



WE4UIAS COACHING
UPSC MONTHLY CURRENT AFFAIRS
MARCH 2022

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1.Indian Polity

1.1 [News]: Geotagging of Waqf properties picks up pace

[Back Ground]

The long-delayed project to geotag all Waqf properties across the country that began in 2017 under the Union Ministry of Minority Affairs' "Quami Waqf Boards Taraqqiati Scheme" has yet again revised its deadline from March 2022 to November 2023.

[Concept]

Taraqqiati Scheme

- * This scheme was envisaged based on recommendations of Parliamentary Standing Committee in the past.
- * Under the scheme, government wanted to map the immovable assets under Waqf boards, in order to ensure its proper utilisation and monetisation.
- * This move also aims to ensure that these properties are not lost to encroachments and other counter ownership claims.

1.2 [News]: Upper age limit for NEET-UG removed

[Back Ground]

The upper age limit for appearing in the National Eligibility-cum-Entrance Test (Undergraduate) [NEET-UG] has been removed. The announcement was made through a circular issued by the National Medical Commission (NMC) on Wednesday after a meeting

[Concept]

the National Medical Commission (NMC)



* National Medical Commission (NMC) has replaced the Medical Council of India (MCI), as per the gazette notification issued by the Ministry of Health and Family Welfare.

- * The Union government has set up the National Medical Commission (NMC) along with four other autonomous boards while abolishing the MCI.
- * The four autonomous boards include:
 - Undergraduate Medical Education Board.
 - Postgraduate Medical Education Board.
 - Medical Assessment and Rating Board.
 - Ethics and Medical Registration Board.

* These boards have been constituted to help the NMC in day-to-day functioning

* **Functions of NMC:**

- laying down policies for regulating medical institutions and medical professionals.
- assessing the requirements of human resources and infrastructure in healthcare.
- ensuring compliance by the State Medical Councils with the regulations made under the Bill.
- framing guidelines for determination of fee for up to 50% of the seats in the private medical institutions.

1.3 [News]: **Record of Rights under SVAMITVA scheme**

[Back Ground]

The Central Sector Scheme “SVAMITVA” aims to provide the ‘Record of Rights’ to village household owners possessing houses in inhabited areas (Abadi) in villages with issuance of legal ownership rights (Property cards/Title deeds).

[Concept]

SVAMITVA

- * It provide an integrated property validation solution for rural India.
- * It is a scheme for mapping the land parcels in rural inhabited areas using drone technology and Continuously Operating Reference Station (CORS).
- * The mapping will be done across the country in a phase-wise manner over a period of four years - from 2020 to 2024.
- * **Benefits.**
 - The scheme will help in streamlining planning and revenue collection in rural areas and ensuring clarity on property rights.
 - The scheme will enable creation of better-quality Gram Panchayat Development Plans (GPDPs), using the maps created under this programme.

1.4 [News]. House panel flags issues plaguing MGNREGS

[Back Ground]

Corruption among chosen beneficiaries, fake job cards, pending payments are some of the problems

[Concept]

MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act)



Mahatma Gandhi
National Rural
Employment
Guarantee Act
(MGNREGA)

- * The Mahatma Gandhi National Rural Employment Guarantee Act, earlier known as the National Rural Employment Guarantee Act was passed in 2005 to augment employment generation and social security in India.
- * The scheme is a demand-driven wage employment scheme, which functions under the Ministry of Rural Development.
- * Every adult member of a household in a rural area with a job card is eligible for a job under the scheme.
- * The scheme envisages providing 100 days of guaranteed wage employment in a financial year to adult member volunteers for unskilled manual work.
- * It covers all districts of India except the ones with 100% urban population.
- * There is also a provision for additional 50 days of unskilled wage employment in drought/natural calamity notified rural areas.
- * As per Section 3(4) of the MGNREGA, the States may make provisions for providing additional days beyond the period guaranteed under the Act from their own funds.

1.5 [News]: BIS Mumbai seizes Packaged Drinking Water Bottles misusing ISI Mark, at Thane

[Back Ground]

Bureau of Indian Standards (BIS), Mumbai conducted an enforcement search and seizure operation at Bhiwandi, Thane, yesterday 21st December 2021, to check the misuse of ISI Mark on 'Packaged Drinking Water' as per IS (Indian Standard) 14543.

[Concept]

BIS- Water

- * The Bureau of Indian Standards (BIS) has made two Indian Standards pertaining to drinking water, namely,
 - IS 10500:2012 on Drinking Water – Specification and
 - IS 17482:2020 on Drinking Water Supply Management System – Requirements for Piped Drinking Water Supply.
- * BIS quality standards are not mandatory for civic agencies engaged in supplying drinking water to houses across the country.

