

OFFICERS' Pulse

DECEMBER, 2021

- ☒ The Hindu
- ☒ Indian Express
- ☒ PIB
- ☒ Yojana
- ☒ Kurukshetra
- ☒ Rajya Sabha TV
- ☒ Down to Earth



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

Contents

Schemes.....	3	Environment	24
1) Swadesh Darshan Scheme.....	3	1) Committees related to Western Ghats Conservation	24
2) Bharatmala Pariyojana	3	2) National Action Plan on Climate Change.....	25
3) National Crèche Scheme.....	4	3) Boosting green hydrogen	26
4) YUVA scheme	4	Flora & Fauna.....	29
5) Setu Bharatam scheme	5	1) Reintroduced Gharials thriving in Beas Reserve.....	29
6) Pradhan Mantri Krishi Sinchai Yojana.....	5	Agriculture.....	31
7) Pradhan Mantri Khanij Kshetra Kalyan Yojana	6	1) Zero Budget Natural Farming.....	31
8) Pradhan Mantri Matsya Sampada Yojana	7	Economy	33
9) PM SVANidhi.....	7	1) Electoral bonds	33
10) Krishi UDAN Scheme.....	8	2) India registers highest-ever annual FDI inflow.....	34
11) Pradhan Mantri Shram Yogi Maan-dhan	9	3) Payments banks.....	34
12) Zero Defect and Zero Effect Scheme	9	Organisations.....	37
13) Swadhar Greh Scheme	10	1) Organisation of Islamic Cooperation	37
14) Pradhan Mantri Matru Vandana Yojana	12	Science and Technology	38
Initiatives.....	14	1) Quantum Computing.....	38
1) International Day of Persons with Disabilities.....	14	2) James Webb Space Telescope	40
2) Project RE-HAB.....	15	3) Laser Communications Relay Demonstration	41
3) ASEEM Portal	17	Reports and Indices.....	43
4) CPGRAMS	17	1) NFHS-5.....	43
5) National Policy for Rare Diseases 2021	18	2) Financial Stability Report	46
6) How is hallmarking being implemented?	20	3) Atal Ranking of Institutions on Innovation Achievements	47
7) Udyam Sakhi portal	21	4) Healthy States Progressive India Report	48
8) KAPILA Campaign.....	22	5) Good Governance Index.....	50
9) Mission Karmayogi	22	6) World Inequality Report 2022	50
10) Smart Cities Mission	23	Polity.....	53
		1) Farm Laws Repeal Act, 2021	53

2) What will a legal guarantee of MSP involve?	54	1) EU plans €300 billion infrastructure fund to counter China's BRI.....	67
3) Surrogacy (Regulation) Act, 2021	55	Art and Culture	70
4) Assisted Reproductive Technology (Regulation) Act, 2020	56	1) Sahitya Akademi Awards	70
5) Forest Rights Act.....	58	2) Kashi Vishwanath Temple	70
6) What is the Sixth Schedule, and can Ladakh be included under it?	61	3) Durga Puja Festival.....	70
7) Sexual Harassment of Women at Workplace Act	62	Defence.....	72
8) CAMPA	63	1) Armoured Engineer Reconnaissance Vehicle.....	72
9) Dam Safety Act.....	64	Miscellaneous	73
International Relations	67	1) Paika Rebellion.....	73

Schemes

1) Swadesh Darshan Scheme

About Swadesh Darshan

- The Swadesh Darshan Scheme was launched by the **Ministry of Tourism** in 2014.
- It aims to develop **theme-based tourist circuits** in the country. These tourist circuits will be developed on the principles of high tourist value, competitiveness and sustainability in an integrated manner.
- It is a **Central Sector Scheme** and **completely funded by the central government of India**. Efforts are made to achieve convergence with other schemes of Central and State Governments and also to leverage the voluntary funding available for Corporate Social Responsibility (CSR) initiatives of Central Public Sector Undertakings and Corporate Sector.

The scheme has following objectives:

- Position tourism as a major engine of economic growth and job creation;
- Develop circuits having tourist potential in a planned and prioritized manner;
- Promote cultural and heritage value of the country to generate livelihoods in the identified regions;
- Follow community based development and pro-poor tourism approach;
- Create employment through active involvement of local communities;
- Projects under the scheme shall be under the following identified themes; **Eco-tourism, Wildlife, Buddhist, Desert, Spiritual, Ramayana, Krishna, Coastal, Northeast, Rural, Himalayan, Tribal and Heritage.**

Why in News?

- The Ministry of Tourism under 'Swadesh Darshan' scheme has sanctioned **5 projects under Buddhist circuit theme.**

2) Bharatmala Pariyojana

About the Scheme

- Bharatmala Pariyojana is an umbrella program for the highways sector that focuses on **optimizing efficiency of freight and passenger movement** across the country by **bridging critical infrastructure gaps** through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads and Green-field expressways. It was launched in **2017**.
- All key aspects of the scheme are managed by the **Ministry of Road Transport and Highways**.

Highlights of Bharatmala Pariyojana

- **Improvement in efficiency of existing corridors** through development of Multimodal Logistics Parks and elimination of choke point;
- Enhance focus on improving connectivity in **North East** and leveraging synergies with **Inland Waterways**;
- Emphasis on **use of technology & scientific planning** for Project Preparation and Asset Monitoring.

Key features of the scheme

- **Improving the quality of roads** - The launch of the scheme has been done to bring a new wave of development in the nation in the form of well-maintained and developed roads. Under this

project, the construction of roads in all parts of the nation will be undertaken.

- **Total road construction** - As per the draft of the scheme, the government and the ministry will strive to complete new roads, which will add up to 34,800 kms.
- **Integrated scheme** - The Bharatmala is the name that is given to the road development and it will include many other related schemes as well. With the completion of all the schemes, the overall success of the scheme will be guaranteed.
- **Total tenure of the program** - The central government has the plans of finishing the scheme within a span of five years. Thus, all is set for finishing the first phase before the end of 2022.

Why in News?

- The Ministry of Road Transport & Highways has provided state-wise details about roads constructed under the Bharatmala Pariyojana Phase-I in the Lok Sabha.

3) National Crèche Scheme

What's in the news?

- The **Ministry of Women and Child Development** implements the **Centrally Sponsored National Crèche Scheme** to **provide day care facilities to children (age group of 6 months to 6 years) of working mothers**. It was launched in 2017.
- The Scheme provides an integrated package of the following services:
 - Day care facilities including sleeping facilities.
 - Early stimulation for children below 3 years and pre-school education for 3 to 6 years old children
 - Supplementary nutrition (to be locally sourced)

- Growth monitoring
- Health check-up and immunization.

Why in News?

- The Ministry of Women and Child Development has announced that the number of functional creches in the country under the National Creche Scheme during the last three years (2017-18, 2018-19 and 2019-20) was 18040, 8018 and 6458 respectively.
- Creches have not been functional in the country since the outbreak of Covid-19 to prevent spread of the pandemic.

4) YUVA scheme

About the Scheme

- In May 2021, the **Ministry of Education** launched '**Young, Upcoming and Versatile Authors**' (YUVA) scheme, a **mentorship programme to train young authors**.
- The scheme is aimed at **training 75 aspiring writers below 30 years**, who are ready to express themselves and project India and its culture and literature globally.
- A **consolidated scholarship of Rs 50,000 per month** for a period of six months per author will be paid under the mentorship scheme.
- Through this scheme, the government aims to bring reading and authorship as a preferred profession at par with other job options.
- It is also expected to impart a positive psychological push to the young minds amidst the impact of the Covid-19 pandemic on the mental health of children.

Why in News?

- The Ministry of Education has announced the results of the All-India Contest organized on the Theme '**National Movement of**

India' under the PM-YUVA Mentorship Scheme.

- The selected authors will undergo six-months of Mentorship in which they would be provided research and editorial support under the guidance of eminent authors to develop their book proposals as full-fledged books. Their published books will be later translated into other Indian languages as well.

5) Setu Bharatam scheme

About the Scheme

- The Setu Bharatam scheme was launched by Prime Minister Narendra Modi in 2016. It was an initiative to **make all national highways free of various railway crossings**.
- The scheme was launched with the **focus towards the importance of road safety**. The initiative aims at developing stronger infrastructure with proper planning and implementation.
- This project aims to replace railway crossings on National Highways by Road over Bridges (ROBs) /Road Under Bridges (RUBs).

Why in News?

- Administrative approval and financial sanction for construction of 123 RoBs/RuBs have been accorded under Setu Bharatam Programme.

6) Pradhan Mantri Krishi Sinchai Yojana

Background

- Substantial dependence on rainfall makes cultivation in unirrigated areas a high risk, less productive profession. Empirical evidence suggests that assured or protective irrigation encourages farmers to invest more in farming technology and inputs leading to productivity

enhancement and increased farm income.

About the scheme

- The vision of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) is to ensure **access to some means of protective irrigation to all agricultural farms** in the country, to produce '**per drop more crop**', thus bringing much desired rural prosperity.
- Launched in 2015 by the **Ministry of Agriculture & Farmers' Welfare**, PMKSY has been **conceived amalgamating ongoing schemes** viz. Accelerated Irrigation Benefit Programme (AIBP), Integrated Watershed Management Programme (IWMP) and the On Farm Water Management (OFWM).

Broad objectives of PMKSY

- Achieve **convergence of investments in irrigation** at the field level (preparation of district level and, if required, sub district level water use plans).
- **Enhance the physical access of water** on the farm and expand cultivable area under assured irrigation ('Har Khet ko pani' or 'all fields will get water'),
- Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.
- **Improve on-farm water use efficiency** to reduce wastage and increase availability both in duration and extent.
- Enhance the adoption of **precision-irrigation and other water saving technologies (More crop per drop)**.
- Enhance recharge of aquifers and introduce sustainable water conservation practices.

Four components of PMKSY

- **Accelerated Irrigation Benefits Programme (AIBP),**
 - To focus on faster completion of ongoing major and medium irrigation including National Projects.
- **Har Khet Ko Pani ('all fields will get water'),**
 - Activities including **creation of new water sources** through minor irrigation and creation and **rejuvenation of traditional water storage systems** like Jal Mandir (Gujarat); Khatri, Kuhl (H.P.); Zabo (Nagaland); Eri, Ooranis (T.N.); Dongs (Assam); Katas, Bandhas (Odisha and M.P.) etc. at feasible locations.
- **Per Drop More Crop**
 - Promoting efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain-guns in the farm.
- **Watershed Development**
 - Effective rainfall management like field bunding, contour bunding/trenching, staggered trenching, land levelling, mulching etc. and Creating Water harvesting structures such as check dams, nala bund, farm ponds, tanks etc.

Implementation

- PMKSY adopts a '**decentralized State level planning and projectized execution**' structure that allows States to draw up their own irrigation development plans based on **District Irrigation Plan (DIP)** and **State Irrigation Plan (SIP)**.

- PMKSY acts as a convergence platform for all water sector activities including drinking water & sanitation, MGNREGA, application of science & technology etc. through comprehensive plans.

Why in News?

- The Cabinet Committee on Economic Affairs chaired by the Prime Minister Narendra Modi has approved implementation of Pradhan Mantri Krishi Sinchayee Yojana for 2021-26 with an outlay of Rs.93,068 crore.

7) Pradhan Mantri Khanij Kshetra Kalyan Yojana

About PMKKKY

- Launched in 2015, the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) is meant to provide for the **welfare of areas and people affected by mining related operations.**

Objectives

- The overall objective of PMKKKY scheme include
 - to implement various **developmental and welfare projects/programs in mining affected areas**, and these projects/ programs will be complementing the existing ongoing schemes/projects of State and Central Government;
 - to **minimize/mitigate the adverse impacts**, during and after mining, on the environment, health and socio-economics of people in mining districts; and
 - to ensure **long-term sustainable livelihoods** for the affected people in mining areas.

Implementation

- PMKKKY is implemented by the **District Mineral Foundations (DMFs)** of the respective districts using the funds accruing to the DMF.
- The **Mines and Minerals (Development & Regulation) Amendment Act, 2015**, mandated the setting up of District Mineral Foundations in all districts in the country affected by mining related operations.
- Where mining leases are granted after 2015, miners will have to contribute an **amount equal to 10% of the royalty payable by them to the DMFs**.
- Using the funds generated by this contribution, the DMFs are expected to implement the PMKKKY.
- **At least 60% of PMKKKY funds will be utilized for high priority areas** like: (i) drinking water supply; (ii) environment preservation and pollution control measures; (iii) health care (iv) education; (v) welfare of women and children; (vi) welfare of aged and disabled people; (vii) skill development; and (viii) Sanitation.
- The rest of the funds will be utilized **undertaking works** like for: (i) physical infrastructure; (ii) irrigation; (iii) energy and watershed development; and (iv) any other measures for enhancing environmental quality in mining districts.

Why in News?

- The Union Government has released the details of funds allocated from the District Mineral Fund to various projects to be taken up through Pradhan Mantri Khanij Kshetra Kalyan Yojana.

8) Pradhan Mantri Matsya Sampada Yojana

About PMMSY

- The central government launched the Pradhan Mantri Matsya Sampada Yojana (PMMSY) in 2020 to bring about the **Blue Revolution** through sustainable and responsible development of the fisheries sector in India.
- It is a flagship scheme for **integrated, sustainable, inclusive development of marine and inland fisheries sector** in the country with an estimated investment of Rs. 20,000 crores for its implementation during a period of 5 years from FY 2020-21 to FY 2024-25 in all States/Union Territories.
- It aims at enhancing **fish production by an additional 70 lakh tonne** by 2024-25, increasing **fisheries export earnings to Rs.1,00,000 crore** by 2024-25, **doubling of incomes** of fishers and fish farmers, **reducing post-harvest losses** from 20-25% to about **10%**.
- It is designed to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability and establishing a robust fisheries management framework and fishers' welfare.
- It primarily focuses on adopting **'Cluster or Area based approaches'** and creation of Fisheries clusters through backward and forward linkages.

Why in News?

- Under PMMSY, the Department of Fisheries has accorded approval of project proposals to the tune of Rs. 5336.96 crores.

9) PM SVANidhi About the Scheme

- The Prime Minister Street Vendor's Atma Nirbhar Nidhi (PM SVANidhi) Scheme was launched in 2020 by the **Ministry of Housing and Urban Affairs** for **providing affordable Working Capital loans to street vendors** to resume their livelihoods that have been adversely affected due to Covid-19 lockdown.
- Under the Scheme, vendors can avail a working capital loan of up to **Rs. 10,000**, which is repayable in monthly instalments in the tenure of **one year**. The loans would be **without collateral**.
- If the vendor repays the instalments in time or earlier, they will develop his credible credit score that makes him eligible for a higher amount of term loan to 20 thousand rupees and so on.
- On timely/ early repayment of the loan, an **interest subsidy @ 7% per annum** will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer on quarterly basis.
- There will be no penalty on early repayment of loan. The scheme **promotes digital transactions** through cash back incentives up to an amount of Rs. 100 per month.
- The scheme targets to benefit over **50 lakh street vendors**. The duration of the scheme is till March 2022.
- **SIDBI** is implementing the scheme.
- The lending institutions under the Scheme include Scheduled Commercial Banks, Regional Rural Banks, Small Finance Banks, Cooperative Banks, NBFCs, Microfinance institutions and Self Help Group banks.

Why in News?

- More than 25 lakh beneficiaries have availed the working capital

loan under the PM SVANidhi Scheme.

SIDBI

- Small Industries Development Bank of India (SIDBI) was established under an Act of the Parliament in 1990.
- SIDBI is mandated to serve as the **principal financial institution** for executing the **triple agenda** of promotion, financing and development of the MSME sector and coordination of the functions of the various Institutions engaged in similar activities.
- SIDBI also maintains the **UdyamiMitra portal** with the objective to help the MSMEs with easy and secure access to financial and non-financial services. This is a one of a kind portal where MSME loan seekers can connect virtually to Lenders and Handholding agencies.

10) Krishi UDAN Scheme

About Krishi UDAN

- The Krishi Ude Desh Ka Aam Naagrik (Krishi Udan) scheme was launched in 2020 to **assist farmers in transporting agricultural products on international and national routes so that it improves their value realisation**. It is an initiative of the **Ministry of Civil Aviation (MoCA)**.
- The objectives are to **increase the share of air in the modal mix for transportation of Agri-produce**, which includes horticulture, fishery, livestock & processed products.

Krishi UDAN 2.0

- In a bid aimed at facilitating and incentivising the movement of agricultural produce through air transportation, especially biodegradable food products from hilly areas, north-eastern States

and tribal regions, MoCA launched the **Krishi Udan 2.0** scheme recently.

- Krishi UDAN 2.0, too, will focus on bringing about a **convergence between the agriculture and aviation sectors (A2A: Agriculture to Aviation)**.
- Krishi UDAN 2.0 will be implemented at 53 airports across the country, **primarily focussing on the north-eastern States and tribal regions**, and is expected to benefit farmers, freight forwarders and airlines.
- Under the scheme, the Ministry will be providing a full waiver on landing, parking, terminal navigation and route navigation facilities charges for all domestic airlines.

Why in News?

- The Ministry Of Civil Aviation conducted a review of the Krishi UDAN 2.0 scheme.

11) Pradhan Mantri Shram Yogi Maan-dhan

About Pradhan Mantri Shram Yogi Maan-dhan

- It is a **Central Sector pension scheme** to ensure **old age protection for Unorganised Workers**. It was launched in 2019.
- It is administered by the **Ministry of Labour and Employment** and implemented through **Life Insurance Corporation of India (LIC)** and **Common Service Centres (CSCs)**.
- LIC is the Pension Fund Manager and responsible for Pension pay out.

Eligibility

- The **Unorganised workers** whose **monthly income is Rs 15,000/ per month or less** and belong to the **entry age group of 18-40 years** are eligible for the scheme.

