Instead of relying upon colonial-era laws, using brute force in enforcing quarantine/lockdown measures and resorting to provisions like Section 144 Code of Criminal Procedure (CrPC), a new law with a more comprehensive, modern and ethically robust framework, which focuses on a rights-based, public health-oriented approach is required to address the lacunae in the existing structure.

5) Daughters have equal birthright to inherit property

About Hindu Succession Act, 1956

- The Hindu Succession Act, 1956 governed succession and inheritance of property but recognised **only males as legal heirs**.
- The law 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 the purposes of this law.
- In a Hindu Undivided Family (HUF), several legal heirs through generations can exist jointly.
- Traditionally, HUF includes only the male descendants of a common ancestor along with their mothers, wives and unmarried daughters. The legal heirs hold the family property jointly.

2005 Amendment

- The 1956 Act was amended in September 2005 and **women were recognised as coparceners** for property partitions arising from 2005.
- A coparcener is the one who shares equally in the inheritance of an undivided property. Coparcenary property is one which is inherited by a Hindu from his/her father, grandfather or great-grandfather.
- **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.
- While the 2005 law granted equal rights to women, **questions were raised in multiple cases on whether the law applied retrospectively**, and if the rights of women depended on the living status of the father through whom they would inherit.

Supreme Court Judgements

- **Prakash v Phulwati (2015):** The Supreme Court (SC) held that the benefit of the 2005 amendment could be granted only to “living daughters of living coparceners”.
- **Danamma v. Amar case in 2018:** Contrary to the 2015 ruling, the SC held that the share of a father who died in 2001 will also pass to his daughters as coparceners during the partition of the property as per the 2005 law. Then again in a judgement, the SC reiterated the position taken in 2015.

Why in News?

- The Supreme Court recently held that daughters, like sons, have an equal birthright to inherit joint Hindu family property. A three-judge Bench says that the **rights do not depend on whether her father was alive or not when the law was enacted in 2005**.
- The Supreme court has overruled the earlier verdicts of 2015 and 2018 that the right to coparcenary of a daughter is by birth, it is not necessary that the father should be alive as on September 9, 2005.

Way Forward

- Traditional Business Families which have not yet recognised the rights of daughters will now have to accommodate rights of daughters in sharing wealth and allowing them to take part in family business. If they fail to do so, daughters can claim their right by filing a petition in the Court.
- The judgment further reinstates faith in the judicial system by making it loud and clear that daughters can no longer be deprived of their rights to ancestral property, no matter when they were born.

6) National Recruitment agency

What's in the news?

- The central government has decided to set up a common recruitment body called National Recruitment Agency (NRA).
- The Agency aims to conduct a single online '**Common Eligibility Test**' or CET, the scores of which will be used for various central government recruitment.
- Initially, the Agency will conduct exams for Group B and C (non-technical) posts. There is a proposal to expand the purview of the exams.
- Currently, the Group B and C recruitment is done by Staff Selection Commission (SSC), Railway Recruitment Board (RRB), and Institute of Banking Personnel Selection (IBPS).

News in Detail

- NRA will conduct a **common preliminary exam** and based on the scores received by the candidates, IBPS, SSC and RRB will conduct the Tier II and Tier III examinations. This means that these agencies **will remain in place**; however, the preliminary exams will be conducted by the NRA.
- NRA aims to conduct separate exams for graduate candidates, 12th pass candidates, and 10th pass candidates. The scores received in these exams will be **valid for 3 years** which can be used to apply for Tier II recruitment.
- There is **no restriction on the number attempts** a candidate can make but there will be an **upper age limit for candidates**. The best valid score will be considered as the current score.
- Initially candidates will have an option to appear for the exams in **12 languages**. There are plans to expand the number of languages in which the exam will be conducted in the future.
- The examination will be conducted based on a **common curriculum**.
- Special focus would be given on creating examination infrastructure in the **Aspirational Districts**.

Why is the NRA needed?

- As of now, aspirants have to take different exams that are conducted by various agencies for central government jobs. Currently, around 2.5 crore

candidates appear for these exams for around 1.25 lakh vacancies.

- The Agency aims to streamline the process of recruitment for various central government positions.
- NRA will have representatives from the Ministry of Railways, Ministry of Finance/Department of Financial Services, the SSC, RRB & IBPS.

Advantages

For Students

- Candidates applying for these recruitments will **no longer have to pay repetitive fees** to multiple agencies.
- The CET score would be generated immediately and shall be made available for both the candidate and the recruitment agency. This would help in ensuring better **transparency**.
- Every district across states will have at least one CET exam centre to help disadvantageous sections, rural candidates and women.
- The exam will be **conducted twice a year**, for different educational levels and in multiple Indian languages.

