

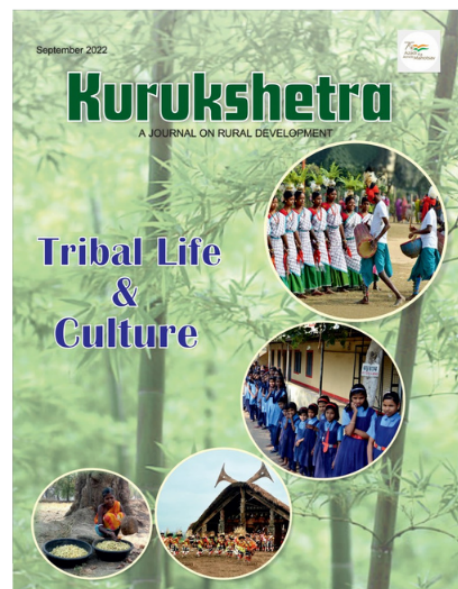
OFFICERS' Pulse

SEPTEMBER 2022 AT A GLANCE



The Indian **EXPRESS**

DownToEarth **Business Standard**



Current Affairs Monthly
The **PULSE** of UPSC at your fingertips.

Contents

Schemes.....	3	1) PM GatiShakti	25
1) Pradhan Mantri Gram Sadak Yojana	3	2) Foreign Trade Policy 2015-20.....	26
2) Pradhan Mantri Kisan Sampada Yojana	4	3) A push for the semiconductor industry	27
3) Ek Bharat Shreshta Bharat.....	4	4) Corporate Social Responsibility	29
4) Prime Minister's Employment Generation Programme	5	Organisations.....	31
5) POSHAN Abhiyaan.....	6	1) New Development Bank	31
6) Make in India	7	2) World Bank Group	31
Initiatives.....	8	3) East Asia Summit.....	32
1) I-STEM & WEST.....	8	4) Eastern Economic Forum	32
2) SATAT Initiative.....	8	Science and Technology	34
3) PM CARES Fund	9	1) Double Asteroid Redirection Test	34
4) Strategic Crude Oil Reserves	10	2) NASA's Perseverance Rover	35
5) PM SHRI Schools	12	3) Hanle Space Observatory & Dark Sky Reserve	36
6) Accessible India Campaign (Sugamya Bharat Abhiyan).....	12	Reports and Indices.....	39
7) JALDOOT App	13	1) Global Estimates of Modern Slavery	39
8) INSPIRE Programme.....	14	2) Human Development Report.....	40
9) Eklavya Model Residential Schools	14	Polity	45
Environment.....	16	1) MTP (Amendment) Act, 2021	45
1) Tackling the stubble burning menace	16	2) Juvenile Justice Amendment Act & Rules	46
2) Montreal Protocol	17	3) UAPA, 2019.....	48
Flora & Fauna	20	4) Criminal Procedure (Identification) Act, 2022.....	49
1) Cheetah translocation.....	20	5) Process of inclusion or exclusion from the Scheduled Tribes list.....	50
2) Vultures	21	International Relations	53
3) India gets its first Dugong Conservation Reserve in Tamil Nadu	22	1) Quad's Humanitarian Assistance and Disaster Relief Agreement	53
Agriculture	24	2) Kyrgyzstan-Tajikistan conflict	53
1) Agriculture Infrastructure Fund....	24	3) India stays out of 'trade pillar' at Indo-Pacific meet	54
Economy.....	25	Art & Culture	56

1) Buddhist Caves of Bandhavgarh56

2) Sittanavasal..... 56

Schemes

1) 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.

Objectives

- A strong rural road infrastructure ensures economic development through **reduced cost of production and logistics, increased productivity, improved economies of scale, enhanced employment and improvement in public and private investments** in rural farm and non-farm activities.
- It provides **better avenues of marketing of farm and non-farm products and services are facilitated** in a rural set up.

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.
- PMGSY promotes the use of **new and green technology** in the process of rural road construction. **Locally available materials** are used in road construction activities to promote cost effective and fast construction.
- The PMGSY shall cover **only the rural areas**. Urban roads are excluded from the purview of this Programme.

Funding pattern

- Currently, the fund sharing pattern of PMGSY is **60:40** between the **Centre and States** for all states **except for 8 North Eastern States and for 2 Himalayan States** (Himachal Pradesh, Uttarakhand).
- For these states and **UT of J&K**, the fund sharing pattern is **90:10**.
- The funds for **other Union Territories**, implementing PMGSY, are being **fully provided by the Central Government**.

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?

- Since its inception, a total of 1,84,056 roads of 7,93,568 km and 10,082 bridges have been sanctioned under various interventions/ verticals of PMGSY, out of which, 1,70,857 roads of 7,12,638 km and 7,264 bridges have been completed.

2) Pradhan Mantri Kisan Sampada Yojana

About PMKSY

- The **Ministry of Food Processing Industries** has been implementing the Pradhan Mantri Kisan SAMPADA Yojana (PMKSY) since 2017.
- SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) is a comprehensive package which **aims to create modern infrastructure with efficient supply chain management from farm gate to retail outlet.**
- It aims to provide a big boost to the growth of the food processing sector in the country and also help in providing **better returns to farmers, reducing wastage of agricultural produce, increasing the processing level and enhancing the export of the processed foods.**
- Under PMKSY the following schemes are to be implemented.
 - Mega Food Parks
 - Integrated Cold Chain, Value Addition and Preservation Infrastructure

- Creation/Expansion of Food Processing/Preservation Capacities
- Infrastructure for Agro Processing Clusters
- Scheme for Creation of Backward and Forward Linkages
- Food Safety & Quality Assurance Infrastructure
- Human Resources and Institutions.

Objectives of PMKSY

- **Creation of modern infrastructure** for food processing mega food parks/ clusters and individual units;
- To create **effective backward and forward linkages** - linking farmers, processors and markets;
- To create **robust supply chain infrastructure for perishables.**

Why in News?

- The Ministry of Food Processing Industries has invited applications under the several sub-schemes of Pradhan Mantri Kisan Sampada Yojana.

3) Ek Bharat Shreshtha Bharat

About the scheme

- The initiative 'Ek Bharat Shreshtha Bharat' was announced by the Government of India 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?

- Government of Maharashtra conducted various programmes as a part of Ek Bharat Shreshtha Bharat initiative.

4) Prime Minister's Employment Generation Programme

About PMEGP

- Prime Minister's Employment Generation Programme (PMEGP) is a central sector scheme administered by the **Ministry of Micro, Small and Medium Enterprises** since 2008-09.
- It is a major **credit-linked subsidy programme** aimed at **assisting first generation entrepreneurs for setting up 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**, as the single nodal agency.
- At the State level, the Scheme will be implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks.
- Under the scheme, loans are being provided by all Public Sector Banks, selected Private Sector Banks and Co-operative Banks with **margin money subsidy** (refers to the amount that the government contributes to beneficiaries availing PMEGP loan) being given by the Ministry of MSME through KVIC.

Categories of beneficiaries under PMEGP	Beneficiary's own contribution (of project cost)	Rate of Subsidy	
		Urban	Rural
General Category	10%	15%	25%
Special Category (including SC/ST/OBC /Minorities/ Women, Ex-Servicemen, Physically handicapped, NER, Hill, and Border areas etc)	5%	25%	35%

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.

Why in News?

- Khadi and Village Industries Commission inaugurated 72 Units assisted under PMEGP.

5) POSHAN Abhiyaan

About the scheme

- POSHAN Abhiyaan (also known as **National Nutrition Mission**) is a flagship programme of the **Ministry of Women and Child Development** that aims to **improve nutrition amongst children, pregnant women, and lactating mothers**.
- Launched in 2018, it is a multi-ministerial convergence mission with the vision to ensure attainment of **malnutrition free India by 2022**.
- The mission targets to reduce **stunting, under-nutrition, anemia** (among young children,

women and adolescent girls) and reduce **low birth weight** by 2%, 2%, 3% and 2% per annum respectively.

- The mission also strives to achieve a reduction in **Stunting** from 38.4% (NFHS-4) to 25% by 2022 (**Mission 25 by 2022**).

Significance

- Amongst India's most serious yet marginally addressed development challenges is malnutrition, which contributes significantly to the country's disease burden.
- Even as **National Family Health Survey 5 (2019-21)** data shows that the number of children under 5 years who are **stunted** (less height-for-age) in India has come down from 38.4% to **35.5%** and the number of children who are **underweight** (less weight-for-age) has come down from 35.8% to **32.1%, every third child still suffers from chronic undernourishment, and every fifth child is acutely malnourished**.
- According to the NFHS-5, as many as **57% women aged 15-49 were anaemic** in 2019-21.

Poshan Maah

- To ensure community mobilisation and bolster people's participation, every year the month of September is celebrated as Rashtriya Poshan Maah under POSHAN Abhiyaan across the country.
- The activities in the Poshan maah are focussed on **Social Behavioural Change and Counselling (SBCC)**. The broad themes are: antenatal care, optimal breastfeeding (early and exclusive), complementary feeding, anaemia, growth monitoring, girls' education, diet, right age of marriage, hygiene, and sanitation,

eating healthy and food fortification.

Why in News?

- Various awareness generation programmes were conducted across the country as a part of celebrations under the Rashtriya Poshan Maah or the National Nutrition Month.

6) Make in India

About the Programme

- The Make in India initiative was launched in 2014 to **facilitate investment, foster innovation, enhance skill development, protect intellectual property and build best in class manufacturing infrastructure in the country.**
- The primary objective of this initiative is to **attract investments from across the globe and strengthen India's manufacturing sector.**
- It is being led by the **Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.**
- The Make in India programme is very important for the economic

growth of India as it aims at utilising the existing Indian talent base, creating additional employment opportunities and empowering the secondary and tertiary sector.

Why in News?

- The Government's flagship programme 'Make in India' has completed eight-years of implementation.
- Make in India Programme is transforming the country into a leading global manufacturing and investment destination. To attract foreign investments, the Government has put in place a liberal and transparent policy wherein most sectors are open to Foreign Direct Investment under the automatic route.
- FDI inflows in India which stood at 45.15 billion US dollar in 2014-2015 reached record FDI inflows for eight years. The year 2021-22 recorded the highest ever FDI of **83.6 billion US dollars.**

Initiatives

1) I-STEM & WEST

About I-STEM Portal

- The Indian Science Technology and Engineering facilities Map (I-STEM) portal was launched in 2020 as the **national web platform for sharing R&D facilities**.
- It is an initiative of the **Office of the Principal Scientific Adviser** to the Govt. of India (PSA, GOI).
 - *The Government of India established the Office of PSA in 1999 to provide pragmatic and objective advice to the Prime Minister and the cabinet in matters of Science and Technology.*
- The goal of I-STEM is to **strengthen the R&D ecosystem** of the country by connecting researchers with resources, by promoting technologies and scientific equipment development indigenously, and providing necessary supplies and supports to researchers by enabling them an access to existing publicly funded R&D facilities in the country through the I-STEM web portal.

Why in News?

- The Government of India has launched a new programme **"Women in Engineering, Science, and Technology (WEST)"** under the I-STEM initiative.
- The WEST programme will **cater to women with a STEM (Science, Technology, Engineering, and Mathematics) background and empower them** to contribute to the science, technology, and innovation ecosystem. It also aims to **close the gender gap** in these fields.
- Through the WEST initiative, I-STEM will provide a **separate platform to scientifically inclined**

women researchers, scientists, and technologists for pursuing research in basic or applied sciences in frontier areas of science and engineering.

2) SATAT Initiative

About SATAT Initiative

- The SATAT (Sustainable Alternative Towards Affordable Transportation) initiative was launched by the **Ministry of Petroleum and Natural Gas** in 2018 for **boosting production and availability of Compressed BioGas (CBG)** as an alternative and affordable clean fuel for the **transportation sector**.
- The scheme envisages setting up of **5000 CBG plants by FY 2023-24**.

Expected Benefits

- SATAT aims to establish an ecosystem for the production of Compressed BioGas from various waste and biomass sources in the country leading to multiple benefits viz. **reduction of natural gas import, reduction of GHG emission, reduction in burning of agriculture residues, remunerative income to farmers, employment generation, effective waste management etc.**

Impacts

- If 5000 plants targeted by 2023-24 are achieved, 15 million tonnes of CBG will be produced, which is enough to **reduce the country's CNG import bill by 40 per cent**.
- Over 70 CBG plants under construction across Punjab, Haryana and Uttar Pradesh, notorious for stubble burning (*Refer Environment section*), will **consume 1.3 million tonnes of crop residues a year, mostly paddy stubble**.

- CNG's **solid by-products can be used as bio-manure.**
 - Estimates show the 5,000 planned CBG plants will generate **50 million tonnes of bio-manure a year.**
 - According to the Punjab Agricultural University, **bio-manure** produced using paddy straw can result in a 20 per cent increase in crop yield. Bio-manure produced from paddy straw also has a **high water retention capacity** that helps reduce irrigation requirements.
- The **other by-product is CO₂.** It can be tapped while purifying the biogas and used to produce liquid or solid CO₂, which have **high demand for food preservation** or to be used in **fire extinguishers.**

How is Compressed BioGas (CBG) produced?

