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#HIGHER EDUCATION COMMISSION OF INDIA

Recently, the Government of India announced that they're reworking a draft of the Bill (**Draft Higher Education Commission of India (Repeal of University Grants Commission Act) Bill, 2018**) that will bring to life the **Higher Education Commission of India (HECI)**, for college and university-level education, cutting across disciplines. The new reworked draft will also be in tune with the **National Education Policy of India**.



What is the Draft Higher Education Commission of India Bill, 2018?

The bill stands for "**Draft Higher Education Commission of India (Repeal of University Grants Commission Act) Bill, 2018**".

- It was introduced in January, 2018.
- But it was never finalised, and within two years, the **National Education Policy 2020** was announced.

Key Points:

The Bill **repeals the University Grants Commission Act, 1956** and establishes the **Higher Education Commission of India (HECI)**.

The HECI will **maintain academic standards** in higher education by:

- Specifying learning outcomes for courses.
- Specifying eligibility criteria for Vice Chancellors.
- Ordering closure of higher educational institutions which fail to adhere to minimum standards.
- Every higher educational institution empowered to award degrees or diplomas will have to **apply to the HECI to commence its first academic operations**.
- The HECI also has the power to **revoke permission on specified grounds**.
- The Bill sets up an **Advisory Council** chaired by the **Union Minister of Human Resource Development**.
- The Council will advise on **coordination and determination of standards** in higher education between the centre and states.

What are the Functions of HECI?

The HECI will **recommend ways** to promote **autonomy of higher educational institutions** and ensure maintenance of academic standards in higher education.

It will specify norms for:

- Learning outcomes for courses.
- Standards of teaching and research.
- Evaluation procedure to measure yearly academic performance of institutions.
- Accreditation of institutions.
- Ordering closure of institutions.

#SAKSHAM ANGANWADI & POSHAN 2.0

Recently, **Ministry of Women and Child Development** has issued Operational Guidelines regarding implementation of **Saksham Anganwadi and Poshan 2.0**.

It will also promote Aadhaar seeding of beneficiaries to ensure last-mile tracking of take-home rations and tracking of migration of pregnant women and lactating mothers.



What is Saksham Anganwadi and Poshan 2.0?

About: In Financial Year (FY) 2021-22, the (GoI) **restructured the Integrated Child Development Services (ICDS) and POSHAN** (Prime Minister's Overarching Scheme for Holistic Nourishment) Abhiyaan into **Saksham Anganwadi and**

POSHAN 2.0

The restructured scheme consists of the following **sub-schemes**:

- **ICDS**
- **POSHAN Abhiyaan**
- **Scheme for Adolescent Girls (SAG)**
- **National Creche Scheme**

Poshan 2.0 is an ongoing **Centrally-sponsored programme** being implemented through the State Governments/ UT administrations based on a cost sharing ratio between the Central Government and the State Government.

Vision:

- It seeks to address the **challenging situation of malnutrition among children up to the age of 6 years, adolescent girls (14-18 years) and pregnant and lactating women.**
- It is **crucial for India's development** as women and children comprise over two thirds of India's population.
- The achievement of the **Sustainable Development Goals** lies at the fore-front of this programme design.
- It shall contribute to the SDGs, specifically, **SDG 2 on Zero Hunger and SDG 4 on Quality Education.**
- The Mission will focus on the **fundamental importance of nutrition and early childhood care and education** for the well-being, growth and development of children into healthy and productive adults.

What are the Guidelines?

- The scheme is **open to all eligible beneficiaries** and the only pre-condition is that the beneficiary has to be registered at the nearest Anganwadi centre with Aadhaar identification.
- The beneficiaries for the scheme will be **adolescent girls in the age group of 14-18 years** who will be identified by the states concerned. AYUSH shall propagate the campaigns of 'Yoga at Home, Yoga with Family' and AWCs and households to encourage beneficiaries to practice yoga and stay healthy.
- The **Ministry of AYUSH** shall extend **technical support for scheme implementation.**
- Efforts shall be made for 100% measurement of the children.
- It promotes the Use of jaggery, **Fortification** with indigenous plants like moreng (sahjan/drumstick) and ingredients that provide higher energy intake in smaller volume of food.

#INDIA'S SOLAR POWER DREAM

Government of India has set the target to **expand India's renewable energy installed capacity to 500 GW by 2030.**

India is also targeting to reduce India's total projected carbon emission by 1 billion tonnes by 2030, reduce the carbon intensity of the **nation's economy by less than 45% by the end of the decade, achieve net-zero carbon emissions by 2070.**

What is the Present Status of Renewable Energy in India?

The total installed capacity for renewable energy in India is 151.4 GW.

The following is the breakup of total installed capacity for Renewables:

- Wind power: 40.08 GW
- **Solar Power: 50 GW**
- Biopower: 10.61 GW
- Small Hydro Power: 4.83 GW
- Large Hydro: 46.51 GW

Present Solar Power capacity: 45 solar parks of aggregate capacity 37 GW have been approved in India. Solar Parks in Pavagada (2 GW), Kurnool (1 GW) and Bhadla-II (648 MW) are included in the top 5 operational solar parks of 7 GW capacity in the country.

The **world's largest renewable energy park of 30 GW capacity solar-wind hybrid project** is under installation in Gujarat.

What are Government Initiatives?

- **PLI scheme to Support Manufacturing:** The Scheme has provisions for **supporting the setting up of integrated manufacturing units of high-efficiency solar PV modules** by providing **Production Linked Incentive (PLI)** on sales of such solar PV modules.
- **Domestic Content Requirement (DCR):** Under some of the current schemes of the **Ministry of New & Renewable Energy (MNRE)**, namely Central Public Sector Undertaking (CPSU) Scheme Phase-II, **PM-KUSUM**, and Grid-connected **Rooftop Solar Programme** Phase-II, wherein **government subsidy is given, it has been mandated to source solar PV cells and modules from domestic sources.** Further, the government made it mandatory to procure modules only from an **Approved List of Manufacturers (ALMM)** for projects that are connected to state/ central government grids.
- **Imposition of Basic Customs Duty on import of solar PV cells & modules:** The Government has announced the imposition of **Basic Customs Duty (BCD)** on the import of solar PV cells and modules. Further, it has imposed a 40% duty on the import of modules and a 25% duty on the import of cells. Basic custom duty is the **duty imposed on the value of the goods at a specific rate.**
- **Modified Special Incentive Package Scheme (M-SIPS):** It's a scheme of the **Ministry of Electronics & Information Technology.** The scheme mainly provides a **subsidy for capital expenditure on PV cells and modules – 20% for investments in Special Economic Zones (SEZs) and 25% in non-SEZ.**



#MANIPUR TO IMPLEMENT NRC

Recently, the **Manipur Assembly** has resolved to implement the **National Register of Citizens (NRC)** and establish a **State Population Commission (SPC)**.

The decision has come after at least 19 **apex tribal organisations** wrote to the **Prime Minister** demanding **NRC** and other mechanism to **insulate the indigenous people** from the “ever-increasing number of non-local residents”.

What is the National Register of Citizens?

NRC is a register **prepared in respect of each village, showing the houses or holdings in a serial order** and indicating against each house or holding the number and names of persons staying therein. The register was **first prepared after the 1951 Census of India** and since then it has not been updated until recently.

It has been **updated in Assam only for now and the government plans to update it nationally** as well.

Purpose: To separate “illegal” immigrants from “legitimate” residents.

Nodal Agency: Registrar General and Census Commissioner India.

Why is Manipur Pushing for NRC?

- According to data presented in the Manipur Assembly, the population of Manipur has increased significantly from 1971 to 2011, pointing to a **strong possibility of a huge influx of non-Indians, especially Myanmar Nationals primarily Kukis-Chin Communities**.
- The northeastern States have been paranoid about “outsiders”, “foreigners” or “alien cultures” **swamping out their numerically weaker indigenous communities**.
- Manipur, home to **three major ethnic groups, is no different**.
- These ethnic groups are the **non-tribal Meitei people** and the tribal **Naga and Kuki-Zomi groups**.
- There has been a **history of conflict among these three groups**, but the NRC issue has seemingly put the Meiteis and the Nagas on the same page.
- They claim that an NRC is necessary because the political crisis in neighbouring **Myanmar, triggered by the military coup in February 2021, has forced hundreds of people into the State** from across its 398-km international border.
- A majority of those who fled or are fleeing belong to the **Kuki-Chin communities, ethnically related to the Kuki-Zomi people in Manipur** as well as the **Mizos of Mizoram**.

What are the Other Protective Mechanisms in Manipur?

- In December 2019, Manipur became the fourth northeastern State to be brought under the **Inner-Line Permit (ILP) system** after **Arunachal Pradesh, Mizoram and Nagaland**.
- The ILP – a temporary official travel document to allow inward travel of an Indian citizen into a protected area, was **implemented under the British-era Bengal Eastern Frontier Regulation**.
- However, in less than two years later, an umbrella organisation that spearheaded the ILP movement said the system was flawed and that **Manipur needed a stronger and more effective mechanism for protecting indigenous populations**.
- Following the “intrusion of immigrants” from Bangladesh (East Pakistan formerly), Myanmar and Nepal, a **pass or permit system for Manipur was introduced**, which was abolished later on in 1950.
- In June 2021, Manipur government approved **1961 as the base year for identifying the “natives”** for the purpose of ILP.
- Most groups are not happy with this cut-off year and insist on 1951 as the cut-off year for the NRC exercise.
- In 2021, the Ministry of Home Affairs (MHA) directed Nagaland, Manipur, Mizoram, Arunachal Pradesh and Border Guarding Force (BGF), i.e. **Assam rifles**, to check illegal influx from Myanmar into India.
- Similar Instructions were Issued in August 2017 and February 2018.

What is the Status of the NRC Elsewhere in the Northeast?

- Assam is the **only State in the region** that undertook an exercise to update the NRC of 1951 with **24th March, 1971**, as the cut-off date for citizenship of a person.
- Nagaland attempted a similar exercise called **RIIN (Register of Indigenous Inhabitants of Nagaland)** in **June 2019** to primarily sift the **indigenous Nagas from the non-indigenous Nagas**.

#ESSENTIAL COMMODITIES ACT, 1955

- Recently, the **Ministry of Consumer Affairs, Food and Public Distribution** has invoked the **Essential Commodities Act of 1955** to curb tur dal prices surging.
- States and Union Territories are asked to **direct 'stockholder entities to upload the data of stocks held by them'** on an online monitoring portal of the Department of Consumer Affairs, on a weekly basis.

Why Invoking the Act?

- Tur prices have risen since mid-July 2022 **amid slow progress in Kharif sowing** as compared to last year 2021 due to **excess rainfalls and water logging conditions in parts of major Tur growing states** of Karnataka, Maharashtra and Madhya Pradesh.
- To **control any unwarranted price rise in the upcoming high demand festival months**, the government is taking pre-emptive steps to ensure overall availability and controlled prices of pulses in the domestic as well as overseas markets.
- To **limit attempts by some sections of traders and stockists to push the price for Tur dal upwards**, by resorting to '**restricted sales**' and creating an **Artificial Scarcity**.
- **Artificial Scarcity** is the **purposeful limitation of production** of particular products (or services) in order to **raise prices and / or demand**.

What is the Essential Commodities Act 1955?