For Government

- **Reduction in cost** of conducting the examination.
- Better **Transparency**- Currently, the recruitment cycle takes at least 18 months and is often marred by clashing dates, leaked papers and examination scams.
- **Standardized exam pattern**
- **Faster recruitment cycle**

7) National Pharmaceutical Pricing Authority

About NPPA

- The National Pharmaceutical Pricing Authority was established in 1997 as an independent body of experts to regulate the pricing of drugs.
- It has been constituted as an attached office of the **Department of Pharmaceuticals (DoP), Ministry of Chemicals & Fertilizers**.
- The Authority has been entrusted with the task of
 1. Fixation/revision of prices of pharmaceutical products (bulk drugs and formulations),

2. Enforcement of provisions of the Drugs (Prices Control) Order (DPCO).
3. Monitoring of the prices of controlled and decontrolled drugs in the country.
 - The NPPA currently fixes prices of drugs placed in the **National List of Essential Medicines (NLEM)** under **Schedule-I of the DPCO**.
 - Non-scheduled drugs are allowed an increase of up to **10 per cent in prices every year**, which is monitored by the NPPA.
 - NPPA can **also fix the price for non-scheduled drugs** by invoking extraordinary powers in public interest, under the Drugs (Prices Control) Order, 2013.

Why in News?

- The National Pharmaceutical Pricing Authority has set up the **Price Monitoring & Resource Unit (PMRU)** in Karnataka to **track violation of prices of essential drugs and medical devices** under the Drugs Price Control Order.
- The NPPA has already set up PMRUs in more than 15 states/UTs and is planning to set up PMRUs in all the states/ UTs in the country.
- The **expenses of PMRUs**, both recurring and non-recurring, are **borne by the NPPA**.

Functions of PMRU

- The primary function of PMRU is to **assist NPPA in monitoring the prices of drugs, ensuring the availability of drugs and raising consumer awareness**.
- PMRU will function at the State level under the direct supervision of the State Drug Controller for increasing outreach of NPPA.
- The Board of Governors of PMRU includes the representatives from the Central Government and State Government concerned and other stakeholders.

International Relations

1) South China Sea dispute

Background

- Currently, among the most disputed topics in the world, in the South China Sea (SCS) dispute, the governments of six countries (Vietnam, Indonesia, Philippines, Brunei, Malaysia and China) claim that they are the rightful owner of **Paracel and Spratly islands**, and among them, China has been the most aggressive one.
- The disputed sea is composed of approximately 100 to 230 islands wherein small islands called islets are usually included in it. Submerged in water, shoals,

banks, atolls, reefs and cays, which covers an area of approx. 180,000 sq. km.³

- The Chinese government claims an enormous area under what is known as the “**nine-dash line**” that is over 2000 km long, starting from mainland China and reaching waters close to Indonesia and Malaysia. China maintains that the area has been under Chinese rule since ancient times.
- China has been building military bases on small islands and also expanding the area of islands artificially.



Importance of the South China Sea

- This sea route, connecting Asia with Europe and Africa, is an **important trade passageway** for international trade.
- The **Strait of Malacca**, along with the **Lombok Strait** and **Sunda strait** are all connected with SCS and responsible for oil and LNG imports by major countries such as China, Japan, Indonesia, South Korea, and others from Gulf countries.
- It is estimated that around 15 million barrels each day are transported through the Strait of Malacca, making it the **second busiest strait** after the Strait of Hormuz in terms of oil transportation with respect to volume.
- The economy of China depends upon the oil import in which 80% of the oil is transported through the Strait of Malacca and then through SCS to China, which means that full control and easy access

through this strait is the justification behind economic prosperity of the Chinese nation.

- Apart from the strategic importance of the SCS, this region is also blessed with **large deposits of natural resources beneath the sea**.
- Aside from oil and gas reserves, this region is also gifted with **one-third of the total marine biodiversity of the Earth**, which means that substantial revenue can also be generated through **fishing** alone.

PCA award

- Following the dispute, the Philippines filed a case against China in the **Permanent court of arbitration (PCA)** under the dispute settlement provisions of the **UNCLOS**.
- In 2016, a tribunal of the PCA issued its **ruling against China's claims in the South China Sea**. The tribunal's five

arbitrators ruled overwhelmingly in the Philippines' favor after finding that China had violated the sovereign rights of the Philippines in its exclusive economic zone.

- However, **China refused to participate in the arbitration and rejected the outcome.**

Why in News?

- The leaders of the Association of Southeast Asian Nations (ASEAN) held their annual summit recently.
- During the summit, ASEAN leaders said the 1982 UNCLOS treaty should be the basis of sovereign rights and entitlements in the South China Sea, in one of their strongest remarks opposing China's claim to virtually the entire disputed waters on historical grounds.