- They should not be covered under New Pension Scheme (NPS), Employees' State Insurance Corporation (ESIC) scheme or Employees' Provident Fund Organisation (EPFO).
- He/she **should not be an income tax payer**.

Salient Feature of PM-SYM

- **Matching contribution by the Central Government:** PM-SYM is a **voluntary and contributory pension scheme** on a **50:50 basis** where prescribed age-specific contribution shall be made by the beneficiary and the matching contribution by the Central Government.
- **Minimum Assured Pension:** Each subscriber under the PM-SYM shall receive a minimum assured pension of **Rs 3000/- per month after attaining the age of 60 years**.
- **Family Pension:** During the receipt of pension, if the subscriber dies, the spouse of the beneficiary shall be entitled to receive 50% of the pension received by the beneficiary as family pension. Family pension is applicable only to the spouse.

Why in News?

- The Ministry of Labour and Employment has announced that more than 45 lakh unorganized workers have been registered under the Pradhan Mantri Shram Yogi Maan-dhan pension scheme.

12) Zero Defect and Zero Effect Scheme

About the Scheme

- Zero Defect and Zero Effect (ZED) is a **certification scheme**. Under the scheme, **MSMEs are assessed for their process in achieving Zero defects in their products and processes**. Similarly the process which they adopt for production

should not affect the environment.

- There are **three stages of assessment** based on which the MSMEs will be graded for certification under **five categories** as **Bronze, Silver, Gold, Diamond and Platinum**.
- The cost of certification in grading shall be **subsidized by Government of India up to 80% of the expenditure** and **financial assistance** is provided for interested MSMEs for Gap analysis, Handholding and consultancy for improving their rating and adopting measures for moving towards zero effect.

Objectives

- The scheme endeavours to attain the following key goals:
 - To promote and encompass ZED manufacturing processes in the MSMEs;
 - Encourage to attain a continuous momentum in improving the sector that contributes to the success of Make in India initiative;
 - Reassure to adapt Quality tools and systems, thus promote energy-efficient manufacturing;
 - Make sure that the MSMEs are constantly upgrading their tools and processes to obtain better products;
 - Most importantly, the acclimatization to ZED protocol to have a minimalist impact on the environment.

Why in News?

- The Ministry of Micro, Small and Medium Enterprises has announced that more than 20,000 MSMEs had registered with intent to adopt the principle of the Zero Defect Zero Effect Scheme.

13) Swadhar Greh Scheme

About the scheme

- The **Ministry of Women and Child Development** is implementing the Swadhar Greh Scheme which targets the **women victims of difficult circumstances** who are in need of institutional support for rehabilitation so that they could lead their life with dignity.
- Swadhar Greh targets the following categories of women in difficult circumstances without economic and social support:
 - Deserted women;
 - Women rendered homeless due to natural calamities;
 - Women ex-prisoners;
 - Trafficked women/girls rescued or runaway from brothels;
 - HIV/AIDS affected women;
 - Women victims of domestic violence, family tension or discord driven out from their homes and facing marital litigations;
 - Women victims of terrorist violence

Objectives

- Under the Scheme, Swadhar Greh will be set up in **every district**. Swadhar Greh provides **temporary residential accommodation** with the following objectives:
 - To cater to the **primary need** of shelter, food, clothing, medical treatment and care of the women in distress and who are without any social and economic support.
 - To enable them to regain their **emotional strength** that gets hampered due to their encounter with unfortunate circumstances.
 - To provide them with **legal aid and guidance** to enable

them to take steps for their readjustment in family/society.

- To **rehabilitate** them economically and emotionally.
- To act as a **support system** that understands and meets various requirements of women in distress.
- To enable them to start their life afresh with dignity and conviction.
- For big cities and other districts having **more than 40 lakh population** or those districts where there is a need for additional support to the women, **more than one Swadhar Greh could be established.**
- The Swadhar Greh Scheme initially introduced as a central sector scheme has been revised in 2016 as a **sub-scheme of the Centrally Sponsored Umbrella Scheme "Mission for Protection and Empowerment of Women".**
- Funds are released through the States, with a cost sharing ratio of **60:40** between the Centre and the States excepting for the North Eastern and Himalayan States where it shall be **90:10** and for UTs it is **100%**.

Why in the news?

- The Ministry of Women and Child Development provided beneficiaries details under the Swadhar Greh Scheme in the Lok Sabha recently.

Related Information

Other sub-schemes under the Mission for Empowerment and Protection of Women

- **Mahila Shakti Kendra:** The scheme empowers rural women through **community participation by involvement of Student Volunteers.** The scheme is

envisaged to work at various levels and at the national and state level technical support to the respective government on issues related to women is provided.

- **Ujjawala:** It is a comprehensive scheme to **combat trafficking** with the objective to prevent trafficking of women and children for commercial sexual exploitation, to facilitate rescue victims and placing them in safe custody, to provide rehabilitation services by providing basic amenities/needs, to facilitate reintegration of victims into the family and society, to facilitate repatriation of cross border victims.
- **Working Women Hostel:** It aims at providing **safe and affordable accommodation** to working women. These hostels have Day care facilities for the children of inmates too. The Ministry of Women and Child Development provides financial support for establishing such hostels by NGOs or State Governments.
- **Beti Bachao Beti Padhao (BBBP) scheme:** It is a **tri-ministerial initiative** of Ministries of Women and Child Development, Health & Family Welfare and Education with a focus on awareness and advocacy campaign for changing mindsets, multi-sectoral action in select districts, **enabling girls' education and effective enforcement of Pre-Conception & Pre Natal Diagnostic Techniques (PC&PNDT) Act.** The specific objectives of the scheme is to **address declining Child Sex Ratio (CSR)** by preventing gender biased sex selective elimination; ensuring survival and protection of the girl child and ensuring education and participation of the girl child.

- **One Stop Centre (OSC):** OSC facilitates **access to an integrated range of services** including police, medical, legal, psychological support and temporary shelter to women affected by violence. The Scheme is funded through **Nirbhaya Fund** (*Refer Pulse September 2021 edition*).
- **Mahila Police Volunteers (MPVs) Scheme:** It is implemented by the Ministry of Women and Child Development in collaboration with the Ministry of Home Affairs. It envisages engagement of Mahila Police Volunteers in States/UTs who act as a **link between police and community and facilitates women in distress**.

14) Pradhan Mantri Matru Vandana Yojana

About PMMVY

- Pradhan Mantri Matru Vandana Yojana (PMMVY) is a **Maternity Benefit Programme** that is implemented in all the districts of the country.
- The scheme is implemented by the **Ministry of Women and Child Development**. It is a centrally sponsored scheme launched in 2016.
- It is a **direct benefit transfer (DBT) scheme** under which cash benefits are provided to pregnant women in their bank account directly to meet enhanced nutritional needs and partially compensate for wage loss.
- Under the scheme, Pregnant Women and Lactating Mothers (PW&LM) receive a cash benefit of **Rs. 5,000 in three installments on fulfilling the respective conditionality**, viz. early registration of pregnancy, ante-natal check-up and registration of the birth of the child and

completion of the first cycle of vaccination for the first living child of the family.

- The scheme covers pregnant and lactating mothers for the **birth of the first child**.
- All Pregnant Women and Lactating Mothers **except** those who are in regular employment with the Central Government or State Government or Public Sector Undertaking or those who are in receipt of similar benefits are eligible to claim benefits under PMMVY.

Why in News?

- As of November 2021, maternity benefits of ₹9420.58 crores have been disbursed amongst more than 2.17 crores eligible beneficiaries under PMMVY since inception of the scheme.

Related Information

Other Similar Programmes

- Apart from PMMVY, the various schemes run by the **Ministry of Health and Family Welfare** for pregnant women are as follows;
- **Janani Suraksha Yojana (JSY):** JSY is a **safe motherhood intervention promoting institutional delivery among pregnant women** especially with weak socio-economic status i.e. women from Scheduled Castes, Scheduled Tribes and Below Poverty Line (BPL) households.
- **Financial assistance** under JSY is available to **all pregnant women** in those States/UTs which have **low institutional delivery rates** which are categorized as Low Performing States. In remaining States/UTs where the levels of institutional delivery are satisfactory (categorized as **High Performing States**), **pregnant women from BPL/SC/ST households only are entitled for JSY benefits**. BPL

pregnant women, who prefer to **deliver at home**, are entitled to a cash assistance for her care during delivery or to meet incidental expenses of delivery.

- **Janani Shishu Suraksha Karyakram (JSSK):** The Government of India launched JSSK in 2011 to **eliminate out-of-pocket expenses for pregnant women** delivering in public health institutions and **sick infants** accessing public health institutions for treatment. The initiative entitles all pregnant women delivering in public health institutions to have **absolutely free and no expense delivery, including caesarean section**. The entitlements include free drugs, consumables, free diet during stay, free diagnostics and free blood transfusion, if required. This initiative also provides **free transport** from home to institution, between facilities in case of a referral and drop back home.
- In 2013, the scheme was **expanded to cover all services during antenatal period** including care of complications and **post-natal period** up to 42 days after delivery and also **sick infants** up to 1 year of age.
- **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA):** PMSMA provides **assured, comprehensive and quality antenatal care, free of cost,**

universally to all pregnant women on the 9th of every month. The programme follows a systematic approach for **engagement with the private sector** which includes motivating private practitioners to volunteer for the campaign developing strategies for generating awareness and appealing to the private sector to participate in the Abhiyan at government health facilities.

- **Surakshit Matritva Ashwasan (SUMAN):** It aims to provide **assured, dignified, respectful and quality healthcare at no cost and zero tolerance for denial of services for every woman and newborn** visiting the public health facility to end all preventable maternal and newborn deaths. Till now, around 10,000 facilities have been notified under Surakshit Matritva Ashwasan (SUMAN).
- **Labour room Quality Improvement Initiative (LaQshya):** Launched in 2017, LaQshya aims at **improving quality of care in labour room and maternity Operation Theatre (OT)** in the country. The objective of the programme is to reduce maternal and newborn morbidity and mortality and improve quality of care during delivery and immediate post-partum period.

Initiatives

1) International Day of Persons with Disabilities

Initiatives for welfare of Disabled Persons

- As per the Census 2011, there are 2.68 crore persons with disabilities (Divyangjans) in the country. The Government of India has started various initiatives to empower India's divyang population in many ways.

Rights of Persons with Disabilities Act, 2016

- The Act fulfills the obligations to the **United National Convention on the Rights of Persons with Disabilities (UNCRPD)**, to which India is a signatory and subsequently ratified the same on 1st October, 2007.

Disabilities covered

- Disability has been defined based on an evolving and dynamic concept.
- Under the Act, the types of disabilities have been increased from **existing 7 to 21** and the Central Government will have the power to add more types of disabilities.

Rights and entitlements

- All Government institutions of **higher education** and those getting aid from the Government are required to **reserve at least 5% of seats** for persons with benchmark disabilities.
- 4% reservation** for persons with benchmark disabilities is to be provided in **posts of all Government establishments** with differential quotas for different forms of disabilities.
- Incentives to employers in the private sector** are to be given who provide 5% reservation for persons with benchmark disability. **Special**

employment exchanges for the PWD are to be set up.

Establishment of Authorities

- Broad based **Central & State Advisory Boards on Disability** are to be set up to serve as apex policy making bodies at the Central and State level.
- The Chief Commissioner for Persons with Disabilities and the State Commissioners will act as regulatory bodies and Grievance Redressal agencies and also monitor implementation of the Act.

Accessible India Campaign (Sugamya Bharat Abhiyan)

- 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:

o 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.

o 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?

- International Day of Persons with Disabilities was observed on December 3.

2) Project RE-HAB

About Project RE-HAB

- In 2021, the **Khadi Village Industries Commission (KVIC)** launched the project Reducing Elephant Human Attacks using Bees (RE-HAB) in Karnataka to **reduce the elephant-human conflict**.
- Under Project RE-HAB, “**Bee-fences**” are created by setting up bee boxes in the passageways of elephants to block their entrance to human territories. The boxes are connected with a string so that when elephants attempt to pass through, a tug or pull causes the bees to swarm the elephant herds and dissuade them from progressing further.

What are the benefits?

- Project RE-HAB is an effective way of restricting elephants from entering the villages because **elephants are naturally afraid of bees** as they might sting the elephants in their eyes and inner trunk. Furthermore, the buzzing of the bees in certain frequencies also make the elephants irritable and subsequently drive them away.
- It is a unique way of preventing elephant-human conflicts without causing any harm to the animals and the humans.
- It is extremely **cost-effective** as compared to various other measures such as digging trenches or erecting fences.



- The night vision cameras installed at these locations show evidence of the success of the project. The bee boxes not only **reduced the movement of elephants** at the respective points but also recorded footage of a number of elephants **backing off from the points where the bee boxes have been installed**.
- Since 2015, approximately 2,400 people have been killed in elephant attacks, and huge damage to property and crops have been recorded. Various state governments had taken several preventive measures like digging up trenches, electric fencing, spiked pillars etc., but nothing came off as effective and harmless as project RE-HAB.

Why in News?

- Following the success of its innovative Project RE-HAB in Karnataka, KVIC has now replicated the project in Assam.
- The project has been implemented in Assam with the support of the local forest department.

Related Information

Other effective solutions to prevent Man-Elephant conflicts

- Installing **hanging solar-powered fences**, as has been planned in Tamil Nadu and Kerala and ensuring that there are no illegal electric fences or barbed wire fences.

- **Planting citronella and lemongrass**, as done in Golaghat district, Assam, to deter elephants.
- The **participation of local communities** is crucial and hence highlighting the critical role elephants play in biodiversity conservation especially to those living in areas close to elephant corridors is must.
- The proposals for **elevated wildlife crossings or eco-bridges and underpasses** for the safe passage of animals should also be expedited by the Environment Ministry and Ministry of Railways. Finding of the **Comptroller and Auditor General of India (C&AG)** was that after the construction of underpasses and overpasses in the areas under the jurisdiction of East Central and Northeast Frontier Railways, there was no death reported.
- The authorities should also expedite other recommendations made by the C&AG such as a
 - Periodic review of **identification of elephant passages**;
 - More **sensitisation programmes** for railway staff to eliminate railway track accidents of wildlife;
 - Installation of an **animal detection system** (transmitter collars).

About KVIC

- Khadi and Village Industries Commission is a **statutory body** under the **Ministry of Micro, Small and Medium Enterprises**.
- Established in 1956, KVIC aims to plan, promote, facilitate, organize, and assist in the establishment and development of Khadi and Village industries in the rural areas.
- Over the years, the main thrust of KVIC activities has been to provide

a larger share of employment to scheduled caste and scheduled tribes and women.

3) ASEEM Portal

About the Portal

- In an endeavour to improve the information flow and bridge the demand-supply gap in the skilled workforce market, the **Ministry of Skill Development and Entrepreneurship (MSDE)** launched 'Atma Nirbhar Skilled Employee Employer Mapping (ASEEM)' portal in 2020 to **help skilled people find sustainable livelihood opportunities**. It acts as a **directory of skilled workforce**.
- Apart from recruiting a skilled workforce, the **Artificial Intelligence-based platform** has been envisioned
 - to strengthen their career pathways by handholding them through their journeys to attain industry-relevant skills and
 - to explore emerging job opportunities which will help migrant labour, who have been severely impacted by the socio-economic fallout of the COVID pandemic.
- The portal was developed by the **National Skill Development Corporation (NSDC)**.

Benefits

- ASEEM is used as a **match-making engine to map skilled workers with the jobs available**.
- Through ASEEM, employers, agencies and job aggregators looking for skilled workforce in specific sectors have the required details at their fingertips.

- It also enables policymakers to take a more objective view of various sectors.

Why in News?

- Around 1.3 crore candidates have been registered on ASEEM portal.

About NSDC

- National Skill Development Corporation is a **not-for-profit public limited company** incorporated in 2008.
- NSDC was set up by the **Ministry of Finance** as a **Public Private Partnership (PPP) model**. The **Government of India** through the Ministry of Skill Development & Entrepreneurship **holds 49% of the share capital** of NSDC, while the **private sector has the balance 51%** of the share capital.
- NSDC acts as a catalyst in skill development by providing funding to enterprises, companies and organizations that provide skill training.
- Its mandate is also to enable a support system which focuses on quality assurance, information systems and train the trainer academies either directly or through partnerships.

4) CPGRAMS

About CPGRAMS

- Centralised Public Grievance Redress and Monitoring System (CPGRAMS) is an online platform available to the citizens 24x7 to **lodge their grievances to the public authorities on any subject related to service delivery**. It is a single portal connected to all the Ministries/Departments of Government of India and States.
- The online web-enabled system was developed by the **National Informatics Centre** in association with the **Department of**

Administrative Reforms and Public Grievances (DARPG).

- It has been developed with an objective of **speedy redress and effective monitoring of grievances** by Ministries/Departments/Organizations of Government of India.
- It enables the citizen to track online the grievance with the unique registration ID provided at the time of registration of the complainant and also enables DARPG to monitor the grievance.
- CPGRAMS also provides an **appeal facility** to the citizens if they are not satisfied with the resolution by the Grievance Officer.

Why in News?

- The government announced that a total of more than 1 crore grievances have been filed under CPGRAMS platforms in the last 10 years and most of them have been disposed of.
- Similarly, more than 50000 appeals were filed in CPGRAMS since the introduction of the **appeal facility** in CPGRAMS in **January 2021**.

About NIC

- The National Informatics Centre was established in 1976, as an attached office under the **Ministry of Electronics and Information Technology**.
- The NIC provides infrastructure to help support the delivery of government IT services and the delivery of some of the initiatives of Digital India.

5) National Policy for Rare Diseases 2021

Context

- The Union Health & Family Welfare Ministry conducted a review about the "National Policy for Rare Diseases 2021".

What is a rare disease?

- A rare disease is a health condition of **low prevalence that affects a small number of people** compared with other prevalent diseases in the general population.
- Rare diseases include genetic diseases, rare cancers, infectious tropical diseases and degenerative diseases.
- **80% of rare diseases are genetic in origin** and hence disproportionately impact children.