- Producing CBG from biomass involves a two-pronged approach: **Anaerobic decomposition and Purification.**
 - First, Biogas is produced through anaerobic decomposition of biomass. Since biogas contains 55 to 60 per cent **methane**, 40 to 45 percent **carbon dioxide (CO₂)** and trace amounts of **hydrogen sulphide**, the second process involves purifying the gas to remove carbon dioxide and hydrogen sulphide gases to prepare CBG.

Why in News?

- The Ministry of Petroleum and Natural Gas has commissioned 35 CBG/biogas plants under the SATAT initiative.

3) PM CARES Fund

About PM CARES Fund

- The Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund was set up in the aftermath of the Covid-19 pandemic to mobilize resources. The Fund was established in 2020.
- PM CARES Fund is a **public charitable trust.** It has been set up keeping in mind the need for having a dedicated fund with the primary objective of dealing with any kind of emergency or distress situation, like posed by the COVID-19 pandemic, and to provide relief to the affected.
- The **Prime Minister** is Chairperson (ex-officio) of the PM CARES Fund and Minister of Defence, Minister of Home Affairs and Minister of Finance, Government of India are ex-officio Trustees of the Fund.

Objectives

- The primary objectives of the PM CARES Fund Trust are:-
 1. To undertake and support relief or assistance of any kind relating to a **public health emergency or any other kind of emergency, calamity or distress**, either man-made or natural, including the creation or upgradation of healthcare or pharmaceutical facilities, other necessary infrastructure, funding relevant research or any other type of support.
 2. To render financial assistance, provide grants of payments of money or take such other steps as may be deemed necessary by the Board of Trustees to assist the affected population.
 3. To undertake any other activity, which is not

inconsistent with the above Objects.

Legal Provisions

- PM CARES Fund has been registered as a Public Charitable Trust under the Registration Act, 1908.
- PM CARES Fund accepts **voluntary contributions** by individuals/organizations as well as contributions as part of **Corporate Social Responsibility (CSR)** from Companies/Public Sector Undertakings (PSUs). However, **contributions flowing out of budgetary sources of the PSUs are not accepted.**
- All contributions towards the PM CARES Fund are **100% exempt from Income Tax** under Section 80(G) of the Income Tax Act, 1961 for those who opt for the old tax slabs.
- Any contribution made to the PM CARES Fund by any Company or a PSU shall **qualify as CSR expenditure** as provided under the Companies Act, 2013.
- PM CARES Fund is audited by an **independent auditor.**

Whether Foreign Donation is accepted in the PM CARES Fund?

- **Yes.** PM CARES Fund has received exemption from operation of all provisions of the **Foreign Contribution (Regulation) Act, 2010.**

Why in News?

- Prime Minister Narendra Modi chaired a meeting of the Board of Trustees of the PM CARES Fund.

4) Strategic Crude Oil Reserves

What are SPRs?

- Strategic Petroleum Reserves (SPR) are **huge stockpiles of crude oil** stored in the **underground rock caverns** (considered safest for storage of Hydrocarbons) to tackle

emergency situations and allow a country to tide over short-term supply disruptions.

- They represent a **defence against any event of downfall in future oil production**, including physical or economic actions which disrupt any part of the production process from exploration and development through refining.

Importance of Strategic Petroleum Reserves (SPR) programme

- The **Gulf War in 1990** led to a sharp rise in oil prices and a huge increase in India's imports. During the **post-1991 Indian economic crisis**, foreign exchange reserves could barely finance three weeks' worth of imports, while the government came close to defaulting on its financial obligations. India was able to address the crisis through **policies that liberalized the economy.**
- However, India continued to be affected by **volatility in oil prices.** In 1998, the Central Government proposed the creation of petroleum reserves as a long-term solution for managing the oil market.

Current Status

- In India, Strategic Petroleum Reserves are maintained by **Indian Strategic Petroleum Reserves Limited**, a Special Purpose Vehicle - wholly owned subsidiary of Oil Industry Development Board under the Ministry of Petroleum & Natural Gas.
- Strategic crude oil storages are situated at **Mangalore (Karnataka), Visakhapatnam (Andhra Pradesh) and Padur (Karnataka)** as per Phase I of India's SPR programme. They have fuel storage of a total 5.33 MMT (Million Metric Tonnes) and all the storage facilities have been filled

with crude oil. As per the consumption pattern of 2019-20, the total capacity is estimated to provide for about **9.5 days of crude oil requirement.**

- In addition, Oil Marketing Companies (OMCs) in the country have storage facilities for crude oil

and petroleum products for **64.5 days**, thus the current total national capacity for storage of crude oil and petroleum products currently is **74 days**. The **global practice** is to maintain strategic reserves of **at least 90 days of oil imports.**

Phase 2

STRATEGIC PETROLEUM RESERVES

Boosting India's energy security

Gol has set up 5.33 MMT of strategic crude oil storages in SPR Phase-I at the following 3 locations:

- 1) **Vishakhapatnam- 1.33 MMT**
- 2) **Mangalore: 1.5 MMT**
- 3) **Padur: 2.5 MMT**

Another 6.5 MMT of strategic crude reserves is being planned in SPR Phase-II at :

- 1) **Chandikhole, Odisha - 4MMT**
- 2) **Padur , Karnataka - 2.5 MMT**

Existing Crude Oil Storage Capacity

- 1.33 MMT (Vishakhapatnam, AP)
- 1.5 MMT (Mangalore, Karnataka)
- 2.5 MMT (Padur, Karnataka)

Upcoming Crude Oil Storage Capacity under SPR-II

- 4 MMT (Chandikhole, Odisha)
- 2.5 MMT (Padur, Karnataka)

Map Labels: Padur, Mangalore, Vishakhapatnam, Chandikhole

Footer: dpradhanbjp | Dpradhanbjp.com | DharmendraPradhanOdisha

- Last year, under the second phase of the Petroleum Reserves programme, the government approved the setting up of two additional commercial-cum-strategic facilities with a total storage capacity of **6.5 MMT** underground storage at

Chandikhol in Odisha (4 MMT) and **Padur (2.5 MMT)**, on Public-private partnership (PPP) Mode.

- This would raise India's strategic reserve capacity to **11.83 MMT**, and in times of crisis, India can manage its oil requirement for a specific time period.

Why in News?

- Amid a deepening global energy crisis due to the Russia-Ukraine war, India is planning to set up a **strategic gas reserve** on the lines of its strategic petroleum reserve (SPR).
- The government is planning to utilise existing liquefied natural gas (LNG) tunnels and exhausted oil wells and also planning to build new underground infrastructure similar to the large caverns for SPR.
- India, which is the **fourth-largest LNG importer globally**, in FY22 supplied 64.8 billion cubics of natural gas from import and local production.

5) PM SHRI Schools

What's in the news?

- The Central Government has launched a new initiative - **PM SHRI Schools (PM ScHools for Rising India)**.
- This will be a new **centrally sponsored scheme for upgradation and development of more than 14500 Schools across the country** by strengthening the selected existing schools from amongst schools managed by Central Government/ State/ UT Government/ local bodies.
- PM SHRI Schools will **showcase all components of the National Education Policy 2020** (*Refer Pulse August 2022 at a glance edition*) and **act as exemplar schools and also offer mentorship** to other schools in their vicinity.

Objectives

- The aim of these schools will not only be **qualitative teaching, learning and cognitive development**, but also **creating holistic and well-rounded**

individuals equipped with key 21st century skills.

- **Pedagogy** adopted in these schools will be more experiential, holistic, integrated, play/toy-based (particularly, in the foundational years) inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible and enjoyable.
- These schools will be equipped with **modern infrastructure** including labs, smart classrooms, libraries, sports equipment, art room etc. which is inclusive and accessible.
- These schools shall also be developed as **green schools** with water conservation, waste recycling, energy-efficient infrastructure and integration of organic lifestyle in curriculum.

6) Accessible India Campaign (Sugamya Bharat Abhiyan)

About

- It was launched in 2015 by the Department of Empowerment of Persons with Disabilities (DEPwD) as a nation-wide Campaign for **achieving universal accessibility** for Persons with Disabilities (PwDs). It aims at providing equal opportunity to PwDs to participate in all the aspects of life and live independently.
- The Accessible India Campaign comprises of the following three components:
 - **Built Environment Accessibility:** It aims to provide an accessible physical environment for everyone. To achieve this, measures need to be undertaken to eliminate obstacles and barriers to indoor and outdoor facilities

including schools, medical facilities, and workplaces.

- **Transportation System Accessibility:** It focuses on providing persons with disabilities an equal right to travel and use public and private transportation infrastructure with dignity and independence.
- **Information and Communication Eco-System Accessibility:** Access to information refers to all information. This can range from actions such as being able to read price tags, to physically enter a hall, to participate in an event, to read a pamphlet with healthcare information, to understand a train timetable, or to view webpages.

Other important initiatives

- The Ministry of Social Justice and Empowerment launched the **National Job Portal for Persons with Disabilities** (www.disabilityjobs.gov.in) in 2015. Divyangjans can apply through the portal for jobs, skill training, scholarships, education loans and self-employment loans.
- The **Swavlamban Health Insurance Scheme** for PwDs was launched with the objective of providing affordable health insurance to Persons with Disabilities.
- Another scheme of the DEPwD is the **Unique Disability Identification Project** started in 2016-17. The UDID card will be the single document of identification, verification of the Divyangjans for availing various benefits in future.
- Under the **Assistance to Disabled persons for purchasing/fitting of**

aids/appliances (ADIP) scheme, funds are released to various implementing agencies to assist the needy persons with disabilities in procuring modern, standard aids and appliances.

- The **Deendayal Disabled Rehabilitation Scheme (DDRS)**, executed by DePwD provides grant-in-aid to NGOs/voluntary organisations for projects aimed at rehabilitation of Divyangjans.

Why in News?

- The Department of Empowerment of Persons with Disabilities, Ministry of Social Justice & Empowerment organized camps across the country wherein around 35000 divyangjan were provided with various types of aids and assistive devices.

7) JALDOOT App

What's in the news?

- The **Ministries of Rural Development and Panchayati Raj** have launched the JALDOOT App to **capture the water level of selected wells in villages across the country.**
- The app will facilitate panchayats with robust data, which can be further used for **better planning of works.**
- The ground water data could be utilised as part of the Gram Panchayat Development Plan and Mahatma Gandhi planning exercises.
- This Mobile app will **work in both online and offline mode.** So water level can be captured even without internet connectivity and captured data will be stored in mobile and when mobile comes in the connectivity area, data will synchronize with the central server.

8) INSPIRE Programme

About the Programme

- Innovation in Science Pursuit for Inspired Research (INSPIRE) is an innovative programme sponsored and managed by the **Department of Science & Technology (DST)** for **attraction of talent to Science**.
- The basic objective of INSPIRE is to
 - Communicate to the youth of the country the excitements of creative pursuit of science,
 - Attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the science & technology system and R&D base.
 - A striking feature of the programme is that it **does not believe in conducting competitive exams** for identification of talent at any level.
 - It believes in and relies on the **efficacy of the existing educational structure for identification of talent**.
- INSPIRE has three components:
 - **Scheme for Early Attraction of Talent (SEATS)**
 - **Scholarship for Higher Education (SHE)**
 - **Assured Opportunity for Research Careers (AORC)**

INSPIRE Award MANAK

- The **INSPIRE Awards - MANAK (Million Minds Augmenting National Aspirations and Knowledge)**, being executed by DST with **National Innovation Foundation-India**, aims to motivate **students in the age group of 10-15 years** and studying

in **classes 6 to 10** to become future innovators and critical thinkers.

- The objective of the scheme is to **target one million original ideas/innovations** rooted in science and societal applications to foster a culture of creativity and innovative thinking among school children.
 - *National Innovation Foundation – India is an autonomous body of the DST set up in 2000 to strengthen the grassroots technological innovations and outstanding traditional knowledge.*

Why in the news?

- The Department of Science & Technology announced winners of the annual INSPIRE Awards – MANAK competition.

9) Eklavya Model Residential Schools

About EMRS

- The scheme of Eklavya Model Residential Schools (EMRSs) was introduced in the year 1997-98 with an objective **to provide quality middle and high-level education to Scheduled Tribe (ST) students in remote areas** in order to enable them to avail of reservation in high and professional educational courses and get jobs in government and public and private sectors.
- The schools focus not only on academic education but on the **all-round development of the students**. Each school has a capacity of 480 students, catering to students from **Class VI to XII**.
- It has been decided that by the year 2022, **every block with more than 50% ST population and at least 20,000 tribal persons**, will have an EMRS.

- EMRS are set up in States/UTs with grants under **Article 275(1)** of the Constitution of India.
- The scheme is being implemented by the **Ministry of Tribal Affairs**.