Related information

About UNCLOS

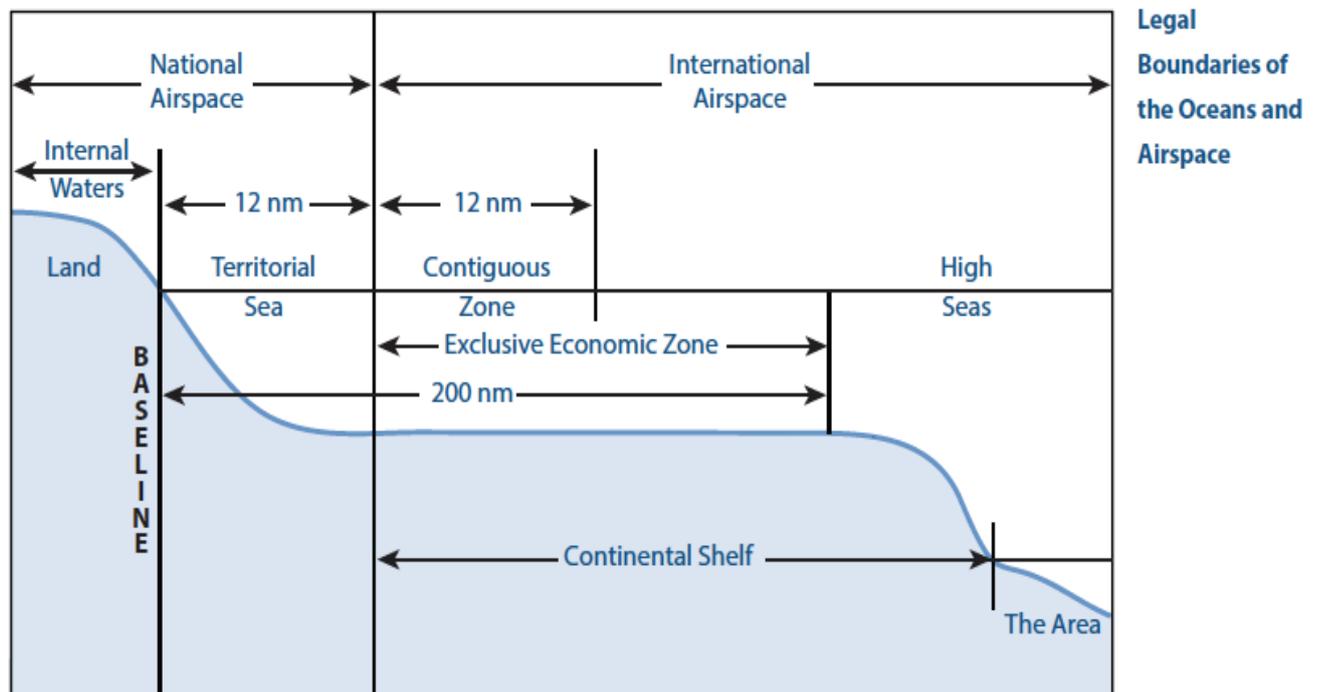
- The United Nations Convention on the Law of the Sea (UNCLOS), also known as the

Law of the Sea Treaty, is an international treaty which was adopted and signed in 1982. The Convention was formed to ensure freedom of shipping navigation at the sea.

- The Convention has created three new institutions on the international scene :

1. **The International Tribunal for the Law of the Sea,**
2. **The International Seabed Authority,**
3. **The Commission on the Limits of the Continental Shelf.**

- **India** is party to UNCLOS.
- UNCLOS classifies marine areas into five zones. They are:
 1. Territorial sea
 2. Contiguous zone
 3. Exclusive economic zone
 4. Continental shelf
 5. High Sea



nm – nautical mile

Territorial sea

- According to UNCLOS, the territorial sea can be defined as the area which extends up to **12 nautical miles** from the baseline of a country's coastal state. The territorial sea is under the jurisdiction of that particular country; however, foreign ships (both merchant and military) ships are allowed passage through it.

- This type of passage of territorial passage of foreign ships is known as an **innocent passage**. However, the right to the innocent passage can be suspended if there is a threat to the security of the coastal state.

Contiguous Zone

- The contiguous zone can be defined as the belt which **extends 12 nautical miles beyond the territorial sea limit.**

- A coastal state's control on this area is limited to prevention of actions which can infringe its customs, fiscal, and immigration laws. It can also act if any activity in the contiguous zone threatens regulations in the territorial sea.

Exclusive economic zone

- The exclusive economic zone can be defined as a belt of water which **extends up to 200 nautical miles** from the baseline of the coastal state. Thus it **includes both territorial sea and contiguous zone**.
- The exclusive economic zone provides the coastal state **control over all economic resources** such as fishing, mining, oil exploration, and marine research.
- The coastal state also has jurisdiction regarding protection and preservation of natural resources and marine environment.

Continental Shelf

- The continental shelf can be defined as the area whose outer limit **shall not exceed 350 nautical miles from the baseline or shall not exceed 100 nautical miles from the 2500 meters isobath**.
- *Isobath is a line connecting points of equal underwater depth.*
- The coastal state has exclusive rights for exploring and exploiting its natural resources in this area. The state also has the exclusive rights to authorize and regulate drilling on the shelf for all purposes.

High Seas

- High seas can be defined as the part of the sea that is **not included** in the exclusive economic zone, in the territorial sea, or in the internal waters of a coastal state or archipelagic waters of an archipelagic state.
- High seas are **open to all states** for freedom of navigation, freedom of overflight, freedom to construct artificial islands installation, freedom of fishing, and freedom of scientific research.

About PCA

- The Permanent Court of Arbitration was established by the **Convention for the Pacific Settlement of International Disputes**, concluded at The Hague in 1899 during the first Hague Peace Conference.