- **Background:** The ECA Act 1955 was **legislated at a time when the country was facing a scarcity of foodstuffs** due to persistent low levels of foodgrains production. The country was dependent on imports and assistance (such as wheat import from the US under PL-480) to feed the population. To prevent **hoarding and black marketing of foodstuffs**, the **Essential Commodities Act was enacted in 1955**.
- **Essential Commodity:** There is **no specific definition** of essential commodities in the Essential Commodities Act, 1955. Section 2(A) of the Act states that an **"essential commodity" means a commodity specified in the Schedule of the Act**.
- **Legal Jurisdiction:** The Act **gives powers to the central government** to add or remove a commodity in the Schedule. The Centre, if it is satisfied that **it is necessary to do so in the public interest**, can **notify an item as essential**, in consultation with state governments.
- **Objective:** The ECA 1955 is used to **curb inflation by allowing the Centre to enable control by state governments of trade** in a wide variety of commodities.
- **Impact:** By declaring a commodity as essential, the government **can control the production, supply, and distribution** of that commodity, and impose a stock limit.

#NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION

- **National Intellectual Property Awareness Mission (NIPAM)**, launched in 2021, has achieved the target of imparting **Intellectual Property (IP)** awareness and basic training to 1 million students.
- The target has been achieved **ahead of the deadline which was 15 August 2022**.

What is the National Intellectual Property Awareness Mission (NIPAM)?

- The pan-India mission aims to provide **awareness on intellectual property and its rights to 1 million students**. It aims to **inculcate the spirit of creativity and innovation** to students of higher education (classes 8 to 12) and ignite and inspire the students of college/Universities to innovate and protect their creations.
- **Implementing Agency:** The program is being implemented by the **Intellectual Property Office**, the Office of Controller General of Patents, Designs and Trade Marks (CGPDTM), **Ministry of Commerce and Industry**.

What are Intellectual Property Rights?

- **Intellectual property rights (IPR)** are the rights given to persons over the **creation of their minds**: Inventions, literary and artistic works, and symbols, names and images used in commerce.
- They usually give the creator an **exclusive right over the use of his/her creation for a certain period of time**.
- These rights are outlined in **Article 27 of the Universal Declaration of Human Rights**, which provides for the **right to benefit from the protection** of moral and material interests resulting from authorship of scientific, literary or artistic productions.
- The importance of intellectual property was first recognized in the **Paris Convention for the Protection of Industrial Property (1883)** and the **Berne Convention for the Protection of Literary and Artistic Works (1886)**.
- Both treaties are administered by the **World Intellectual Property Organization (WIPO)**.

Types of IPR:

- **Copyrights:** The rights of authors of **literary and artistic works** (such as books and other writings, musical compositions, paintings, sculpture, computer programs and films) **are protected by copyright**, for a minimum period of **50 years after the death of the author**.
- **Industrial property:** Protection of distinctive signs, in particular trademarks and geographical indications:
 - Trademarks
 - Geographical Indications (GIs)

What are the Treaties and Conventions related to IPR?

Global:

- India is a member of the **World Trade Organisation** and committed to the **Agreement on Trade Related Aspects of Intellectual Property (TRIPS Agreement)**.
- India is also a member of **World Intellectual Property Organization (WIPO)**, a body responsible for the promotion of the protection of intellectual property rights throughout the world.
- India is also a **member of the following important WIPO-administered International Treaties and**

Conventions relating to IPRs:

- **Budapest Treaty** on the International Recognition of the **Deposit of Microorganisms for the Purposes of Patent Procedure**
- **Paris Convention for the Protection of Industrial Property**
- Convention Establishing the **World Intellectual Property Organization**
- **Berne Convention for the Protection of Literary and Artistic Works**
- **Patent Cooperation Treaty**

National:

- **Indian Patent Act 1970:** This principal law for patenting system in India came into force in the year 1972. It replaced the **Indian Patents and Designs Act 1911**. The Act was amended by the **Patents (Amendment) Act, 2005**, wherein product patent was extended to all fields of technology including **food, drugs, chemicals and microorganisms**.
- **National Intellectual Property Rights (IPR) Policy 2016:** The **National Intellectual Property Rights (IPR) Policy 2016** was adopted in May 2016 as a vision document to guide future development of IPRs in the country. Its clarion call is "**Creative India; Innovative India**".
- It sets in place an **institutional mechanism** for implementation, monitoring and review. It aims to incorporate and adapt global best practices to the Indian scenario.

#WILDLIFE (PROTECTION) AMENDMENT BILL, 2021

Recently, **Lok Sabha** passed by voice vote the **Wildlife (Protection) Amendment Bill, 2021** that seeks to provide for **implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**.

**What is the Wildlife (Protection) Amendment Bill 2021?**

It was introduced in Lok Sabha by the **Minister of Environment, Forest and Climate Change** on 17th December 2021.

It seeks to amend the **Wild Life (Protection) Act, 1972**.

The Bill seeks to **increase the species** protected under the law and implement the CITES.

Features:

- **CITES:** CITES is an **international agreement** between governments to ensure that **international trade in specimens of wild animals and plants** does not threaten the survival of the species.
- The Convention requires countries to **regulate the trade of all listed specimens through permits**. It also seeks to regulate the possession of live animal specimens. **The Bill seeks to implement these provisions of CITES.**

Wildlife (Protection) Act, 1972:

Currently, the Act has **six schedules** for specially protected plants (one), specially protected animals (four), and vermin species (one).

The Bill reduces the total number of schedules to four by:

- **Schedule I** for species that will enjoy the **highest level** of protection.
- **Schedule II** for species that will be subject to a **lesser degree** of protection.

- **Schedule III** that covers plants.
- It removes the schedule for **vermin species**.
- Vermin refers to **small animals that carry diseases** and destroy food.
- It **inserts a new schedule** for specimens listed in the Appendices under CITES (scheduled specimens).

What is the Wildlife (Protection) Act, 1972?

- **Wild Life (Protection) Act, 1972** provides a legal framework for the **protection** of various species of wild animals and plants, the **management** of their habitats, and the **regulation** and **control** of trade in wild animals, plants and products made from them.
- The Act also lists schedules of plants and animals that are **afforded various degrees of protection and monitoring** by the government.
- The Act has been **amended several times**, with the last amendment having been made in 2006.

#NATIONAL E-GOVERNANCE SERVICE DELIVERY ASSESSMENT

Recently, the website of the **Ministry of Home Affairs (MHA)** has been ranked first under Central Ministries Portal, and the **Digital Police portal** ranked second in a **National E-Governance service delivery assessment (NeSDA)** of websites of central government ministries.

What is National E-Governance Service Delivery Assessment?

- It is a **periodic assessment intended to improve the effectiveness** of States/Union Territories and the Central Government in **delivery of their online services** to citizens.
- It is released by **Ministry of Personnel, Public Grievances and Pensions**. In this assessment, the service **portals were evaluated alongside their parent Ministry/portal Department's** in this project.
- The assessment was conducted by the **Department of Administrative Reforms and Public Grievances (DARPG)** in association with its knowledge partners **NASSCOM and KPMG** in 2021.
- NeSDA 2021 is the second edition of NeSDA, **the first edition was launched in 2019 and it is a biennial study**.

Parameters:

There were **four main parameters** of assessment: -

- **Accessibility.**
- **Content Availability.**
- **Ease of Use and Information Security.**
- **Privacy for Central Ministry Portals.**

An additional **three parameters** were also used for the Central Ministry Services Portals –

- **End Service Delivery.**
- **Integrated Service Delivery.**
- **Status and Request tracking.**

Recent evaluation of NeSDA 2021:

- In the case of MHA, the **National Crime Records Bureau (NCRB)** Digital Police portal was shortlisted for evaluation under the Services Portal.
- Accordingly, the main website of Ministry of Home Affairs was chosen as the **parent Ministry portal for evaluation**.
- In the category of **State/UT portal, among group A states- Kerala** became a front runner and the progress **was made by Tamil Nadu** followed by **Punjab**.
- Among **group B states- Odisha** being at top followed by **Uttar Pradesh** and **Bihar**.
- Among **North-Eastern states Nagaland, Meghalaya and Assam** are at top.

- Among UTs, **J&K topped followed by A&N, Puducherry, Delhi and Chandigarh.**

#NEW CHIEF OF CENTRAL VIGILANCE COMMISSION

Recently, the Government appointed Suresh N Patel as the new chief of the **Central Vigilance Commission**.

What is the Central Vigilance Commission (CVC)?

The Central Vigilance Commission was **set up by the Government in 1964 on the recommendations of the Committee on Prevention of Corruption, headed by Shri K. Santhanam**, to advise and guide Central Government agencies in the field of vigilance. CVC are conceived to be the **apex vigilance institution, free of control from any executive authority, monitoring all vigilance activity** under the Central Government and advising various authorities in Central Government organizations in planning, executing, reviewing and reforming their vigilant work.

The Parliament enacted Central Vigilance Commission Act, 2003 (CVC Act) conferring statutory status on the CVC.

It is an independent body which is only responsible to Parliament. It submits its report to the President of India.

Functions of CVC:

- The CVC **receives complaints on corruption or misuse of office** and recommends **appropriate action**.
- Following institutions, bodies, or a person can approach CVC:
- **Central government, Lokpal, Whistle blowers**
- **It is not an investigating agency.** The CVC either gets the investigation done through the **Central Bureau of Investigation(CBI)** or through chief vigilance officers (CVO) in government offices. It is empowered to inquire into **offences** alleged to have been committed under the **Prevention of Corruption Act, 1988** by certain categories of public servants.

What are the Service Conditions of the Chief vigilance Commissioner?

Appointment: The Central Vigilance Commissioner is to be **appointed by the President of India** after the recommendation of a three-member committee which consist,

- **Prime Minister**
- **Minister of Home Affairs (MHA)**
- **Leader of Opposition in Lok Sabha**

Term: S/He holds the **office for 4 years**.

Removal:

- S/He can be removed or suspended from the office by the President on the **ground of misbehavior** but only after the **Supreme Court** has held an inquiry into his case and recommended action against him.
- Further, He can also be removed for proved misbehavior or incapacity if the Supreme Court inquiry finds him guilty.
- S/He can also resign by writing to the President.

#INDIA'S UNIQUE JOB CRISIS

As per a recent study, there are **fewer people employed in agriculture today**, but the transformation has been weak. Those moving out of farms are **working more in construction sites and the informal economy than in factories**.



How much Employment does the Agriculture Sector provide?

- In 1993-94, agriculture accounted for close to **62% of the country's employed labour force**.
- The labour percentage in agriculture (based on data from the **National Statistical Office's Periodic Labour Force Surveys**), dropped almost 6% points by 2004-05 and 9% points over the next seven years.
- The declining trend continued, albeit at a slower pace, in the subsequent seven as well.
- Between 1993-94 and 2018-19, agriculture's share in India's workforce **came down from 61.9% to 41.4%**.
- It is estimated that given its level of **per capita GDP** in 2018, India's farm sector **should be employing 33-34% of the total workforce**.
- 41.4% may not be a substantial deviation from the average.

How is the Information Technology Sector Emerging as a Job Provider?

- Between 2020-22, the **combined employee headcount** at India's top five IT companies (Tata Consultancy Services, Infosys, Wipro, HCL Technologies and Tech Mahindra) has gone **up from 11.55 lakh to 15.69 lakh**.
- That's a jump of **4.14 lakh or nearly 36% in the period post the pandemic**, when most other sectors, barring agriculture, **were shedding jobs and slashing salaries**.
- These five companies, put together, have more employees than the **Indian Railways** and the **three defense services, respectively**.
- Much of the IT sector's recent success is courtesy of **exports**.
- These have boomed due to **Covid's triggering increased demand for digitisation** even among businesses that were hitherto slow in adoption:
- **India's net exports of software services** have surged from \$84.64 billion in 2019-20 to \$109.54 billion in 2021-22.

Government's Initiatives:

- **Support for Marginalized Individuals for Livelihood and Enterprise (SMILE)**
- **PM-DAKSH (Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi)**
- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**
- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**
- **Start Up India Scheme**

What are different types of Unemployment?