Why in News?

- According to the latest data gathered by the Ministry of Tribal Affairs, Eklavya Model Residential Schools are facing teacher shortage across the country.
- In 378 such schools that are currently functional just about 4,000 teachers have been appointed, of which nearly 70 per cent are either contractual teachers or on deputation from state government schools.
- The Ministry has found that leaving the teacher recruitment to the states was leading to a non-uniformity in the quality of teachers, not enough recruitment happening in reserved positions, and a large number of schools recruiting teachers contractually, in a bid to save on the salary expenses, which was resulting in large gaps in the salaries of teachers working at the same level, discouraging many qualified teachers from even applying.

Environment

1) Tackling the stubble burning menace

Stubble Burning

- Stubble burning is the **act of clearing agricultural fields by burning the residue** that is left on the land after harvesting, to ready it for the next round of seeding.
- Paddy stubble burning is practiced mainly in the **Indo-Gangetic plains of Punjab, Haryana, and UP** to clear the fields for rabi crop sowing.
- The period from **15 October to 15 November is when stubble burning instances spike** because paddy crops are harvested during this time and the residue left behind needs to be quickly cleared to sow wheat.
- It is one of the major causes of **severe air pollution which occurs in Delhi** and nearby cities during winters.

What are the Implications?

- **On Air quality:** Open burning of stubble is **incomplete combustion** in nature and large amounts of **methane, carbon monoxide, and volatile organic compounds** are emitted. It also produces large amounts of **PM 2.5 and PM 10**.
- **On Climate:** Emissions from stubble fires have a direct effect on weather and climate through the **release of greenhouse gasses such as carbon dioxide (CO₂) and methane (CH₄)** which may potentially lead to global warming.
- **On Soil Fertility:** Stubble burning affects soil productivity by **burning the essential nutrients inside the soil** such as Nitrogen, Phosphorus, and Potassium (NPK) as well as other micronutrients. It also **raises the soil temperature** to about 42

°C, thus **displacing or killing the important microorganisms** in the soil.

- **Growth of Weeds:** Weeds are more prone to grow in the field cleared by burning the stubble and since growth of weeds affects the health of the principal crop, farmers respond by using chemical weedicides that **increase the cost of production and aggravates biomagnification**.

Solutions to the Burning Problem

- In 2015, the **National Green Tribunal banned stubble burning** in Rajasthan, Uttar Pradesh, Delhi, Haryana and Punjab. The enforcement of the ban has, however, been weak, largely due to inadequate political will.
- Fortunately, there is no dearth of potential gainful uses of crop residues. These include **making various kinds of paper and hard boards, fuel briquettes for replacing coal in thermal plants, or converting them into biofuel for blending with petrol**.
- Instead of burning the stubble, it can be used in different ways like **cattle feed, compost manure, roofing in rural areas, etc.**
- **Several types of machines** are now available to manage paddy stubbles in quick time to ensure timely planting of the next crop, which is the main aim of the farmers for setting their fields ablaze.
- In addition to these, the **Indian Agriculture Research Institute (IARI)** has developed '**Pusa Decomposer**', a **fungi-based liquid solution** that can soften hard stubble to the extent that it can be easily mixed with soil in the field to act as **compost**. This would

then rule out the need to burn the stubble. The window of time required for the solution to work is **around 20 to 25 days**, as per the IARI.

- Devices like **Happy Seeders** and **Super Seeders** can sow the new crop without removing the paddy remnants from the fields. But these are **costly machines**, which necessitate respective state governments to subsidise the cost of these machines for cooperative societies and other custom-hiring service providers. For eg: **Haryana** provides subsidy upto Rs 2,500 per acre for this purpose.
- The long-term solution for the stubble burning problem is to **move farmers away from the water-guzzling paddy and promote crop diversification**. But farmers will only go for other crops if the governments give an **assured price and market for the alternate crops**.

Why in News?

- To curtail the menace of stubble burning, the Gurugram district administration has decided to impose a fine of Rs 2,500 per acre on farmers found burning stubble.
- The state is offering a 50% to 80% subsidy on buying machinery and equipment for organic disposal of stubble.

2) Montreal Protocol

About

- The **Montreal Protocol on Substances that Deplete the Ozone Layer** is an international environmental treaty that **regulates the production and consumption of nearly 100 man-**

made chemicals referred to as ozone depleting substances (ODS) including **chlorofluorocarbons (CFCs), halons and hydrochlorofluorocarbons (HCFCs).**

- The **stratospheric ozone layer protects humans and the environment from harmful levels of ultraviolet radiation from the sun**. The widespread use of ODS had caused a hole in the Ozone layer of the atmosphere, which allowed some harmful radiation to reach the earth. These radiations were considered potential health hazards.
- Adopted in **1987**, the Montreal Protocol is the **only UN treaty that has been ratified by every country**.
- Under this treaty, all parties have specific responsibilities related to the phase out of the different groups of ODS, control of ODS trade, annual reporting of data, national licensing systems to control ODS imports and exports, and other matters.
- Developing and developed countries have **equal but differentiated responsibilities** along with **binding, time-targeted and measurable commitments**.
- The Montreal Protocol has been a **far more effective and successful agreement** than the climate change instruments. It has already **resulted in the phase-out of 98.6% of ozone-depleting substances**. The remaining 1.4% are the HCFCs that are in the process of being transitioned.

MONTREAL PROTOCOL CONTRIBUTES TO THE



About Hydrofluorocarbons

- Hydrofluorocarbons (HFCs) are a group of industrial chemicals primarily used for **cooling and refrigeration**.
- HFCs are **powerful greenhouse gases** and a substantial number are **short-lived climate pollutants** with a lifetime of between 15 and 29 years in the atmosphere.
- HFCs are widespread in **air conditioners, refrigerators, aerosols, foams and other products**.
- HFCs were introduced as **non-ozone depleting alternatives** to support the timely **phase out of CFCs and HCFCs** under Montreal Protocol.
- While these chemicals **do not deplete the stratospheric ozone layer**, HFCs were found to be extremely potent in causing global warming. Some of them have **high Global Warming Potentials (GWPs) ranging from 12 to 14,000**.
- So, the HFCs solved one problem, but were contributing in a major way to another. But these could not be eliminated under the original provisions of Montreal Protocol which was meant to phase-out ozone-destroying chemicals only. The **Kigali Amendment** enabled

the Montreal Protocol to **mandate the elimination of HFCs as well**.

Kigali Agreement

- The Parties to the Montreal Protocol reached agreement at their 28th Meeting of the Parties on 15 October 2016 in Kigali, Rwanda. The Agreement particularly aims at **phasing out the production and consumption of Hydrofluorocarbons** which were first introduced as a substitute to ODSs namely CFCs and Hydrochlorofluorocarbons HCFCs.
- Before the middle of this century, **current HFC use has to be curtailed by at least 85 per cent**. Countries have **different timelines** to do this. **India** has to achieve this target by **2047** while the developed countries have to do it by 2036. China and some other countries have a target of 2045.
- While the reductions for the rich countries have to begin immediately, **India, and some other countries, have to begin cutting their HFC use only from 2031**.
- The agreement came into force on **1st January 2019** and has been ratified by more than **130 countries** (including **India**) so far.
- The phasing down of HFCs is expected to prevent the **emission to the tune of 105 million tonnes**

of greenhouse gases, which would potentially help avoid a rise in global temperature up to **0.5 degrees** Celsius by the year 2100.

- Kigali Agreement **legally binds the signatory countries** with non-compliance measures.

Why in News?

- World Ozone Day is celebrated on 16th September each year to commemorate the signing of the Montreal Protocol that came into force on this day in 1987.

- It is celebrated every year to spread awareness among people about the depletion of Ozone Layer and the measures taken and to be taken to preserve it.
- The theme of World Ozone Day 2022 is **“Montreal Protocol@35: global cooperation protecting life on earth”**.

Flora & Fauna

1) Cheetah translocation

Asiatic Cheetah

- Asiatic cheetah (*Acinonyx jubatus venaticus*) is classified as a “**critically endangered**” species by the IUCN Red List, and is believed to survive only in **Iran**.
- Asiatic cheetahs were once widespread across India but were eradicated in the country as they were hunted for sport.
- In 1952, Asiatic cheetah was **declared extinct** from India, after decades of **human intervention, hunting and habitat degradation**.
- Asiatic cheetahs are almost identical in appearance to their better known African cousins. However, there are subtle differences.
 - The Asiatic cheetah is slightly smaller and paler than its African cousin.



African Cheetah

- The African cheetah (*Acinonyx jubatus jubatus*) is spread out across Africa from Northwest Africa, East Africa, and Southern Africa. With a bigger territory, the African cheetahs have higher populations compared to Asiatic cheetahs.

- They are categorised as **Vulnerable** in the IUCN Red List.

Why in News?

- Over 70 years after they went extinct, eight **African cheetahs** from Namibia were released into quarantine enclosures in Kuno National Park in Madhya Pradesh as part of India's first inter-country big cat relocation project.
- The translocation of African Cheetah is a part of Government of India to reintroduce the **fastest land animal** in India after extinction of the Asiatic cheetah in the 1950s.

Why do conservationists want to reintroduce cheetahs?

- A section of conservationists has long advocated the reintroduction of the species in the country.
- They argue that introductions of large carnivores have increasingly been recognised as a **strategy to conserve threatened species and restore ecosystem functions**.
- Cheetahs dwell on open plains and it is mainly a **grassland species**. Grassland is an essential habitat for biodiversity conservation in India, as many threatened species in India belong to this habitat. Conserving cheetahs will lead to the conservation of all grassland species.
- The cheetah is the **only large carnivore to have gone extinct in India**, mainly by over-hunting in India in historical times. India now has the **economic ability** to consider restoring its lost natural heritage for ethical as well as ecological reasons.

Concerns

- One of the major concerns of the reintroduction project is whether the **arriving cheetahs would**

bring diseases that could threaten other feline species.

Transmission of these to the endemic tiger population is a cause for concern.

- Another issue is the **larger debate on coexistence**. The Kuno National Park is already home to around 30 leopards. Tigers from the Ranthambore Tiger Reserve in Rajasthan, 140 km away from Kuno, are also believed to migrate to the park. The proximity of three predators in the same ecosystem is fraught with risks.
- More aggressive predators such as tigers and leopards will compete with the cheetahs. They may be driven to the outskirts of the park, where they could come into **conflict with humans**.

Related Information

About Kuno National Park

- It is located in **Madhya Pradesh**. Earlier it was a wildlife sanctuary but in 2018 it was given national park status.
- The **Kuno river** flows through the national park.
- Bio-Geographically this area falls under the **Kathiawar-Gir dry deciduous forest ecoregion** and the forest types found in this area include the Northern tropical dry deciduous forest, Southern tropical dry deciduous forest, Dry Savannah forest & grassland and Tropical riverine forest.
- The main predators in the protected area are Indian leopard, jungle cat, sloth bear, dhole, Indian wolf, golden jackal, striped hyena and Bengal fox.
- In the 1990s, it was selected as a possible site to implement the **Asiatic Lion Reintroduction Project**, which aimed at establishing a second lion

population in India, apart from **Gir National Park in Gujarat**.

2) Vultures

Vultures in India

- Vultures are large, magnificent raptors. By cleaning up carcasses and other organic waste in the environment, they provide **critically important ecosystem services** that also directly benefit humans.
- **India has 9 vulture species in the country.**
- Four of India's vulture species are under severe threat.
 - **Indian Vulture (Gyps indicus)- Critically Endangered**
 - **Indian White-rumped Vulture (Gyps bengalensis)- Critically Endangered**
 - **Red-headed Vulture (Sarcogyps calvus)- Critically Endangered**
 - **Slender-billed Vulture (Gyps tenuirostris)- Critically Endangered**
- Other Species of Vultures found in India include Egyptian Vulture (Neophron percnopterus), Cinerous Vulture (Aegypius monachus), Bearded Vulture (Gypaetus barbatus), Griffon Vulture (Gyps fulvus) and Himalayan Vulture (Gyps himalayensis).
- Most of their populations are declining. Their decline is associated with **use of Diclofenac** for cattle treatment which then ends up in their digestive system making them vulnerable to kidney failure and poisoning.

Diclofenac and vulture

- Diclofenac is a **common anti-inflammatory drug administered to livestock** and is used to treat the

symptoms of inflammation, fevers and/or pain associated with disease or wounds. It was widely used in India beginning in the 1990s.

- But vultures which eat dead cattle are vulnerable to Diclofenac. This drug causes **kidney failure in the vultures**.
- Though the **drug was banned in 2006, it is reportedly still available for use**.
- Efforts to revive numbers and conservation are going on nationwide, with the Union government publishing an **Action Plan for Vulture Conservation**, as well as establishing **captive breeding centres** in collaboration with the forest departments and the Bombay Natural History Society in Haryana, Assam, Madhya Pradesh and West Bengal.

Why in News?