- The 1899 Convention was revised at the second Hague Peace Conference in 1907.
- The PCA is not a court in the traditional sense but provides services of an **arbitral tribunal** to resolve disputes that arise out of international agreements between member states, international organizations or private parties.
- The cases span a range of legal issues involving territorial and maritime boundaries, sovereignty, human rights, international investment, and international and regional trade.
- The PCA has **no sitting judges: the parties themselves select the arbitrators**.
- The PCA is an official United Nations Observer. It is headquartered in The Hague, Netherlands.

Members

- The PCA has more than 120 Contracting Parties which have acceded to one or both of the PCA's founding conventions (1899 and 1907 Conventions).
- **India is a party** to the PCA according to the convention of 1899.

2) Pancheshwar multipurpose project

About the Project

- The Pancheshwar multipurpose project — first envisaged in 1996 as a part of the **Mahakali treaty** between India and Nepal — includes setting up of two hydro-electric plants with a total installed capacity of 5,040 MW and a 315 metre-high dam to meet the power and irrigation requirements of the two countries.
- It is a bi-national hydropower project to be developed in **Mahakali River** bordering **Nepal and India**.
- It straddles **Uttarakhand in India and the Far Western Development Region of Nepal**.
- It was estimated to cost Rs 40,000 crore in 2017. The funding of the project is to be jointly shared between India and Nepal.

Why in News?

- The latest round of border disputes between India-Nepal could deal another setback to the Pancheshwar multipurpose project, which is already facing massive delays.

- The dam draws its waters from the Mahakali river (known as Sarada in India), which originates at **Kalapani**, one of the disputed sites in Uttarakhand that Nepal has now claimed as its own.
- The project had received fresh impetus after Prime Minister Narendra Modi had, during his Nepal visit in 2014, talked about expediting the project.
- Refer Pulse June 2020 edition for details on India-Nepal Border disputes.

3) Pakistan's new political map

Background

- On August 4, 2020, Pakistan Prime Minister Imran Khan announced a new political map of Pakistan.
- The new political map of Pakistan has **claimed the entire region of Jammu and Kashmir** stretching all the way to the edge of Ladakh.
- The map also claims **Junagarh** and **Manavadar**, a former princely State and territory, respectively, that are part of present-day Gujarat.

What is the issue?

- The new map leaves out a claim line at the eastern end of J&K indicating Pakistan's willingness to make **China** a third party in the Kashmir issue.
- This clearly runs counter to the **Simla Agreement** which treated Kashmir as a bilateral matter.
- Pakistan also claimed the entire territory and water bodies that fall in the **Sir Creek region** in the westernmost part of India.
- *Sir Creek is a 96-km strip of water **disputed between India and Pakistan** in the **Rann of Kutch marshlands**. The Creek opens up in the Arabian Sea and roughly divides the Kutch region of Gujarat from the Sindh Province of Pakistan.*

What will be the impact of this cartographical warfare?

- The map is likely to lead to changes in Pakistan's position on territorial disputes with India. By demanding the entire Jammu and Kashmir region, Mr. Khan is changing the main features of Pakistan's Kashmir discourse as it includes the Jammu region prominently.

- The inclusion of Junagarh and Manavadar opens fundamental issues of territorial sovereignty of India.
- **Manavadar**, a princely territory, joined India on February 15, 1948 and Indian troops marched into **Junagarh** in September that year incorporating it into Indian territory.
- By normalising Islamabad's claims over these former princely territories, Pakistan is most likely to assert its rights over the former princely State of **Hyderabad** as well.

Are there any claims on its western borders?

- The map is silent about territorial claims in the west and northwest of Pakistan. It indicates Islamabad's acceptance of the **Durand Line** as the border with Afghanistan.

India's response

- India's Ministry of External Affairs responded to Pakistan's new political map as an exercise in "political absurdity".

Related information

Simla Agreement

- The Simla Agreement signed by **Prime Minister Indira Gandhi** and **President Zulfikar Ali Bhutto of Pakistan** on **2nd July 1972** was much more than a peace treaty seeking to reverse the consequences of the 1971 war (i.e. to bring about withdrawals of troops and an exchange of PoWs).
- It was a comprehensive blueprint for good neighbourly relations between India and Pakistan.
- Under the Simla Agreement both countries undertook to abjure conflict and confrontation which had marred relations in the past, and to work towards the establishment of durable peace, friendship and cooperation.
- The following principles of the Agreement are particularly noteworthy:
 - A mutual commitment to the peaceful resolution of all issues through direct bilateral approaches.
 - To build the foundations of a cooperative relationship with special focus on people to people contacts.
 - To uphold the inviolability of the Line of Control in Jammu and Kashmir, this is a most important Confidence-building

measure (CBMs) between India and Pakistan, and a key to durable peace.

4) Indus Water Treaty

What is the Indus Water Treaty (IWT)?