Definition of a rare disease

- There is **no universally accepted definition** of rare disease.
- These diseases have **differing definitions** in various countries and range from those that are prevalent in 1 in 10,000 of the population to 6 per 10,000. According to the **Indian Council of Medical Research (ICMR)** registry definition, "A disease or disorder is defined as Rare in India when it **affects fewer than 1 in 2500 individuals**".
- So far about 450 rare diseases have been recorded in India and it is estimated that about 6-8% of the country's population is affected by a rare disease.

Challenges associated with rare diseases

- There are 7,000-8,000 classified rare diseases, but **less than 5% have therapies available to treat them**. About 95% rare diseases have no approved treatment and less than 1 in 10 patients receive disease-specific treatment.
- The field of rare diseases is very complex and heterogeneous and prevention, treatment and management of rare diseases have multiple challenges. **Early diagnosis** of rare diseases is a major challenge owing to a variety of factors that include **lack of**

awareness among primary care physicians, lack of adequate screening and diagnostic facilities etc.

- There are also fundamental challenges in the **research and development** for the majority of rare diseases as relatively little is known about the pathophysiology or the natural history of these diseases particularly in the Indian context.
- Rare diseases are also **difficult to research upon** as the patients pool is very small and it often results in inadequate clinical experience. **Availability and accessibility to medicines** are also important to reduce morbidity and mortality associated with rare disease.
- The **cost of treatment of rare diseases is prohibitively expensive**. Various High Courts and the Supreme Court have also expressed concern about lack of a national policy for rare diseases.

National Policy for Rare Diseases 2021

- To address all these challenges, the Union Health & Family Welfare Ministry approved the “National Policy for Rare Diseases 2021” in April 2021.

Highlights of the Policy

- In the new policy, rare diseases have not been defined but **classified into three groups**.
 - **Group 1** has disorders amenable to **one-time curative treatment**, including osteopetrosis and Fanconi anaemia.
 - **Group 2** has diseases **requiring long-term or lifelong treatment with relatively lower cost of treatment** and benefit has been documented in literature, including galactosemia, severe food

protein allergy, and homocystinuria.

- **Group 3** has diseases for which definitive treatment is available, but **challenges are to make optimal patient selection for benefit, and very high cost and lifelong therapy**, covering diseases such as spinal muscular atrophy (SMA), Pompe disease, and Hunter syndrome.

Lowering the Cost of Treatment

- The Rare Diseases Policy aims to lower the high cost of treatment for rare diseases with **increased focus on indigenous research** with the help of a **National Consortium** to be set up with the Department of Health Research, Ministry of Health & Family Welfare as convenor.
- Increased focus of research and development and local production of medicines will lower the cost of treatment for rare diseases.

National Hospital Based Registry

- The policy also envisages creation of a **national hospital based registry of rare diseases** so that adequate data is available for definition of rare diseases and for research and development related to rare diseases within the country.

Screening, Prevention & Treatment

- The Policy also focuses on **early screening and prevention through primary and secondary health care infrastructure** such as Health and Wellness Centres and District Early Intervention Centres (DEICs) and through counselling for the high-risk parents.
- Screening will also be supported by **Nidan Kendras** set up by the Department of Biotechnology.
 - *Nidan Kendras provide counselling, prenatal testing and diagnosis, management,*

and multidisciplinary care in Government Hospitals wherein the influx of patients is more.

- Policy also aims to **strengthen tertiary health care facilities** for prevention and treatment of rare diseases through **designating 8 health facilities as Centre of Excellence (CoEs)** and these CoEs will also be provided one-time financial support of up to Rs 5 crores for upgradation of diagnostics facilities.

Crowd Funding Mechanism

- Besides, the Policy also envisages a **crowd funding mechanism** in which corporates and individuals will be encouraged to extend financial support through a robust IT platform for treatment of rare diseases.
- Funds collected will be utilized by Centres of Excellence for treatment of all three categories of rare diseases as first charge and then the balance financial resources could also be used for research.

Rashtriya Arogya Nidhi

- A provision for **financial support up to Rs. 20 lakhs under the Umbrella Scheme of Rashtriya Arogya Nidhi** is proposed for treatment of those rare diseases that require a one-time treatment (diseases listed under **Group 1** in the rare disease policy).
- **Beneficiaries** for such financial assistance would **not be limited to BPL families**, but the benefit will be **extended to about 40% of the population**, who are eligible under **Pradhan Mantri Jan Arogya Yojana**.
- The **state governments** would be asked to undertake treatment of diseases covered under **Group 2** which largely include disorders managed with special dietary

formulae or food for special medical purposes (FSMP) and disorders that are amenable to other forms of therapy.

- For diseases classified under **Group 3**, which require life-long expensive treatments, the government would create a **digital platform to bring together Centres for Excellence, patients undergoing treatment and corporate donors or prospective voluntary individuals who could help fund treatment.**

Criticisms

- Families of rare diseases patients and their advocacy groups are unhappy with the **lack of financial support for diagnosed Group 3 diseases patients** in the new policy.
- Patients and their support groups had written to the health ministry seeking **creation of a seed-funding of Rs 80-100 crore** while rolling out the national policy so that life-saving therapies to all those patients with treatable Group 3 disorders can be provided, thereby reducing any further loss of life.

Way Forward

- The Centre can set aside a **substantial corpus to fund life-saving treatments**, instead of leaving patients at the mercy of crowdfunding.
- Further, there is a need to support the development of and commercialisation of drugs for treatment, and improve funding for research on rare diseases.

6) How is hallmarking being implemented?

Context

- Recently, the Government of India made **hallmarking of gold jewellery mandatory** in the

country. It is now being implemented by the **Bureau of Indian Standards (BIS)** in a phased manner.

- With an aim to **bring transparency in the jewellery trade and increase trust among consumers**, the Government has also made it mandatory for the introduction of a **Hallmark Unique Identification (HUID) number** in every piece of jewellery.
- In the first phase, it is being rolled out in 256 districts of the country, though the move was opposed by jewellers' trade bodies.

What is HUID?

- According to the Department of Consumer Affairs, **hallmark consists of 3 symbols**. In this, the first symbol is the **BIS logo**, the second symbol **indicates purity and fineness** and the third symbol is the **HUID**.
- HUID is a **six-digit alphanumeric code**, or one that consists of numbers and letters. It is **given to every piece of jewellery at the time of hallmarking and is unique for each piece**. Jewellery is stamped with the unique number manually at the Assaying & Hallmarking (A&H) centre.
- One can identify the purity and the name of the hallmarking centre through this code, which is linked to the database of the BIS. Through the **website or the BIS app**, one can check this information, thus making the trade more transparent. This initiative will also **eliminate the practice of running illegal hallmarking centres**.
- Before buying any piece of gold jewellery, the buyer should check all these three symbols.



Why is it being introduced?

- HUID gives a distinct identity to each piece of jewellery **enabling traceability**. It is critical to the **credibility of hallmarking** and to help **address complaints against adulteration**.
- In HUID-based hallmarking, registration of jewellers is an **automatic process with no human interference**. In addition to its role in authentication, it also helps **check malpractice by members of the trade**.
- Jewellers' trade bodies, however, say it's **cumbersome** to number each piece of jewellery and HUID **cannot be engraved in tiny pieces** and also that it will **increase cost for consumers**.

What does this mean for the consumer?

- Given that gold plays a big role in the lives of Indians, mandating gold hallmarking is aimed at protecting consumer interests.
- The World Gold Council is of the view that the HUID system has the potential to be rolled out globally to enhance trust in gold at the retail end and remove a strong barrier to gold-buying.

7) Udyam Sakhi portal

About the Portal

- Udyam Sakhi portal (<http://udyamsakhi.msme.gov.in/>) was launched in 2018 to **provide information regarding financial schemes, policies and programmes of the Ministry of Micro, Small and Medium**

Enterprises to existing/prospective women entrepreneurs in the MSME sector.

- The portal is a network for nurturing entrepreneurship and creating business models for low cost products and services in order to empower women and make them self-reliant and self-sufficient.
- The portal provides assistance through its platform for entrepreneurship learning tools, incubation facility, training programs for fundraising, providing mentors, one-on-one investor meet, market survey facility and technical assistance.

Why in News?

- The Ministry for MSME announced that a total of 2952 women have so far benefitted from the Udyam Sakhi portal.

8) KAPILA Campaign

About

- The government has launched a campaign namely Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA) in 2020 to **increase awareness regarding protection and exploitation of Intellectual Property (IP)** and also to provide funding support in order to promote filing of the Intellectual Property (IP) in Higher Education Institutions.
- A **KAPILA portal** has also been launched for this purpose.
- Under the initiative, activities like IP Clinic, Case Studies/ Articles regarding Innovation and Intellectual Property and online awareness programs and National Intellectual Property Literacy Week (NIPLW) have been conducted.

Why in News?

- More than 46,000 users have registered for KAPILA awareness programs.

9) Mission Karmayogi

About the programme

- Mission Karmayogi is a nationwide programme to lay the **foundation for capacity building of civil servants**. It will help the officers to learn about the best practices across the world. It was launched in **2020**.
- Officially called the "**National Programme for Civil Services Capacity Building (NPCSCB)**", the mission plans to **transform human resource management in the country**.
- Mission Karmayogi aims to **prepare the Indian civil servant for the future** by making him/her more creative, constructive, imaginative, innovative, proactive, professional, progressive, energetic, enabling, transparent and technology-enabled.
- The fundamental focus of the reform is the creation of a '**citizen centric civil service**' capable of creating and delivering services conducive to economic growth and public welfare.
- It shifts the focus from "**Rule based training to Role based training**". Greater thrust has been laid on **behavioural change**.
- The Mission Karmayogi programme will be delivered by setting up a digital platform called **iGOTKarmayogi**. The platform will act as a launchpad for the initiative and will enable a comprehensive reform of the capacity building apparatus at the individual, institutional and process levels.

Why in News?

- The Government of India conducted a workshop on Mission Karmayogi.

10) Smart Cities Mission

About the Mission

- Smart Cities Mission is an urban renewal and retrofitting program launched by the Government of India in 2015 with the mission to develop **100 cities across the country** making them citizen friendly and sustainable.
- The Smart Cities Mission is meant to set examples that can be replicated both within and outside the Smart City, catalysing the creation of similar Smart Cities in various regions and parts of the country.
- The strategic components of area-based development in the Smart Cities Mission are city improvement (retrofitting), city renewal (redevelopment) and city extension (greenfield development) plus a Pan-city initiative in which Smart Solutions are applied covering larger parts of the city.

Implementation

- The implementation of the Mission at the City level will be done by a **Special Purpose Vehicle (SPV)** created for the purpose.

- The SPV will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects.
- Each smart city will have a SPV which will be headed by a full time CEO and have nominees of Central Government, State Government and ULB on its Board.

Key Objectives of the Mission

- To provide a **fillip to the development of new and innovative smart solutions** that directly impact the needs of cities;
- To ensure **availability of funding** for practice research of direct relevance to the outcomes desired under the missions;
- To make available a large body of **pilot-tested and proven smart solutions** that can be adopted by cities as per their specific needs; and
- To promote a **culture of innovation** within the urban sector.

Why in News?

- The Central Government has released more than 27 thousand crore rupees so far under the Smart Cities Mission.

Environment

1) Committees related to Western Ghats Conservation

Background

- **Western Ghats Ecology Expert Panel (WGEEP)** headed by **Madhav Gadgil** was formed by the Ministry of Environment, Forest and Climate Change (MoEFCC) in **2010** to study the impact of population pressure, climate change and development activities on the **Western Ghats**.

Gadgil Committee Recommendations

- Calling the Western Ghats region as "**Protector of Indian Peninsula**", the panel designated the **entire western ghats as an Ecologically Sensitive Area (ESA)**, with only limited development allowed in graded zones.
- It classified the 142 taluks in the Western Ghats boundary into **Ecologically Sensitive Zones (ESZ) 1, 2 and 3**, with varying degrees of protection. ESZ-1 being of high priority, almost all developmental activities (mining, thermal power plants etc) were restricted in it.
- Gadgil Committee report specifies that the present system of governance of the environment should be changed. It asked for a **bottom to top approach (right from Gram sabhas)** rather than a top to bottom approach. It also asked for **decentralization and more powers to local authorities**.
- The commission recommended the constitution of a **Western Ghats Ecology Authority (WGEA)**, as a statutory authority under MoEFCC, with the powers under the Environment (Protection) Act, 1986.
- The Gadgil report also called for decommissioning of big projects

like dams, thermal power stations that have completed their shelf life.

Implementation Issues

- The Western Ghats region covers **six states** (Kerala, Karnataka, Goa, Maharashtra, Gujarat and Tamil Nadu). The states have not shown much interest in implementing the recommendations of the Gadgil panel as states fear it may cause livelihood loss to thousands of people.
- Following protests by various groups and political parties against the recommendations, the government constituted the **K Kasturirangan committee in 2012 to examine the WGEEP report**.

Recommendations of Kasturirangan committee

- The Kasturirangan Commission **sought to balance the development and environment protection**.
- It made a **distinction between the 'cultural landscape' and 'natural landscape'**. According to this distinction:
 - 41 per cent of the Western Ghats is "natural landscape", having low population impact and rich biodiversity.
 - The remaining 59 per cent is "cultural landscape" dominated by human settlements and agricultural fields
- Thus, instead of declaring the entire Western Ghats as ESA, the panel said that **90 per cent of the "natural landscape" should be protected**. This would be around **60,000 Km² (37.5 % of the total area of the Western Ghats)** ecologically sensitive area against

the 137000 Km² areas as stipulated in the Gadgil report.

- The committee recommended a **ban on all polluting industries** (including mining) categorised as most hazardous in the Water (Prevention and Control of Pollution) Act, 1974, and Air (Prevention and Control of Pollution) Act, 1981.
- It made **several pro-farmer recommendations**, including the exclusion of inhabited regions and plantations from the purview of ESA.

Present Status

- In 2017, the environment ministry had issued a draft notification accepting certain recommendations of the Kasturirangan report and called on the governments of Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu to oversee their implementation.
- Now, the Kasturirangan report remains under consideration by the National Green Tribunal (NGT).

Why in News?

- Recently, the Karnataka government informed the Centre that the state is opposed to the Kasturirangan Committee report on Western Ghats.
- It claimed that declaring Western Ghats as ecologically sensitive zone will adversely affect the livelihood of the people in the region and people living in the region are opposed to implementation of the Kasturirangan report.
- In Karnataka, the government has pointed out that the implementation of the report would impact 1,576 villages spread across 20,668 sq km of Western Ghats region in the state.

2) National Action Plan on Climate Change

About NAPCC

- The National Action Plan on Climate Change (NAPCC) was formally launched in 2008.
- The NAPCC identifies measures that promote development objectives while also yielding co-benefits for addressing climate change effectively.
- There are **eight “National Missions”** which form the core of the National action plan. They focus on promoting understanding of climate change, adaptation and mitigation, energy efficiency and natural resource conservation.

Missions under the NAPCC

1. National Solar Mission

- The objective of the Mission is to establish India as a global leader in solar energy by creating the policy conditions for its deployment across the country.
- It is under the **Ministry of New and Renewable Energy**.

2. National Mission for Enhanced Energy Efficiency

- The initiative was undertaken to promote the market for energy efficiency by fostering innovative policies and effective market instruments.
- Implementation agencies of the Mission- **BEE - Bureau of Energy Efficiency & EESL - Energy Efficiency Services Limited**.

3. National Mission on Sustainable Habitat

- It aims to make cities sustainable through improvements in energy efficiency in buildings, management of solid waste and shift to public transport.
- The **Ministry of Housing and Urban Affairs** backs the mission.

4. National Mission for Sustaining the Himalayan Ecosystem

- Aimed at protecting the Himalayas, it has mapped institutes and civil society organisations working on the Himalayan ecology for ease of coordination between governmental and non-governmental agencies.
- It is the **only area-specific mission** under the NAPCC. It is coordinated by the **Ministry of Science and Technology**.

5. National Mission for a Green India

- It aims at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures.
- It is driven by the **Ministry of Environment, Forest & Climate Change (MoEFCC)**.

6. National Mission for Sustainable Agriculture

- It has been formulated for enhancing agricultural productivity especially in rain-fed areas focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation.
- It is coordinated by the **Ministry of Agriculture & Farmers' Welfare**.

7. National Mission on Strategic Knowledge for Climate Change

- The mission seeks to build a dynamic and vibrant knowledge system that informs and supports national policy and action for responding effectively to climate change challenges, while not compromising on the nation's growth goals.
- The **Ministry of Science and Technology** drives the mission.

8. National Water Mission

- The main objective of NWM is conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within states through integrated water resources development and management.
- At present, it is driven by the **Ministry of Jal Shakti**.

Why in News?

- The Ministry of Environment, Forest and Climate Change has provided details of funds released and utilised under the National Mission for a Green India.

3) Boosting green hydrogen

Context

- Recently, the Indian Prime Minister announced that India would aim for **net-zero carbon emissions by 2070** (*Refer Pulse November 2021 edition "India pledges new Climate crisis goal: Net zero by 2070" topic*).
- The announcement was given credence by the country's solar achievements since 2015.
- Further, **India is the only major economy** whose policies and actions are on track to limit global average temperature rise below 2°C above pre-industrial levels, as envisioned in the **Paris Agreement**.
- As of now, **75% of India's energy demand is met by coal and oil**, including imports and this is expected to increase.
- Therefore, the **synergy between renewable energy and green hydrogen** must be tapped to tackle the dependence on fossil fuel and take greater advantage of India's solar capacity.

Hydrogen and its types

- Hydrogen is one of the most abundant elements on earth for a **cleaner alternative fuel option**.