- Various initiatives were announced by the central and state governments to mark the International Vulture Awareness Day (celebrated on the first Saturday of September annually) to boost their numbers and ensure conservation.

3) India gets its first Dugong Conservation Reserve in Tamil Nadu

About Dugongs

- The dugongs (*Dugong dugon*), also called the **sea cow**, are the **largest herbivorous marine mammal** in the world. They thrive primarily on **seagrass beds**, a major carbon sink of the oceans and found throughout the **warm latitudes of the Indian and western Pacific Oceans**.
- They can grow upto 3 meters long, weigh about 300 kilograms, and live for about 65 to 70 years, grazing on seagrass and coming to the surface to breathe.

- They are found in **over 40 countries** and in **India** dugongs are seen in the **Gulf of Mannar, Gulf of Kutch, Palk Bay, and the Andaman and Nicobar Islands**.
- **Protection Status:** IUCN Red list: **Vulnerable**; CITES: **Appendix I**; Wildlife Protection Act (1972): **Schedule I**.

Threats

- The **loss of seagrass habitats, water pollution and degradation of the coastal ecosystem** due to developmental activities are the emerging threats for these slow-moving animals.
- Dugongs are also victims of **accidental entanglement in fishing nets and collision with boats, trawlers**.



Why in news?

- Tamil Nadu has notified the country's first 'Dugong Conservation Reserve' in **Palk Bay** covering the coastal waters of Thanjavur and Pudukottai districts with an area of 448 square kilometers.
- There are only about 240 individuals estimated to be present in the country and the **majority is found in Tamil Nadu coast (Palk Bay)**. Hence, there is an imminent

need to protect Dugongs and their habitat from degradation.

- Conserving dugongs will help to **protect and improve seagrass beds and sequestering more atmospheric carbon**. Seagrass beds are also the **breeding and feeding grounds for many commercially valuable fishes and marine fauna**. Hence, thousands of fisher families directly depend on dugong habitats for their income.

What is a Conservation Reserve?

- Conservation Reserves are protected areas that act as **buffer**

zones and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests.

- These protected areas were first introduced in the **Wildlife (Protection) Amendment Act, 2002** (an amendment to the **Wildlife Protection Act, 1972**), because of reduced protection in and around existing or proposed protected areas as a result of private ownership of land and change in land use.

Agriculture

1) Agriculture Infrastructure Fund

About AIF

- The Government of India launched the **Central Sector Scheme of financing facility under the Agriculture Infrastructure Fund (AIF) in 2020.**
- AIF is a **medium - long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets** through interest subvention and credit guarantee.
- AIF aims at bringing farmers & agribusinesses together with newer partnership models emerging for the creation of distributed infra near farm-gate in a hub & spoke model. These assets will enable farmers to get greater value for their produce as they will be able to store and sell at higher prices, reduce wastage, and increase processing and value addition.
- The duration of the scheme is from **2020-21 to 2032-33.**
- Under the scheme, **all loans up to a limit of ₹ 2 crores** under this financing facility will have **interest subvention of 3% per annum.** This subvention will be available for a maximum period of 7 years. In case of loans beyond ₹ 2 crores, the interest subvention will be limited up to ₹ 2 crores.

- **Credit guarantee coverage** will be available for eligible borrowers from this financing facility under **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for loans up to ₹ 2 crores.**
 - *Launched in 2000, CGTMSE makes available collateral-free credit to the micro and small enterprise sector. The corpus of CGTMSE is being contributed by the Government of India and SIDBI in the ratio of 4:1 respectively.*
- **Eligible beneficiaries:** The scheme supports **private investment and investment by farmers' collectives like Primary Agricultural Credit Society (PACS), National/ State level federations of Cooperatives, Farmer Producer Organizations (FPOs), federations of FPOs & SHGs and investment by Agricultural Produce Market Committees (APMCs) & State Agencies etc. in agriculture infrastructure.**

Why in News?

- The Centre has received proposals envisaging an investment of more than Rs 25,000 crore under the Agriculture Infrastructure Fund (AIF).

Economy

1) PM GatiShakti

About the project

- Last year, the Government of India **launched the “PM GatiShakti — National Master Plan”** for infrastructure development aimed at boosting multimodal connectivity and driving down logistics costs.
- PM GatiShakti is a **digital platform that connects 16 ministries** — including Roads and Highways, Railways, Shipping, Petroleum and Gas, Power, Telecom, Shipping, and Aviation- with a view to **ensuring holistic planning and execution of infrastructure projects.**
- The portal will offer **200 layers of geospatial data**, including on existing infrastructure such as roads, highways, railways, and toll plazas, as well as **geographic information about forests, rivers and district boundaries to aid in planning and obtaining clearances.**
- The portal will also allow various government departments to track, in real time and at one centralised place, the progress of various projects, especially those with multi-sectoral and multi-regional impact.
- The objective is to **ensure that each and every department now has visibility of each other’s activities providing critical data while planning and execution of projects in a comprehensive manner.**
- The GatiShakti platform aims to **prevent such situations by addressing the issue of government departments working in silos.**
- The government expects the platform to enable various

government departments to synchronise their efforts into a multi-modal network. It will also offer satellite imagery for monitoring of projects. It is also expected to help state governments give commitments to investors regarding timeframes for the creation of infrastructure.

How will the platform help bring down logistics costs?

- Studies estimate that **logistics costs in India are about 13-14% of GDP as against about 7-8% of GDP in developed economies.**
- High logistics costs impact cost structures within the economy, and also make it more expensive for exporters to ship merchandise to buyers.
- By incorporating infrastructure schemes under various ministries and state governments, and economic zones such as textile and pharmaceutical clusters and electronics parks, the GatiShakti platform aims to **boost last-mile connectivity and bring down logistics costs with integrated planning and reducing implementation overlap.**

Why in News?

- The Union Cabinet approved a policy for the **long-term leasing of railway land at lower costs** for the PM Gati Shakti framework. The move is expected to **enable integrated development of infrastructure and more cargo terminals**, helping improve revenues for the Railways.
- As per the new policy, the land can be now leased for cargo-related activities for up to **35 years** (as against five years earlier) at **1.5% of market value of land per annum**, down from 6% earlier.

- Additionally, **300 cargo terminals** would be developed over the next five years and about **1.2 lakh employment** would be generated. The cargo terminals will help in attracting more cargo to railways thereby **increasing railways' share in freight transportation and reducing the logistics cost of the industry.**
- The new policy will not only help in the development of public utilities like water supply, electricity, gas, telecom cable, sewage disposal, drains, optical fiber cables, pipelines, roads, flyovers, but also terminals, regional rail transport, urban transport, etc. in an integrated manner.
- The policy also provides for **use of railway land to set up solar plants** at a nominal cost, and encourages **development of social infrastructure** (such as hospitals and schools) at an annual fee of ₹1 per sqm. per annum.

2) Foreign Trade Policy 2015-20

About

- The Foreign Trade Policy (FTP) 2015-20 was the Government of India on April 1, 2015. Following are the highlights of the FTP:
 - FTP 2015-20 provides a **framework for increasing exports of goods and services** as well as **generation of employment and increasing value addition** in the country, in line with the **'Make in India' programme.**
 - The Policy aims to **enable India to respond to the challenges of the external environment**, keeping in step with a rapidly evolving international trading architecture and make trade
- a major contributor to the country's economic growth and development.
- FTP 2015-20 introduces **two new schemes**, namely **'Merchandise Exports from India Scheme (MEIS)'** for export of specified goods to specified markets and **'Services Exports from India Scheme (SEIS)'** for increasing exports of notified services. **Duty credit scrips** issued under MEIS and SEIS and the goods imported against these scrips are fully transferable.
 - *Last year, the government replaced the MEIS by introducing the **Remission of Duties and Taxes on Exported Products (RoDTEP) scheme.** This new scheme reimburses currently un-refunded Central, State, and Local taxes and duties incurred in the process of manufacture and distribution of exported products in a way that is compliant with the WTO norms.*
 - Measures have been taken to give a **boost to exports of defense and hi-tech items.**
 - **108 MSME clusters** have been identified for focused interventions to boost exports.
 - **Trade facilitation and enhancing the ease of doing business** are the

other major focus areas in this FTP.

- One of the major objectives of the FTP is to move towards **paperless working in a 24x7 environment.**

Why in News?

- The government has extended the tenure of the Foreign Trade Policy 2015-20 by another six months till March 2023, instead of replacing it with a new policy by September 30 as it had envisaged.
- The policy was first extended on March 31, 2020 for a year due to the pandemic and the lockdown imposed to control its spread.

3) A push for the semiconductor industry

Context

- In a bid to make India's chip-making initiative more attractive to investors, the Centre has recently approved changes to the scheme for the development of a semiconductor and display manufacturing ecosystem in the country.

How big is the industry?

- Semiconductors are the thumbnail-sized building blocks of almost every modern electronic device from **smartphones to connected devices in the Internet of Things (IoT).** They help give **computational power to devices.**
- The global semiconductor industry is currently valued at **\$500-\$600 billion** and caters to the global electronics industry currently valued at about \$3 trillion.
- The basic component of a semiconductor chip is a **sliver of silicon**, which is etched with **billions of microscopic transistors** and projected to **specific minerals and gases,**

forming patterns to control the flow of current while following different computational instructions.

- The most-advanced semiconductor technology nodes available today are the 3 nanometre (nm) and the 5nm ones. Semiconductors having higher nanometre value are applied in **automobiles, consumer electronics and so on**, while those with lower values are used in **devices such as smartphones and laptops.**
- The chip-making process is **complex and highly exact**, having multiple other steps in the supply chain such as chip-designing done by companies to develop new circuitry for use in appliances, designing software for chips and patenting them through core Intellectual Property (IP) rights.
- It also involves making chip-fabrication machines; setting up fabs or factories; and ATMP (assembly, testing, marking and packaging).

Global Distribution

- The chip-making industry is a **highly-concentrated one**, with the big players being **Taiwan, South Korea and the U.S. among others.**
- In fact, 90% of 5nm (nanometre) chips are mass-produced in Taiwan, by the Taiwan Semiconductor Manufacturing Company (TSMC). Therefore, the **global chip shortage, U.S.-China tensions over Taiwan, and the supply chain blockages owing to the Russia-Ukraine conflict** have led major economies to enter the chip-making sector with a renewed push.

What are the changes to India's chip-making scheme?

- In December 2021, India announced its roughly \$10 billion dollar **production-linked incentive (PLI) scheme to encourage semiconductor and display manufacturing** in the country.
- It also announced **fiscal support for a design-linked initiative (DLI) scheme** which aims to offer financial incentives as well as design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design over a period of 5 years.
- The new changes announced recently seek to **harmonise government incentives for all technology nodes of semiconductors**.
- In the previous version of the scheme, the Centre was offering to fund 30% of the project cost for 45nm to 65nm chip production, 40% for 28nm to 45nm, and 50% or half of the funding for chips 28nm or below. The modified scheme provides **uniform 50% fiscal support for all nodes**. Besides, it will provide **50% of capital expenditure for other steps of the process as well** (chip design and ATMP).
- The new scheme has been brought in so that all areas of chip-making are encouraged to create an **integrated ecosystem in India**, rather than manufacturing here and having to package and test chips elsewhere.

What are the challenges?

- While the scheme is an encouraging move, chip production is a **resource-intensive and expensive process**. While the new

scheme provides equal funding for all steps of the process, the outlay of the scheme remains **\$10 billion**.

- Notably, just the setting up of one semiconductor fab requires an investment of anywhere between \$3 and \$7 billion. Analysts, while positive, are concerned that **not much of the current scheme outlay could be allocated to supporting other elements** including display fabs, packaging and testing facilities, and chip design centres.
- They also argue that the **initial funding should focus on areas like design and R&D**, for which India already has an established talent pool.
- In addition to these, **creating global demand** may be difficult as giants like Taiwan offer viable cutting-edge chip-tech worldwide. Thus, **attracting global players to set up here** would be beneficial as they come with their customer base.
- Chip-making also requires **gallons of ultrapure water** in a single day, which could be a task for the government to provide to factories, compounded also by the drought conditions which often prevail in large parts of the country.
- Besides, an **uninterrupted supply of power** is central to the process, with just seconds of fluctuations or spikes causing millions in losses.
- Another task for the government is to **drive up consumer demand** in the semiconductor industry to not end up in a situation where these ventures remain successful only till taxpayers are forced to fund required subsidies.

4) Corporate Social Responsibility

What is CSR?

- Corporate Social Responsibility (CSR) is a business philosophy that dictates that companies around the globe should deviate from the narrow path of chasing only financial gains and wealth buildup and embark on a journey of **sustainable development**.
- Businesses can invest their profits in areas such as **education, poverty, gender equality, and hunger** as part of any CSR compliance. Amid the COVID-19 outbreak, the Ministry of Corporate Affairs has notified that **companies' expenditure to fight the pandemic** will be considered valid under CSR activities.