- Signed in the year **1960** by **former Prime Minister Jawaharlal Nehru and the then President of Pakistan, Ayub Khan**, the Indus Water Treaty is an agreement that was made to chalk out the control over the 6 rivers that run across India and then Pakistan into the Indus basin.
- This treaty was signed following the partition of the subcontinent.
- On an international level, the IWT has been seen as one of the most successful cases of conflict resolution. It is so because India and Pakistan, ever since IWT was signed, have engaged in 4 major wars but the treaty has stayed in place.

Which rivers belong to India and which ones to Pakistan?

- The Indus Waters Treaty was signed in 1960 after nine years of negotiations between India and Pakistan with the help of the **World Bank**, which is also a signatory.
- Precise details were laid out about how the water will be divided.
- While **Jhelum, Chenab and Indus** (3 western rivers) were allocated to Pakistan, India received the control of **Ravi, Beas and Sutlej** (3 eastern rivers).



- In effect, Pakistan got 80% of the water from the Indus river system and India 20%.
- If **disputes arose**, the two parties would try to solve them bilaterally first. Appointing a “Neutral Expert” and approaching the International Court of Arbitration are other options.
- The treaty also stated that aside from certain cases such as specified domestic, non-consumptive and agricultural use permitted to India, no storage and irrigation systems can be built by India on the western rivers.

Why in News?

- India has refused a request by Pakistan to hold a meeting on issues around the Indus Water Treaty at the Attari checkpoint near the India-Pakistan border.

What is the issue?

- Among the key points on the table was evolving a procedure to solve differences on technical aspects governing the construction of the **Ratle run-of-the-river (RoR) project** on the Chenab in the Kishtwar district of Jammu and Kashmir.
- According to the terms of the IWT, India has the **right to build RoR projects on the three ‘western’ rivers — the Chenab, Jhelum and Indus — provided it does so without substantially impeding water flow in Pakistan downstream.**
- Pakistan believes that the project’s current design does pose a serious impediment and has told the World Bank that it wants a **Court of Arbitration (CoA)** set up to decide on the issue. India says this is only a technical issue and mutually solvable.
- Earlier, in 2016, Pakistan had approached the World Bank raising concerns of India’s **Kishanganga hydroelectric power project** in Jammu & Kashmir.

5) Abraham Accord

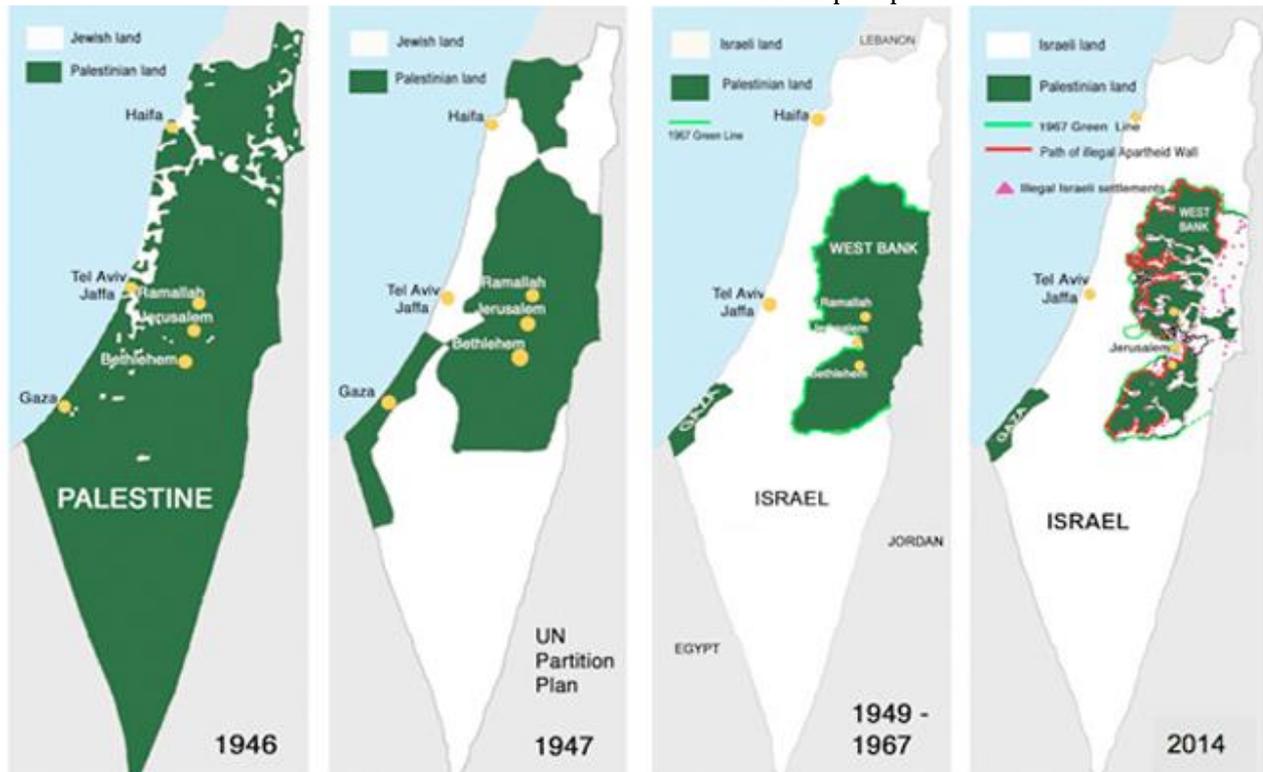
Israel-Palestine conflict

- **Jerusalem** lies in the heart of the Israel-Palestine conflict. The tussle is over who gets to control the ancient city that is sacred to Jews, Muslims and Christians.
- After the end of the **First Arab-Israel War in 1948**, Jerusalem was partitioned into

West and East, under Israeli and Palestinian control respectively.