- The hydrogen produced is **coded with a colour, depending on the method of its production**:
 - **Green hydrogen** – also referred to as “**clean hydrogen**” – is produced by **electrolysis of water** using renewable energy, such as solar or wind power, and has a lower carbon footprint.
 - **Brown hydrogen** is produced using **coal** where the emissions are released to the air.
 - **Grey hydrogen** is produced from **natural gas** where the associated emissions are released to the air.
 - **Blue hydrogen** is produced from **natural gas**, where the **emissions are captured using carbon capture and storage**.

Significance of Hydrogen

- Hydrogen — green hydrogen, in particular, is a crucial weapon in India’s arsenal to fight climate change as it **improves the long-term energy storage capabilities of renewable energy**.
- The simplest element in the periodic table is also the **most promising solution to decarbonise sectors** like cement, steel, and refineries.
- As per a recent statement from the Hydrogen Council, “Hydrogen can provide the **lowest-cost decarbonization solution for over a fifth of final energy demand** by mid-century — **contributing a cumulative reduction of 80Gt of CO₂** — and is thus an **essential solution to reach the 1.5°C climate scenario**.”
- Several major economies which are adopting legislation to reduce

carbon emissions are also catalysing global efforts towards transitions to green hydrogen.

India’s Opportunity

- **India’s solar capacity has increased nearly 3,000 times in less than a decade**, the cost of solar energy has reached a low of ₹2 per kWh. This gives India a unique head start in scaling up the use of green hydrogen.
- Nearly 70% of the investments required to produce green hydrogen through electrolysis goes into generating renewable energy.
- Therefore, **India can reduce its carbon emissions and make a dent in its annual import bills** by developing a value chain for hydrogen from its production to its diverse applications, including production technologies, storage, transport and distribution, infrastructure (ports, refuelling stations), vehicular applications, and electricity/gas grid.

Way Forward

- **Government funding and long-term policies that attract private investments** within the standards and a **progressive compliance framework** are essential to boost green hydrogen.
- In 2021, Prime Minister Narendra Modi in his Independence Day speech announced a **National Hydrogen Mission** for the country which aims for generation of hydrogen from green power resources. The NHM should aim to establish appropriate physical infrastructure and legal framework for the usage of hydrogen.
- **Hydrogen’s cross-sectoral capabilities** should be exploited according to each sector’s cost and ease of adoption.
- **A few key sectors with low transition costs**, such as refineries,

fertilizers and natural gas, **should be mandated to use hydrogen** to bring down costs as part of near-term goals.

- Shipping, aviation, energy storage and solutions towards power intermittency should be **mandated to use green hydrogen in the long run**.
- India should **replace its grey hydrogen with green hydrogen**. India's current grey hydrogen production is six million tonnes per

annum, which is around 8.5% of global annual production.

Conclusion

- Governments worldwide have committed to more than \$70 billion in public funding, according to the Hydrogen Council, to develop a hydrogen economy.
- With its abundant and cheap solar energy, India has the upper hand to tap into these investments and lead global efforts in transitioning to green hydrogen.

Flora & Fauna

1) Reintroduced Gharials thriving in Beas Reserve

About Gharials

- Gharials (*Gavialis gangeticus*), sometimes called gavials, are a type of Asian crocodilian distinguished by their long, thin snouts. It is one of the most endangered **freshwater crocodile species**.
- Gharials exhibit **sexual dimorphism** — or differences in characteristics between males and females of the same species — in both size and appearance which are absent in other crocodile species.
- Adult males develop a **bulbous growth** at the tip of their snout, called a "**ghara**" after the Indian pot it resembles. The ghara has several functions. It partially covers the crocodile's nostrils and acts as a vocal resonator, creating a loud, buzzing sound when the gharial vocalizes. It is also a visual signal for females, helping males attract a mate.
- Like tigers are the topmost predators in a forest, **gharials are the topmost predators in a river** as they balance the riverine food chain.



Threats

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

- Gharial populations have declined as much as 98 percent since the 1940s due to human activities like **hunting for traditional medicine and dam-making**.

Distribution

- Historically, gharials were found in the river system of India, Pakistan, Bangladesh and southern part of Bhutan and Nepal.
- Today, their major population occurs in **three tributaries of the Ganga River**: the Chambal and the Girwa Rivers in **India** and the **Rapti-Narayani River in Nepal**. The **Gharial reserves** of India are located in three States – Uttar Pradesh, Madhya Pradesh and Rajasthan.

What's the news?

- Joint field surveys conducted by **Department of Forests and Wildlife Preservation of Punjab and WWF- India** indicate the successful reintroduction of gharials in the Beas Conservation Reserve.
- Currently, dispersal of gharials is widespread in the Beas Conservation Reserve and around 40-50% of the released gharials have adapted to the Reserve.

News in detail

- The **gharial reintroduction in the Beas Conservation Reserve** is an ambitious programme of the **Punjab government**.
- The reptiles were commonly sighted in the Beas River till the 1960s but later became **extinct**.
- In the first phase of the reintroduction project, 47 gharials were released in 2017-2018 in the river in Amritsar and Tarn Taran districts. Later, 23 gharials were released in February 2021 on an island near Seelampur and Tahlil Forest in district Hoshiarpur and another set of 24 gharials was

released near the Kulla Fatta forests in the reserve in Hoshiarpur district.

- As habitat is conducive for egg-laying and hatching, **regular patrolling and monitoring** of the reserve by forming a gharial task force, rapid rescue unit and anti-poaching group is being undertaken.
- The monitoring teams have also been **raising awareness** of the farmers

and riparian communities working in the close vicinity of the Beas River.

- Experts point out that **change in the hydrology due to construction of dams and barrages**, significantly reduced water flow, rapid land-use change of floodplains and **rampant overfishing** led slowly into the extinction of the gharial from the Beas.

Agriculture

1) Zero Budget Natural Farming

About ZBNF

- In the recent past, there has been a global demand to shift to sustainable farming systems, such as Zero Budget Natural Farming (ZBNF).
- ZBNF is a method of **chemical-free agriculture drawing from traditional Indian practices**.
- It was originally promoted by **Maharashtrian agriculturist** and Padma Shri recipient **Subhash Palekar**, who developed it in the mid-1990s as an alternative to the Green Revolution's methods driven by chemical fertilizers and pesticides and intensive irrigation.
- Without the need to spend money on these inputs or take loans to buy them, the cost of production could be reduced and **farming made into a "zero budget" exercise**, breaking the debt cycle for many small farmers.
- ZBNF is also **against vermicomposting**, which is the mainstay of typical organic farming.

Jeevamrutha

- Instead of commercially produced chemical inputs, the ZBNF promotes the application of jeevamrutha, a **mixture of fresh desi cow dung and aged desi cow urine, jaggery, pulse flour, water and soil** on farmland.
- This is a fermented microbial culture that **adds nutrients to the soil**, and acts as a **catalytic agent** to promote the activity of microorganisms and earthworms in the soil.

Other techniques in ZBNF

- The ZBNF method also promotes **soil aeration, minimal watering, intercropping, bunds and topsoil mulching** and **discourages**

intensive irrigation and deep ploughing.

Advantages of ZBNF

- **Input costs are near zero** as no fertilizers and pesticides are used.
- ZBNF farms were able to **withstand drought and flooding**.
- The planting of multiple crops and border crops on the same field provide **varied income and nutrient sources**.
- There is reduced usage of water and electricity, improved health of farmers, flourishing of local ecosystems and biodiversity and no toxic chemical residues in the environment.
- The inputs help **manage soil nutrition, fertility, pests and seeds**.
- The technology requires **less tilling** and completely rejects the use of inorganic fertilisers, pesticides and herbicides.

Why does it matter?

- According to **National Statistical Organisation data**, almost 70% of agricultural households spend more than they earn and more than half of all farmers are in debt. In States such as Andhra Pradesh and Telangana, levels of indebtedness are around 90%, where each household bears an average debt of ₹1 lakh.
- In order to achieve the Central government's promise to **double farmers income by 2022**, one aspect being considered is natural farming methods such as the ZBNF which **reduce farmers' dependence on loans to purchase inputs they cannot afford**. Meanwhile, **inter-cropping allows for increased returns**.

Is it effective?

- A limited 2017 study in Andhra Pradesh claimed a **sharp decline in input costs and improvement in yields**. However, reports also suggest that **many farmers have reverted to conventional farming after seeing their ZBNF returns drop after a few years**, in turn raising doubts about the method's efficacy in increasing farmers' incomes.
- ZBNF critics, including some experts within the central policy and planning think tank NITI Aayog, note that **India needed the Green Revolution in order to become self-sufficient and ensure food security**.
- They warn against a wholesale move away from that model without sufficient proof that

yields will not be affected. Sikkim, which has seen some decline in yields following a conversion to organic farming, is used as a cautionary tale regarding the pitfalls of abandoning chemical fertilizers.

Why in News?

- Zero budget natural farming is back on top of the Government's agricultural agenda, with Prime Minister Narendra Modi recently calling for the method to become a mass movement.
- The Centre has sanctioned support for converting four lakh additional hectares of crop land in eight States to using ZBNF techniques this year. This is meant to provide a showcase for their benefits.

Economy

1) Electoral bonds

What are Electoral Bonds?

- An electoral bond is designed to be an **interest-free bearer instrument** like a **Promissory Note** — in effect, it will be similar to a bank note that is payable to the bearer on demand.
- It can be purchased by any **citizen of India or a body incorporated in India**. A person being an individual can buy Electoral Bonds, either singly or jointly with other individuals.
- The electoral bonds were announced in the **2017 Union Budget**.
- The bonds will be issued in multiples of ₹1,000, ₹10,000, ₹1 lakh, ₹10 lakh and ₹1 crore and will be available at specified branches of **State Bank of India**. SBI is the only authorised bank to issue such bonds.
- They can be bought by the donor with a **KYC-compliant account**.

Features

- The bonds will be available for purchase for a period of 10 days each in the beginning of every quarter, i.e. in January, April, July and October as specified by the Central Government.
- The donor will remain **anonymous**. The electoral bonds will **not bear the name of the donor**. The intention is to ensure that all the donations made to a party will be accounted for in the balance sheets **without exposing the donor details to the public**.
- Political parties are allotted a verified account by the Election Commission and all the electoral bond transactions are done through this account only.

- Only political parties registered under **Section 29A of the Representation of the Peoples Act, 1951** and have **secured no less than one per cent votes** in the last General Election to the House of the People or the Legislative Assembly of the State, are eligible to receive electoral bonds.
- A donor will get **tax deduction** and the recipient, or the political party, will get **tax exemption**, provided returns are filed by the political party.
- The information furnished by the buyer shall be treated confidential by the authorised bank and shall not be disclosed to any authority for any purposes, except when demanded **by a competent court or upon registration of a criminal case by any law enforcement agency**.

Criticisms

- The key critique is that, for something meant to bring transparency to the system, electoral bonds actually make political funding **more opaque – but only for the public**. Companies don't have to say who they are donating money to and parties don't need to say from whom they're getting the cash.
- Experts have said this undercuts the freedom of political information, which is an integral element of **Article 19(1)(a)** of the Constitution (the free expression clause).
- Prior to 2017, **Companies Act, 2013**, stipulated that a company can donate **only up to 7.5% of its average profit of the last three years**. Now, through the electoral bonds, there is **no limit** to the

amount companies can donate, and the requirement for such firms to **have existed for the last three years on a profit-making basis** has also been deleted.

- The implication is that even **loss-making companies or shell companies** can be used to purchase electoral bonds.
- In 2016 and 2017, **amendments were made to the Foreign Contribution (Regulation) Act (FCRA), 2010**, with retrospective effect. Thus, **enabling the Indian subsidiaries of foreign companies to make donations to political parties** through electoral bonds.
- This allows **anonymous financing by foreign entities** opening Indian elections to the influence of foreign interests.
- The **Reserve Bank of India (RBI) and the Election Commission** had both said the sale of electoral bonds had become an avenue for shell corporations and entities to park illicit money and even proceeds of bribes with political parties.
- The Election Commission of India criticised electoral bonds saying it would **wreck transparency** in political funding and allow for **unchecked foreign funding** of Indian political parties.
- However, the government defended the scheme, saying it allowed anonymity to political donors to protect them from "political victimisation".

Why in News?

- The government has approved the issuance of the 19th tranche of electoral bonds, which will be open for sale from January 1 to 10.

2) India registers highest-ever annual FDI inflow

What's in the news?

- The Ministry of Commerce and Industry announced that **India has registered the highest ever annual Foreign Direct Investment (FDI) inflow of 81.97 billion dollar in 2020-21**.
- FDI inflows in the last seven financial years is over 440 billion dollars, which is nearly 58 percent of the total FDI inflow in the last 21 financial years.
- Top five countries from where FDI Equity Inflows were received during 2014 to 2021 are **Singapore, Mauritius, USA, Netherlands and Japan**.
- **Computer Software and Hardware sector** attracted the largest share of FDI inflows, followed by **Service, Trading and Telecommunications**.

3) Payments banks

About Payments banks

- Payments banks are the **new age banks with limited facilities**. These banks mostly operate through the small vendors and shopkeepers. It exists in between the mobile wallet and regular banks.
- Payments banks are permitted to set up their own outlets such as branches, Automated Teller Machines (ATMs), Business Correspondents (BCs), etc. to undertake **only certain restricted activities** permitted to banks under the Banking Regulation Act, 1949.
- A payments bank provides following services to its customers:
 - Accept demand deposits (restricted upto **Rs.2 lakhs**)
 - Remittance services
 - Mobile payments
 - Fund transfers
 - Debit card and associated services (**Payments banks**,

however, cannot issue credit cards)

- Net Banking services
- Sell third-party financial products like insurance and mutual funds.
- However, payments banks cannot undertake the following activities:
 - They **cannot undertake lending activities**
 - They **cannot set up subsidiaries to undertake non-banking financial services activities**
 - They are **not eligible to accept NRI deposits**.

Objectives

- The main objective of payments banks is to **widen the spread of payment and financial services** to small business, low-income households, and the migrant labour workforce in a secured technology-driven environment.
- With payments banks, RBI seeks to **increase the penetration level of financial services to the remote areas of the country**.
- The Reserve Bank expects payments banks to **target India's migrant labourers, low-income households and small businesses**, offering savings accounts and remittance services with a low transaction cost.

Eligible promoters

- Existing non-bank Pre-paid Payment Instrument (PPI) issuers authorised under the Payment and Settlement Systems Act, 2007
- Other entities such as individuals / professionals; Non-Banking Finance Companies (NBFCs), corporate Business Correspondents (BCs), mobile telephone companies, supermarket chains, companies, real sector cooperatives; that are owned and controlled by residents;

and public sector entities may apply to set up payments banks.

Regulations

- Payments banks are registered as a **public limited company** under the **Companies Act, 2013**, and licensed under Section 22 of the **Banking Regulation Act, 1949**.
- Deposits mobilised by the payments bank are covered under the **deposit insurance scheme of the Deposit Insurance and Credit Guarantee Corporation of India (DICGC)**.
- Apart from amounts maintained as **Cash Reserve Ratio (CRR)** with RBI on its outside demand and time liabilities, Payments banks are required to invest **minimum 75 per cent of its "demand deposit balances"** in Government securities/Treasury Bills with maturity up to one year that are recognized by RBI as eligible securities for maintenance of Statutory Liquidity Ratio (SLR) and hold **maximum 25 per cent in current and time / fixed deposits** with other scheduled commercial banks for operational purposes and liquidity management.
- The **minimum paid-up equity capital for payments banks shall be Rs. 100 crore**, of which the promoter's contribution would be minimum 40 percent of paid-up equity capital for the first 5 years of commencement of the business.
- The foreign shareholding in the payments bank would be **as per the Foreign Direct Investment (FDI) policy for private sector banks** as amended from time to time. As per the current FDI policy, the aggregate foreign investment in a private sector bank from all sources will be allowed upto a maximum of 74 per cent of the paid-up capital of the bank.

Why in News?

- Paytm Payments Bank has received **Scheduled Bank status** from the RBI and has been included in the Second Schedule to the Reserve Bank of India Act, 1934.
- Being a Scheduled Payments Bank, Paytm Payments Bank can now explore new business opportunities. It now becomes eligible for refinancing facility from the RBI at the bank rate and gets access to currency storage facility.
- Paytm Payments Bank would now also be eligible to partner in government-run financial inclusion schemes.
- Even with a status upgrade, being a payments bank, it still **cannot lend or issue credit cards** on its own. According to RBI guidelines, the maximum balance an individual payments bank customer can hold is **Rs 2 lakh**. Therefore, a scheduled bank status will not fundamentally alter the way in which Paytm Payments Bank is conducting its business.

Organisations

1) Organisation of Islamic Cooperation

About OIC

- The Organisation of Islamic Cooperation (OIC) is the **second largest inter-governmental organization** after the United Nations with a membership of **57 states**.
- The majority of its member states are Muslim-majority countries, while others have significant Muslim populations, including several African and South American countries.
- **India is neither a member nor an observer of the OIC.**
- Under its charter, the OIC aims at promoting **Islamic solidarity and co-operation** among its Member and Observer States in the political,

economic, social, cultural, humanitarian, scientific and related spheres.

- The OIC has **observer status at the United Nations**, on a reciprocal basis, and it co-operates with the United Nations in all areas of concern, including support to the Governments of Member States in their efforts to promote the economic and social development of their countries and peoples.
- Its Headquarters is in **Jeddah, Kingdom of Saudi Arabia**.

Why in News?

- The Organisation of Islamic Cooperation held a meeting recently in Islamabad.

Science and Technology

1) Quantum Computing

About

- Quantum computing harnesses the **phenomena of quantum mechanics** to deliver a huge leap forward in computation to solve certain problems.
- One of the basic elements that make up this quantum computer is that where the classical one uses bits to compute this one uses "**qubits**".
- Classical bits can take the value 0 or 1, allowing for a binary system to be set up and the lowest level of computer language is done manipulating these bits. A qubit on the other hand can exist as a **superposition of two states 0 and 1** (a state known as **quantum superposition**). So if one has an n-qubit number, it can exist as a superposition of 2^n states. This also allows for an **immense amount of parallel processing**.