CSR in India

- India harbours one of the earliest and richest traditions of CSR in the world in the form of philanthropy.
- We can find **Chanakya**, also called **Kautilya**, the cardinal force behind Mauryan Imperialism, commenting and emphasising on the importance of observing ethical practices and principles while conducting commercial activities.
- Our scriptures have also repeatedly echoed the importance of sharing business earnings with the deprived segments of the society.
- In modern India, CSR was attributed with a whole new dimension with the “**Trusteeship Theory**” of **Mahatma Gandhi**, which considered the businessmen

of India as trustees of trusts that looked after public welfare.

Legal Provisions

- **India is the first country** in the world to make CSR **mandatory**, following an amendment to The Company Act, 2013 in 2014.
- Any company that has a **net worth of at least Rs 500 crore, a turnover of Rs 1,000 crore or a net profit of Rs 5 crore** is obliged to spend **2% of its average profits** over the last three years on CSR.
- Businesses can invest their profits in areas such as education, poverty, gender equality, and hunger as part of their CSR compliance, as regulated by the law.

Latest Amendments

- In 2021, the Ministry of Corporate Affairs amended the rules of CSR.
- According to the new rules, non-compliance to the CSR rules and obligations **will no longer be treated as a criminal offence**. These will now be treated as civil wrongs.
- A company may engage **International Organisations** for designing, monitoring and evaluation of the CSR projects and for capacity building of their own personnel for CSR.
- Any **surplus income** being generated through a company's CSR activities can not form part of the company's profit. The surplus shall be reinvested into the same project or shall be transferred to the Unspent CSR Account.
- Any CSR expenditure that exceeds the required amount can be carried **forward to the next three years**.

Why in News?

- The government has amended rules governing corporate social responsibility to mandate companies having any amount in

their unspent CSR accounts to set up a **CSR committee**.

- Under the CSR rules, amounts remaining unspent in a financial year relating to an ongoing project as well as any unutilised surplus arising from the CSR activities are required to be deposited by the company in a special bank account

called the '**Unspent Corporate Social Responsibility Account**'.

- The amended rules now provide that a company will have to comply with CSR related obligations, including constituting a CSR committee so long as there is any unspent amount in its Unspent Corporate Social Responsibility Account.

Organisations

1) New Development Bank

About NDB

- The New Development Bank (NDB) was established by the **BRICS (Brazil, Russia, India, China and South Africa) countries**. It formally came into existence at the Ufa Summit (Russia) in **2015**.
- It was established with the **objective of financing infrastructure and sustainable development projects** in BRICS and other emerging economies and developing countries, complementing the efforts of multilateral and regional financial institutions toward global growth and development.
- In 2018, the NDB received **observer status** in the UN General Assembly.
- The Bank's membership is **open to members of the United Nations**.
- NDB commenced the **admission of its first new member countries** in the second half of 2021.
- At present NDB's membership includes **Bangladesh and United Arab Emirates** (in addition to BRICS countries), with **Egypt and Uruguay** have been admitted as **Prospective members**.
 - Prospective members are countries admitted by NDB's Board of Governors and will officially become a member country once they deposit their instrument of accession.

Why in News?

- Government of Tamil Nadu has inaugurated Phase 2 of Chennai Metro Rail Project with assistance from the New Development Bank.

2) World Bank Group

About World Bank

- The World Bank is an international organization dedicated to providing financing, advice, and research to developing nations to aid their economic advancement.
- Currently, the World Bank has **two stated goals** that it aims to achieve by 2030.
 - The first is to **end extreme poverty** by decreasing the number of people living on less than \$1.90 a day to below 3% of the world population.
 - The second is to **increase overall prosperity** by increasing income growth in the bottom 40% of every country in the world.
- The **World Bank and International Monetary Fund (IMF)** were founded simultaneously in **1944** at the **United Nations Bretton Woods Conference** in the United States to support European and Asian countries in post-war reconstruction efforts.
- The IMF and the World Bank are called **Bretton Woods twins** and are headquartered in Washington, D.C.

Structure of the World Bank

- The World Bank Group consists of five organizations:
 - **International Bank for Reconstruction and Development (IBRD)**: an institution that provides debt financing to governments that are considered middle income.
 - **International Development Association (IDA)**: a group that gives

interest-free loans to the governments of poor countries.

- **International Finance Corporation (IFC):** focuses on the private sector and provides developing countries with investment financing and financial advisory services.
- **Multilateral Investment Guarantee Agency (MIGA):** an organization that promotes foreign direct investments in developing countries.
- **International Centre for Settlement of Investment Disputes (ICSID):** an entity that provides arbitration on international investment disputes.
- At present, the World Bank Group has more than 180 member countries (including **India**).

Why in News?

- Finance Minister Nirmala Sitharaman urged the World Bank's private sector investment arm, the International Finance Corporation, to increase its lending to India to more than \$2 billion in the next two years and to \$3-3.5 billion over the next three-four years.

3) East Asia Summit

About EAS

- The East Asia Summit (EAS) is a unique Leaders-led forum of **18 countries of the Asia-Pacific region** formed to **further the objectives of regional peace, security and prosperity**.
- It has evolved as a forum for strategic dialogue and cooperation on political, security and economic issues of common regional concern and plays an important role in regional architecture.

Membership

- Established in **2005**, EAS allows the principal players in the Asia-Pacific region to discuss issues of common interest and concern, in an open and transparent manner, at the highest level.
- The membership of EAS consists of **ten ASEAN Member States** (i.e. Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, the Philippines and Vietnam), **Australia, China, India, Japan, New Zealand, Republic of Korea, Russian Federation and the USA**.
- **India** is a founding member of EAS.
- EAS is an initiative of ASEAN and is based on the premise of the centrality of ASEAN. **EAS can only be chaired by an ASEAN member.**

Priority areas

- There are **six priority areas of regional cooperation** within the framework of the EAS. These are – Environment and Energy, Education, Finance, Global Health Issues and Pandemic Diseases, Natural Disaster Management, and ASEAN Connectivity.
- **India endorses regional collaboration in all six priority areas.**

Why in News?

- Representatives from India attended the 10th EAS EMM (East Asia Summit Economic Ministers' Meeting) in Cambodia.
- The meeting saw representation from all 10 ASEAN countries as well as 8 partner countries viz. Australia, China, India, Japan, New Zealand, Republic of Korea, Russian Federation and the USA.

4) Eastern Economic Forum

What is the Eastern Economic Forum?

- The EEF was established by a decree of the President of the

Russian Federation, Vladimir Putin, in 2015, with the aim of **supporting the economic development of Russia's Far East (RFE)**, and to **expand international cooperation in the Asia-Pacific region**.

- The primary objective of the EEF is to **increase the Foreign Direct Investments in the RFE**. The region encompasses one-third of Russia's territory and is **rich with natural resources such as fish, oil, natural gas, wood, diamonds and other minerals**.
- The RFE is geographically placed at a **strategic location**; acting as a **gateway into Asia**. The Russian government has strategically developed the region with the aim of connecting Russia to the Asian trading routes.
- As of 2022, almost 2,729 investment projects are being planned in the region. The agreements focus on infrastructure, transportation projects, mineral excavations, construction, industry and agriculture.

India's Vision

- India is interested in expanding the level of trade between the two countries. An area of special interest for India is the **exploration of hydrocarbon reserves** along the coast of Russia's Far East.
- India is also keen to deepen its **cooperation in energy, pharmaceuticals, maritime connectivity, healthcare, tourism, the diamond industry and the Arctic**.
- In 2019, India also offered a **\$1 billion line of credit** to develop infrastructure in the region. Through the EEF, India aims to establish a **strong inter-state interaction with Russia**.

Why in News?

- Prime Minister Narendra Modi participated in the plenary session of the 7th Eastern Economic Forum (EEF) hosted by Russia in Vladivostok.

Science and Technology

1) Double Asteroid Redirection Test

About the Mission

- Double Asteroid Redirection Test (DART) is a **NASA space mission** aimed at **testing a method of planetary defense against near-Earth objects (NEOs)**.
- It was designed to assess how much a spacecraft impact deflects an asteroid through a transfer of momentum by hitting the asteroid head on. The goal was to test whether this technique, called a **kinetic impactor**, would deliver enough of a punch to a speeding space rock to knock it significantly off course.
- The probe was launched from Earth in **November 2021** with a target to crash into the asteroid moonlet (*a small natural or artificial satellite*) **Dimorphos**, that orbits a larger asteroid known as **Didymos**. Neither asteroid poses a threat to Earth.

Why in News?

- After 10 months flying in space, NASA's Double Asteroid Redirection Test (DART) – the **world's first planetary defense technology demonstration – successfully impacted its asteroid target**.
- DART's impact with the asteroid Dimorphos demonstrates a **viable mitigation technique** for protecting the planet from an Earth-bound asteroid or comet, if one were discovered.
- The spacecraft's sole instrument, the **Didymos Reconnaissance and Asteroid Camera for Optical navigation (DRACO)**, together with a sophisticated guidance, navigation and control system that works in tandem with **Small-body**

Maneuvering Autonomous Real Time Navigation (SMART Nav) algorithms, enabled DART to identify and distinguish between the two asteroids, targeting the smaller body.

Status of the Mission

- Weeks after it struck the asteroid, NASA confirmed that **DART successfully altered the motion of Dimorphos moonlet**.
- Before the strike, Dimorphos used to take 11 hours and 55 minutes to orbit its larger parent asteroid, Didymos. Analysis after the DART crash shows that the orbital period was changed by 32 minutes. The moonlet now takes 11 hours and 23 minutes to go around the parent asteroid.
- While 32 minutes is not much compared to Earth's clock, it plays a major role when it comes to orbital dynamics and is enough to deflect an incoming asteroid and change its orbit.

Significance

- The DART mission has now given Earth a planetary defense tool in case an asteroid decides to make its way towards earth. The kinetic impact technology could be deployed in the future. However, it will have to be scaled up depending on the size of the outer objects heading toward us.
- NASA said that this marks **humanity's first time purposely changing the motion of a celestial object** and the **first full-scale demonstration of asteroid deflection technology**.

Related Information

What is an Asteroid?

- Asteroids are small, rocky objects that orbit the Sun. Although asteroids orbit the Sun like planets,

they are much smaller than planets. They are also called **minor planets**.

3 types of Asteroids

- There are three types of Asteroids. First are the kind which are found in the **main asteroid belt between Mars and Jupiter**, which is estimated to contain somewhere between 1.1-1.9 million asteroids.
- Second are called the **trojans**, which are asteroids that **share an orbit with a larger planet**. NASA reports the presence of Jupiter, Neptune and Mars trojans. In 2011, they reported an Earth trojan as well.
- Third are **Near-Earth Asteroids (NEA)**, which **have orbits that pass close by the Earth**. Those that cross the Earth's orbit are called **Earth-crossers**. More than 10,000 such asteroids are known, out of which over 1,400 are classified as **potentially hazardous asteroids (PHAs)**.

2) NASA's Perseverance Rover

About the Perseverance Rover

- NASA launched its **Mars Perseverance Rover** as a part of its **Mars 2020 mission** in July 2020.
- 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 the mission.
- Perseverance landed in the 45-kilometre-wide **Jezero Crater**, an ancient lakebed where microbial life could have developed, in February 2021. The rover will hunt for **signs of habitable environments on Mars while searching for signs of past microbial life**.

- Two other **NASA landers** are also operating on Mars — 2018's **InSight** and 2012's **Curiosity** rover. Perseverance is the biggest, most sophisticated Mars rover ever built — a car-size vehicle bristling with cameras, microphones, drills and lasers.



- The plutonium-powered, six-wheeled Perseverance 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.

MOXIE

- Perseverance carried a unique instrument, **MOXIE or Mars Oxygen In-Situ Resource Utilization Experiment** which **produced molecular oxygen from the thin Martian atmosphere for the first time**.
- On Mars, **carbon dioxide makes up ~96% of the gas** in the planet's atmosphere. **Oxygen is only 0.13%**, compared to 21% in Earth's atmosphere. Like a tree on Earth, MOXIE inhales carbon dioxide and exhales oxygen.
- To produce oxygen, **MOXIE separates oxygen atoms from carbon dioxide molecules**. It does so by using heat at a temperature of

around 800 degrees Celsius, and in the process also produces carbon monoxide as a waste product, which it releases in the Martian atmosphere.

- The experiment promises hope for future crewed missions that can rely on this technology for astronauts to breathe and return to Earth.

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.
- In April 2021, Ingenuity helicopter made the **first-ever controlled flight of a craft in the atmosphere of another planet**.
- It is significant given that **Mars' thin atmosphere** (which is **99% less dense** than Earth's) makes it difficult to achieve enough lift.

Why in News?

- NASA's Perseverance rover has drilled and collected four slim cores of sedimentary rock from the Jezero Crater. They are the first of this type of rock to be gathered on another world — and scientists believe that at least two of the cores probably contain organic compounds.
- The goal is to have the samples back on Earth in 2033.

3) Hanle Space Observatory & Dark Sky Reserve

What's in the news?