- But in 1967, during the **Six-Day Arab-Israel War**, Israel occupied East Jerusalem from Jordanian forces, and Israel's Parliament declared the territory had been annexed to Israel.
- This marginalised the Palestinians, who wanted East Jerusalem to be their capital under the **"two-state solution"**.

What is it?



Oslo Accords & India's position

- Despite Israel's hold over the Jerusalem, in 2016, the UN reaffirmed that Jerusalem's Palestinian territories were under "hostile occupation".
- Undeterred by the refusal of the international community to endorse the annexation, Israel further expanded settlements in the territories of East Jerusalem.
- Under the **Oslo Accords** of the 1990s, both Israel and the Palestinians agreed that the status of settlements would be decided by negotiations. But the negotiations process has been stalled for several years now.
- **India has traditionally backed a two-state solution** to resolve the Israel-Palestine conflict.

Israel annexation plan

- Its basis is two separate states, Israel and Palestine, living peacefully side by side on the land between the western bank of the Jordan river and the Mediterranean Sea.
- This territory would be divided broadly along the **pre-1967 armistice line or "green line"**
- **Jerusalem**, which both sides want as their capital, would be shared.
- Past negotiations have failed to make progress and there are currently no fresh talks in prospect.

- Last year, Israeli Prime Minister Benjamin Netanyahu said he is planning to effectively annex parts of the occupied **West Bank**.

What is the West Bank?

- It is a chunk of land located - as the name suggests - on the west bank of the **River Jordan** and bounded by Israel to the north, west and south. To its east lies **Jordan**.
- Since the Six-Day War in 1967, also known as the Third Arab-Israeli War, the West Bank has been **occupied by Israel**. Both Israelis and Palestinians assert their rights to the territory of the West Bank and its disputed status and the conflict has not been resolved as yet.
- Palestians have sought the entire territory of the West Bank and the **Gaza strip** (a

self-governing Palestinian territory on the eastern coast of the Mediterranean Sea) for an independent Palestinian state in the future, to which they claim historical right.

- The vast majority of the international community considers the settlements **illegal under international law**, though Israel disputes this interpretation

Why in News?

- In a move that significantly impacts geopolitics in the Middle East, **United Arab Emirates (UAE) and Bahrain** announced that they will normalise diplomatic relations with **Israel**.
- The three nations signed an agreement that will be called the '**Abraham Accord**' which was brokered by US President Donald Trump.
- It is the first Arab-Israeli peace deal in 26 years.

About the deal

- As per the agreements, the UAE and Bahrain will establish embassies, exchange ambassadors, cooperate and work together with Israel across a range of sectors, including tourism, trade, healthcare and security.
- As a part of the deal, Israel would **halt its plans to annex parts of the occupied West Bank of Palestine**.
- The agreement promises to establish normal relations between the two gulf countries and Israel. These include business relations, tourism, direct flights, scientific cooperation, and, in time, full diplomatic ties at the ambassadorial level.

Why is this important?

- This move is significant because with the exception of **Jordan and Egypt**, Israel **does not have diplomatic relations with Gulf Arab states** owing to its long-standing **conflict with Palestinians**.
- Israel had signed peace agreements with **Egypt** in 1979 and with **Jordan** in 1994. However, despite the absence of official diplomatic relations, Israel has been engaging with its neighbors with regard to issues like trade.

Where does this leave the Palestinians?

- Palestinian leaders have denounced the normalization plan as a betrayal by an Arab ally.

Implications for India

- With over eight million Indian diaspora in the Gulf remitting annually nearly \$50 billion, annual merchandise trade of over \$150 billion, sourcing nearly two-thirds of India's hydrocarbon imports, major investments, etc., India has stronger, multifaceted and growing socio economic engagements with Israel and the Gulf countries.
- Geopolitically, **India has welcomed the establishment of diplomatic relations** between the two Gulf countries and Israel.
- India believes the normalization of relations between Israel and the Gulf countries will bring about greater diplomacy, which could pave the way for broader normalization with the rest of the Arab world and direct negotiations between Israel and the Palestinians.