Uses of Quantum Computing

- **Artificial Intelligence & Machine Learning:** As the number of applications increases, it becomes a challenging task for traditional computers, to match up the accuracy and speed. And, that's where quantum computing can help in processing through complex problems in very less time.
- **Computational Chemistry:** The ability for quantum computers to focus on the existence of both 1 and 0 simultaneously could provide immense power to the machine to successfully map the molecules which, in turn, potentially opens opportunities for pharmaceutical research.
- **Cybersecurity & Cryptography:** Quantum computing with the help of machine learning can help in

developing various techniques to combat these cybersecurity threats. Additionally, quantum computing can help in creating encryption methods, also known as quantum cryptography.

- **Financial Modelling:** By applying quantum technology to perform these massive and complex calculations, companies can not only improve the quality of the solutions but also reduce the time to develop them.
- **Weather Forecasting:** Application of quantum machine learning can help in improving pattern recognition, which, in turn, will make it easier for scientists to predict extreme weather events and potentially save thousands of lives a year. With quantum computers, meteorologists will also be able to generate and analyse more detailed climate models, which will provide greater insight into climate change and ways to mitigate it.

Why in News?

- According to research firm IDC, spending on quantum computing is expected to grow to \$8.6 billion in 2027, from \$412 million in 2020, growing at an annual growth rate of 50.9% over the period.

Related Technical Terms

- **Quantum Entanglement:** The existence of two members of a pair (Qubits) in a single quantum state is referred to as entanglement. Changing the state of one of the qubits will instantly and predictably impact the state of the other. This occurs even when they are separated by great distances.
- **Quantum Superposition:** It refers to a quantum system's ability to be in several states at the same time.

- **Quantum Interference:** Quantum interference asserts that elementary particles can not only be in more than one place at the same time (by superposition), but that an individual particle, such as a photon (light particle), can cross its

own trajectory and interfere with its own path's direction.

Government Efforts

National Mission on Quantum Technologies & Applications (NM-QTA)

**केन्द्रीय बजट
UNION BUDGET 2020**

Budget 2020 announced Rs 8,000 crore over the next 5-yrs in the National Mission on Quantum technology and its applications

- The areas of focus for the NM-QTA Mission will be in fundamental science, translation, technology development and towards addressing issues concerning national priorities
- The mission can help prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.
- Quantum principles will be used for engineering solutions to extremely complex problems in computing, communications, sensing, chemistry, cryptography, imaging and mechanics

Their applications which will be boosted include those in aero-space engineering, numerical weather predictions, simulations, securing the communications & financial transactions, cyber security, advanced manufacturing, health, agriculture, education

It can bring India in the list of few countries with an edge in this emerging field will have a greater advantage in garnering multifold economic growth and dominant leadership role

IndiaDST | www.dst.gov.in | @IndiaDST

- The Union Budget 2020-21 announced the **National Mission on Quantum Technologies & Applications (NM-QTA)** which will be able address the ever increasing technological requirements of the society, and take into account the international technology trends and road maps of leading countries for development of next generation technologies.
- Implementation of the mission would help **develop and bring quantum computers, secured communications through fibre and free space, quantum encryption and crypt-analysis**

and associated technologies within reach in the country and help address India specific national and regional issues.

- The mission will help **prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.** By promoting advanced research in quantum science and technology, technology development and higher education in science, technology and engineering disciplines India can be brought at par with other advanced countries

and can derive several direct and indirect benefits.

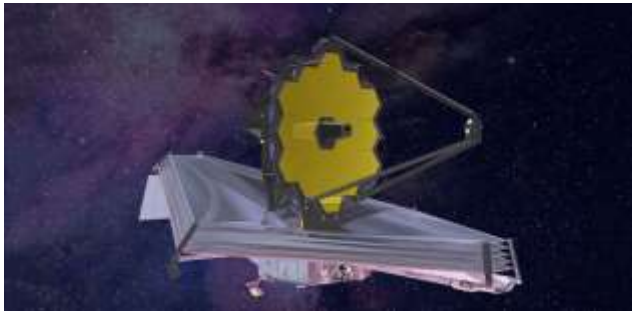
2) James Webb Space Telescope

What's in the news?

- **NASA** has recently launched its James Webb Space Telescope (JWST), opening a new era of astronomy.
- The telescope is an **international collaboration led by NASA in partnership with the European and Canadian space agencies**.
- Webb, the world's premier space science observatory, will **succeed the Hubble Space Telescope**, NASA's flagship telescope that has been in service for more than three decades now.

Mission's Objective

- JWST's primary aim is to **shed light on our cosmic origins**: it will observe the Universe's first galaxies, reveal the birth of stars and planets, and look for exoplanets with the potential for life.

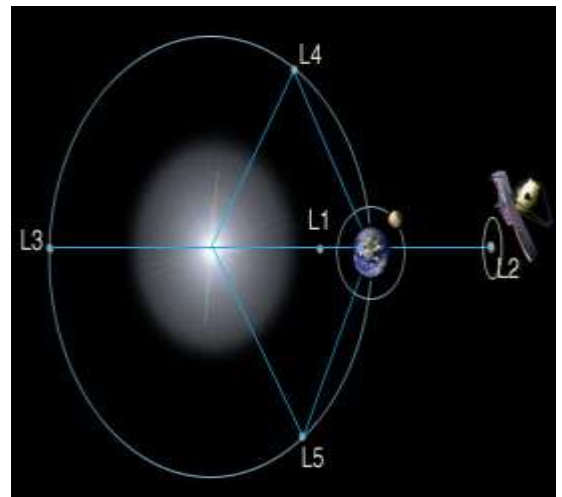


Orbit

- Hubble orbits the Earth at an altitude of ~570 km. **Webb will not orbit the Earth, instead it will sit at the Earth-Sun L2 Lagrange point**, 1.5 million km away.
- This means that **Webb will orbit the Sun along with the Earth**, but will **stay fixed at the same spot** in relation to the Earth and the Sun.
 - *Lagrange points are positions in space where objects sent there tend to stay put. At Lagrange points,*

*the gravitational pull of two large masses precisely equals the centripetal force required for a small object to move with them. These points in space can be used by spacecraft to reduce fuel consumption needed to remain in position. There are **five such points** in the Sun-Earth system and they are denoted as **L1, L2, L3, L4 and L5**.*

- *Objects placed at these positions are relatively stable and require minimal external energy to keep themselves there. **L2** is a position directly behind Earth in the line joining the Sun and the Earth.*



- At the L2 point, Webb's solar shield will block the light from the Sun, Earth, and Moon, which will help it stay cool — important for an **infrared telescope**.

Significance

- NASA says Webb is **not Hubble's replacement** — rather, its **successor** whose science goals were motivated by the results from Hubble.
- Powerful space telescopes, like JWST or the Hubble Telescope, are often called **time-machines** because of their ability to view very

faraway objects. The light coming from those objects, stars or galaxies, which is captured by these telescopes, began its journey millions of years earlier.

- Essentially, what these telescopes see are images of these stars or galaxies as they were millions of years ago. The more distant the planet or star, the farther back in time are the telescopes able to see.
- Webb is about **100 times more sensitive than Hubble** and is expected to transform scientists' understanding of the universe and our place in it.
- JWST is **much more powerful** and has the **ability to look in the infrared spectrum**, which will allow it to peer through much deeper into the universe, and see through obstructions such as gas clouds.
- As **electromagnetic waves** travel for long distances, they lose energy, resulting in an increase in their wavelength. An ultraviolet wave, for example, can slowly move into the visible light spectrum and the infrared spectrum, and further weaken to microwaves or radio waves, as it loses energy.
- **Hubble** was designed to look mainly into the **ultraviolet and visible regions** of the electromagnetic spectrum. **JWST** is primarily an **infrared telescope**, allowing it to gaze through clouds of gas and dust where stars are being born, the first of its kind.
- **Webb's mirror is much larger than Hubble's**; it can, therefore, **look farther back into time** than Hubble. Webb's primary mirror is approximately **6.5 metres in diameter** compared to Hubble's mirror has a diameter of 2.4 metres, which means Webb's

collecting area is around 6.25 times that of Hubble's.

3) Laser Communications Relay Demonstration

What's in the news?

- Recently, **NASA** launched its new Laser Communications Relay Demonstration (LCRD) — the agency's first-ever laser communications system from Cape Canaveral Space Force Station in Florida, USA.
- The LCRD will help the agency **test optical communication in space**.
- Currently, most NASA spacecraft use **radio frequency communications** to send data. Optical communications will help **increase the bandwidth 10 to 100 times more than radio frequency systems**.
- LCRD will demonstrate all of the advantages of using laser systems and allow us to learn how to use them best operationally.
- With this capability further proven, we can start to implement laser communications on more missions, making it a standardized way to send and receive data.
- LCRD has **two optical terminals** – one to receive data from a user spacecraft, and the other to transmit data to ground stations.
- The modems will translate the digital data into laser signals. This will then be transmitted via **encoded beams of light**. These capabilities make LCRD **NASA's first two-way, end-to-end optical relay**.

Laser vs Radio

- Laser communications and radio waves use **different wavelengths of light**. Laser uses **infrared light** and has a **shorter wavelength than radio waves**.

- It would take roughly nine weeks to transmit a completed map of Mars back to Earth with current radio frequency systems. With lasers, we can **accelerate** that to about nine days.
- Using infrared lasers, LCRD will send data to Earth at **1.2 gigabits-per-second (Gbps)**. At this speed, it will take less than a minute to download a movie.

Other advantages

- Optical communications systems are **smaller in size, weight, and require less power** compared with radio instruments.
- A smaller size means more room for science instruments. Less weight means a less expensive launch. Less power means less drain on the spacecraft's batteries.
- With optical communications supplementing radio, missions will have unparalleled communications capabilities.

Reports and Indices

1) NFHS-5

About NFHS

- The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India.
- The Ministry of Health and Family Welfare designated the **International Institute for Population Sciences (IIPS)** as the nodal agency, responsible for providing coordination and technical guidance for the NFHS.
- Four rounds of NFHS (1992–93, 1998–99, 2005–06 and 2015–16) have been successfully completed in India.
- Every NFHS has **two specific goals to fulfill**. These goals are:
 - To **provide essential data** needed by the Ministry of Health and Family Welfare and other agencies for informed decision making and policy and programme intervention purposes.
 - To provide **insight regarding important emerging health and family welfare issues**.
- Only the decadal census is considered the official marker of population trends in India and has a wider surveillance programme. The NFHS surveys are smaller but are conducted at the district level and are a **pointer to the future**.

Why in News?

- The Union Ministry of Health and Family Welfare has released the findings of NFHS-5 for 14 states and Union territories, pertaining to surveys held in 2019–21. These states include key ones such as Uttar Pradesh, Punjab, Odisha, Madhya Pradesh and Rajasthan.

- The data for 22 states had already been released last year. The new findings complete the all-India picture on issues such as population, health, and nutrition.

About NFHS-5

- The findings of NFHS-5 from 22 States & UTs covered in Phase-I were released in December, 2020 and the remaining comprising Arunachal Pradesh, Chandigarh, Chhattisgarh, Haryana, Jharkhand, Madhya Pradesh, NCT of Delhi, Odisha, Puducherry, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and Uttarakhand were made public recently.
- The NFHS-5 survey work has been conducted in around 6.1 lakh sample households from 707 districts of the country; covering 7,24,115 women and 1,01,839 men to provide disaggregated estimates up to district level.
- NFHS-5 includes some **new focal areas**, such as death registration, pre-school education, expanded domains of child immunisation, components of micro-nutrients to children, menstrual hygiene, frequency of alcohol and tobacco use, additional components of non-communicable diseases (NCDs), expanded age ranges for measuring hypertension and diabetes among all aged 15 years and above, which will give requisite input for strengthening existing programmes and evolving new strategies for policy intervention.

Highlights of the Survey

Growth under check

- India has officially hit a **total fertility rate (TFR) of 2.0** that indicates a decrease from the 2.2 in the NFHS-4. According to the United Nations Population Division,

a TFR of about 2.1 children per woman is called **replacement-level fertility**. If replacement level fertility is sustained over a sufficiently long period, each generation will exactly replace itself.

- *TFR indicates the average number of children expected to be born per woman during her entire span of reproductive period.*
- The **urban-rural gap has also narrowed**. The TFR was **1.6 for urban areas and 2.1 for rural areas** in the latest survey. Just five states had a TFR exceeding the replacement level: Bihar (3.0), Meghalaya (2.9), Uttar Pradesh (2.4), Jharkhand (2.3) and Manipur (2.2).
- Experts say that this is a significant feat for the country's family-planning programme, which does not include coercive policies. These findings bust the population-explosion myth and show that India must steer away from coercive measures of population control.
- **Reasons for decline in fertility:**
 - **Increase in adoption of modern family planning methods.** 62% of current users have received information about the side-effects of contraceptives which is a crucial indicator of the improved quality of family planning services.
 - **Significant improvements in female literacy:** With **41% women having received 10 or more years of schooling** (compared to 36% in 2015-16), fertility decline has taken place alongside notable improvements in access to

quality education, especially girls' education.

Use of Contraceptives

- An overall survey of the major differences between the NFHS-5 and NFHS-4 suggests that the **use of contraceptives** has improved from 53.5% to **66.7%** in the latest NFHS-5 and **institutional births** increased from 78.9% to **88.6%**.
- While there is an increase in the use of modern contraceptive methods, an increase in female sterilisation coupled with continued stagnation in male sterilisation uptake shows that the **onus of family planning still lies with women**.
- The **proportion of children (12-23 months) who were fully vaccinated improved** from 62% to **76%** and **children under 6 months who were exclusively breastfed** also showed a sharp improvement from 54.9 to **63.7%**.

Child marriage

- Child marriage is a key determinant of high fertility, poor maternal and child health, and lower social status of women. The **share of women aged 20-24 who married before turning 18 has declined from 27% to 23%** in the last five years.
- Although the reduction was spread across rural and urban areas, **wide disparities persist**. While 15% of women aged 20-24 got married before turning 18 in urban areas, the share was 27% in rural areas.
- **West Bengal and Bihar**, with around 41% such women each, had the highest prevalence of girl child marriage, and this has remained unchanged since the last survey held in 2015-16.

Improving amenities

- **Access to household amenities has improved.** All states, except Manipur, Meghalaya, Assam and

Jharkhand, had over **90% population with access to improved drinking water sources.**

- Only Uttar Pradesh, Meghalaya, Assam, Jharkhand and Arunachal Pradesh had less than 95% population living in households with **access to electricity.**
- Despite remarkable growth, **only 70% of the population had access to improved sanitation facilities.** Bihar, Jharkhand, Odisha, Madhya Pradesh, Uttar Pradesh and Chhattisgarh almost doubled the access since 2015-16, but most fell below the 75% mark.
- **Access to clean cooking fuel** has improved from 45% to **60%.**
- The proportion of women (aged 15-24 years) who use **menstrual hygiene products has increased** by almost 20% points between 2015-16 and 2019-21 and currently stands at **77.3%.**
- The proportion of **women who have their own bank accounts** has gone up by 25.6% points over the same time period to reach **78.6%.**
- Around **54% of women have their own mobile phones** and about **one in three women have used the Internet.**

Demographic shift

- The fifth edition of NFHS confirmed **signs of a demographic shift in India.** For the first time since the NFHS began in 1992, the **proportion of women exceeded men:** there were **1,020 women for 1,000 men.** In the last edition of the survey in 2015-16, there were 991 women for every 1,000 men.
- However, **sex ratio at birth for children** born in the last five years only improved from 919 per 1,000 males in 2015-16 to **929 per 1,000,** underscoring that boys, on

average, continued to have better odds of survival than girls.

Areas to focus on

Rampant anaemia

- The **prevalence of anaemia has risen across age groups.** As many as **57% women aged 15-49** were anaemic in 2019-21, compared to 53% in 2015-16, while the same for **men** rose from 22.7% to **25%.** The most formidable increase—8.5 percentage points—was observed for **children aged 6-59 months (67.1%).**
- Those **overweight** (or had a higher body mass index (BMI) than ideal) **increased by around 4 percentage points.** Abnormal BMIs are linked to an increase in obesity and other non-communicable diseases (NCD).
- An expert said that a **nutritionally deficient diet** likely explained the rise in obesity.

High malnutrition

- The **share of under-five children who were stunted (too short for age), wasted (low weight for height), or underweight has declined.** However, **every third child still suffers from chronic undernourishment, and every fifth child is acutely malnourished.**
- Meghalaya (46%) had the highest stunting prevalence, followed by Bihar, Uttar Pradesh and Jharkhand, all over 39%.
- The NFHS findings are a reminder of the urgent need to address the pathetic nutritional status of women and children.

Maternal Health

- The survey indicates a worrisome figure of **11% of pregnant women who were still either unreached by a skilled birth attendant or not accessing institutional facilities.**

- **Teenage pregnancy** has declined marginally by 1% point, and **7.9%** of women in the age group of 15-19 years who were already mothers or pregnant at the time of the survey.

Domestic violence and gender discrimination

- **One in three women continue to face violence from their spouse.**
- **Women's participation in the economy continues to remain low (only 25.6% women engaged in paid work,** a meagre increase of 0.8% point).
- **Women still bear a disproportionate burden of unpaid domestic and care work,** hindering their ability to access gainful employment.

Way Forward

Region specific approach

- There is the need for an area-specific approach to improving maternal health services.

Provide Comprehensive sexuality education

- There is a need to invest in comprehensive sexuality education as a key component of life-skills education for both in school and out-of-school adolescents, and ensuring access to quality sexual and reproductive health services for them.

Expand the basket of reproductive health services

- A very small segment of the population is currently accessing the full range of sexual and reproductive health services such as screening tests for cervical cancer (1.9%) and breast examinations (0.9%). These services should be included while expanding the basket of reproductive health services.