- The Government of India recently announced that by the end of 2022, India will establish the **country's first Dark Sky Reserve** at **Hanle**.
- The **Hanle Dark Sky Reserve (HDSR)** will come up within the **Changthang Wildlife Sanctuary** and the facility will also promote **astronomy-tourism**.
- The Ladakh Union Territory administration is leading the efforts in establishing the Dark Sky Reserve. The Department of Science and Technology and experts from the Indian Institute of Astrophysics (IIA) are providing scientific and technological support in developing this first-of-its-kind facility.
- The IIA already manages the **Indian Astronomical Observatory (IAO) complex** at **Hanle, Ladakh**.

What is a Dark Sky Reserve?

- A Dark Sky Reserve is public or private land with a **distinguished nocturnal environment and starry nights** that has been **developed responsibly to prevent light pollution**.
- These reserves consist of a **core area** meeting minimum criteria for sky quality and natural darkness, and a **peripheral area** that supports dark sky preservation in the core.

How does a site become a 'Dark Sky Reserve'?

- Individuals or groups can nominate a site for certification to the **International Dark Sky Association (IDSA)**. There are **five designated categories**, namely International Dark Sky parks, communities, reserves, sanctuaries and Urban Night Sky Places.

- The certification process is similar to that of a site being awarded the UNESCO World Heritage Site tag or getting recognised as a Biosphere Reserve. Between 2001 and January 2022, there have been **195 sites** recognised as International Dark Sky Places globally.
- The IDSA considers a piece of land suitable for dark sky place only if:
 - it is either publicly or privately owned;
 - is accessible to the public partially or entirely during the year;
 - the land is legally protected for scientific, natural, educational, cultural, heritage and/or public enjoyment purposes;
 - the core area of the land provides an exceptional dark sky resource relative to the communities and cities that surround it and
 - the land offers prescribed night sky brightness either for a reserve, park or sanctuary.
- India is still in the process of filing its nomination to IDSA.

Related Information

Hanle Space Observatory

- The **Indian Astronomical Observatory (IAO)** located at **Hanle near Leh in Ladakh** is becoming one of the most promising observatory sites globally. This is due to its advantages of **more clear nights, minimal light pollution, background aerosol concentration, extremely dry atmospheric conditions, uninterrupted by rains.**
- To be able to detect stars or traces of cosmic phenomena, such as supernovae or nebulae from light years away, astronomers must be able to catch the **faintest slivers of their radiation that often lie outside the range of visible light.**
- Such radiation is, however, **easily absorbed by water vapour** and so it helps to have a telescope **high above ground where the atmosphere is drier.**

About the Observatory



- Situated at 14,000 ft above sea level, IAO is laid out on the mountain called **Digpa-Ratsa Ri, aka Mt Saraswati.**
- IAO houses the **Major Atmospheric Cherenkov Experiment Telescope (MACE)** built by a consortium of the Bhabha Atomic Research Centre, the Tata Institute of Fundamental Research, the Electronics Corporation of India Ltd. and the Indian Institute of Astrophysics (IIA).
- Its goal is to **detect Cherenkov radiation** from space. This is a special kind of light from **gamma rays**, or the most energetic sources of radiation, that can **result from dying stars or several galactic events.**

- IAO consists of a **seven-telescope contingent**, called **HAGAR (High Altitude Gamma Ray)**, which also looks at **Cherenkov radiation**, although at a lower range of energies.
- An **optical-infrared telescope** with a **2-metre lens** is designed to **detect light from the visible range of the electromagnetic spectrum as well as that just below it, or the infra-red spectrum**.
- The second capsule is the **GROWTH-India telescope**, a 70-cm telescope that is equipped to **track cosmic events** that unfurl over time, such as **afterglows of a gamma ray burst or tracking the path of asteroids**.
- Because of the wide span of frequencies covered collectively, the IAO provides **multiple vantage points to observe a range of cosmic phenomena and investigate the mysteries of the universe**.
- Telescopes with small diameters generally can track a greater swath of sky but those with larger diameters can peer deeper when trained towards desired locations.

Reports and Indices

1) Global Estimates of Modern Slavery

About ILO

- The International Labour Organisation (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.

Why in News?

- The International Labour Organisation has released a report titled “**2021 Global Estimates of Modern Slavery**”.

Highlights of the Report

Modern Slavery

- Around **50 million people are trapped in modern slavery** in 2021. Of these, 28 million were in **forced labour** and 22 million trapped in **forced marriage**.
- The **ILO Forced Labour Convention, 1930** describes **forced labour** as “all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily.”
- The new estimates showed that forced labour and forced marriage had **increased significantly in the last five years. Women and**

children were especially vulnerable.

Regional Data

- The **Asia-Pacific region** (15.1 million people) had the highest number of people in modern slavery and the **Arab states** the highest prevalence. But **no region, developed or developing, was free from the practice**.
- The **COVID-19 pandemic** had increased the risk of modern slavery and made the **target of ending it among children by 2025 and universally by 2030** even more difficult.
- The report shows that **86 per cent of all forced labour was imposed by private agents** — 63 per cent in forced labour exploitation and 23 per cent in forced commercial sexual exploitation. **State-imposed forced labour** accounted for the remaining **14 per cent**.

Vulnerable Sections

- **Migrant workers**, who are not protected by law and are unable to exercise their rights, face a higher risk of forced labour than other workers.
- **Forced marriage** refers to situations where a person has been forced to marry without their consent. **Child marriage** is also considered a form of forced marriage. Between 2016 and 2021, there was a **6.6 million increase** in the number of people living in a forced marriage. **COVID-19** has led to increased risk of forced marriage in every region.
- Once forced to marry, there is **greater risk of further exploitation**, including sexual exploitation, domestic servitude and violence and other forms of

forced labour both inside and outside the home.

2) Human Development Report

About the report

- The Human Development Report (HDR) is an annual report published by the **United Nations Development Programme (UNDP)**.
 - *As the United Nations lead agency on international development, UNDP works in 170 countries and territories to eradicate poverty and reduce inequality.*
 - *UNDP's work is concentrated in **three focus areas**: sustainable development, democratic governance and peace building, and climate and disaster resilience.*
- The first HDR was launched in 1990 by the Pakistani economist **Mahbub ul Haq** and Indian Nobel laureate **Amartya Sen**. Since then reports have been released most years, and have explored different themes through the human development approach, which places people at the center of the development process.
- As part of the report, the UNDP releases the **Human Development Index**.

About Human Development Index (HDI)

- HDI is a statistical tool used to measure a country's overall

achievement in its social and economic dimensions.

- Calculation of the index combines four major indicators:
 - **life expectancy for health,**
 - **expected years of schooling,**
 - **mean of years of schooling for education and**
 - **Gross National Income per capita for standard of living.**
- The HDI is the **geometric mean** of normalized indices for each of these indicators.

Why in News?

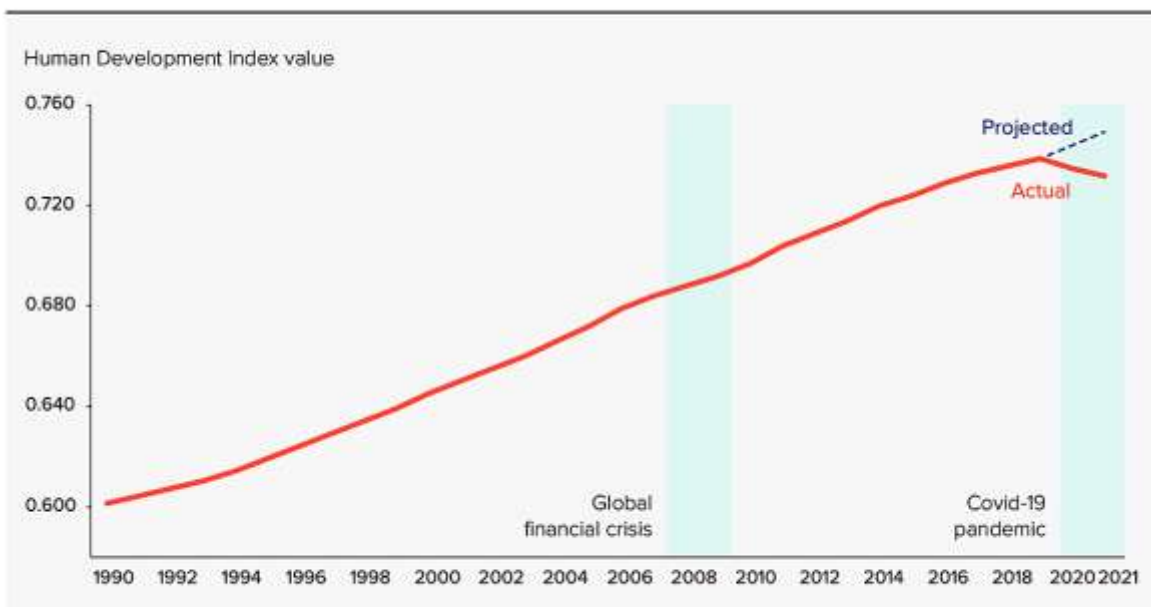
- The United Nations Development Programme (UNDP) has published its Human Development Index (HDI) report for 2021-22, noting that **for the first time in 32 years** that the UN agency has been calculating HDI, the **index declined globally for two straight years**.

Highlights of the Index

Overall Performance

- The report, titled '**Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World**', also stated that **more than 90% countries saw a decline in their HDI score in either 2020 or 2021, while over 40% nations declined in both the years**.
- The study identified the **Covid-19 pandemic and Russia-Ukraine war** as the two primary reasons behind this fall. This reversed progress towards achieving the UN-mandated sustainable development goals.

Figure 2 The global Human Development Index value has declined two years in a row, erasing the gains of the preceding five years



Note: The period of the global financial crisis is indicative.

Source: Human Development Report Office calculations based on data from Barro and Lee (2018), IMF (2021c, 2022), UNDESA (2022a, 2022b), UNESCO Institute for Statistics (2022), UNSD (2022) and World Bank (2022c).

explained.

- **European states** were among the best overall performers, with as many as 8 in the top 10 of the list. The top three countries include **Switzerland** (1; 0.962), **Norway** (2; 0.961) and **Iceland** (3; 0.959).

Scenario in India

- **India ranked 132 out of 191 countries** in the Index with an HDI score of **0.633**, placing the country in the **medium human development category**. Last year, India was ranked 131. The study attributed this drop to **falling life expectancy** in the country (69.7 to **67.2 years**).
- India's **expected years of schooling** stand at **11.9 years** and the **mean years of schooling** are at **6.7 years**. The **GNI per capita level** is **\$6,590 (Rs 5.25 lakh)**.
- Among India's neighbouring countries, Sri Lanka (73), China (79), Bangladesh (129) and Bhutan (127) have fared better than India. Only Pakistan (161), Myanmar (149) and Nepal (143) were worse off.

Progress Made

- The report highlighted some areas where India showed improvement.
- Compared to 2019, the **impact of inequality on human development is lower**.
- India is also **bridging the human development gap between men and women faster than the world**.
- The intergovernmental organisation lauded **India's investment in health and education**, helping it come closer to the global human development average since 1990.

Other Reports Released as a part of HDR

Inequality-adjusted HDI (IHDI)

- The IHDI value can be interpreted as the **level of human development when inequality is accounted for**. The IHDI looks beyond the average achievements of a country in longevity, education and income to show how these achievements are distributed among its residents.

- **India's HDI falls by 25% when adjusted for inequality.** That's because the **share of income held by the richest 1% of the population is more than the income held by the poorest 40%.**

Gender Development Index (GDI)

- The GDI essentially estimates **HDI values for women and men and then looks at the ratio.** The closer this ratio is to 1, the smaller the **gender gap** between women and men in HDI terms.

Table 4: Gender Development Index

explained.

Country (HDI rank)	India (#132)	World	China (#79)	Switzerland (#1)
GDI	0.849	0.958	0.984	0.967
GNI per capita for women (in 2017 PPP \$)	2,277	12,241	13,980	54,597
GNI per capita for men (in 2017 PPP \$)	10,633	21,210	20,883	79,451

- **India is significantly behind the world average as per GDI.** The key HDI metric where women seem to lag behind men the most is the **income per capita.**

Gender Inequality Index (GII)

- While the GDI uses **HDI sub-components to look at the gender gap**, the **GII looks at the issue of gender inequality** by preparing a composite measure using **three dimensions: reproductive health, empowerment and the labour market.**

- The reproductive health indicators are **maternal mortality ratio and adolescent birth rate.** The empowerment indicators are the **percentage of parliamentary seats held by women and the percentage of the population with at least some secondary education by gender.** The labour market indicator is **participation in the labour force by gender.**
- A low **GII value indicates low inequality between women and men, and vice-versa.**

Table 5: Gender Inequality Index



Country (HDI rank)	India (#132)	World	China (#79)	Switzerland (#1)
Maternal mortality ratio (deaths per 100,000 live births)	122	225	29	5
Adolescent birth rate (births per 1,000 women ages 15–19)	17	43	11	2.2
Share of seats in parliament (% held by women)	13	26	25	40
Female population with at least some secondary education (% ages 25 and older)	42	64	78	97
Labour force participation rate (% ages 15 and older)	19	46	62	62
GII	0.490	0.465	0.192	0.018

- India's score adjusted to GII stands at **0.490**.