Art and Culture

1) SHADOW PUPPET THEATRE TRADITIONS

Context

- Shadow puppets are flat figures. The puppets are crafted from either goat or deer skin. They are manipulated from behind the screen, where lighting is provided to cast shadows.
- India has the richest variety of types and styles of shadow puppets. The narratives are mainly based on the epics of **Ramayana and Mahabharata, Puranas, local myths and tales.**
- They communicate significant messages to the rural community besides entertainment. The performance begins with an invocation on a ritually set up stage in a village square or a temple courtyard.
- There are six shadow puppet theatre traditions across India: **Chamadyacha Bahulya** in Maharashtra, **Tholu Bommalata** in Andhra Pradesh, **Togalu Gombeyatta** in Karnataka, **Tolu Bommalattam** in Tamil Nadu, **Tolpava Kuthu** in Kerala and **Ravanachhaya** in Odisha.
- Some popular forms of shadow puppets are:

Togalu Gombeyatta, Karnataka

- The shadow theatre of Karnataka is known as Togalu Gombeyatta. These puppets are mostly small in size. The puppets however **differ in size according to their social status**, for instance, large size for kings and religious characters and smaller size for common people or servants.

Tholu Bommalata, Andhra Pradesh

- These puppets are **large in size** and have jointed waist, shoulders, elbows and knees. They are **coloured on both sides.** Hence, these puppets throw coloured shadows on the screen.
- The music is dominantly influenced by the **classical music** of the region and the theme of the puppet plays are drawn from the **Ramayana, Mahabharata and Puranas.**

Ravanachhaya, Odisha

- In this form, the **puppets are in one piece and have no joints.** They are **not**

coloured, hence throw opaque shadows on the screen.

- The puppets, which are smaller in size, are made of deer skin and are conceived in bold dramatic poses.
- Apart from human and animal characters, many props such as **trees, mountains, chariots, etc.** are also used.

2) Pulikali - Tiger dance

About Pulikali

- Pulikali (puli means leopard/tiger and kali means play in Malayalam) is a dance performed by adorning the costume of leopard or tiger.
- It is performed in different parts of **Kerala** during the festival of **Onam.**



- The performer will be wearing masks of tiger face and body painted in black and yellow, and tiger face. The group comprises predominantly male performers with few female and child performers.
- Since wearing masks, there is **no significance for facial expressions.**
- Shakthan Tampuran**, the then Maharaja of Cochin, is said to have introduced Pulikkali, more than two centuries ago as a **street art form.**

Why in News?

- For this year's Onam, some Pulikali teams are planning to bring the performance online due to the COVID-19 pandemic.

3) Nuakhai Juhar

What is it?

- Nuakhai Juhar, one of the most ancient festivals, is the **agricultural festival** celebrated in **Odisha, Chhattisgarh and**

areas of neighbouring states to welcome the new crop of the season.

- It is also called Nuakhai Parab or Nuakahi Bhetghat.
- During the celebrations, locals organise several cultural programmes - folk songs and dances in their respective districts on this day to display the state's local culture and tradition.

Why in News?

- Prime Minister Narendra Modi greeted the nation on the occasion of Nuakhai (23 August), a harvest festival celebrated in parts of the country, especially Odisha.

4) Brus reject resettlement sites

Who are Brus?

- 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**. 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**.

Repatriation of Brus

- 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 as the majority of the community members refused to go back to Mizoram.
- They claim that the transit camps set up by the Govt of Mizoram are not appropriate for human habitation. They also fear that if they go back to Mizoram, there will be a chance of losing their identity.

Quadrilateral agreement

- In January 2020, a quadrilateral agreement was signed among the Bru groups, the Centre and the State governments of Mizoram and Tripura to let the remaining 35,000 refugees who have stayed back to be **resettled in Tripura**. The Bru who returned to Mizoram in the eight phases of repatriation since 2009, cannot, however, come back to Tripura.

- As a part of the agreement, the Centre announced a package of Rs 600 crore which includes:

1. Each resettled family will get 0.03 acre (1.5 ganda) of land for building a home,
2. Rs 1.5 lakh as housing assistance,
3. Rs 4 lakh as a one-time cash benefit for sustenance, and
4. A monthly allowance of Rs 5,000, and free rations for two years from the date of resettlement.

Why in News?

- Parts of North Tripura have witnessed violent protests recently over the proposed resettlement of Bru tribals.
- The quadrilateral agreement signed in January 2020 led to protests from Bengali and Mizo groups in Tripura. They claim that settling thousands of migrants permanently in Tripura would lead to demographic imbalance, exert pressure on local resources and potentially lead to law and order problems.

Additional Details

About PVTGs

- In India, tribal population makes up for 8.6% of the total population. Tribal people live in about 15% of the geographical area of the country.
- Among them some groups are declared as Particularly Vulnerable Tribal Groups (PVTGs) based on the following criteria.
 1. **A pre-agriculture level of technology;**
 2. **A stagnant or declining population;**
 3. **Extremely low literacy; and**
 4. **A subsistence level of economy.**

Livelihood

- In 1973, the **Dhebar Commission** created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups.
- In 2006, the Government of India renamed the PTGs as Particularly Vulnerable Tribal Groups.
- **75 tribal groups** have been categorized by the **Ministry of Home Affairs** as PVTGs.
- PVTGs reside in **18 States and UT of A&N Islands**.
- Among the 75 listed PVTG's the highest number are found in **Odisha (13)**, followed by Andhra Pradesh (12).
- The Ministry of Tribal Affairs implements the **Scheme of "Development of**

Particularly Vulnerable Tribal Groups (PVTGs)” exclusively for them.