- **Disguised Unemployment:** It is a phenomenon wherein **more people are employed than actually needed**. It is primarily traced in the **agricultural and the unorganised sectors of India**.
- **Seasonal Unemployment:** It is an unemployment that occurs during **certain seasons of the year**. **Agricultural labourers** in India rarely have work throughout the year.
- **Structural Unemployment:** It is a category of unemployment arising from the **mismatch between the jobs available in the market and the skills of the available workers in the market**.

- **Technological Unemployment:** It is the loss of jobs due to **changes in technology**.
- **Frictional Unemployment:** The Frictional Unemployment also called as **Search Unemployment**, refers to the time lag between the jobs when an individual is searching for a new job or is switching between the jobs.
- **Vulnerable Employment:** This means, **people working informally**, without proper job contracts and thus sans any legal protection. These persons are deemed 'unemployed' since records of their work are never maintained.

#COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

- Senior electrochemical scientist Nallathamby Kalaiselvi has become the **first woman director general** of the **Council of Scientific and Industrial Research**.
- Kalaiselvi's research work of more than 25 years is primarily focused on electrochemical power systems and in particular, development of electrode materials, and electrochemical evaluation of in-house prepared electrode materials for their suitability in energy storage device assembly.
- Kalaiselvi also made key contributions to the **National Mission for Electric Mobility**. She has more than 125 research papers and six patents to her credit.

What is CSIR?

- **About:** Council of Scientific and Industrial Research (CSIR) is the **largest research and development (R&D) organisation in India**.
- CSIR has a pan-India presence and has a dynamic network of **37 national laboratories, 39 outreach centres, 3 Innovation Complexes and 5 units**.
- CSIR is funded by the Ministry of Science and Technology and it operates as an autonomous body through the Societies Registration Act, 1860.
- **Established:** September 1942
- **Headquarters:** New Delhi

What is the Structure of the Organization?

- **President:** Prime Minister of India (Ex-officio)
- **Vice President:** Union Minister of Science and Technology (Ex-officio)
- **Governing Body:** The Director-General is the head of the governing body.
- The other ex-officio member is the finance secretary (expenditures).
- Other members' terms are of three years.

What are the Objectives?

- The objectives of the Council are **scientific and industrial/applied research** of national importance.
- The activities include:
- **Promotion, guidance and coordination of scientific and industrial research** in India including the institution and the financing of specific researchers.
- **Establishment and assistance to special institutions** or departments of existing institutions for the scientific study of problems affecting particular industries and trade.
- Establishment and award of **research studentships and fellowships**.
- Utilization of the results of the research conducted under the auspices of the Council towards the development of industries in the country.

What are Awards Associated with the Organisation?

- **Shanti Swarup Bhatnagar (SSB) Prize** for Science and Technology is named after the founder Director of the CSIR, the late Dr Shanti Swarup Bhatnagar.
- It was instituted in 1957 as the most coveted and revered prize in the field of science and technology in the country.

Who was Dr Shanti Swarup Bhatnagar?

- He was the **Founder Director (and later first Director-General)** of CSIR who is credited with establishing twelve national laboratories. He played a **significant role in the building of post-independent Science and Technology infrastructure** and in the formulation of India's S & T policies. He concurrently held a number of important positions in the Government.
- He was the **first Chairman of the University Grants Commission (UGC)**.
- He was conferred with **Order of British Empire (OBE)**. He was Knighted in 1941 and elected Fellow of the Royal Society, London in 1943.
- He was awarded the Padma Vibhushan in 1954 by the President of India.

#WHAT IS SMILE-75 INITIATIVE

The Government of India has formulated a comprehensive scheme of **SMILE (Support for Marginalised Individuals for Livelihood and Enterprise)** to address the persisting problem of destitution and beggary.

What do we need to know about the SMILE 75-Initiative?

- **Aim:** Municipal Corporations, in collaboration with NGOs and other stakeholders will cover several comprehensive welfare measures for **persons who are engaged in the act of begging**, with focus extensively on **rehabilitation**, provision of **medical facilities**, **awareness**, **education**, **skill development**, **economic linkages** and **convergence with other Government welfare programmes etc.**
- The Ministry of Social Justice & Empowerment has also **allocated a total budget of Rs.100 crore** for the SMILE project for **coming years till 2025-26**.
- It seeks to develop a **support mechanism** for holistic rehabilitation of those engaged in the act of begging.
- **Implementing Ministry:** The Ministry of Social Justice and Empowerment.

Objectives:

- To make cities/town and municipal areas **begging-free**.
- To make a **strategy for comprehensive rehabilitation** of the persons engaged in the act of begging through the coordinated action of various stakeholders.
- What is the status of Beggars in India?
- According to the **Census 2011**, the total number of beggars in India is **4,13,670** (including **2,21,673 males** and **1,91,997 females**) and the **number has increased from the last census**.
- **West Bengal** tops the chart followed by **Uttar Pradesh** and **Bihar** at number two and three respectively. Lakshadweep merely has **two vagrants according to the 2011 census**.
- Among the union territories, **New Delhi had the largest number of beggars** 2,187 followed by 121 in **Chandigarh**. Among the northeastern states, Assam topped the chart with 22,116 beggars, while **Mizoram ranked low** with 53 beggars.

#PRE-SUMMIT MEETING OF TIGER RANGE COUNTRIES

- India has hosted the Pre-Summit meeting of **Tiger Range Countries (TRCs)**.
- The **Tiger Range Countries Summit** is scheduled to be held at Vladivostok, Russia on 5th September 2022.
- In January 2022, the 4th **Asia Ministerial Conference on Tiger conservation** was held.
- India's **National Tiger Conservation Authority** has also decided to introduce guidelines for the reintroduction of tigers that can be used by other Tiger Range Countries.

What are the Highlights of the Meeting?

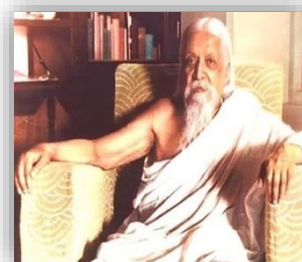
- The meeting was attended by 12 tiger range countries **except for China and Indonesia**.
- There are **13 Tiger Range Countries (TRC)**: India, Bangladesh, Bhutan, Cambodia, Lao PDR (People's Democratic Republic), Malaysia, Myanmar, Nepal, Russia, Thailand, Viet Nam, China and Indonesia.
- India is committed to bringing all potential tiger habitats within the country under the tiger reserve network.
- The meeting aims to **finalise the declaration on tiger conservation to be adopted at the Summit**.

What is the Conservation Status of Tiger?

- **Indian Wildlife (Protection) Act, 1972: Schedule I**
- **International Union for Conservation of Nature (IUCN) Red List: Endangered.**
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I.**
- What is the Indian Scenario in Tiger Conservation?
- India is home to **52 Tiger Reserves** covering approximately 75,000 Sq Km area in 18 States.
- India is home to approximately **75% of the wild tigers at global level**.
- India achieved the **goal of doubling the tiger numbers in 2018 itself**, four years in advance from the **targeted year 2022**.
- India is having bilateral agreements and MoU with several **Tiger Range Countries** and is working very closely with **Cambodia**, for technical assistance towards bringing back wild tigers.

#WHO IS SRI AUROBINDO?

On 15th August, the Prime Minister paid tribute to **Sri Aurobindo** on his **150th birth anniversary**.



What do know about Sri Aurobindo?

- Aurobindo Ghose was **born in Calcutta on 15th August 1872**. He was a yogi, seer, philosopher, poet, and Indian nationalist who propounded a philosophy of divine life on earth through spiritual evolution.
- He died on 5th December 1950 in Pondicherry. Aurobindo's pragmatic strategies to get rid of British rule marked him as **"the Prophet of Indian Nationalism"**.

Indian Revolutionary Movement:

- From 1902 to 1910 he **partook in the struggle to free India from the British**.
- The partition of Bengal in 1905 provoked Aurobindo to leave his job in Baroda and plunge into the nationalist movement. He **started the patriotic journal Bande Mataram to propagate radical methods** and revolutionary tactics instead of supplication.
- He was **arrested thrice by the British — twice for sedition** and once for conspiring to "wage war".
- He was imprisoned in **1908 (Alipore Bomb case)**. Two years later he **fled British India and found**

refuge in the French colony of Pondichéry (Puducherry), gave up overt political activities and embraced spiritual pursuits, soon to emerge as one of the most original thinkers, philosophers and spiritual masters.

- He met Mirra Alfassa in Pondicherry, and their spiritual collaboration led to "Integral Yoga".
- Integral Yoga, is a yoga of Earth transformation. The aim of this yoga is not an escape from life or a shunning of worldly existence, but a radical change in our life even while living amidst it.
- Aurobindo's Ideas on Second World War: Several Indians saw the Second World War as an opportune moment to get rid of colonial occupation; Aurobindo, asked his compatriots to support the Allies and ensure Hitler's defeat.

Literary Works:

- An English newspaper called Bande Mataram (in 1905)
- Bases of Yoga
- Bhagavad Gita and Its Message
- The Future Evolution of Man
- Rebirth and Karma
- Savitri: A Legend and a Symbol
- Hour of God

#MAHANADI RIVER

- The **Indian Meteorological Department (IMD)** has forecast a heavy rainfall causing the **flood situation** in the Mahanadi River, Odisha. The low-pressure area is expected to form over the north Bay of Bengal and trigger **heavy rainfall** at a few places in Odisha and Chhattisgarh.



What is the India Meteorological Department (IMD)?

- IMD was **established in 1875**.
- It is an agency of the **Ministry of Earth Sciences**.
- It is the principal agency responsible for meteorological observations, weather forecasting and seismology.

What are the Key Points of Mahanadi River?

- The Mahanadi River system is the **third largest of peninsular India after Godavari and Krishna, and the largest river of Odisha state**.
- The catchment area of the river **extends to Chhattisgarh, Madhya Pradesh, Odisha, Jharkhand and Maharashtra**.
- Its basin is **bounded by the Central India hills** on the north, by the **Eastern Ghats** on the south and **east and by the Maikala range** in the west.
- **Source:** It rises from a **place near Sihawa, near Raipur** in the state of Chhattisgarh to the south of Amarkantak.
- **Major Tributaries:** The Seonath, the Hasdeo, the Mand and the Ib joins Mahanadi from **left** whereas **the Ong, the Tel and the Jonk** joins it from **right**.
- **Mahanadi River Dispute:** The Central Government constituted **Mahanadi Water Disputes Tribunal in 2018**.
- **Major Dams/Projects on Mahanadi:** **Hirakud Dam: This is the longest dam of India.** Ravishankar Sagar, Dudhawa Reservoir, Sondur Reservoir, Hasdeo Bango and Tandula are other major projects.

#DAM MANAGEMENT IN INDIA

Recently, the outer part of the “Karam Dam”, which is being built on the Karam river, a tributary of the Narmada, collapsed. The **Dam Safety Act 2021** covers those dams having a height of over 15m and between 10m and 15m with certain stipulations.



What are the Key Points of Narmada River?

- **About:** Narmada is the **largest west flowing river of the peninsular region** flowing through a rift valley between the Vindhya Range on the north and the Satpura Range on the south.
- **Source:** It rises from Maikala range near Amarkantak in Madhya Pradesh.
- **Drainage:** It drains a large area in Madhya Pradesh besides some areas in the states of Maharashtra and Gujarat. The river near Jabalpur (Madhya Pradesh) forms the Dhuandhar Falls. There are several islands in the estuary of Narmada of which Aliabet is the largest.
- **Major Tributaries:** Hiran, Orsang, the Barna and the Kolar.
- **Major Hydro Power Projects in the basin:** Indira Sagar, Sardar Sarovar etc.
- **Narmada Bachao Andolan (NBA):** It is an Indian social movement spearheaded by native tribes (adivasis), farmers, environmentalists and human rights activists against a number of large dam projects across the Narmada River. Sardar Sarovar Dam in Gujarat is one of the biggest dams on the river and was one of the first focal points of the movement.