Multidimensional Poverty Index (MPI)

- The Multidimensional Poverty Index captures the **multiple deprivations** that people in developing countries face in their **health, education and standard of living**.
- The MPI shows both the **incidence of multidimensional poverty** (a

headcount of those in multidimensional poverty) and its **intensity** (the average deprivation score experienced by multidimensionally poor people).

- It also presents **measures of income poverty** - population living below the national poverty line and population living on less than \$1.90 in purchasing power parity terms per day.

Table 6: Multi-dimensional Poverty Index metrics

Country (HDI rank)	India	Bangladesh	China	Brazil
Population in severe MPI (in %)	8.8	6.5	0.3	0.9
Population vulnerable to MPI (in %)	19.3	18.2	17.4	6.2
Population living below income poverty line (%) (PPP \$1.90 a day)	22.5	14.3	0.5	4.6

- What the data reveals is that even in percentage terms, **India is far worse off than some of the comparable countries.** Moreover, since India has the world's second-largest population, a high percentage of those with deprivation implies quite high numbers.

Planetary pressures-adjusted Human Development Index (PHDI)

- PHDI, **adjusts the HDI for planetary pressures in the Anthropocene** to reflect a concern for intergenerational inequality.
- The PHDI value can be interpreted as the **level of human development adjusted by carbon**

dioxide emissions per person (production-based) and **material footprint per person** to account for excessive human pressure on the planet.

- What the data shows is that **India's PHDI is much closer to the PHDIs of other countries.** That's because India's **PHDI falls far less** (vis a vis India's HDI) than other countries.
- This shows that if the HDI scores of some of the richer countries and countries with better HDI ranks were adjusted or corrected for the amount of per capita carbon emissions they will show a far less stellar success in human development.

Table 8: Planetary pressures-adjusted Human Development Index (PHDI)

Country (HDI rank)	India	World	China	Switzerland
PHDI	0.609	0.667	0.648	0.796
PHDI (vs HDI)	Falls by 4%	Falls by 9%	Falls by 16%	Falls by 17%

Polity

1) MTP (Amendment) Act, 2021

About MTP Act, 1971

- The Medical Termination of Pregnancy Act, 1971 provides for the termination of certain pregnancies by registered Medical Practitioners. It is possible to get an abortion under the Act if pregnancy is **under 20 weeks**.
- However, it is **subject to several conditions** and conducting an abortion without fulfilling the conditions is considered a crime.

Issues with the law

- Legal and medical experts felt that a revision of the legal limit for abortion was long overdue.
- Foetal abnormalities show up only by **18 weeks**, so just a two-week window after that is too small for the would-be parents to take the difficult call on whether to keep their baby and for the medical practitioner to exhaust all possible options before advising the patient to take the extreme step.
- Since lack of legal approval does not prevent abortions from being carried out beyond 20 weeks, women are put under risk since the abortions then are often conducted in unhygienic conditions by untrained, unqualified persons. It is estimated that about **8% of maternal deaths happen due to unsafe abortions**.

Medical Termination of Pregnancy (Amendment) Act, 2021

- In 2021, the Parliament passed the Medical Termination of Pregnancy (Amendment) Act, 2021 that increases the time period within which an abortion may be carried out.

Highlights of the Act

- The following categories of women shall be considered eligible for

termination of pregnancy up to **24 weeks of gestational age**:

- survivors of sexual assault or rape or incest;
- minors;
- change of marital status during the ongoing pregnancy (widowhood and divorce);
- women with physical disabilities;
- mentally ill women including mental retardation;
- women with pregnancy in humanitarian settings or disaster or emergency situations as may be declared by the Government.
- There is **no limit of gestational age** in case of pregnancies with substantial foetal abnormalities, diagnosed by a medical board.
- The Act proposes the **constitution of a Medical Board** in every State and UT, which will decide on pregnancies beyond 24 weeks in cases of foetal abnormalities.
- Each board will have **one gynaecologist, one radiologist or sonologist, one paediatrician, and other members prescribed by the State/UT government**.
- The 1971 Act mandates that abortion requires the **opinion of one doctor** if it is done within 12 weeks of conception, and **two doctors** if it is done between 12 and 20 weeks.
- The amendment Act allows abortion to be done on the **advice of one doctor up to 20 weeks**, and **two doctors** in the case of certain categories of women (central government will notify these

categories) between **20 and 24 weeks**.

- For a pregnancy to be terminated **after 24 weeks** in case of substantial foetal abnormalities, the **opinion of the State-level medical board is essential**.
- The name and other particulars of a woman whose pregnancy has been terminated **cannot be revealed** except to a person authorised by law.

Criticisms

Huge vacancies

- A study by the Centre for Justice, Law and Society at the O.P. Jindal Law Global School revealed that a panel of doctors to decide on termination of pregnancy beyond 24 weeks is **"unfeasible"** as 82% of these posts are lying vacant in the country.
- The report analysed district-wise availability of specialists, including surgeons, obstetricians and gynaecologists, physicians and paediatricians.

Infringes privacy

- The study also flags the **constitution of the Medical Boards as draconian and invasive** as they strip away autonomy from the pregnant person.
- Even if the Boards are set up, pregnant persons who are in more remote areas of the country will incur many costs in travelling and this will **add to their financial burden**.
- This legal reform will make access to abortion more challenging for many people, especially those from marginalised groups.

Inequality in access

- The **World Health Organization** also urges nations not to create barriers by including complex authorisation processes and noted

that negotiating authorization procedures disproportionately burdens poor women, adolescents, those with little education and those subjected to, or at risk of, domestic conflict and violence, creating inequality in access.

Why in News?

- In a significant ruling on reproductive rights, the Supreme Court **extended the right to safe and legal abortion up to 24 weeks of pregnancy to unmarried and single women**, saying it is the right of every woman to make reproductive choices without undue interference from the State.
- Now, all women in the country, regardless of marital status, can undergo an abortion up to 24 weeks into pregnancy.
- The MTP Act of 2021 and its rules list categories of women who are considered eligible for termination of pregnancy up to 24 weeks of gestational age including rape survivors, minors, women with physical disabilities or mental retardation, women who became widows or divorcees during pregnancy, and women in disasters or emergencies.
- The court said that since these rules **exclude unmarried women**, it **violates the right to equality before the law** under India's Constitution.

2) Juvenile Justice Amendment Act & Rules

Juvenile Justice (Care and Protection of Children) Act, 2015

- In India, a juvenile is a **person less than 18 years of age**.
- The Juvenile Justice (Care and Protection of Children) Act, 2015 **addresses children in conflict**

with law and children in need of care and protection.

- One of the main provisions of the Act is that juveniles in the **age group of 16-18 years who commit a heinous offence may be tried as an adult.**
- The nature of the crime, and whether the juvenile should be tried as a minor or a child, was to be determined by a **Juvenile Justice Board.**
- The second major provision is with regards to **adoption.** The Act **streamlined adoption procedures** for orphans, abandoned and surrendered children and the existing **Central Adoption Resource Authority (CARA)** has been given the **status of a statutory body** to enable it to perform its function more effectively.
- The Act **fulfils India's commitment as a signatory** to the **United Nations Convention on the rights of the child**, the **Hague Convention on Protection of Children and Co-operation in respect of Inter-country Adoption (1993)**, and other related international instruments.
- As a signatory, India is required to undertake all appropriate measures to ensure the rights of children with regard to juvenile justice, care and protection, and adoption.

Juvenile Justice (Care and Protection of Children) Amendment Act, 2021

- Last year, the Parliament passed The Juvenile Justice (Care and Protection of Children) Amendment Act, 2021 which amended the Juvenile Justice Act, 2015.

Highlights of the Act Adoption:

- Under the 2015 Act, once prospective adoptive parents accept a child, an adoption agency files an application in a **civil court** to obtain the adoption order. The adoption order issued by the court establishes that the child belongs to the adoptive parents.
- The amendment Act provides that instead of the court, the **district magistrate (including additional district magistrate)** will perform these duties and issue all such orders. This provision has been included to expedite adoption proceedings.

Appeals:

- The amendment Act provides that any person aggrieved by an adoption order passed by the district magistrate may file an **appeal before the Divisional Commissioner**, within 30 days of such order. Such appeals should be disposed of within four weeks from the date of filing of the appeal.

Designated Court:

- The 2015 Act provides that offences against children that are punishable with **imprisonment of more than seven years**, will be tried in the **Children's Court** (equivalent to a Sessions Court). **Other offences** (punishable with imprisonment of less than seven years) will be tried by a **Judicial Magistrate.**
- Under the latest amendment, **all offences under the Act will be tried in the Children's Court.**

Offences against children:

- The 2015 Act provides that an offence under the Act, which is **punishable with imprisonment between three to seven years, will be cognizable** (where arrest is allowed without warrant) and **non-bailable.**

- The amendment act provides that **such offences will be non-cognizable and non-bailable**.

Child Welfare Committees (CWCs):

- The 2015 Act provides that states must constitute **one or more CWCs for each district for dealing with children in need of care and protection**. It provides certain criteria for the appointment of members to CWC. For instance, a member should be: (i) involved in health, education, or welfare of children for at least seven years, or (ii) a practising professional with a degree in child psychology, psychiatry, law, or social work.
- The amendment act adds **certain criteria for a person to be ineligible to be a member of the CWC**. These include: (i) having any record of violation of human rights or child rights, or (ii) being a part of the management of a child care institution in a district.

Why in News?

- The government has notified the 'Model Amendment Rules 2022' to implement the Juvenile Justice (Care and Protection of Children) Amendment Act 2021.
- It marks the beginning of a significant shift with **district magistrates (DMs) getting the power to issue adoption orders** that was so far the domain of the district courts.
- The Ministry of Women and Child Development has all along defended the move to enable the DMs to issue adoption orders as the need of the hour, claiming that it will **enable speedy disposal of adoption cases, curtail long delays and enhance accountability**.
- The rules also add that a person associated with an organisation receiving **foreign contribution**

shall not be eligible to be a Chairperson or member of Child Welfare Committees.

3) UAPA, 2019

About the Act

- The Unlawful Activities (Prevention) Amendment Act, 2019 was passed by the Parliament in 2019. It amends the **Unlawful Activities (Prevention) Act, 1967**.
- The amendment act **empowers the central government** to designate an **individual a "terrorist"** if they are found committing, preparing for, promoting, or involved in an act of terror. Earlier, the Central Government was having powers only to designate **organisations as terrorist organisations**.
- The UAPA law of 1967 requires an investigating officer to take **prior permission of the Director General of Police of a state** for conducting raids, and seizing properties that are suspected to be linked to terrorist activities.
- The **amendment act of 2019 however, removes this requirement** if the **investigation is conducted by an officer of the National Investigation Agency (NIA)**. The investigating officer, under the 2019 act, **only requires sanction from the Director General of NIA**.
 - Central agencies such as the **Central Bureau of Investigation (CBI) are required to obtain prior permission** from the state government since law and order is a state subject under the Constitution.
- The UAPA law of 1967 specifies that only officers of the rank of Deputy Superintendent or Assistant Commissioner of Police of the NIA

shall have the **power to investigate offences** under the UAPA law. The amendment act seeks to allow **NIA officers of Inspector rank to carry out investigations.**

Why in News?

- The Ministry of Home Affairs (MHA) has declared the Popular Front of India (an Indian political organisation) and its front organisations as an “unlawful association” under the Unlawful Activities (Prevention) Act.

4) Criminal Procedure (Identification) Act, 2022

Context

- The Ministry of Home Affairs (MHA) has notified the rules governing The Criminal Procedure (Identification) Act, 2022. The Act was passed in March by the Parliament. Until rules are notified, an Act cannot be implemented or come into force.

Key Features of the Act

- The Act repeals **The Identification of Prisoners Act, 1920**. The over 100-year-old Act's scope was limited to capturing of finger impression, foot-print impressions and photographs of convicted prisoners and certain categories of arrested and non-convicted persons on the order of a Magistrate.
- The new Act will allow police and prison authorities to **collect, store and analyse physical and biological samples including retina and iris scans of convicted, arrested and detained persons.**
- The Act expands:
 - the type of data that may be collected,
 - persons from whom such data may be collected, and
 - the authority that may authorise such collection.