Ensure gender equality

- To empower women and ensure gender justice, it is imperative to

address harmful practices, such as child marriage and gender-biased sex selection.

- There is a need to enhance the value of women and girls by working on transforming unequal power relations, structural inequalities and discriminatory norms, attitudes and behaviours.

Promote gender-equal values

- There is a need for engaging with men and boys, particularly in their formative years, to promote positive masculinities and gender-equal values.

Conclusion

- The overall evidence from the NFHS-5 is compelling and clear that health ought to be a matter of concern for all political parties and all governments, both at national and State level.
- Hence, an action plan to improve India's health needs to be inclusive, firm in its commitment, and backed by solid resources.
- Besides, challenging discriminatory social norms that drive gender-based violence and harmful practices, and empowering women to exercise agency and autonomy in all spheres of life is need of the hour.

2) Financial Stability Report

About FSR

- The Financial Stability Report (FSR) is **published twice each year** by the **Reserve Bank of India (RBI)**.
- It presents an assessment of the health of the financial system.

Why in News?

- RBI has released its Financial Stability Report of December 2021.

Highlights of the Report

- The **gross non-performing asset (GNPA)** of scheduled commercial banks (SCBs) may increase to **9.5%** by September 2022. This compares

with 6.9% seen in September this year.

- *Gross NPA is the total value of non-performing assets of the bank.*
- The report noted that SCBs would, however, have sufficient capital even under stress conditions.
- It said the **capital to risk-weighted assets ratio (CRAR)** of SCBs rose to a new peak of 16.6% and their **provisioning coverage ratio** stood at 68.1% in September 2021.
- In the report, the RBI said global economic recovery had lost momentum in the second half of 2021 with resurfacing COVID-19 infections, the Omicron variant, supply disruptions, elevated inflationary levels and shifts in monetary policy stances and actions across economies.

Related Terms

What is NPA?

- A non-performing asset (NPA) is a loan or advance for which the principal or interest payment remains overdue for a period of **more than 90 days**.
- Banks classify NPAs further into Substandard, Doubtful and Loss assets.
 - **Substandard assets:** Assets which have remained NPA for a period less than or equal to 12 months.
 - **Doubtful assets:** An asset would be classified as doubtful if it has remained in the substandard category for a period of 12 months.
 - **Loss assets:** Loss asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted, although there may be some salvage or recovery value.

- With respect to agriculture, a loan granted for short duration crops will be treated as NPA, if the instalment of principal or interest thereon remains overdue for **two crop seasons**.
- A loan granted for long duration crops will be treated as NPA, if the instalment of principal or interest thereon remains overdue for **one crop season**.

Capital to Risk-weighted Assets Ratio (CRAR)

- CRAR, also known as **Capital Adequacy Ratio (CAR)**, is the capital needed for a bank measured in terms of the assets or loans disbursed by the banks. It measures capital adequacy in terms of riskiness of the assets or loans given.
- According to the RBI's capital adequacy norms, banks are required to maintain a **minimum CRAR of 9 per cent** on an ongoing basis.

Provisioning Coverage Ratio

- A Provisioning Coverage Ratio or PCR is the **percentage of funds that a bank sets aside for losses due to bad debts**.
- A high PCR can be beneficial to banks to buffer themselves against losses if the NPAs start increasing faster.

3) Atal Ranking of Institutions on Innovation Achievements

What's in the news?

- The **Ministry of Education** has released the Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2021.

About ARIIA

- ARIIA is an initiative of the **Ministry of Education** to systematically rank all major higher educational institutions in India on **indicators related to**

innovation, start-up and entrepreneurship development among students and faculties.

- ARIIA evaluates institutions on parameters such as patent filing and granted, number of registered students and faculty start-ups, fund generation by incubated start-ups, specialised infrastructure created by institutions to promote innovation and entrepreneurship, etc.
- ARIIA-2021 ranking has been announced in various categories which include Centrally funded technical institutions (eg. IITs, NITs, etc), State universities, State stand-alone technical colleges, private universities, private stand-alone technical colleges, non-technical government and private universities and institutions.

Highlights of ARIIA 2021

- Seven Indian Institutes of Technology and Indian Institute of Science, Bengaluru, are among the top 10 central institutions in promotion and support of innovation and entrepreneurship development.
- The top rank has been bagged by **IIT Madras** followed by IIT Bombay, IIT Delhi, IIT Kanpur and IIT Roorkee. This is the third time that IIT Madras has secured the first rank.
- Among the government and government aided institutions, the top rank has been bagged by **Panjab University**.
- The ranking is aimed at inspiring Indian institutions to reorient their mind-set and build ecosystems to encourage high quality research, innovation and entrepreneurship in their campuses.

4) Healthy States Progressive India Report

What's in the news?

- NITI Aayog has released the fourth edition of "The Healthy States, Progressive India" for 2019-20.
- The report has been prepared in collaboration with the **Ministry of Health and Family Welfare** with technical assistance from the **World Bank**.

About the Index

- The Health Index score is prepared based on States' performance across a large set of indicators that are divided into **three broad domains — health outcomes, governance and information, and key inputs and processes**.
- **Health outcomes**, for instance, includes parameters such as neonatal mortality rate, under-5 mortality rate, sex ratio at birth. **Governance** includes parameters such as institutional deliveries, average occupancy of senior officers in key posts earmarked for health. And the **Key inputs** domain consists of proportion of shortfall in health care providers to what is recommended, functional medical facilities, birth and death registration and tuberculosis treatment success rate.
- The index's objective is not just to look at states' historical performance but also assess their incremental performance, and it encourages healthy competition and cross-learning among states and Union territories.
- The report, however, does not incorporate the impact of Covid-19 on health outcomes or any of the other indicators as the index performance relates to **base year (2018-19)** and **reference year (2019-20)**, largely the pre-Covid period.
- For the fourth edition of the health index report, all states and UTs

participated except West Bengal. Ladakh was not included due to non-availability of data.

Highlights of the Index

Overall Performance

Incremental Performance	Overall Performance		
	Aspirants	Achievers	Front-runners
Not Improved (0 or less)	Rajasthan Arunachal Pradesh Manipur	Chhattisgarh Haryana Himachal Pradesh Karnataka Goa Sikkim	Chandigarh DH & DD
Least Improved (0.01 – 2.0)	Bihar Odisha Uttarakhand Andaman & Nicobar Puducherry	Gujarat Punjab	Andhra Pradesh Kerala Tamil Nadu Tripura
Moderately Improved (2.01 – 4.0)	Jharkhand Madhya Pradesh Nagaland	–	Maharashtra
Most Improved (more than 4.0)	Assam Uttar Pradesh Meghalaya Delhi Jammu & Kashmir Lakshadweep	–	Telangana Mizoram

Note: Overall Performance: The states/UTs are categorised on the basis of Reference Year (2019-20) Index Score range: Front-runners: top one-third; Achievers: middle one-third, Aspirants: lowest one-third.

- **Kerala** has emerged as the state with the best overall health performance for the fourth consecutive year, while India's most populous state **Uttar Pradesh** is at the bottom of the list.
- Uttar Pradesh improved its overall score, topping in 'incremental improvement' in health outcomes such as maternal, neonatal and child mortality rate, immunization coverage, the sex ratio at birth and tuberculosis treatment success rate.
- Among the larger states, **Kerala and Tamil Nadu** ranked first and second in terms of overall performance with index scores of 82.20 and 72.42 respectively.
- Among smaller states, **Mizoram** emerged as the best in overall as well as incremental performance.

- Based on the Composite Index Score, the states were classified in **three categories: Aspirants, Achievers and Front-runners.**

Among Union territories, **Dadra and Nagar Haveli** and **Daman and Diu** and Chandigarh were the top overall performers.

Large inter-state variation

- According to the, there is **large inter-state variation** in neonatal mortality rate (NMR), under-five mortality rate (U5MR), maternal mortality ratio (MMR) and sex ratio at birth (SRB), the four key health outcome indicators.
- Among the larger states, Kerala has the lowest NMR, U5MR and MMR, while Madhya Pradesh had the highest NMR and U5MR and Assam had the highest MMR.
- **Kerala and Tamil Nadu have already reached the Sustainable Development Goals (SDG) NMR target**, recording 12 neonatal deaths per 1,000 live births, while

Himachal Pradesh, Maharashtra and Punjab, with 13 neonatal deaths per 1,000 live births, are likely to hit the target soon.

UP has poorest institutional delivery

- From 2014-15 to 2019-20, **15 of the 19 larger states registered an increase in institutional deliveries**, while it declined in the remaining four states. Telangana registered the highest increase (62.8 per cent) while Gujarat (-5.2 per cent) registered the steepest decline.

Shortage of specialists

- All the larger states had a shortage of required specialists in district hospitals.** This varied from 2 per cent in Rajasthan to 58 per cent in Madhya Pradesh.

5) Good Governance Index

What's in the news?

- The Government of India has released the Good Governance Index 2021 on Good Governance Day (25th December).

About the Index

- Good Governance Index (GGI) 2021 Framework covered **ten sectors and 58 indicators**. The Index was prepared by **Department of Administration Reforms and Public Grievances (DARPG)**
- The sectors of GGI 2020-21 are 1) Agriculture and Allied Sectors, 2) Commerce & Industries, 3) Human Resource Development, 4) Public Health, 5.) Public Infrastructure & Utilities, 6) Economic Governance, 7) Social Welfare & Development, 8) Judicial & Public Security, 9) Environment, and 10) Citizen-Centric Governance.
- The GGI 2020-21 categorises States and UTs into **four categories**, i.e., (i) Other States – Group A; (ii) Other States – Group B; (iii) North-

East and Hill States; and (iv) Union Territories.

- The GGI is a **biannual exercise**. The last edition was released in 2019.

Highlights of the Index

- Gujarat, Maharashtra and Goa** top the composite rank score covering 10 sectors. GGI 2021 says that Gujarat registered 12.3 percent increase and Goa registered 24.7 percent increase over GGI 2019 indicators.
- In the North-East and Hill States category, **Mizoram and Jammu and Kashmir** have registered an overall increase of 10.4% and 3.7% respectively over GGI 2019.
- In the Union Territories category, **Delhi** tops the composite rank registering a 14 percent increase over the GGI 2019 indicators. Delhi has performed strongly in Agriculture & Allied Sectors, Commerce & Industry, Public Infrastructure and Utilities and Social Welfare & Development.
- 20 States have improved their composite GGI scores over the GGI 2019 index scores.** The sector-wise scores attained by the States and UT's indicate strong performance in one or the other sector. This indicates that overall governance in the States of India is moving in the positive direction.

6) World Inequality Report 2022

What's in the news?

- Paris-based **World Inequality Lab**, a global research initiative, has released its **World Inequality Report 2022**.
- The report covered 180 countries between 1991 and 2019.

Highlights of the Report

Contemporary income and wealth inequalities

- The richest 10% of the global population currently takes 52% of global income, whereas the poorest half of the population earns 8% of it.
- While inequality has increased within most countries, over the past two decades, global inequalities between countries have declined. The gap between the average incomes of the richest 10% of countries and the average incomes of the poorest 50% of countries dropped from around 50x to a little less than 40x.
- At the same time, inequalities increased significantly within countries. The gap between the average incomes of the top 10% and the bottom 50% of individuals

within countries has almost doubled, from 8.5x to 15x. Despite economic catch-up and strong growth in the emerging countries, the world remains particularly unequal today.

Scenario in India

- The report pegs India to be among the most unequal countries in the world. While the bottom half of the population in India earns Rs 53,610, the top 10% earns twenty times more at Rs 11,66,520.
- While the top 10% and top 1% hold respectively 57% and 22% of total national income, the share of the bottom 50% has gone down to 13%. India stands out as a poor and very unequal country, with affluent elite.



Rise of private wealth

- There has been a **rise of private wealth in emerging countries such as China and India**. Large emerging economies such as China and India experienced faster increases in private wealth than wealthy countries after they transitioned away from communism (in China and Russia) or from a highly regulated economic system (in India).
- Over the past 40 years, **countries have become significantly richer, but their governments have**

become significantly poorer. The share of wealth held by public actors is close to zero or negative in rich countries, meaning that the totality of wealth is in private hands.

- This trend has been magnified by the Covid crisis, during which governments borrowed the equivalent of 10-20% of GDP, essentially from the private sector. The currently low wealth of governments has **important implications for state capacities to tackle inequality in the future,**

as well as the key challenges of the 21st century such as climate change.

Poor share of women in labour income

- **Women's share of total incomes from work (labour income) stands at less than 35% presently.** The female share of the total labour income is the national aggregate labour income earned by women relative to the total aggregate of labour income within a country. In a country with **perfect equality between women**

and men, the female labour income share would be 50%.

- **Female labour income in India of 18.3% is lower than the average for Asia,** which was at **27%** in 2019. It denotes that men in India capture 82% of labour income, while women earn just 18%.
- Eastern Europe has the highest female labour income shares, with the average female share near 41%.

Polity

1) Farm Laws Repeal Act, 2021

Background

- In 2020, the Union government took up on itself the task of legislating on agricultural marketing and passed the farm laws namely:
 - **The Farmers Produce Trade and Commerce (Promotion and Facilitation) Act, 2020**
 - **The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020**
 - **Essential Commodities (Amendment) Act, 2020.**

The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020

- This legislation aimed at giving **freedom to farmers to sell their produce outside the notified Agricultural Produce Market Committee (APMC) mandis.**
- This is aimed at facilitating remunerative prices through competitive alternative trading channels.
- State governments are prohibited from levying any market fee, cess or levy outside APMC areas.

The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020

- This legislation seeks to **give farmers the right to enter into a contract** with agribusiness firms, processors, wholesalers, exporters, or large retailers for the sale of future farming produce at a pre-agreed price.

The Essential Commodities (Amendment) Act, 2020

- It **deregulated the sale of six types of agricultural produce**, including cereals, edible oils, oilseeds, pulses, onions and potatoes, by amending the Essential Commodities Act, 1955, which empowers the Central and state governments to control production, supply and distribution of certain commodities in view of rising prices and to prevent Black marketing.
- According to the amendment act, stock limits on these six commodities may be regulated only under extraordinary circumstances which may include (i) war, (ii) famine, (iii) extraordinary price rise and (iv) natural calamity of grave nature.

Why had the need been felt?

- There has been a long-pending demand for **reforms in agricultural marketing**, a subject that comes under the **purview of state governments**. The Centre took the issue up in the early 2000s by pushing for reforms in the **APMC Acts** of the states.
- The Union Agriculture Ministry designed a **model APMC Act** in 2003 and circulated it among the states. The subsequent governments, too, pushed for these reforms. But given that it is a **state subject**, the Centre has had little success in getting the states to adopt the model APMC Act.
- It was in this backdrop that the present government went for reforms in the sector by passing these laws.

Protests

- After the legislation of the three controversial farm bills, the farmers' protests began from States such as Punjab and Haryana where

the mandis were deeply rooted institutions in the local economy and society.

- However, as days passed, the agitation spread to western Uttar Pradesh and from there to many other States.
- Farmers feared that the existing **APMC mandis**, where they sell their produce, mostly wheat and paddy, would be **shut down** once private players started trading in agri-produce outside the mandi premises, and that once the APMC mandi system became redundant, **procurement based on minimum support prices (MSP) too would come to an end.**

Why in News?

- The Parliament has passed the Farm Laws Repeal Act, 2021 to repeal the three farm laws – Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020, the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020, the Essential Commodities (Amendment) Act, 2020.
- The Act was necessitated after Prime Minister Narendra Modi announced the government's intention to repeal the three laws in view of ongoing farmers' protests against these laws.

2) What will a legal guarantee of MSP involve?

Context

- After a year-long agitation on the borders of Delhi, protesting farm unions have achieved their headline demand, namely the repeal of three contentious laws seeking to reform the storage and marketing of agricultural produce.
- However, farmers say this is only a half-victory and are pushing for

their other major demand for providing a **legal guarantee that all farmers will receive remunerative prices for all their crops.**

How many crops does the minimum support price cover?

- The Central Government sets a **minimum support price (MSP) for 23 crops every year**, based on a formula of **one-and-a-half times production costs**. This takes into account **both paid-out costs (A2)** such as seeds, fertilizers, pesticides, fuel, irrigation, hired workers and leased-in land, as well as the **imputed value of unpaid family labour (FL).**
- Farm unions are demanding the government to adopt **C2 cost method** which is a comprehensive cost calculation since it also includes **capital assets and the rentals and interest forgone on owned land.**
- The **National Commission on Farmers (NCF)** headed by **MS Swaminathan** also recommended the C2 method to calculate MSP. However, at present, MSP is calculated based on the A2+FL method.
- There is currently **no statutory backing** for these prices, **nor any law mandating their enforcement.** The government **only procures about a third of wheat and rice crops at MSP rates** (of which half is bought in Punjab and Haryana alone), and **10%-20% of select pulses and oilseeds.**
- According to the **Shanta Kumar Committee's 2015 report**, **only 6% of the farm households sell wheat and rice to the government at MSP rates.** However, such procurement has been growing in the last few years.

Why do farmers want a law on MSP?

- In a letter to Prime Minister Narendra Modi, farmers unions said **MSP based on a C2+50% formula** should be made a **legal entitlement for all agricultural produce**, so that every farmer of the country can be guaranteed at least the MSP announced by the government for their entire crop.

What is the Government's position?

- Both the Prime Minister and the Agriculture Minister have previously **assured Parliament that the MSP regime is here to stay, even while dismissing any need for statutory backing.**
- A **policy paper** by NITI Aayog's agricultural economist Ramesh Chand argues, "Economic theory as well as experience indicates that the price level that is not supported by demand and supply **cannot be sustained through legal means.**" It suggests that the States are free to guarantee MSP rates if they wish, but also offers **two failed examples of such a policy.**
- One is in the **sugar sector**, where private mills are mandated to buy cane from farmers at prices set by the Government. Faced with low sugar prices, high surplus stock and low liquidity, mills failed to make full payments to farmers, resulting in an accumulation of thousands of crores worth of dues pending for years.
- The other example is a **2018 amendment to the Maharashtra law** penalising traders with hefty fines and jail terms if they bought crops at rates lower than MSP. The paper noted that as open market prices were lower than the legalised MSP levels declared by the State, the buyers withdrew from the market and farmers had to

suffer and the move was soon abandoned.