What is the Dam Safety Act 2021?

- **Dam Safety Act 2021** aims at **surveillance, inspection, operation and maintenance** of all specified dams across the country. The Act applies to **all specified dams in the country** i.e., those dams having a **height of over 15m and between 10m and 15m** with certain design and structural conditions.

Provisions:

- **It constitutes two National Bodies:**
- **National Committee on Dam Safety:** Its functions include evolving policies and recommending regulations regarding dam safety.
- **National Dam Safety Authority:** Its functions include implementing policies of the National Committee, and resolving matters between **State Dam Safety Organisations (SDSOs)**, or between a **SDSO and any dam owner in that state**.

#FIFA BAN ON INDIA

- Recently, **Federation Internationale de Football Association (FIFA)** suspended the country's top administrative organization, the **All-India Football Federation (AIFF)**, for **undue influence from third parties**.
- This suspension took away the country's rights to hold the **FIFA U-17 Women's World Cup 2022**, scheduled to be held from October 11-30.

What is FIFA?

- **FIFA or the Federation Internationale de Football Association** is the highest governing body of football in the world.
- It is the international governing body of association football, futsal, and beach soccer.
- FIFA is a non-profit organisation. Founded in 1904, FIFA was launched to oversee international competition among the national associations of **Belgium, Denmark, France, Germany, Netherlands, Spain, Sweden, and Switzerland**. FIFA now comprises 211 member nations. It is headquartered in **Zurich**.

Objectives:

- The primary objective of FIFA is to spread football internationally and promoting integrity and fair play.
- It is responsible for the organization and promotion of international tournaments, including the men's World Cup, which started in 1930, and the women's World Cup, which began in 1991.
- It is **affiliated with the International Olympic Committee** and is also a member of the **International Football Association Board**, which is responsible for setting the rules of football.

Six Regional confederations affiliated with FIFA:

- The **Asian Football Confederation (AFC)** is the governing body for Asia and Australia.
- **Confederation of African Football (CAF)** has 56 members,
- **Confederation of North, Central American and Caribbean Association Football (CONCACAF)** has 41 members,
- **Confederation Sudamericana de Fútbol (CONMEBOL)** is the South American federation with 10 members,
- **Oceania Football Federation (OFC)** has 14 members including New Zealand,
- **Union of European Football Associations (UEFA)** with 55 members is the governing body for Europe.

What is AIFF?

- The **All-India Football Federation (AIFF)** is the organization that manages the game of association football in India. It administers the running of the India national football team and also controls the I-League, India's premier domestic club competition, in addition to various other competitions and teams.
- The AIFF was founded in 1937, and gained FIFA affiliation in the year 1948, after India's independence in 1947. Currently, it has an office in Dwarka, New Delhi. India was one of the founding members of the Asian Football Confederation in 1954.

#NITI AAYOG GOVERNING COUNCIL

Recently, the Prime Minister chaired the seventh meeting of the **Governing Council (GC)** of NITI Aayog.

What is NITI Aayog?

- The Planning Commission was replaced by a new institution – **NITI Aayog on 11st January, 2015** with emphasis on **‘Bottom –Up’ approach to envisage the vision of Maximum Governance, Minimum Government**, echoing the spirit of **‘Cooperative Federalism’**.
- **It has two Hubs,**
- Team India Hub acts as an interface between States and Centre.
- Knowledge and Innovation Hub builds the think-tank acumen of NITI Aayog.

What are the Key Highlights?

- **Key Agenda:** **Crop diversification** and achieving **self-sufficiency** in pulses, oilseeds and other agri-commodities Implementation of **National Education Policy (NEP)** in school Education, Implementation of National Education Policy in higher education, and **Urban governance**.

What is NITI Aayog's Governing Council?

It is the **premier body trusted with developing a shared vision of national priorities and strategies** with the active involvement of States and Union Territories.

It is a platform **to discuss inter-sectoral, inter-departmental and federal issues**.

It comprises:

- The Prime Minister of India.
- Chief Ministers of all the states and union territories with the legislature.
- Lt Governors of other UTs.
- Ex-Officio Members, Vice Chairman, NITI Aayog, Full-Time Members, NITI Aayog.
- Special Invitees.

What are the Initiatives of NITI Aayog?

- **SDG India Index**
- **Composite Water Management Index**
- **Atal Innovation Mission**
- **SATH Project.**
- **Aspirational District Programme**
- **School Education Quality Index**
- **District Hospital Index**
- **Health Index**
- **Agriculture Marketing And Farmer Friendly reform Index**
- **India Innovation Index**
- **Women Transforming India Awards**
- **Good Governance Index**

#DRAFT INDIAN PORTS BILL, 2022

Recently, the government has prepared the **Draft Indian Ports Bill, 2022**. The draft Indian Ports Bill, 2022 seeks **to repeal and replace the existing Indian Ports Act 1908**, which is more than 110 years old, becoming imperative that the **Act is revamped to reflect the present-day frameworks**.

- **How is the Indian Port Ecosystem?**
- Ports sector in India is driven by high growth in external trade. The Union Government has allowed **Foreign Direct Investment (FDI)** of up to **100% under the automatic route for port and harbour construction** and maintenance projects.
- **Legal Provisions:** Major Ports are under the Union list of the Indian Constitution and are administered under the **Indian Ports Act 1908 and the Major Port Trust Act, 1963**.

Number of Major Ports:

- There are 12 major ports and **200 non-major ports (minor ports) in the country**.
- Major ports include Deendayal (erstwhile Kandla), Mumbai, JNPT, Marmugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), V O Chidambaram, Visakhapatnam, Paradip and Kolkata (including Haldia).

Major Ports vs Minor Ports:

- Ports in India are classified as **Major and Minor Ports** according to the jurisdiction of the **Central and State government** as defined under the **Indian Ports Act, 1908**. All the 12 Major Ports are governed under the Major Port Trusts act, 1963 and are owned and managed by the Central Government. All the Minor Ports are governed under the Indian Port Act, 1908 and are owned and managed by the State Governments.

#WHO IS LORD CURZON?

Recently, the West Bengal Government has decided to erect a **statue of Bardhaman's Maharaja Bijay Chand Mahatab** and his wife Radharani in **front of the Lord Curzon Gate**.

Mahtab had built the gate in **1903 when Curzon visited the town**.

Maharajadhiraja Bijay Chand Mahtab (1881 – 1941) was the ruler of Burdwan Estate, Bengal in British India from 1887 till his death in 1941.

Who Was Curzon?

- George Nathaniel Curzon (11th January, 1859-20th March, 1925) born in **Kedleston Hall, England was a British Statesman and Foreign Secretary** who during his terms in office played a major role in British policy making.
- He succeeded **Lord Elgin and served as India's Viceroy between 1899 and 1905**.
- He became the **youngest Viceroy of India** at the age of 39.
- He was one of the **most controversial and consequential holders** of that post.
- Before assuming office as governor general and



What does the Bill Propose?

It seeks to amend the **laws relating to ports**, for the prevention and containment of pollution at ports, to ensure **compliance with the country's obligation under the maritime treaties** and international instruments to which India is a party. It seeks to **empower and establish State Maritime Boards for effective administration**, control and management of non-major ports in India.

It aims to provide adjudicatory mechanisms for redressal of port related disputes and **to establish a national council for fostering structured growth and development of the port sector**. It will ensure optimum utilisation of the coastline of India, as may be necessary, and to provide for matters ancillary and incidental thereto, or connected therewith.

viceroy, Curzon had visited India (four times) Ceylon, Afghanistan, China, Persia, Turkestan, Japan, and Korea.

What were Curzon's Foreign Policies?

- **North-West Frontier Policy:** Curzon, unlike his predecessors, pursued a policy of consolidation, strength and security of the British occupied territories in the north-west. He kept **Chitral under British control and constructed a road connecting Peshawar and Chitral thereby** arranging for the security of Chitral.
- **Afghan Policy:** Lord Curzon's Afghan policy was **conditioned by the political and economic interests, fear of Russian expansion** in Central Asia and Persian Gulf area. From the very start there was an estrangement of relations between Afghans and the British.
- **Policy towards Persia:** In order to secure British influence in that region Lord Curzon personally went to the Persian Gulf area in 1903 and took firm measures to protect the British interests there.
- **Relation with Tibet:** Lord Curzon's Tibet policy was also influenced by fear of Russian dominance in the region. It was Lord Curzon's efforts that revived the trade relations between the two under which Tibet agreed to pay a huge indemnity to the British.

What was Curzon's Role in the Partition of Bengal?

- The partition of the undivided Bengal Presidency in 1905 was one of Curzon's most criticized moves, which triggered widespread opposition not only in Bengal but across India, and gave impetus to the freedom movement.
- Bengal was the **most populous province of India**, with around 8 crore people.
- It comprised the present-day states of **West Bengal, Bihar, parts of Chhattisgarh, Odisha, and Assam** and present-day Bangladesh. In July 1905, Curzon announced the partition of the undivided Bengal Presidency.
- A new province of East Bengal and Assam was announced, with a population of 3.1 crore with a Muslim-Hindu ratio of 3:2. The western Bengal province was overwhelmingly Hindu.

#5 YEARS ON UDAN

- **Recently UDAN (UdeDeshkaAamNagrik), a Regional Connectivity Scheme** of the **Ministry of Civil Aviation** has completed 5 years of success since the launch of its first flight by the Prime Minister on 27th April 2017.

What do we need to know about the UDAN Scheme?

- **Ude Desh Ka Aam Naagrik (UDAN)** was launched as a **Regional Connectivity Scheme (RCS)** under the **Ministry of Civil Aviation** in 2016.
- It was formulated based on the review of **The National Civil Aviation Policy (NCAP)-2016** and it was planned to remain in force for a period of 10 years. Under this Scheme, **Regional Connectivity Fund (RCF)** was created, which funds the **Viability Gap Funding (VGF)** requirements of the scheme through a levy on certain domestic flights. VGF means a grant one-time or deferred, provided to support infrastructure projects that are economically justified but fall short of financial viability.

Objectives:

- To develop the **regional aviation market**. To provide affordable, economically viable and profitable air travel on regional routes to the common man even in small towns.

How has the UDAN Scheme's Performance been?

- **UDAN 1.0:** Under this phase, 5 airlines companies were awarded 128 flight routes to 70 airports (including 36 newly made operational airports).
- **UDAN 2.0:** In 2018, the Ministry of Civil Aviation announced **73 underserved and unserved airports**. For the first time, **helipads were also connected under phase 2 of the UDAN scheme**.
- **UDAN 3.0: Inclusion of Tourism Routes** under UDAN 3 in coordination with the Ministry of Tourism. Inclusion of **Seaplanes for connecting Water Aerodromes**. Bringing in a number of routes in the **North-East Region under the ambit of UDAN**.
- **UDAN 4.0:** In 2020, **78 new routes were approved under the 4th round of RCS-UDAN** to further enhance the connectivity to remote & regional areas of the country. **Kavaratti, Agatti, and Minicoy islands of Lakshadweep** will be connected by the new routes of UDAN 4.0.
- **UDAN 5.0:** In 2021, the Ministry of Civil Aviation **flagged off 6 routes**, expanding the **aerial connectivity of North-East India**, under the UDAN Scheme.
- **Lifeline UDAN:** It was launched for **transportation of medical cargo during pandemic**. It commenced in March 2020 during **COVID-19 period** and it helped to operate 588 flights transporting almost 1000 Tonnes of voluminous cargo and essential medical services to various parts of the country.
- **Krishi UDAN:** It was launched for **value realization of agriculture products** especially in Northeastern Region (NER) and tribal districts.
- **International UDAN:** Under International UDAN, the plan is to **connect India's smaller cities directly to some key foreign destinations in the neighbourhood**.