Comparison of key provisions of the 1920 Act and the 2022 Act

Provisions	Identification of Prisoners Act, 1920	Changes in the 2022 Act
1.Data permitted to be collected	<ul style="list-style-type: none"> Fingerprints, foot-print impressions, photographs 	<ul style="list-style-type: none"> Adds: (i) biological samples, and their analysis, (ii) behavioural attributes including signatures, handwriting, and (iii) examinations under sections 53 and 53A of CrPC (includes blood, semen, hair samples, and swabs, and analyses such as DNA profiling)
2. Persons whose data may be collected	<ul style="list-style-type: none"> Convicted or arrested for offences punishable with rigorous imprisonment of one year or more; 	<ul style="list-style-type: none"> Convicted or arrested for any offence. However, biological samples may be taken forcibly only from persons arrested for offences against a woman or a child, or if the

	<ul style="list-style-type: none"> Persons ordered to give security for good behaviour or maintaining peace; Magistrate may order in other cases collection from any arrested person to aid criminal investigation. 	<p>offence carries a minimum of seven years imprisonment.</p> <ul style="list-style-type: none"> Persons detained under any preventive detention law; On the order of Magistrate, from any person (not just an arrested person) to aid investigation.
3. Persons who may require/ direct collection of data	<ul style="list-style-type: none"> Investigating officer, officer in charge of a police station, or of rank Sub-Inspector or above; Magistrate. 	<ul style="list-style-type: none"> Officer in charge of a police station, or of rank Head Constable or above. In addition, a Head Warder of a prison; Metropolitan Magistrate or Judicial Magistrate of first class. In case of persons required to maintain good behaviour or peace, the Executive Magistrate.

Other Key Provisions

- The **National Crime Records Bureau (NCRB)** will be the central agency to maintain the records. It will **share the data with law enforcement agencies**. Further, states/UTs may notify agencies to collect, preserve, and share data in their respective jurisdictions.
- The data collected **will be retained in digital or electronic form for 75 years**. Records will be **destroyed in case of persons who are acquitted** after all appeals, or released without trial. However, in such cases, a Court or Magistrate may direct the retention of details after recording reasons in writing.

What about concerns that the Act will be misused?

- When the Bill was debated in Parliament in March this year, the Opposition members termed it

“unconstitutional” and an **attack on privacy** as it allowed the record of samples of even political detainees.

- However, the rules notified recently state that **samples of those detained under preventive Sections** such as 107, 108, 109, 110, 144, 145 and 151 of the CrPC **shall not be taken unless** such person is charged or arrested in connection with any other offence punishable **under any other law**.

5) Process of inclusion or exclusion from the Scheduled Tribes list

Context

- The Union Cabinet has recently approved a proposal to add several tribes to the list of Scheduled Tribes (ST) in States such as Himachal Pradesh, Tamil Nadu,

Chhattisgarh and Uttar Pradesh, so that they can avail of benefits meant for STs, including reservation.

Which communities have been added to the ST list?

- The communities approved for inclusion in the ST list are the **Hatti tribe** in the Trans-Giri area of Sirmour district in Himachal Pradesh, the hill tribes of **Narikoravan** and **Kurivikkaran** of Tamil Nadu, the **Binjha community** in Chhattisgarh and the **Gond community** in certain districts of Uttar Pradesh.
- The Cabinet has approved the addition of several alternative names for already existing Scheduled Tribes in Chhattisgarh and Karnataka so that the difference in spellings and pronunciations do not result in members of these communities being left out of the benefits meant for them.
- Significantly, even as the Union Cabinet has decided to include these communities under the ST list, this is not the first time they have been categorised for benefits of reservation. Most of these communities had been either included in the list of **Scheduled Castes (SC)** or **Most Backward Classes** till now.

How is a community added or removed from SC, ST lists?

- The process begins at the level of a State or Union Territory, with the **concerned government or administration seeking the addition or exclusion** of a particular community from the SC or ST list.
- The **final decision** rests with the **President's office** issuing a notification specifying the changes

under powers vested in it from **Articles 341 and 342**.

- The inclusion or exclusion of any community in the Scheduled Tribes or Scheduled Castes list come into effect only after the **President assents to a Bill** that amends the Constitution (Scheduled Castes) Order, 1950 and the Constitution (Scheduled Tribes) Order, 1950, as is appropriate, after it is passed by both the Lok Sabha and Rajya Sabha.
- A **State government may choose to recommend** certain communities for addition or subtraction from the list of SCs/STs based on its discretion. This recommendation may come from **studies or commissions** like in the case of classifying the Hatti community in Himachal Pradesh.
- Following this, the proposal to include or remove any community from the Scheduled List is **sent to the Union Ministry of Tribal Affairs** from the concerned State government.
- After this, the Ministry of Tribal Affairs, through its own deliberations, examines the proposal, and sends it to the **Registrar General of India (RGI)**. Once approved by the RGI, the proposal is sent to the **National Commission for Scheduled Castes or National Commission for Scheduled Tribes**, following which the proposal is sent back to the Union government, which after inter-ministerial deliberations, introduces it in the **Cabinet for final approval**.

What are the criteria to begin the process?

- To establish whether a community is a Scheduled Tribe, the government looks at several criteria, including its:

- ethnological traits,
- traditional characteristics,
- distinctive culture,
- geographical isolation and
- backwardness.

How many Scheduled Tribes are there officially?

- According to the Census 2011, about **705 ethnic groups** are listed as Scheduled Tribes under **Article 342**.
- Over 10 crore Indians are notified as STs, of which 1.04 crore live in urban areas. The STs constitute **8.6% of the population**.

International Relations

1) Quad's Humanitarian Assistance and Disaster Relief Agreement

Quad grouping

- The grouping of four democracies – **India, Australia, US and Japan** – known as the quadrilateral security dialogue or quad, was first mooted by former Japanese Prime Minister Shinzo Abe in **2007**. Quad was revived in **2017**.
- The QUAD partners share a **commitment towards a free, open, prosperous and inclusive Indo-Pacific region** based on shared values and principles and respect for international law.
- There is a focus on practical cooperation in the areas of connectivity and infrastructure development, and counter-terrorism, cyber security, maritime security, humanitarian and disaster relief, with the objective of promoting peace, security, stability and prosperity in an increasingly inter-connected Indo-Pacific region.
- With growing concerns in all four quad countries about **Chinese foreign policy and regional influence**, the group has found renewed relevance.

Why in News?

- The Quad grouping has decided to expand their scope of partnership with the signing of **Humanitarian Assistance and Disaster Relief (HADR) partnership guidelines** during a ministerial meeting.
- The guidelines will allow the four nations to cooperate and coordinate more on, for example, climate disaster responses.
- The mechanism will augment their capacity and capability, interoperability and operational

synergy to undertake HADR operations.

2) Kyrgyzstan-Tajikistan conflict

What's in the news?

- Nearly 100 people have been killed and scores injured in violent border clashes between Kyrgyzstan and Tajikistan over the last few weeks.

Border Disputes



- There is a long history of tension over access to resources in the region. In the era of the Soviet Union, allocation of land, water and pasture was a cause of disputes between republics and administrative divisions.
- These only increased after the dissolution of the USSR in 1991. Even farms and plots of land on the borderlands of Kyrgyzstan and Tajikistan became contentious areas.
- The **two landlocked countries** share an approximately 1000-km long border, almost a third of it is disputed.

Prelims Facts

- Surrounding countries of Kyrgyzstan: **Kazakhstan, Tajikistan, China and Uzbekistan.**
- Surrounding countries of Tajikistan: **Kyrgyzstan, Afghanistan, China and Uzbekistan.**

3) India stays out of 'trade pillar' at Indo-Pacific meet

Background

- In May 2022, United States President Joe Biden launched a new Asia-Pacific trade initiative known as the Indo-Pacific Economic Framework for Prosperity (IPEF) in Tokyo.
- The framework includes 14 countries — **Australia, Brunei, India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, Vietnam, Fiji and the United States.**
- Together, the participants account for about 40 percent of global GDP and there are other countries that could join the initiative.

What would IPEF do?

- IPEF is **neither an agreement nor a trade bloc, but a framework.**

- It seeks to **strengthen economic partnership among participating countries** with the objective of enhancing resilience, sustainability, inclusiveness, economic growth, fairness and competitiveness in the region.
- IPEF foresees **integrating partners through agreed standards in four key pillars: fair and resilient trade, supply chain resiliency, clean energy decarbonisation, and tax and anti-corruption** - to deepen economic engagement in the region.
- The primary objective of the IPEF is to **ensure a high degree of regulatory coherence** and to make market access contingent upon realisation of regulatory standards.

Significance

- The IPEF is part of the U.S.'s more than a decade old "**Pivot to Asia**" programme, re-imagining the Indo-Pacific as a geographic construct including America.
- The **Quad**, consisting **India, Australia, Japan and the U.S.**, is part of the same pitch made by the U.S. administration.
- IPEF is intended to offer US allies an alternative to China's growing commercial presence across the Asia-Pacific.
- The IPEF's **non-specific and flexible nature** also suits India, which has held strong views on a range of issues like labour standards, environmental

restrictions on fossil fuels, and data localisation.

- India's inclusion also comes from a **geopolitical need to counter China's virtual control over Asian trade**.

Why in News?

- India has chosen to **stay out of the Trade Policy Pillar** - which deals with issues pertaining to labour, environment, digital, and agriculture - at the Indo-Pacific Economic Forum (IPEF).
- IPEF has **four pillars — trade, supply chain, tax and anti corruption and clean energy**. The forum gives flexibility to the 14 member countries to choose which pillar/s they want to be part of.
- While India has not joined the trade pillar, it is **engaging in three other areas**. India was the only one of the 14 IPEF countries not to join the declaration on trade.
- India's concerns are regarding issues like linking environment and labour to trade and having binding commitments about the same.
- Experts said that opting out of the trade pillar under IPEF for now is a step in the right direction. This is because India may not be prepared enough to handle negotiations dealing with issues such as labour, environment standards and digital trade.
- In all of these areas, the domestic regulations are yet to reach a level of maturity, which has resulted in India taking this step.

Art & Culture

1) Buddhist Caves of Bandhavgarh

About Bandhavgarh Tiger Reserve

- Bandhavgarh Tiger reserve is located in the eastern Satpura hill range of **Madhya Pradesh**.
- The Reserve is of vital importance considering its flora and fauna diversity. The Tiger Reserve is known for the healthy population of tigers and variety of herbivores.
- The major mammals of Bandhavgarh are Tiger, Leopard, Wild dog, Wild cat, Hyena, Wolf, Chital, Sambar, Black Buck, Rojda etc. It is also a famous natural hub for White Tigers.
- Bandhavgarh was declared a **national park** in 1968 and became a **tiger reserve** in 1993.

Why in News?

- The Archaeological Survey of India (ASI) has reported **26 Buddhist caves** in Madhya Pradesh's Bandhavgarh Tiger Reserve, after its latest exploration.
- Besides the caves, which date back to the **2nd-5th century BCE**, other **archaeological remains of the Mahayana sect of Buddhism**, such as chaitya-shaped doors and cells containing stone beds, were also reported by the ASI team.



- The 26 caves that were found are associated with the **Mahayana sect of Buddhism**. These **date back to**

the same time as the Ajanta caves in Aurangabad.

- The ASI has also documented eighth and ninth century Hindu temples and sculptures depicting the 10 avatars of Vishnu in the region.

Related Information

About ASI

- The Archaeological Survey of India is the premier organization for the archaeological research and protection of the cultural heritage of the nation.
- It is an attached office under the **Ministry of Culture**.
- Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.
- Besides, it regulates all archaeological activities in the country as per the provisions of the **Ancient Monuments and Archaeological Sites and Remains Act, 1958**. It also regulates the **Antiquities and Art Treasure Act, 1972**.

History

- Archaeological and historical pursuits in India started with the efforts of **Sir William Jones**, who put together a group of antiquarians to form the **Asiatic Society** in **1784 in Calcutta**.
- The Archaeological Survey of India was eventually formed in **1861** by a statute passed into law by **Viceroy Lord Canning** with **Alexander Cunningham** as the first Archaeological Surveyor.

2) Sittanavasal

About the Place

- Sittanavasal in Pudukottai District, **Tamil Nadu**, was a major centre of

Jain influence for 1,000 years just before the Christian era.

- Sittanavasal is the name used synonymously for the hamlet and the hillock that houses the **Arivar Kovil** (temple of Arihats - Jains who conquered their senses), '**Ezhadipattam**' (a cavern with 17 polished rock beds), **megalithic burial sites** and the **Navachunai tarn** (small mountain lake) with a submerged shrine.
- Excavations around the place have unearthed **burial pots**. These pots are known as **Muthumakkal Thazhi**. After death the Jain monks are kept in the pot and buried in the burial ground.
- The artwork on the ceiling of the sanctum and the ardha mandapam of Arivar Kovil is an early example of **post-Ajanta cave paintings of the fourth to sixth centuries**, done using the **fresco-secco technique** (a process that

dispenses with preparation of the wall with wet plaster).



- One of the ceiling paintings show '**bhavyas**' (exalted souls who work to achieve moksha or spiritual liberation) enjoying themselves in a pool, full of blooming lotuses.

Why in News?

- Several historians have called for better upkeep of the Sittanavasal paintings which have been damaged due to unrestricted public access.