- PVTGs depend on various livelihoods such as food gathering, Non Timber Forest Produce (NTFP), hunting, livestock rearing, shifting cultivation and artisan works. Most of their livelihoods depend on the forest.

Statewise PVTGs

<u>State / UT Name</u>	<u>PVTGs Name</u>
<i>Andhra Pradesh and Telangana</i>	1.Bodo Gadaba 2.Bondo Poroja 3.Chenchu 4.Dongria Khond 5.Gutob Gadaba 6.Khond Poroja 7.Kolam 8.Kondareddis 9.Konda Savaras 10.Kutia Khond 11.Parengi Poroja 12.Thoti
<i>Bihar and Jharkhand</i>	13.Asurs 14.Birhor 15.Birjia 16.Hill Kharia 17.Konvas 18.Mal Paharia 19.Parhaiyas 20.Sauda Paharia 21.Savar
<i>Jharkhand</i>	Same as above
<i>Gujarat</i>	22.Kathodi 23.Kohvalia 24.Padhar 25.Siddi 26.Kolgha
<i>Karnataka</i>	27. Jenu Kuruba 28. Koraga
<i>Kerala</i>	29.Cholanaikayan (a section of Kattunaickans) 30.Kadar 31.Kattunayakan 32.Kurumbas 33.Koraga
<i>Madhya Pradesh and</i>	34.Abujh Macias 35.Baigas 36.Bharias 37.Hill Korbas 38.Kamars 39.Saharias

<i>Chhattisgarh</i>	40.Birhor
<i>Chhattisgarh</i>	Same as above
<i>Maharashtra</i>	41.Katkaria (Kathodia) 42.Kolam 43.Maria Gond
<i>Manipur</i>	44. Marram Nagas
<i>Odisha</i>	45.Birhor 46.Bondo 47.Didayi 48.Dongria-Khond 49.Juangs 50.Kharias 51.Kutia Kondh 52.Lanjia Sauras 53.Lodhas 54.Mankidias 55.Paudi Bhuyans 56.Soura 57.Chuktia Bhunjia
<i>Rajasthan</i>	58.Seharias
<i>Tamil Nadu</i>	59.Kattu Nayakans 60.Kotas 61.Kurumbas 62.Irulas 63.Paniyans 64.Todas
<i>Tripura</i>	65.Reangs
<i>Uttar Pradesh and Uttarakhand</i>	66.Buxas 67.Rajis
<i>West Bengal</i>	68.Birhor 69.Lodhas 70.Totos
<i>Andaman & Nicobar Islands</i>	71.Great Andamanese 72.Jarawas 73.Onges 74.Sentinelese 75.Shorn Pens

Defence

1) INS Viraat

About INS Viraat



- INS Viraat is a **Centaur class aircraft carrier** weighing 27,800 tonnes.
- It served in the **British Navy** as **HMS Hermes** for 25 years from November 1959 to April 1984.
- It was **commissioned into the Indian Navy** in May 1987 after refurbishment and had operated Harrier fighter jets. It was **decommissioned in March 2017**.
- INS Viraat holds the world record as mentioned in the Guinness Book of records for being the **longest serving warship of the world**.
- Viraat played a major role in **Operation Jupiter** in 1989 during the Sri Lankan Peacekeeping operation, after which she was affiliated with the Garhwal Rifles and Scouts of the Indian Army in 1990.
- She also saw action during **Operation Parakram** in 2001-2002, post the terrorist attack on Parliament.

Why in News?

- INS Viraat is set to be scrapped at a ship breaking yard at Alang in Gujarat soon.
- Several attempts by the Navy to preserve the carrier, by converting it into a museum or by other means, failed.

Aircraft carriers with Indian Navy

INS Vikrant

- It was the **first aircraft carrier** to serve in Indian Navy. It was commissioned in 1961.

- The vessel was built up from the existing **HMS Hercules** of the **British Royal Navy**, a Majestic-class carrier.
- It played a key role in enforcing the naval blockade of East Pakistan during the **Indo-Pakistani War of 1971**.
- It was **decommissioned in 1997**.

INS Vikramaditya

- INS Vikramaditya is at present India's **only operational aircraft carrier**.
- INS Vikramaditya is the Indian Navy's largest short take-off, but assisted recovery (STOBAR) aircraft carrier and warship converted from the **Russian Navy's decommissioned Admiral Gorshkov** vertical take-off and landing (VTOL) missile cruiser carrier.
- INS Vikramaditya was **commissioned** into service in **November 2013**.

Indigenous Aircraft Carrier or INS Vikrant

- Indigenous Aircraft Carrier 1 (IAC-1) is going to be the **first indigenously built aircraft carrier**, now under construction by **Cochin Shipyard Ltd**.
- It will be called **INS Vikrant** after being inducted into the Indian Navy.
- IAC-1 was launched in 2013, with final approvals expected to be received in early 2022.