#HAR GHAL JAL SCHEME

- Recently, **Goa and Dadra & Nagar Haveli and Daman & Diu (D&NH and D&D)** became the **first 'Har Ghar Jal' certified State and UT** in the country respectively. The people from all the villages have declared their village as **Har Ghar Jal** through a resolution passed by **Gram Sabha**, certifying that all households in the villages have **access to safe drinking water through taps**.
- **Village Water and Sanitation Committee (VWSC) or paani Samiti** has been constituted in all the 378 villages of Goa and 96 villages of D&NH and D&D.
- It is responsible for the operation, maintenance, and repair of water supply infrastructure developed under 'Har Ghar Jal' programme.



What is Jal Jeevan Mission?

- **Jal Jeevan Mission**, a central government initiative under the Ministry of Jal Shakti, aims to ensure **access of piped water for every household in India**. Jal Jeevan Mission is envisioned to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India.
- The programme will also implement source sustainability measures as mandatory elements, such as **recharge and reuse through grey water management, water conservation, rain water harvesting**.
- The Jal Jeevan Mission will be based on a **community approach to water**.
- The mission will include information, education, and communication as key components.
- The mission is meant to create a people's movement for water, making it everyone's priority.
- Further, the **Har Ghar Nal Se Jal programme** was announced by Finance Minister in Budget 2019-20.

- It forms a crucial part of the Jal Jeevan Mission.
- The programme **aims to implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, and rainwater harvesting.**

Objectives:

- To provide **Functional Tap Connection (FHTC)** to every rural household.
- To prioritize the provision of FHTCs in quality affected areas, villages in drought-prone and desert areas, **Sansad Adarsh Gram Yojana (SAGY)** villages, etc.
- To provide functional tap connection to **Schools, Anganwadi centres, GP buildings, Health centres, wellness centres, and community buildings**
- To monitor the functionality of tap connections.
- To promote and **ensure voluntary ownership among the local community by way of contribution in cash, kind and/ or labour**, and voluntary labour (shramdaan)
- To assist in **ensuring the sustainability of the water supply system, i.e., water source, water supply infrastructure.**

#TILAPIA AQUACULTURE PROJECT

Inspired by **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**, the Technology Development Board (TDB) has extended support to the **Tilapia Aquaculture Project** with Israeli Technology. Technology Development Board (TDB) is a statutory body under the Ministry of Science and Technology.

What is Pradhan Mantri Matsya Sampada Yojana?

- Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme was announced in September 2020 to **provide financial support for the acquisition of technologically advanced fishing vessels**, deep sea fishing vessels for traditional fishermen, and fishing boats and nets for traditional fishermen.
- It envisages enhancing fish **production to 220 lakh metric tons by 2024-25, at an average annual growth rate of about 9%.**
- The ambitious scheme also aims to double the export earnings to Rs.1,00,000 crore and generate about 55 lakhs direct and indirect employment opportunities in the fisheries sector over a period of the next five years.
- Despite various issues faced by the sector during Covid – 19 pandemic, India has achieved all-time high exports of marine products worth USD 7,165 million from April to February 2021-22.

What is Aquaculture?

- The term aquaculture broadly refers to the **cultivation of aquatic organisms in controlled aquatic environments** for any commercial, recreational or public purpose. The breeding, rearing and harvesting of plants and animals takes place **in all types of water environments** including ponds, rivers, lakes, the ocean and man-made “closed” systems on land.

What is Tilapia?

- Tilapia, also dubbed aquatic chicken, has emerged to be **one of the most productive and internationally traded fish foods** in the world.
- The culture of tilapia has become **commercially popular in many parts of the world** and due to its quick growth and low maintenance cultivation, it was dubbed **aquatic chicken.**
- Tilapia is tolerant of a variety of aquaculture environments; it can be farmed in brackish or salt water and also in pond or cage systems.

What is the State of Fisheries in India?

- Fishing is the **capture of aquatic organisms in marine, coastal and inland areas.**
- Marine and inland fisheries, together with aquaculture, **provide food, nutrition and a source of income** to millions of people around the world, from harvesting, processing, marketing and distribution.
- For many it also forms part of **their traditional cultural identity.**
- One of the greatest threats to the sustainability of global fishery resources is illegal, unreported and unregulated fishing.

What are the Government Initiatives for Fisheries?

- **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)**
- **Blue Revolution**
- **Extension of Kisan Credit Card (KCC)**
- **Marine Products Export Development Authority.**
- **Seaweed Park**

#BATTERY WASTE MANAGEMENT RULES, 2022

Recently, the **Ministry of Environment, Forest and Climate Change (MOEFCC)** notified the **Battery Waste Management Rules, 2022** to ensure environmentally sound management of waste batteries. These rules will replace the **Batteries (Management and Handling) Rules, 2001.**



What are the Key Highlights of the Rules?

- **Coverage:** The rules cover **all types of batteries, including Electric Vehicle batteries, portable batteries, automotive batteries, and industrial batteries.**
- **Extended Producer Responsibility (EPR):** The rules function based on the concept of **Extended Producer Responsibility (EPR)** where the **producers of batteries are responsible for the collection and recycling/refurbishment of waste batteries and the use of recovered materials from waste into new batteries.**
- **EPR mandates that all waste batteries be collected and sent for recycling/refurbishment, and it prohibits disposal in landfills and incineration.**
- **Waste Management:** They promote the **setting up of new industries and entrepreneurship in the collection and recycling/refurbishment of waste batteries.**
- **New Business Opportunities:** Mandating the minimum percentage of recovery of materials from waste batteries under the rules will **bring new technologies and investment in the recycling and refurbishment industry and create new business opportunities.**

#INDIA'S 1ST HYDROGEN FUEL CELL BUS

- Recently, the Union Minister of State of Science & Technology launched **India's first Hydrogen Fuel Cell (HFC) Bus**.
- **Bisphenol-A pilot plant in CSIR- National Chemical Laboratory (NCL)**, an **important feedstock for the production of epoxy resins**, polycarbonate and other engineering plastics was also inaugurated.

What are Hydrogen Fuel Cells (HFC)?

- A hydrogen fuel cell is an **electrochemical device** that converts hydrogen into electrical energy.
- Fuel cells work in a similar manner to conventional batteries found in electric vehicles, but they do not run out of charge and don't need to be recharged with electricity.
- They continue to produce electricity as long as there is a supply of hydrogen.
- One of the most successful **fuel cells uses the reaction of hydrogen with oxygen to form water**.

What is the National Hydrogen Energy Mission?

- The **Union Budget for 2021-22** announced a National Hydrogen Energy Mission (NHM) to draw up a **road map for using hydrogen as an energy source**.
- It will **capitalise on one of the most abundant elements on earth (Hydrogen)** for a cleaner alternative fuel option.
- The initiative has the potential of transforming transportation.
- It will:
- Focus on generation of hydrogen from green power resources.
- Link India's growing renewable capacity with the **hydrogen economy**.
- The usage of hydrogen will not only help India in achieving its emission goals under the **Paris Agreement**, but will also **reduce import dependency on fossil fuels**.

What is Green Hydrogen?

- It is **produced by splitting water into hydrogen and oxygen** using an electrolyzer powered by renewable energy sources such as wind and solar.
- The fuel is **considered a game-changer for the energy security of India**, which imports 85% of its oil and 53% of gas requirements.
- In February 2022, the **Ministry of Power has notified Green Hydrogen/Green Ammonia Policy** for production of Green Hydrogen or Green Ammonia using renewable sources of energy.

In What Other Ways is the Government of India Promoting Clean Fuel Transition?

- **NTPC's project for hydrogen Fuel Cell Electric Vehicles (FCEV)**
- **FAME India Scheme**
- **Faster Adoption and Manufacturing of Electric Vehicles (FAME II) scheme.**
- **Green Hydrogen Fuel Cell Electric Vehicle (FCEV) Toyota Mirai**
- **EV30@30 campaign**
- **Roadmap for Ethanol Blending in India by 2025**

#WHAT IS GRAMEEN UDYAMI PROJECT?

Recently, **National Skill Development Corporation (NSDC)** in partnership with **Seva Bharti and Yuva Vikas Society** launched the second phase of the **Grameen Udyami Project**.

Under the initiative, the endeavor is to **multiskill India's youth** and impart functional skills to them for **enabling livelihoods**.

What is the National Skill Development Corporation?

- The **National Skill Development Corporation (NSDC)** is a **non-profit public limited company** established on July 31, 2008, under Section 25 of the Companies Act, 1956.
- The Ministry of Finance established NSDC as a Public Private Partnership (PPP) model.
- The Government of India, through the **Ministry of Skill Development and Entrepreneurship (MSDE)**, owns 49% of NSDC, while the **private sector owns the remaining 51%**.
- The organisation **provides funding to develop scalable and successful initiatives for vocational training**.

What is Grameen Udyami Project?

It is a unique **multiskilling project**, funded by NSDC that aims to **train 450 tribal students in Madhya Pradesh and Jharkhand**.

The project is being **implemented in six states**— **Maharashtra, Rajasthan, Chhattisgarh, Madhya Pradesh, Jharkhand, and Gujarat**.

Objectives:

- Increase in Rural/Local Economy.
- Enhance employment opportunities.
- Reduce forced migration due to lack of local opportunities.
- Conservation of natural resources.

What are the Other Initiatives taken by the Government for Skill Development?



- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY).**
- **Rozgar Mela.**
- **Pradhan Mantri Kaushal Kendras (PMKK).**
- **Capacity Building Scheme.**
- **School Initiatives and Higher Education.**

- India International Skill Centres (IISCs).
- Pre-Departure Orientation Training (PDOT).

#WOMEN SCIENTISTS IN INDIA

- Data compiled by the **Department of Science and Technology (DST)** shows that 28% of participants in extramural Research & Development projects in 2018-19 were women, **up from 13% in 2000-01 due to various initiatives taken by successive governments.**
- The ministry aims to raise **women's participation in S&T to 30% by 2030.**
- The recent appointment of **Dr N Kalaiselvi** as the first woman director general of **Council of Scientific and Industrial Research (CSIR)** underlined a significant trend of participation of women in science research.
- **All India Survey on Higher Education (AISHE) 2019:** According to AISHE, 53% participation of women in science education at Bachelor's and 55% at Master's levels respectively. But at doctoral level, women graduates at 44% lagged behind men at 56%.

What is the Overall State of Women Participation in the Science Sector?

- **National Figure:** Number of science researchers in India has **doubled from 30,000 in 2014 to over 60,000 in 2022.**
- Women's participation is the **highest in biotechnology at 40% and medicine at 35%.**
- **Department of Science and Technology:** Out of the 97 scientists in the Department of Science and Technology (DST), **35 are women.** The big achievement is that **11 out of 18 divisions in the DST are now headed by women** that are 61%, probably the **largest percentage of women in leadership in any government department.**

Other Institutions:

- **Coalition for Disaster Resilient Infrastructure (CDRI)** has 18%, NIPER Hyderabad 21%, and the Defence Bio-Engineering and Electro-Medical Lab (DEBEL) in Bangalore has 33%.
- Delhi University has 33% women's participation, while Tezpur University in Assam has 17%.