3) Surrogacy (Regulation) Act, 2021

What's in the news?

- The Surrogacy (Regulation) Act, 2021 was recently passed by the Parliament.

Highlights of the Act

Regulation of surrogacy

- The Act defines surrogacy as a **practice where a woman gives birth to a child for an intending couple with the intention to hand over the child after the birth to the intending couple.**
- The Act **prohibits commercial surrogacy, but allows altruistic surrogacy.** Altruistic surrogacy involves **no monetary compensation** to the surrogate mother other than the medical expenses and insurance coverage during the pregnancy.
- Commercial surrogacy includes surrogacy or its related procedures undertaken for a monetary benefit or reward (in cash or kind) exceeding the basic medical expenses and insurance coverage.

Purposes for which surrogacy is permitted

- Surrogacy is permitted when it is: (i) for intending couples who suffer from proven infertility; (ii) altruistic; (iii) not for commercial purposes; (iv) not for producing children for sale, prostitution or other forms of exploitation; and (v) for any condition or disease specified through regulations.

Eligibility criteria for intending couple

- The intending couple should have a **'certificate of essentiality'** and a **'certificate of eligibility'** issued by the appropriate authority.
- A certificate of essentiality will be issued upon fulfilment of the

following conditions: (i) a certificate of proven infertility of one or both members of the intending couple from a District Medical Board; (ii) an order of parentage and custody of the surrogate child passed by a Magistrate's court; and (iii) insurance coverage for a period of 16 months covering postpartum delivery complications for the surrogate.

- The certificate of eligibility to the intending couple is issued upon fulfilment of the following conditions: (i) the couple being **Indian citizens and married for at least five years**; (ii) **between 23 to 50 years old (wife) and 26 to 55 years old (husband)**; (iii) they **do not have any surviving child** (biological, adopted or surrogate); this would not include a child who is mentally or physically challenged or suffers from life threatening disorder or fatal illness; and (iv) other conditions that may be specified by regulations.

Eligibility criteria for surrogate mother

- To obtain a **certificate of eligibility** from the appropriate authority, the surrogate mother has to be: (i) a **close relative** of the intending couple; (ii) a **married woman** having a child of her own; (iii) **25 to 35 years old**; (iv) a **surrogate only once** in her lifetime; and (v) possess a **certificate of medical and psychological fitness** for surrogacy. Further, the surrogate mother cannot provide her own gametes for surrogacy.

National and State Surrogacy Boards

- The central and the state governments shall constitute the **National Surrogacy Board (NSB)**

and the State Surrogacy Boards (SSB), respectively.

- Functions of the NSB include, (i) advising the central government on policy matters relating to surrogacy; (ii) laying down the code of conduct of surrogacy clinics; and (iii) supervising the functioning of SSBs.

Parentage and abortion of surrogate child

- A child born out of a surrogacy procedure will be **deemed to be the biological child of the intending couple**. An abortion of the surrogate child requires the **written consent** of the surrogate mother and the authorisation of the appropriate authority. This authorisation must be compliant with the **Medical Termination of Pregnancy Act, 1971**.
- Further, the surrogate mother will have an option to withdraw from surrogacy before the embryo is implanted in her womb.

Offences and penalties

- The offences under the Act include: (i) undertaking or advertising commercial surrogacy; (ii) exploiting the surrogate mother; (iii) abandoning, exploiting or disowning a surrogate child; and (iv) selling or importing human embryo or gametes for surrogacy.
- The penalty for such offences is imprisonment up to 10 years and a fine up to 10 lakh rupees.

4) Assisted Reproductive Technology (Regulation) Act, 2020

What's in the news?

- The Parliament has passed the Assisted Reproductive Technology (Regulation) Act, 2020. The Act seeks to provide for the regulation of Assisted Reproductive

Technology services in the country.

Significance of the Act

- The growth of Assisted Reproductive Technology (ART) clinics in India is among the highest in the world, and these are a key part of **medical tourism**. India does not have standard protocols of ART clinics yet.
- The Act seeks to fill a vacuum by bringing in government intervention to regulate the field of fertility treatments and by seeking to establish a national registry and registration authority for all clinics and medical professionals in the segment.
- The Act has provisions to protect the rights of the donors, the commissioning couple and the children born out of ART, to grant and withdraw licences for clinics and banks depending on performance factors.
- It makes it impossible for people who operate against the law for a profit by exploiting patients.
- It also plans to **put an end to illegal trafficking** in embryos, and mistreatment of the poor coerced by their circumstances into donating eggs or sperm.

Highlights of the Act

Assisted Reproductive Technology (ART)

- The Act defines ART to include all techniques that seek to obtain a pregnancy by handling the sperm or the oocyte (immature egg cell) outside the human body and transferring the gamete or the embryo into the reproductive system of a woman.
- Examples of ART services include **gamete (sperm or oocyte) donation, in-vitro-fertilisation** (fertilising an egg in the lab), and **gestational surrogacy** (the child is

not biologically related to surrogate mother).

- ART services will be provided through: (i) **ART clinics**, which offer ART related treatments and procedures, and (ii) **ART banks**, which store and supply gametes.

Regulation of ART clinics and banks

- The Act provides that **every ART clinic and bank must be registered under the National Registry of Banks and Clinics of India**. The National Registry will be established under the Act and will act as a central database with details of all ART clinics and banks in the country.
- Clinics and banks will be registered only if they **adhere to certain standards** (specialised manpower, physical infrastructure, and diagnostic facilities).
- The registration will be **valid for five years and can be renewed for a further five years**.
- Registration may be cancelled or suspended if the entity contravenes the provisions of the Act.

Conditions for gamete donation and supply

- Screening of gamete donors, collection and storage of semen, and provision of oocyte donor **can only be done by a registered ART bank**. A bank can obtain **semen from males between 21 and 55 years of age, and oocytes from females between 23 and 35 years of age**.
- An oocyte donor should be an **ever-married woman having at least one alive child of her own (minimum three years of age)**. The woman can donate oocyte **only once in her life and not more than seven oocytes can be retrieved from her**. A bank cannot supply gamete of a single donor to

more than one commissioning couple (couple seeking services).

Conditions for offering ART services

- ART procedures can only be carried out with the **written informed consent** of both the party seeking ART services as well as the donor. The party seeking ART services will be required to provide **insurance coverage** in the favour of the oocyte donor (for any loss, damage, or death of the donor).
- A clinic is **prohibited from offering to provide a child of pre-determined sex**. The Act also **requires checking for genetic diseases** before the embryo implantation.

Rights of a child born through ART

- A child born through ART will be **deemed to be a biological child of the commissioning couple** and will be entitled to the rights and privileges available to a natural child of the commissioning couple. A donor **will not have any parental rights over the child**.

National and State Boards

- The Act provides that the **National and State Boards for Surrogacy** constituted under the Surrogacy (Regulation) Act, 2021 will act as the **National and State Board respectively for the regulation of ART services**.
- Key powers and functions of the National Board include: (i) advising the central government on ART related policy matters, (ii) reviewing and monitoring the implementation of the Act, (iii) formulating code of conduct and standards for ART clinics and banks, and (iv) overseeing various bodies to be constituted under the Act.
- The State Boards will coordinate enforcement of the policies and guidelines for ART as per the

recommendations, policies, and regulations of the National Board.

Offences and penalties

- Offences under the Act include: (i) abandoning, or exploiting children born through ART, (ii) selling, purchasing, trading, or importing human embryos or gametes, (iii) using intermediates to obtain donors, (iv) exploiting commissioning couple, woman, or the gamete donor in any form, and (v) transferring the human embryo into a male or an animal.
- These offences will be punishable with a fine between five and ten lakh rupees for the first contravention.
- Any clinic or bank advertising or offering sex-selective ART will be punishable with imprisonment between five and ten years, or fine between Rs 10 lakh and Rs 25 lakh, or both.
- No court will take cognisance of offences under the Act, except on a complaint made by the National or State Board or any officer authorised by the Boards.

5) Forest Rights Act

Context

- Even after 15 years of implementation of the Forest Rights Act, 2006, there are a lot of issues due to its improper implementation.

About the Act

- The **Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006** is a people-centric law for forests, which **recognises the rights of forest-dwelling communities to use and manage forest resources**.
- With more than 150 million forest dwellers, the scope of FRA is immense to protect their

livelihoods, and engage them in sustainable forest management.

Rights under FRA

- **Title rights** – Ownership to land that is being farmed by tribals or forest dwellers subject to a maximum of **4 hectares**; ownership is only for land that is actually being cultivated by the concerned family, meaning that no new lands are granted.
- **Use rights** – to minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc.
- **Relief and development rights** – to rehabilitation in case of illegal eviction or forced displacement; and basic amenities, subject to restrictions for forest protection.
- **Forest management rights** – to protect forests and wildlife.

Eligibility

- To qualify as **Other Traditional Forest Dweller (OTFD)** and be eligible for recognition of rights under FRA, two conditions need to be fulfilled:
 - Primarily resided in forest or forests land for three generations (75 years) prior to 13-12-2005, and
 - Depend on the forest or forest land for bonafide livelihood needs.
- To qualify as a **Forest Dwelling Scheduled Tribe (FDST)** and be eligible for recognition of rights under FRA, three conditions must be satisfied by the applicant/s, who could be **“members or community”**:
 - Must be a Scheduled Tribe in the area where the right is claimed; and
 - Primarily resided in forest or forests land prior to 13-12-2005; and

- Depend on the forest or forest land for bonafide livelihood needs.

- The FRA provides that a forest right conferred under the Act shall be **heritable but not alienable or transferable**, and shall be registered jointly in the name of both the spouses in case of married persons and in the name of the single head in the case of a household headed by a single person.

Process of recognition of rights

- The Act provides that the **gram sabha**, or village assembly, will initially pass a resolution recommending whose rights to which resources should be recognised.
- This resolution is then screened and approved at the **level of the sub-division** (or taluka) and subsequently at the **district level**.
- The **screening committees** consist of three government officials (Forest, Revenue and Tribal Welfare departments) and three elected members of the local body at that level. These committees also hear appeals.
- The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2008, notified by the Ministry of Tribal Affairs for implementing the provisions of the Act, provide for **constitution of Forest Rights Committee** by the **Gram Sabha** for assisting it in its functions to –
 - prepare a list of claimants on forest rights;
 - verify claims as provided in the Rules;
 - present their findings on the nature and extent of the claim before the Gram Sabha for its consideration;

- prepare the claims on behalf of Gram Sabha for community forest rights in the prescribed Form.

Objective

- To **undo the historical injustice** occurred to the forest dwelling communities;
- To **ensure land tenure, livelihood and food security** of the forest dwelling Scheduled Tribes and other traditional forest dwellers;
- To **strengthen the conservation regime of the forests** by including the responsibilities and authority of Forest Rights holders for sustainable use, conservation of biodiversity and maintenance of ecological balance.

Key Issues

- The FRA's provisions for the **constitution of the Forest Rights Committee** haven't been followed in many places. These committees are often constituted by Panchayat Secretaries at short notice and upon the District Magistrates' directives.
- The FRA provides for **equal rights in titles issued under the Act for women**. They have an equitable role at every stage of decision-making. However, on the ground, the **women were hardly visible in this regard**.
- In the initial stages of implementation, there was **insistence on satellite images as evidence** while other admissible proofs were ignored, as happened in Gujarat resulting in mass rejections of claims.
- In some villages around Bastar, Chhattisgarh, the plots claimed and the documents confirming the award did not match. Besides, the **extent of land that was awarded was far smaller than what was claimed**.

- **Poor awareness levels of FR act** among the tribal people is also an issue, especially in the scheduled areas which are remotely located.
- The **involvement of NGOs was missing** in some interior areas in States like Chhattisgarh where insurgency was affecting the lives of the people. Evidence suggests that implementation was better in areas which were fairly close to urban settings or where accessibility was easy.
- Many tribal areas **witnessed a decline in the quality of forest produce in their vicinity, thus forcing them to look for other sources of livelihood**.

Way Forward

- It is essential to ensure that the potential of FRA is maximised. Several steps can be taken to achieve the law's goal.
- **Each state's intervention strategies need to be different** given the distinctive nature of forest history and landscape. To this effect, **concerted political and administrative interventions** to strengthen the enforcement of the law at the grassroots level would help ensure that forest-dwellers get their statutory rights.
- To improve the condition of the tribal people, especially those living in remote areas, there needs to be a **push on every possible aspect of their socioeconomic life**. This can be attained if schemes and programmes already drafted for the tribal people are **implemented in letter and spirit across the country**.
- NGO representatives working in the tribal areas believe that the livelihoods of the locals would improve if **horticulture practices are promoted in addition to bamboo and aloe vera**

plantations with an assured market. A popular recommendation is **medical and ecotourism** along the lines of the **Kerala model.**

- On the other hand, given the **quality of education** received by the youth in the remote districts, the possibility of acquiring meaningful jobs remains thin. Those accustomed to urban culture do not feel like going back to their villages. Civil society groups, therefore, believe that providing **skill-based education with assured jobs** on a large scale in proportion to the demand would do wonders in these areas.
- With protective laws like the Panchayats (Extension to Scheduled Areas) Act, 1996, in place, it is only a matter of will. One way forward could be to **induct people who are sensitive to the cause of tribal people in the decision-making process at every stage.**

6) What is the Sixth Schedule, and can Ladakh be included under it?

What's in the news?

- Recently, a Member of Parliament (MP) from Ladakh demanded that the region be included in the Sixth Schedule of the Constitution to safeguard land, employment, and cultural identity of the local population.
- The MP spoke in Parliament a day after Ladakh observed a shutdown to press for statehood. Representatives of the region have raised the demand repeatedly since the constitutional changes in the erstwhile state of Jammu and Kashmir in 2019.

What is the Sixth Schedule?

- The Sixth Schedule under **Article 244 of Indian Constitution**

provides for the formation of autonomous administrative divisions — **Autonomous District Councils (ADCs)** — that have some **legislative, judicial, and administrative autonomy within a state.**

- ADCs have up to **30 members** with a **term of five years**, and **can make laws, rules and regulations** with regard to land, forest, water, agriculture, village councils, health, sanitation, village- and town-level policing, inheritance, marriage and divorce, social customs and mining, etc.
- The **Bodoland Territorial Council in Assam is an exception** with more than 40 members and the right to make laws on 39 issues.
- The Sixth Schedule applies to the Northeastern states of **Assam, Meghalaya, Mizoram (three Councils each), and Tripura (one Council).**

Why does Ladakh want to be part of the Sixth Schedule?

- There was much enthusiasm initially, mostly in Leh, after the Union Government created two new Union Territories (Jammu and Kashmir and Ladakh) in 2019.
- The Buddhist-dominated Leh district had long demanded UT status because it felt neglected by the erstwhile state government, which was dominated by politicians from Kashmir and Jammu.
- **Ladakh wants some legislative, judicial, and administrative autonomy with more financial concessions.**

Can Ladakh be included in the Sixth Schedule?

- In 2019, the **National Commission for Scheduled Tribes** recommended the inclusion of Ladakh under the Sixth Schedule,

noting that the **new Union Territory was predominantly tribal (more than 97%)**, people from other parts of the country had been restricted from purchasing or acquiring land there, and its **distinct cultural heritage needed preservation.**

- Notably, **no region outside the Northeast has been included in the Sixth Schedule.**
- In fact, even in Manipur, which has predominantly tribal populations in some places, the autonomous councils are not included in the Sixth Schedule. Nagaland and Arunachal Pradesh, which are totally tribal, are also not in the Sixth Schedule. For tribal areas in the rest of the country, there is the **Fifth Schedule.**
- However, it remains the prerogative of the government — it can, if it so decides, bring a Bill to amend the Constitution for this purpose.

7) Sexual Harassment of Women at Workplace Act

Key Provisions of the Act

- The **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013** addresses the issue of workplace sexual harassment faced by women in **private institutions and government organisations.**
- The act superseded **Vishakha Guidelines** laid down by the Supreme Court in 1997.
- The Act defines sexual harassment at the work place and creates a mechanism for redressal of complaints. It also provides safeguards against false or malicious charges.

Definition of Workplace

- Under the Act, a workplace is defined as “any place visited by the employee arising out of or during the course of employment, including transportation provided by the employer for undertaking such a journey.”
- As per this definition, a workplace covers **both the organised and unorganised sectors.**
- It also includes all workplaces whether owned by Indian or foreign company having a place of work in India.
- As per the Act, workplace includes:-
 - Government organizations, including Government company, corporations and cooperative societies;-
 - Private sector organisations, venture, society, trust, NGO or service providers etc. providing services which are commercial, vocational, educational, sports, professional, entertainment, industrial, health related or financial activities, including production, supply, sale, distribution or service;-
 - Hospitals/Nursing Homes;-
 - Sports Institutes/Facilities;-
 - Places visited by the employee (including while on travel) including transportation provided by employer;
 - A dwelling place or house.

ICC & LCC

- Every employer is required to constitute an **Internal Complaints Committee (ICC)** at each office or branch with **10 or more employees.**
- Every district will have a **Local Complaints Committee (LCC)** so as to enable women in the unorganised sector or small establishments to work in an

environment free of sexual harassment.

- The LCC will receive complaints:
 - From women working in an organisation having less than 10 workers;
 - When the complaint is against the employer himself;
 - From domestic workers.
- At least **50 percent** of the nominated members in any Internal or Local Committee must be women.
- The Complaints Committees have the powers of **civil courts** for gathering evidence.
- The Complaints Committees are required to provide for **conciliation** before initiating an inquiry, if requested by the complainant.