What Initiatives has the Government Taken for Women in Science?

- **Gender Advancement for Transforming Institutions (GATI):** The **Gender Advancement for Transforming Institutions (GATI)** was launched by the Department of Science & Technology (DST). It will develop a **comprehensive Charter and a framework for assessing Gender Equality in STEM** (Science, technology, engineering, and mathematics). In the first phase of GATI, 30 educational and research institutes have been selected by DST, with a focus on women's participation in leadership roles, faculty, and the numbers of women students and researchers.
- **Vigyan Jyoti Scheme:** **Vigyan Jyoti Scheme** is launched by the Department of Science & Technology (DST). It is intended to create a **level-playing field for the meritorious girls in high school to pursue Science, Technology, Engineering, and Mathematics (STEM)** in their higher education. It also offers exposure for girl students from the rural background to **help to plan their journey from school to a job of their choice in the field of science.**
- **Indo-US Fellowship for Women in STEMM (WISTEMM) program:** Women scientists can work in research labs in the US.

#PANDURANG KHANKHOJE & SWAMI VIVEKANANDA

Lok Sabha Speaker will travel to Mexico to unveil statues of **Swami Vivekananda** and Maharashtra-born freedom fighter and agriculturalist **Pandurang Khankhoje** (1883-1967).

The Speaker's visit is part of India's efforts to honor **lesser-known Indian-origin leaders outside India**.

Who was Pandurang Khankhoje?

- **Birth:** Pandurang Khankhoje was born in **Wardha, Maharashtra**, in the late 19th century.
- **Revolutionary Connections:** Pandurang Khankhoje came in **contact with other revolutionaries early on**.
- Hindu reformer **Swami Dayanand and his Arya Samaj movement**, which called for a spirit of reform and social change, **became the hero to a young student group led by Khankhoje**. Khankhoje was an **ardent admirer of the French Revolution** and of the **American War of Independence**.
- Before leaving India for training in abroad, he visited **Bal Gangadhar Tilak**, by who he was inspired.

How was Khankhoje associated with the Indian Independence Movement?

- **Khankhoje & Ghadar Party:** In the US, **Khankhoje met Lala Har Dayal**, an Indian intellectual teaching at Stanford University. Har Dayal had begun a propaganda campaign, **publishing a newspaper that featured patriotic songs and articles in the vernacular languages of India**. This was the seed from which the **Ghadar Party** would emerge.
- Khankhoje was **one of the founding members of the Ghadar Party**, established by Indians living abroad in 1913, mostly belonging to Punjab. Its aim was to **lead a revolutionary fight against the British in India**.

Who was Swami Vivekananda?

- **Birth:** Swami Vivekanand ,original name **Narendranath Datta** was born on 12th January, 1863. **National Youth Day** is held every year to observe the birth anniversary of Swami Vivekananda. In 1893, upon the request of **Maharaja Ajit Singh of the Khetri State**, he took the name '**Vivekananda**.'
- **Contributions:** Introduced the world to the **Indian philosophies of Vedanta and Yoga**. He preached '**neo-Vedanta**', an interpretation of Hinduism through a Western lens, and believed in **combining spirituality with material progress**.
- Laid the greatest emphasis on **education for the regeneration of our motherland**. Advocated a man-making character-building education. Best known for his speech at the **World Parliament of Religion in Chicago in 1893**.

Spelt out the **four pathways of attaining moksha from the worldly pleasure and attachment** in his books:

- Raja-yoga
- Karma-yoga
- Jnana-yoga
- Bhakti-yoga

Netaji Subhas Chandra Bose had called Vivekananda the "**maker of modern India**."

What is the Ghadar Party?

- It was an **Indian revolutionary organisation**, with the aim to liberate India from British rule.
- 'Ghadar' – also written as 'Ghadr' in English – **is an Urdu word for rebellion**.

- **The party was formed in the United States in 1913**, by migrant Indians, mostly Punjabis. However, **the party also included Indians from all parts of India.**
- Motive was to **wage a nationwide armed struggle against British colonialism in India.**
- The party is known for **setting the foundation for future Indian revolutionary movements** and served as a **stepping stone for independence.**
- Most members of the Ghadar party came from the peasantry who first began migrating from Punjab to cities in Asia like Hong Kong, Manila and Singapore at the dawn of the 20th century.
- Later, with the rise in the lumber industry in Canada and the US, **many moved to North America, where they thrived – but also became victims of institutionalised racism.**
- The Ghadar movement '**inspired to transpose egalitarian values (Egalitarianism) of American culture in the social framework of colonial India**'.
- **Egalitarianism** is a doctrine based on the notion of equality, namely, that all people are equal and deserve equal treatment in all things.

#NET-ZERO EMISSIONS TARGET

According to the report by **Getting India to Net Zero**, India needs a massive USD 10.1 trillion investment from now on if India is to achieve its **net-zero emissions target** by 2070.

What are the Key Highlights of the Report?

- **Investment:** The investment required by India would be USD 13.5 trillion if the net zero emission target is to be met by 2050.
- **Nationally Determined Contribution (NDC):** India's **Nationally Determined Contribution (NDC)** targets set in 2015 are likely to be met early within the next few years through current policies.
- **Peak Emission:** India could peak in emissions as soon as 2030.

What is Net-Zero Target?

- It is referred to as **carbon neutrality**, which does not mean that a country would bring down its emissions to zero.
- Rather, it is a **state in which a country's emissions are compensated by the absorption and removal of greenhouse gases from the atmosphere.**
- Further, **absorption of the emissions can be increased by creating more carbon sinks** such as forests.
- While the removal of gases from the atmosphere requires **futuristic technologies such as carbon capture and storage.**
- More than 70 countries have promised to become Net Zero by the middle of the century i.e., by 2050.
- India has promised to cut its emissions to net zero by 2070 at the **conference of parties-26(COP)** summit.
- What Steps Have been taken by India to Achieve Net- Zero Emissions by 2070?

India's Renewable Energy Targets:

- India's **renewable energy targets** have steadily become more ambitious, from **175 GW by 2022 declared at Paris, to 450 GW by 2030 at the UN Climate Summit, and now 500 GW by 2030, announced at COP26.**
- India has also announced the **target of 50% installed power generation capacity from non-fossil energy sources by 2030, raising the existing target of 40%, which has already been almost achieved.**

Goals of NDC:

- There are **EIGHT GOALS** which are identified as follows:
- To put forward and further propagate a **healthy and sustainable way of living based on traditions and**

values of conservation and moderation, including through a mass movement for **'LIFE'– 'Lifestyle for Environment'** as a key to combating climate change.

- To **adopt a climate-friendly and cleaner path** than the one followed hitherto by others at the corresponding level of economic development.
- To **reduce the Emissions Intensity of its GDP by 45% by 2030**, from the 2005 level.
- To achieve about **50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030**,
- With the help of the **transfer of technology and low-cost international finance including from the Green Climate Fund (GCF)**.
- To create an **additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent** through additional forest and tree cover by 2030.
- To better **adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change**, particularly agriculture, water resources, the Himalayan region, coastal regions, and health, and disaster management.
- To **mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions** in view of the resource required and the resource gap.
- To build capacities, and **create a domestic framework and international architecture for quick diffusion of cutting-edge climate technology** in India and for joint collaborative R&D for such future technologies.

Initiatives:

- **Solar Energy:** India has undertaken one of the world's largest solar energy installation initiatives. Irrespective of whether it achieves the 175 GW capacity by 2022 or the 450 GW target by 2030,
- **Creating Carbon Sinks:** India Cooling Action Plan (ICAP) will help address cooling requirements and reduce the cooling demand in the country.
- **The Bureau of Energy Efficiency (BEE) and Energy Efficiency Services Limited (EESL)** has taken a number of initiatives under the **National Mission for Enhanced Energy Efficiency (NMEEE)** to combat climate change.
- The **Compensatory Afforestation Management and Planning Authority (CAMPA)** Fund created under the Compensatory Afforestation Fund Act, 2016, has thousands of crores which will hopefully be utilised soon to compensate for deforestation and restore the green cover comprising native species of trees.
- **Hydrogen Energy:** India has also announced a **Hydrogen Energy Mission** for grey and green hydrogen.

#WHAT IS ARTHA GANAGA PROJECT?

Recently, Director General of the National Mission for Clean Ganga spoke about the **Arth Ganga model** during **World Water Week 2022**.

What are the Key Features of the Arth Ganga Project?

- **'Arth Ganga' implies a sustainable development model with a focus on economic activities related to Ganga.**
- PM Modi first introduced the concept during the first National Ganga Council meeting in Kanpur in 2019, where he urged for a shift from **Namami Gange** to the model of **Arth Ganga**.
- Under **Arth Ganga**, the government is working **on six verticals**:
- The first is **Zero Budget Natural Farming**, which involves **chemical-free farming** on 10 km on either side of the river, and the **promotion of cow dung as fertilizer through the Gobardhan scheme**.
- The **Monetization and Reuse of Sludge & Wastewater** is the second, which seeks to reuse treated water for irrigation, industries and revenue generation for Urban Local Bodies (ULBs).
- Arth Ganga will also involve **Livelihood Generation Opportunities**, by creating haats where people can

sell local products, medicinal plants and ayurveda.

- The fourth is to **increase public participation** by increasing synergies between the stakeholders involved with the river.
- The model also wants to **promote the cultural heritage and tourism of Ganga** and its surroundings, through boat tourism, adventure sports and by conducting yoga activities.
- Lastly, the model seeks to promote institutional building by **empowering local administration for improved water governance**.

What is World Water Week?

- **World Water Week** is an annual conference on global water issues which is held in the **last week of August every year**.
- It was started in 1991 and initially part of a public water festival in the Swedish capital, Stockholm.
- **Stockholm International Water Institute (SIWI)** is the organizer of World Water Week.
- World Water Week is an opportunity to explore **water aspects of challenges like the climate crisis, food security, energy, and many other topics**. The week is also taken as an opportunity to discuss and accelerate progress toward the **Sustainable Development Goal 6 (SDG6)**, which is about clean water and sanitation for all.
- **The theme** for World Water Week 2022 is **"Seeing the Unseen: The Value of Water."**
- The **theme will look at three main areas**: the **value of water** among people and for development, the value of water with **respect to nature and climate change**, and the **economic and financial value of water**.

What is the Namami Gange Programme?

Namami Gange Programme is an **Integrated Conservation Mission**, approved as a '**Flagship Programme**' by the Union Government in June 2014 to accomplish the **twin objectives of effective abatement of pollution and conservation and rejuvenation of National River Ganga**.

It is operated by the Department of Water Resources, River Development and Ganga Rejuvenation, **Ministry of Jal Shakti**.

The program is being implemented by the **National Mission for Clean Ganga (NMCG)**, and its state counterpart organizations i.e State Program Management Groups (SPMGs).

NMCG is the implementation wing of **National Ganga Council** (set in 2016, which replaced the National Ganga River Basin Authority - NGRBA).

It has a Rs. 20,000-crore, **centrally-funded, non-lapsable corpus** and consists of nearly 288 projects.

The **main pillars** of the programme are:

- Sewage Treatment Infrastructure
- River-Front Development
- River-Surface Cleaning
- Biodiversity
- Afforestation
- Public Awareness
- Industrial Effluent Monitoring
- Ganga Gram

#SWACHH BHARAT MISSION GRAMEEN

Over 1 lakh villages declared themselves as **ODF (Open Defecation Free) Plus** under Swachh Bharat Mission Grameen (SBM-G).

These villages are sustaining their **ODF status** and have systems in place for managing solid and/or liquid waste and they would continue on their sanitation journey as they work towards making their villages cleaner, greener and healthier.

What is Open Defecation Free Status?

- **ODF:** An area can be notified or declared as ODF if at any point of the day, not even a single person is found defecating in the open.
- **ODF+:** This status is given if at any point of the day, not a single person is found defecating and/or urinating in the open, and all community and public toilets are functional and well maintained.
- **ODF++:** This status is given if the area is already ODF+ and the faecal sludge/septage and sewage are safely managed and treated, with no discharging or dumping of untreated faecal sludge and sewage into the open drains, water bodies or areas.

What is Swachh Bharat Mission Grameen (SBM-G)?

- It was launched in 2014 by the **Ministry of Jal Shakti** to accelerate the efforts to achieve universal sanitation coverage and to put focus on sanitation.
- The mission was implemented as **nation-wide campaign/Janandolan which aimed at eliminating open defecation in rural areas.**
- **Swachh Bharat Mission (G) Phase-I:** The rural sanitation coverage in the country at the time of launch of **SBM (G) on 2nd October, 2014** was reported as 38.7%. More than 10 crore individual toilets **have been constructed since the launch of the mission**, as a result, rural areas in all the States have declared themselves ODF as on 2nd October, 2019.
- **SBM(G) Phase-II:** It emphasizes the sustainability of achievements under phase I and to provide adequate facilities for **Solid/Liquid & plastic Waste Management (SLWM) in rural India.** It will be implemented from 2020-21 to 2024-25 in a mission **mode with a total outlay of Rs. 1,40,881 crores.**
- **Top Performing States:** The top five performing states are Telangana, Tamil Nadu, Odisha, Uttar Pradesh and Himachal Pradesh where maximum number of villages have been declared as ODF Plus.

What are the Schemes as part of SBM?

- **GOBAR-DHAN (Galvanizing Organic Bio-Agro Resources) Scheme:** Launched by the Ministry of Jal Shakti in 2018 and aims to augment income of farmers by converting biodegradable waste into compressed biogas (CBG).
- **Individual Household Latrines (IHHL):** Individuals get around 15 thousand for the construction of toilets.
- **Swachh Vidyalaya Abhiyan:** The Ministry of Education launched the Swachh Vidyalaya Programme with an objective to provide separate toilets for boys and girls in all government schools within one year.

What is SBM-Urban?

- It was launched on 2nd October 2014 by the **Ministry of Housing and Urban Affairs.**
- **Phase-I:**
- The programme includes **elimination of open defecation, conversion of unsanitary toilets to pour**

flush toilets, eradication of manual scavenging, municipal solid waste management and bringing about a behavioural change in people regarding healthy sanitation practices. Under the programme, **community toilets will be built in residential areas where it is difficult to construct individual household toilets.**

#SEX RATIO AT BIRTH

A recent study has reported that “son bias” is on a decline in India as **Sex Ratio** at Birth normalised from **111 boys per 100 girls in 2011 to 108 boys per 100 girls in 2019-21.**

What are the Key Findings of the Report?

National Figures: The average annual number of baby girls “missing” in India fell from about 4.8 lakh in 2010 to 4.1 lakh in 2019. The “missing” here refers to **how many more female births would have occurred during this time** if there were **no female-selective abortions.** From 111 boys per 100 girls in India’s 2011 census, the sex ratio at birth have normalised slightly, narrowing to about **109 in the 2015-16 wave** of the **National Family Health Survey (NFHS)** and to 108 boys in the NFHS 5 2019-21. Between 2000-2019, **nine crore female births** went “missing” because of **female-selective abortions.**

Religion Wise Sex Ratio: The report has also analysed **religion-wise sex selection**, pointing out that the **gap was the highest for Sikhs.** In the 2001 census, Sikhs had a sex ratio at birth of **130 males per 100 females**, far exceeding that year’s national average of 110. By the 2011 census, the Sikh ratio had **narrowed to 121 boys per 100 girls.** It now hovers around 110, about the same as the ratio of males to females at birth among the country’s Hindu majority (109), according to the latest NFHS.



Religion Wise Share in Missing Girls:

Share in Indian Population:

- Sikh: 2%
- Hindu: 80%
- Muslim: 14%
- Christian: 2.3%

Share in Missing Girls due to Sex-Selective Abortion:

- Sikh: 5%
- Hindu: 87%
- Muslim: 7%

- Christian: 0.6%

What has been the History of Sex Ratio in India?

- Globally, **boys modestly outnumber girls at birth**, at a ratio of approximately **105 male babies for every 100 female babies**.
- This was the ratio in India in the 1950s and 1960s, **before prenatal sex tests became available across the country**.
- The problem began in the 1970s with the availability **prenatal diagnostic technology allowing for sex selective abortions**.
- **India legalised abortion in 1971** but the trend of sex selection started picking up in the **1980s due to the introduction of ultrasound technology**.
- In the **1970s**, India's sex ratio **was at par with the global average of 105-100**, but this widened to **108 boys per 100 girls in the early 1980s**, and reached **110 boys per 100 girls in the 1990s**.

#GEO-THERMAL POWER IN LADAKH

Oil and Natural Gas Corporation (ONGC) will be participating to generate electricity through **Geothermal Energy** at Puga, a remote valley located in Ladakh, off the road to Chumar on the de-facto border with China.



What do we need to know about the Puga Project?

- **About Puga Valley:** Puga Valley is situated in the **Changthang Valley** in the south-eastern part of Ladakh, about 22 km away from the **Salt Lake Valley**. It is a region of great significance known for its **natural beauty and geothermal activities**. Puga is also visited for its **hot sulphur spring**.
- **About Geothermal Project:**
 - It will be India's **first geothermal energy project** and also the **world's highest at 14,000ft**.
 - ONGC has started drilling its first well for the project and encountered **high-pressure steam at 100 degrees Celsius** with a discharge rate of 100 tonne geothermal energy per hour, **considered as a good sign for the project**.

Status of Geothermal Energy:

National: Geological Survey of India has identified about 340 geothermal hot springs in the country. Most of them are in the low surface temperature range from 37°C to 90°C, which is suitable for direct heat applications. The potential for power generation at these sites is about 10,000 MW.

The hot springs in the country are grouped into seven geothermal provinces: Himalayan, Sahara Valley, Cambay Basin, San-Narmada –Topi lineament belt, West Coast, Godavari Basin and Mahanadi Basin.

Some of the prominent places where a power plant can be established based on geothermal energy are:

- Manikaran in Himachal Pradesh
- Jalgaon in Maharashtra
- Tapovan in Uttarakhand
- Bakreshwar in West Bengal
- Tuwa in Gujarat

Global: Gigawatt-Size Geothermal Capacities:

- The US: The US leads the world in the amount of geothermal electricity generation.
- Indonesia: Indonesia was the second-largest geothermal electricity producer.
- Philippines
- Turkey
- New Zealand
- Mexico and Italy have 900 megawatt-plus capacity, while Kenya has over 800 mw, followed by Iceland, Japan and others.

What is Geothermal Energy?

- Geothermal energy is the **heat from the earth**. This heat is used for bathing, to heat buildings, and to generate electricity.
- The word geothermal comes from the Greek words **geo (earth)** and **therme (heat)**, and geothermal energy is a **renewable energy source** because heat is continuously produced inside the earth.
- **Sources:**
- **Hot water or steam reservoirs** deep in the earth are accessed by **drilling**.
- Geothermal **reservoirs located near the earth's surface**, mostly located in the western U.S., Alaska, and Hawaii.
- The **shallow ground near the Earth's surface that maintains a relatively constant temperature of 50-60°F**.

#BHITARKANIKA NATIONAL PARK

Recently, the **Bhitarkanika National Park** have reached a saturation point in the population of crocodile which could lead to more human-Crocodile conflict.

What is Bhitarkanika National Park?

- Bhitarkanika National Park is spread in a vast area of 672 Kms in **Orissa**.
- It is the second largest **Mangrove ecosystems** of India.
- The **National Park is essentially a network of creeks and canals** which are inundated with waters from rivers **Brahmani, Baitarani, Dhamra and Patasala** forming a unique ecosystem.
- Its proximity to **Bay of Bengal** makes the soil of the area enriched with salts, the vegetation and the species of the sanctuary is comprised of those which are mainly found in the tropical and subtropical inter tidal regions.
- **It is the breeding place for the Salt Water Crocodiles.**
- The Gahirmatha Beach which forms the boundary of the sanctuary in the east is the **largest colony of the Olive Ridley Sea Turtles**.
- The other unique phenomenon is the **Bagalahana or the heronry near Surajpore creek**.
- Thousands of birds colonise the creek for nesting and the aerial acrobatics performed prior to mating make for an impressive sight.
- Bhitarkanika is also home to **eight varieties of Kingfisher birds** which is also a rarity.

What is Crocodile Conservation Project?

- The **crocodile conservation project in Bhitarkanika** was started in 1975.
- Its main objective was **to protect the reptiles' natural habitats and to rebuild the population quickly through captive breeding** as the survival rate of crocodile hatchlings in nature is low because of predation.
- Since Odisha is recognized for the existence of all the **three species of Indian crocodilians**, the Gharial and Saltwater crocodile conservation programme was first implemented in Odisha in early 1975 and subsequently, the Mugger conservation programme was initiated.
- The **UNDP/ FAO** provided funds and other technical support through the Government of India.

#PRADHAN MANTRI JAN DHAN YOJANA

Recently, Pradhan Mantri Jan Dhan Yojana (PMJDY) - National Mission for **Financial Inclusion**, completed **eight years of successful implementation**. More than **46.25 crore beneficiaries** banked under PMJDY since inception, amounting to Rs. 1, 73,954 crores.

What is Pradhan Mantri Jan Dhan Yojana (PMJDY)?

Pradhan Mantri Jan Dhan Yojana (PMJDY) is the National Mission for Financial Inclusion.

It ensures **access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.**

PMJDY has been the foundation stone for people-centric economic initiatives. Whether it is **Direct Benefit Transer (DBT)**, **Covid-19** financial assistance, **PM-KISAN**, increased wages under **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA)**, life and health insurance cover, the first step of all these initiatives is to provide every adult with a bank account, which PMJDY has nearly completed.

Objectives:

Ensure **access to financial products & services** at an affordable cost.

Use of technology to lower cost & widen reach.

Basic tenets of the scheme:

- **Banking the unbanked:** Opening of **basic savings bank deposit (BSBD)** account with minimal paperwork, relaxed KYC, e-KYC, account opening in camp mode, zero balance & zero charges.
- **Securing the unsecured:** Issuance of **Indigenous Debit cards** for cash withdrawals & payments at merchant locations, with **free accident insurance coverage of Rs. 2 lakhs.**
- **Funding the unfunded:** Other financial products like **micro-insurance, overdraft for consumption, micro-pension & micro-credit.**

What is Financial Inclusion?

- **Financial inclusion** is defined as the process of **ensuring access to financial services and timely and adequate credit where needed by vulnerable groups** such as weaker sections and low-income groups at an affordable cost.
- In a diverse country like India, financial inclusion is a critical part of the development process. Since independence, the **combined efforts of successive governments, regulatory institutions, and civil society have helped in increasing the financial-inclusion net** in the country.
- Being able to have access to a transaction account is a **first step toward broader financial inclusion since a transaction account allows people to store money, and send and receive payments.**
- A transaction account serves as a **gateway to other financial services.**

What are the Other Initiatives to Increase Financial Inclusion in India?

- **Digital Identity (Aadhaar)**
- **National Centre for Financial Education (NCFE)**
- **Centre for Financial Literacy (CFL) Project**
- **Expansion of financial services in Rural and Semi-Urban Areas**
- **Promotion of Digital Payments**

What are the Six Pillars of the Scheme?