SHe-Box

- To facilitate lodging of complaints under the Act, the Ministry of Women and Child Development developed an online complaint portal titled Sexual Harassment Electronic Box (SHe-Box) in 2017 to **facilitate the registration of complaints related to sexual harassment of women at work place.**
- Once a complaint is registered in the SHe-Box, it directly reaches the concerned authorities having jurisdiction to take action in the matter. The responsibility to take action on such complaints as well as to ensure updating of status in that regard on SHe Box, is with the concerned authorities.

Why in News?

- The Ministry of Women and Child Development issued advisories to States/ UTs and the Central Ministries/ Departments for strict implementation of the Sexual Harassment of Women at

Workplace Act and the SHe-Box portal to create a women friendly work environment.

8) CAMPA

About CAMPA

- Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require **diversion of forest land**. Any project proponent, government or private, must apply for **forest clearance from the Ministry of Environment, Forest and Climate Change (MoEFCC)** before the conversion of land takes place.
- This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then **compensation for the lost forest land** is also to be decided by the ministry and the regulators.
- Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs had approached the Supreme Court for relief. The apex court in 2009 issued orders that there will be a **Compensatory Afforestation Fund Management and Planning Authority (CAMPA)** as National Advisory Council for monitoring, technical assistance and evaluation of compensatory afforestation activities, till suitable legislation is enacted.

Compensatory Afforestation Fund Act, 2016

- The Compensatory Afforestation Fund Act, 2016 establishes the **National Compensatory Afforestation Fund** under the **Public Account of India**, and a **State Compensatory Afforestation Fund** under the **Public Account of each state**.

- These Funds will receive payments for:
 - compensatory afforestation,
 - net present value of forest (NPV), and
 - other project specific payments.
- The **National Fund receives 10% of these funds**, and the **State Funds receive the remaining 90%**.
- These funds are primarily spent on **afforestation to compensate for loss of forest cover, regeneration of forest ecosystem, wildlife protection and infrastructure development**.
- The Act also established the **National and State Compensatory Afforestation Fund Management and Planning Authorities** to manage the National and State Funds.

What is Net Present Value of Forest?

- Since afforested land does not become a forest overnight, there is still a loss of the goods and services that the diverted forest would have provided in the interim period. These goods and services include timber, bamboo, fuelwood, carbon sequestration, soil conservation, water recharge, and seed dispersal. Afforested land is expected to take no less than 50 years to start delivering comparable goods and services.
- Thus, "**Net Present Value (NPV)**" means the **quantification of the environmental services provided for the forest area diverted for non-forestry uses**, as may be determined by an expert committee appointed by the Central Government from time to time in this regard.

Why in News?

- The Compensatory Afforestation Fund Management and Planning

Authority (CAMPA) has so far disbursed **₹48,606 crore to 32 States**, according to a response by the Environment Ministry in the Lok Sabha.

9) Dam Safety Act

What is the Dam Safety Act?

Main Objective

- The Act proposes to help all states and Union Territories **adopt uniform dam safety procedures**. It provides for the surveillance, inspection, operation, and maintenance of **all specified dams** across the country. These are dams with **height more than 15 metres, or height between 10 metres to 15 metres** with certain design and structural conditions.
- As of 2019, India has 5,745 large dams. Of these, 5,675 large dams are operated by states, 40 by central public sector undertakings, and five by private agencies. **Over 75% of these dams are more than 20 years old and about 220 dams are more than 100 years old.**
- Due to the lack of legal and institutional architecture for dam safety in India, dam safety is an issue of concern. Unsafe dams are a hazard and dam break may cause **disasters**, leading to huge loss of life and property. Therefore, monitoring dam safety is essential.

Legal Provisions

- Though **water** is under the **state list**, the Centre has brought the legislation under **Article 246 of the Constitution** read with **Entry 56 and Entry 97 of List I in the Union list**.
- **Article 246** empowers Parliament to legislate on any matter enumerated in List I of the Union list in the Seventh Schedule of the Constitution. **Entry 56** allows

Parliament to make laws on the regulation of inter-state rivers and river valleys if it declares such regulation to be expedient in public interest. **Entry 97** allows Parliament to legislate on any other matter not enumerated in List II or List III including any tax not mentioned in either of those Lists.

National Committees

- The Act constitutes two national bodies: the **National Committee on Dam Safety**, whose functions include evolving policies and recommending regulations regarding dam safety standards; and the **National Dam Safety Authority**, whose functions include implementing policies of the National Committee, providing technical assistance to State Dam Safety Organisations (SDSOs), and resolving matters between SDSOs of states or between a SDSO and any dam owner in that state.

State Bodies

- It also constitutes two state bodies: **State Committee on Dam Safety**, and **State Dam Safety Organisation**. These bodies will be responsible for the surveillance, inspection, and monitoring the operation and maintenance of dams within their jurisdiction.
- The state dam safety organisation must also report events such as dam failures to the National Dam Safety Authority and also maintain records of major dam incidents of each specified dam.
- Functions of the national bodies and the State Committees on Dam Safety have been provided in **Schedules to the Act**. These Schedules can be amended by a government notification.

Penalties

- An offence under the Act can lead **to imprisonment of up to two years, or a fine, or both.**

Why has the Act become contentious?

- Several States, including Karnataka, Kerala, Tamil Nadu and Odisha, opposed the legislation on the ground that it **encroached upon the sovereignty of States to manage their dams.**
- Critics also raised the **constitutional validity of the legislation in the light of water being a State subject.**
- **Tamil Nadu** has all along been a critic of the legislation as it fears that it will lose its hold over four of its dams, which are located in Kerala. The dams include Mullaperiyar, whose structural stability and safety are being debated for over 40 years, and Parambikulam, an important reservoir that caters to irrigation requirements of the western districts of Tamil Nadu including Coimbatore.
- Taking a cue from the **2011 report by the Parliamentary Standing Committee on Water Resources** to invoke **Entry 56 of the Union List**, the Centre framed the legislation, declaring that "it is expedient in public interest that the Union should take under its control the regulation of uniform dam safety procedure for specified dams."
- Another point adduced in support of the legislation is that **inter-State basins cover 92% of the country's area and most of the dams**, making the Centre competent to enact such a law.

What's in the news?

- The Parliament has passed the Dam Safety Act.

- While it was passed by the Lok Sabha in August 2019, it was cleared by Rajya Sabha recently.

International Relations

1) EU plans €300 billion infrastructure fund to counter China's BRI

What's in the news?

- The European Commission has announced a plan to mobilise €300 billion (\$340 billion) in public and private infrastructure investment around the world, a move seen as a **response to China's Belt and Road strategy**.
- The project, known as **Global Gateway**, will aim at mobilising investments of up to 300 billion euros between 2021 and 2027 bringing together resources of the European Union, member states, European financial institutions and national development finance institutions.

Global Gateway

- Officially, the Global Gateway plan aims to **develop land and sea infrastructure** to better connect China to Asia, Europe and Africa for trade and development, and it has found many partners around the world.
- The plan also aims to strengthen Europe's supply chains, boost EU trade and help fight climate change, focusing on digitalisation, health, climate and energy and transport sectors, as well as education and research.
- The West, however, sees it as a **tool for China to influence poorer countries**. They criticise Beijing for inciting emerging economies to take on too much debt (**Debt-trap**

diplomacy), and allege the secretive tender process is prone to corruption.

- China argues that it respects its partners' sovereignty while providing loans that benefit joint projects, while critics say Beijing's contractual terms ignore abuses of human, labour and environmental rights.

Belt and Road Initiative

- China's Belt and Road Initiative (BRI) aims to strengthen Beijing's economic leadership through a vast program of infrastructure building throughout China's neighbouring regions.
- Launched in 2013 by President Xi Jinping, the **vast collection of development and investment initiatives would stretch from East Asia to Europe**, significantly expanding China's economic and political influence.
- The plan was two-pronged: the **overland Silk Road Economic Belt** and the **Maritime Silk Road**. The two were collectively referred to first as the **One Belt, One Road initiative** but eventually became the Belt and Road Initiative.
- China's vision included creating a vast network of railways, energy pipelines, highways, and streamlined border crossings, both westward—through the mountainous former Soviet republics—and southward, to Pakistan, India, and the rest of Southeast Asia.

Land and Sea Corridors of the Belt and Road Initiative

— Silk Road Economic Belt - - 21st Century Maritime Silk Road



- More than 130 countries have signed on to the BRI, ranging from Italy to Saudi Arabia to Cambodia.
- According to official data, China had invested \$139.8 billion by 2020.

What are the potential roadblocks?

- The Belt and Road Initiative has also stoked opposition. BRI projects are built using **low-interest loans** as opposed to aid grants. Some BRI investments have involved **opaque bidding processes** and **required the use of Chinese firms**. As a result, contractors have inflated costs, leading to canceled projects and political backlash.
- Critics worry China could use “**debt-trap diplomacy**” to extract strategic concessions – such as over territorial disputes in the South China Sea or silence on human rights violations.

India's position

- India has tried to convince countries that the BRI is a plan to dominate Asia, warning of what some analysts have called a “**String of Pearls**” geoeconomic strategy whereby China creates unsustainable debt burdens for its

Indian Ocean neighbors in order to seize control of regional choke points.

- In official statements, India questioned the initiative's transparency and processes due to concerns about territorial sovereignty. Meanwhile, India has provided its own development assistance to neighbors.

What is the CPEC project?

- China-Pakistan Economic Corridor (CPEC) refers to a clutch of major infrastructure works currently under way in Pakistan, intended to **link Kashgar in China's Xinjiang province to Gwadar deep sea port** close to Pakistan's border with Iran.
- Several other road, rail and power projects are associated with the corridor, and the project seeks to expand and upgrade infrastructure across the length and breadth of Pakistan, and to widen and deepen economic ties with China.
- CPEC is **part of the larger Belt and Road Initiative**.
- CPEC was launched in 2015 and it now envisages investment of over

USD 70 billion in different projects of development in Pakistan.



Significance

- The goal of CPEC is both to **transform Pakistan's economy**—by modernizing its road, rail, air, and energy transportation systems—and to **connect the deep-sea Pakistani ports of Gwadar and Karachi to China's Xinjiang province and beyond by overland routes**.
- This would reduce the time and cost of transporting goods and energy such as natural gas to China

by circumventing the Straits of Malacca and the South China Sea.

- The CPEC project is also **strategically important for China**. Currently, eighty percent of China's oil has to pass through the **Strait of Malacca**, a narrow stretch of water between the Indonesian island of Sumatra and the Malay Peninsula. In the event of a conflict, the Malacca Strait could easily be blocked by a rival nation, cutting off China from crucial energy resources. CPEC allows China to circumvent the Strait of Malacca and reduce its dependency on the strait.

India's position on CPEC

- India has been opposing the project as it **passes through Gilgit-Baltistan in Pakistan-occupied Kashmir (PoK)**, which New Delhi considers its own territory.
- India claims that the CPEC project encroaches on sovereignty and territorial integrity of the country.

Art and Culture

1) Sahitya Akademi Awards

About the awards

- The Sahitya Akademi award is considered as the **Government of India's second-highest literary honour**, following the **Jnanpith prize**. The Akademi is under the central government's **Ministry of Culture**, but works as an **autonomous institution**.
- Every year since its inception in 1954 (and first awarded in 1955), the Sahitya Akademi Award prizes to the **most outstanding books of literary merit published in any of the major Indian languages recognised by the Akademi**.
- Akademi bestows 24 prizes on literary works in the languages it has recognised, as well as an equal number of honours for literary translations from and into Indian languages.
- In addition to the **22 languages listed in the Eighth Schedule of Indian Constitution**, the Sahitya Akademi has designated **English and Rajasthani** as the languages chosen.

Conditions of bestowing the award

- The author must be of **Indian origin**.
- The book/work must be an excellent contribution to the language and literature.
- When two or more works have similar worth, specific factors such as overall literary contribution and author status must be considered before awarding a prize.

Why in News?

- The Sahitya Akademi announced its awards for 2021.

2) Kashi Vishwanath Temple

About the temple

- Kashi Vishwanath Temple is one of the most famous temples in **Varanasi, Uttar Pradesh**, also known as the **Golden temple**. It is dedicated to **Lord Shiva**.
- It was constructed in **1780** by the **Maratha monarch, Maharani Ahilyabai Holkar of Indore**.
- The temple stands on the western bank of the holy river Ganga, and is **one of the twelve Jyotirlingas, the holiest of Shiva temples**.
- The main deity is known by the name **Vishvanatha or Vishveshvara** meaning **Ruler of The Universe**.



Why in News?

- Prime Minister Narendra Modi inaugurated the 400-metre-long Kashi Vishwanath Corridor in Varanasi connecting the ancient temple to the banks of the Ganges.
- The Kashi Vishwanath temple lacked direct access to the Ganga, and the corridor was envisaged to connect Lalita Ghat on the holy river to Mandir Chowk on the temple premises.
- The improvement of the infrastructure in Varanasi is expected to give a boost to tourism in the holy city as well as in the region, including the Buddhist pilgrimage site of Sarnath.

3) Durga Puja Festival

About the festival

- Durga Puja is an annual festival celebrated in September or

October, **most notably in Kolkata**, in West Bengal, but also in other parts of India.

- It marks the **ten-day worship of the Hindu mother-goddess Durga**.
- It is a **five-day event** that begins on the fifth night of the Navratri festival and concludes on Dashami, the tenth day.
- Durga Puja is seen as the best instance of the **public performance of religion and art**, and as a **thriving ground for collaborative artists and designers**.
- The festival is characterized by large-scale installations and pavilions in urban areas, as well as by traditional Bengali drumming and veneration of the goddess.

Why in News?

- The United Nations Educational, Scientific and Cultural Organization (UNESCO) has inscribed "**Durga Puja in Kolkata**" on the "**Representative List of the Intangible Cultural Heritage of Humanity**".
- This is the **first festival in Asia** to achieve the UNESCO Intangible Cultural Heritage of Humanity status.
- It recognises the festival's contribution to sustaining and safeguarding a plethora of traditional arts and crafts, community well-being and economic empowerment, and energising creativity.
- With this, India now has **14 intangible cultural heritage elements** on the UNESCO list.

UNESCO List of Intangible Cultural Heritage of Humanity

- According to UNESCO, cultural heritage does not end at monuments and collections of objects, but also includes

traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.

- UNESCO established its Lists of Intangible Cultural Heritage with the aim of ensuring better protection of such important intangible cultural heritages worldwide and the awareness of their significance.
- The list was **established in 2008 when the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage took effect**.
- Previously, the following 13 traditional-cultural elements of India have been added into this list:
 - Tradition of Vedic chanting
 - Ramlila, the traditional performance of the Ramayana
 - Kutiyattam, Sanskrit theatre
 - Ramman, religious festival and ritual theatre of the Garhwal Himalayas
 - Mudi yettu, ritual theatre and dance drama of Kerala
 - Kalbelia folk songs and dances of Rajasthan
 - Chhau dance of Eastern India
 - Buddhist chanting of Ladakh
 - Sankirtana, ritual singing, drumming and dancing of Manipur
 - Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab
 - Yoga
 - Nawrouz
 - Kumbh Mela

Defence

1) Armoured Engineer Reconnaissance Vehicle

About the vehicle



- The Armoured Engineer Reconnaissance Vehicles (AERV) is **indigenously designed and developed by the Defence Research and Development Organisation (DRDO), and manufactured by Bharat Electronics Limited.**
- AERV is manufactured with **more than 90% indigenous content.**

- The AERV has been developed by modifying the amphibious infantry fighting vehicle and designed to meet the tactical and combat requirements of military engineers carrying out terrestrial and under-water surveys in hostile terrains, primarily for the construction of assault bridges in desert, flat and even riverine areas for both offensive and defensive operations, water reconnaissance, land reconnaissance, navigation and data backup.

Why in News?

- The first batch of next-generation Armoured Engineer Reconnaissance Vehicles was formally inducted into the Indian Army recently.

Miscellaneous

1) Paika Rebellion

What is the Paika Rebellion?

- The **Paika Bidroha (Paika Rebellion) of 1817** is an uprising against colonial rule that predates the rebellion of the sepoys in 1857.
- The Paikas ("foot soldiers") were a **class of military retainers** recruited from a variety of socioeconomic groups by **Odisha's Gajapati rulers** from the 16th century to **offer martial services in exchange for hereditary rent-free land (nish-kar jagirs) and titles.**
- The British established themselves in Odisha when the East India company dethroned the King of Khurda, Raja Mukunda Deva in 1803.
- The Paikas lost their estates when the new colonial establishments and land revenue settlements of the British came into force.
- The **continuous interference in the economy and revenue systems** led to exploitation and oppression of the peasants and farmers eventually triggering a rebellion against the British.
- A large number of Paikas were mobilised under the leadership of **Bakshi Jagabandhu Bidyadhar**, who then confronted the British on April 2, 1817.
- A 400-strong party of Paikas crossed over into Khurda from Ghumsur and declared rebellion. The uprising spread like a wildfire across the state resulting in several confrontations and encounters between the British and the Paika forces. Government buildings were set on fire, policemen killed and the British treasury looted.

- Over the next few months, the revolt continued but was **eventually overpowered by the British army.** Bidyadhar was imprisoned in 1825 and died while still in jail four years later.

Why in News?

- Recently, the Centre through a written reply in the Rajya Sabha said the Paika rebellion cannot be called the First War of Independence.
- Since 2017, the Odisha Government has demanded that the rebellion of Odisha be declared as the First War of Independence.
- At present, the **Indian Mutiny or Sepoy Mutiny of 1857** is called the **First War of Independence against British Rule.**
- However, considering that the rebellion which started in 1817 continued till 1825 and is one of the beginnings of popular uprisings against the British in India, the Union Minister of Culture declared that it would now be included in the curriculum of Class VIII history textbook of NCERT.