- **Universal access to banking services:** Branch and Banking Correspondants.

- **Overdraft Facility:** Basic savings bank accounts with overdraft facility of Rs. 10,000/- to every eligible adult.
- **Financial Literacy Programme:** Promoting savings, use of ATMs, getting ready for credit, availing insurance and pensions, using **basic mobile phones for banking**.
- **Creation of Credit Guarantee Fund:** To provide banks some guarantee against defaults.
- **Insurance:** Accident cover up to Rs. 1,00,000 and life cover of Rs. 30,000 on account opened between 15 Aug 2014 to 31 January 2015.
- **Pension scheme** for Unorganized sector.

#AADHAR VOTER ID LINKAGES

Recently, the **Election Commission (EC)** started a campaign to promote the linkage of Voter ID and Aadhaar. Further, Government officials have asked individuals to **link them Aadhaar with their Voter IDs and failure to link voter ID with Aadhaar could lead to the cancellation of their Voter ID card**.

Is linking Aadhaar with One's Voter ID mandatory?

Legal status:

In December 2021, Parliament passed the **Election Laws (Amendment) Act, 2021** to amend the **Representation of the People, Act, 1950**, Section 23(4) was inserted in the Representation of the People Act, 1950. According to it the **electoral registration officer may for the purpose of establishing the identity of any person or for the purposes of authentication of entries in electoral roll of more than one constituency or more than once in the same constituency for citizens already enrolled, require them to furnish their Aadhaar numbers**.

Recent Changes:

- Recently, the government **notified changes to the Registration of Electors Rules, 1960**.
- **Rule 26B** was added to provide that **every person whose name is listed in the roll may give his Aadhaar number to the registration officer**.
- **Confusing Government Actions:** There have been assurances given by both the government and the EC that linkage of the Aadhaar with Voter ID is optional, but this **does not seem to be reflected in Form 6B issued under the new Rule 26B**.
- **Form 6B:** It provides the format in which Aadhaar information may be submitted to the electoral registration officer. Further, it provides the voter to **either submit their Aadhaar number or any other listed document**. However, the option to submit other listed documents is exercisable **only if the voter is not able to furnish their Aadhaar number because they do not have an Aadhaar number**.

#CIVIL SERVICES REFORMS

Recently, one of India's most respected police officers highlighted a case for the government to launch a "Nitipath" scheme on the lines of **Agnipath** and the Short Service Commission for military officers.

What can be the Framework of the Scheme?

- Officers can be filtered out after 10, 25 and 30 years of service.
- This would rectify the top-heavy structure, and create a culture of public service and performance.
- The government can **recruit four times as many candidates at the entry level** without being constrained by the number of apex level positions and career paths.
- Instead of **600-1,000 candidates appointed to the AIS**, we can have **4,000 officers entering service every year**.



- Only 25% of them will be retained after a performance review after the fourth year.

What are the Related Initiatives?

- **Mission Karmayogi:** This is a National Programme for Civil Services Capacity Building (NPCSCB). It is a comprehensive reform of the capacity building apparatus at individual, institutional and process levels for efficient public service delivery.
- **Lateral Entry Reform:** **Lateral entry** means when personnel from the private sector are selected to an administrative post of the government despite them not being selected in or being part of a bureaucratic setup. This is significant because contemporary times require highly skilled and motivated individuals at the helm of administrative affairs, without which public service delivery mechanisms do not work smoothly.
- **e-Samiksha:** A real time online system for monitoring and follow up action on the decisions taken by the Government at the Apex level in respect of implementation of important Government programmes/projects.
- **National Conference on e-Governance:** It provides a platform for the government to engage with experts, intellectuals from industry and academic institutions to exchange experiences relating to e-Governance initiatives.
- **Centralized Public Grievance Redress and Monitoring System (CPGRAMS):** It is an online web-enabled system developed by National Informatics Centre (Ministry of Electronics & IT [MeitY]), in association with Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG).
- **National e-Governance Service Delivery Assessment:** It aims at assessing the States, UTs and Central Ministries on the efficiency of e-Governance service delivery.

#PEER PRESSURE

There is still much disagreement over whether peer pressure is a genuine phenomenon.

What do we understand by Peer Pressure?

- Peer pressure is the process in which individuals within the same group influence others in the group to engage in a behavior or activity that they may not otherwise engage in.
- A peer can be any individual who belongs to the same social groups or circles as you and has some type of influence over you.
- Peer pressure or influence is **when you do something because you want to feel accepted** and valued by your friends.
- Peer influence can be **positive or negative**.
- **Coping well with peer influence is about getting the right balance** between being yourself and fitting in with your group.



#VISHNUGAD PIPALKOTI HYDRO ELECTRIC PROJECT (VPHEP)

Recently, the World Bank has agreed to look into environmental damage from the under-construction **Vishnugad Pipalkoti Hydro Electric Project (VPHEP)** on the Alaknanda River in Uttarakhand. The panel has considered the request for an enquiry after accepting the Complaints from 83 Local Communities.



What is the Geography of Alaknanda River?

- It is one of the **headstreams of the Ganga**.
- It rises at the confluence and feet of the **Satopanth and Bhagirath glaciers** in Uttarakhand.
- It meets the Bhagirathi River at Devprayag after which it is called the Ganga.
- Its main tributaries are the **Mandakini, Nandakini, and Pindar rivers**.
- The Alaknanda system drains parts of Chamoli, Tehri, and Pauri districts
- The Hindu pilgrimage center of Badrinath and the natural spring Tapt Kund lie along the banks of the Alaknanda River
- At Its origin, **Lake Satopanth** is a triangular lake located at a height of 4402 m and named after the Hindu trinity Lord Brahma, Lord Vishnu, and Lord Shiva.
- **Panch Prayag**: Five sites in Uttarakhand where **five rivers merge into River Alaknanda to ultimately form the holy River Ganga is called Panch Prayag** (in Hindi, 'panch' means five and 'prayag' means confluence). First, Alaknanda meets **Dhauliganga** river at **Vishnuprayag**, move on to **Nandaprayag** to meet **Nandakini** river then travels to Karnaprayag to join Pindar river. It unites with Nandakini river at **Rudraprayag** and joins the last and the final Bhagirathi river at **Devprayag**.

What is VPHEP?

- The 444-MW VPHEP is being built by the **Tehri Hydropower Development Corporation**, a partially Centre-owned enterprise.
- The project is primarily funded by the **World Bank and was sanctioned in 2011**
- The hydropower project has been targeted to be completed by 30th June, 2023 at the cost of USD 922 million.
- The project will build a 65-meter diversion dam near Helang village in Chamoli district of Uttarakhand to create a small reservoir in the **Alaknanda River**.

COMMUNITY FOREST RESOURCE?

Residents of the four villages in Chhattisgarh's Mungeli district have received **Community Forest Resource Rights (CFRR)**. Achanakmar became the second **tiger reserve** in Chhattisgarh to get CFRR, following Udanti Sitanadi Tiger Reserve in Dhamtari district.

What is a Community Forest Resource?

- The Community Forest Resource (CFR) area is common **forest land that has been traditionally protected and conserved for sustainable use** by a particular community.
- The community uses it to **access resources available within the traditional and customary boundary** of the village, and for seasonal use of landscape in the case of pastoralist communities.
- Each CFR area has a **customary boundary with identifiable landmarks recognised by the community** and its neighbouring villages.
- It may include forest of any category – **revenue forest, classified & unclassified forest, deemed forest, DLC (District Level Committee) land, reserve forest, protected forest, sanctuary and national parks etc.**

What are Community Forest Resource Rights?

- The Community Forest Resource rights under Section 3(1)(i) of the **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** (commonly referred to as the Forest Rights Act) provides for **recognition of the right to “protect, regenerate or conserve or manage”** the community forest resource.
- These rights allow the **community to formulate rules for forest use** by itself and others and thereby discharge its responsibilities under **Section 5 of the FRA**.
- CFR rights, along with Community Rights (CRs) under Sections 3(1)(b) and 3(1)(c), which include nistar rights and rights over non-timber forest products, **ensure sustainable livelihoods of the community**.

- Once CFRR is recognised for a community, the ownership of the forest passes into the hands of the **Gram Sabha instead of the forest department**.
- Effectively, the Gram Sabha becomes the nodal body for management of the forests.
- These rights give authority **to the Gram Sabha adopt local traditional practices of forest conservation and management** within the community forest resource boundary.
- Chhattisgarh is only the second state to have recognised CFR rights inside a national park i.e., **Kanger Ghati National Park**. In 2016, the Odisha government was the first to recognise Community Forest Resources (CFRs) inside the **Simlipal National Park**.

#GREENING INITIATIVES OF INDIA'S COAL SECTOR

Ministry of Coal seeks to bring more than **2400 hectare of area in and around coalfields under green cover**. It has been aimed to plant more than **50 lakh saplings for the year 2022-23**.

What is India's Revised NDCs?

- India is now committing itself to at least **45% reduction in emissions intensity of GDP (emissions per unit of GDP)** from 2005 levels.
- The existing target was a **33% - 35% reduction**.
- **Electricity Generation:** India is also promising to ensure that at least **50% of installed electricity generation capacity in 2030 would be based on non-fossil fuel-based sources**.
- This is an increase from the **existing 40% target**.

Other NDCs:

- Increase **non-fossil energy capacity** to 500 GW (gigawatts) by 2030.
- Reduce the **total projected carbon emissions** by 1 billion tonnes (BT) by 2030.
- Achieve **net zero carbon** by 2070.

What are India's Initiatives towards Climate Change?

- **Reforms in Transport Sector:** India is accelerating its **e-mobility transition** with the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles Scheme. A voluntary **vehicle scrapping policy** to phase out old and unfit vehicles complements the existing schemes.
- India is among a handful of countries that support the **global EV30@30 campaign**, which aims for at least 30% new vehicle sales to be electric by 2030.
- India's advocacy of five elements for climate change "**Panchamrit**", at the United Nations Climate Change Framework Convention (UNFCCC) COP26 in **Glasgow** is a commitment to the same.

Role of Government Scheme

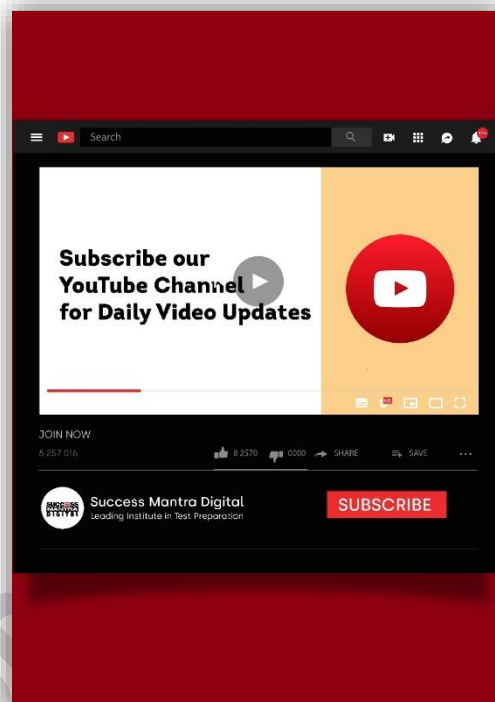
- **The Pradhan Mantri Ujjwala Yojana** has helped 88 million households to **shift from coal-based cooking fuels to LPG connections**.
- **Role of Industries in Low-Carbon Transition:** The **public and private sectors** in India are already playing a key role in **meeting the climate challenge**, helped by growing customer and investor awareness, as well as increasing regulatory and disclosure requirements.
- **Hydrogen Energy Mission:** Focus on generation of hydrogen from green power resources.

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