[Extra]

- * Water Supply is a State subject and it is the responsibility of the State Government/Urban Local Bodies to plan, design, execute, operate and maintain the water supply systems.

1.6 [News]. Union Panchayati Raj Minister Shri Giriraj Singh releases the Disaster Management Plan of Ministry of Panchayati Raj

[Back Ground]

The Minister called for people's participation in preparedness for disaster management and mitigation activities at grassroots level. Union Minister underlined that the involvement of the community is the key factor in any disaster preparedness strategy and active participation of the community is vital to carry out and sustain the activities relating to disaster management in rural areas.

[Concept]

- * Aim: To develop disaster resilience at the grassroots level among the Panchayats and establish a framework to align the disaster management measures in rural areas to that of the National Disaster Management Authority'.

- * The convergent and collective actions to envision, plan and implement community-based disaster management plans, would be a game changer for our country in managing disasters comprehensively.
- * People's participation in preparedness for disaster management and mitigation activities at grassroots level is crucial. Active participation of the community is vital to carry out and sustain the activities relating to disaster management in rural areas.
- * There is a need to formulate Panchayat-level and village-level Disaster Management Plans to mitigate the challenges in the event of disaster.
- * Disaster management should be kept in mind while making a master plan for the holistic development of Panchayats in the country.
- * All stakeholders including PRIs, elected representatives and functionaries of Panchayats etc. would participate in planning, implementation, monitoring and evaluation of the plan.

1.7 [News]: ST panel in stasis, says report

[Back Ground]

The National Commission for Scheduled Tribes has been dysfunctional for the past four years and has not delivered a single report to Parliament, a parliamentary committee has said in a recent report.

[Concept]

National Commission for Scheduled Tribes



* NCST was set up with effect from 19th February, 2004 by amending Article 338 and by inserting a new article 338A in the Constitution through the 89th Constitution Amendment Act, 2003. Hence, it is a constitutional body.

- * Article 338A inter-alia gives powers to the NCST to oversee the implementation of various safeguards provided to STs under the Constitution or under any other law for time being in force or under any other order to the Government and to evaluate the working of such safeguards.
- * **Composition** : It consists of a Chairperson, a Vice-Chairperson and 3 other Members who are appointed by the President by warrant under his hand and seal.
 - At least one member should be a woman.
 - The Chairperson, the Vice-Chairperson and the other Members hold office for a term of 3 years.
 - The members are not eligible for appointment for more than two terms.

- The Chairperson has been given the rank of Union Cabinet Ministers, the Vice Chairperson has the rank of a Minister of State and other Members have the rank of a Secretary to the Government of India.

1.8 [News]: Implementation PM Daksh Yojana

[Concept]

- * The scheme of ‘Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi’ (PM-DAKSH) has been launched by Department of Social Justice and Empowerment during 2020-21 to impart skill development training to the youth (age between 18-45 years) belonging to Scheduled Castes, Other Backward Classes/Economically Backward Classes/De-notified Tribes and Safai karamcharis including Waste pickers through online registration at PM-DAKSH portal on pan India basis.
- * The training is free of cost and is implemented through three Corporations viz. National Scheduled Castes Finance and Development Corporation (NSFDC), National Backward Classes Finance & Development Corporation (NBCFDC) and National Safai Karamcharis Finance & Development Corporation (NSKFDC) catering to the respective target groups.

- * The main objective of the scheme is to increase the skill levels of the targetted youth by providing for long term and short term skills, followed by settlement in employment/self-employment.

1.9 [News]: **Nine states withdraw general consent to CBI to investigate cases, says Jitendra Singh**

[Back Ground]

Nine states have withdrawn general consent to the CBI to investigate cases. They include West Bengal, Maharashtra, Rajasthan, Kerala and Punjab. In a written reply in the Rajya Sabha today, Minister of State in the Prime Minister's Office, Dr. Jitendra Singh said.

[Concept]

Central Bureau of Investigation (CBI)

- * Its the premier investigating police agency in India.
- * It provides assistance to the Central Vigilance Commission and Lokpal.
- * It functions under the superintendence of the Deptt. of Personnel, Ministry of Personnel, Pension & Public Grievances, Government of India - which falls under the prime minister's office.

- * However for investigations of offences under the Prevention of Corruption Act, its superintendence vests with the Central Vigilance Commission.
- * It is also the nodal police agency in India which coordinates investigation on behalf of Interpol Member countries.
- * Its conviction rate is as high as 65 to 70% and it is comparable to the best investigation agencies in the world.

1.10 [News]: **Online voting for NRIs under consideration, says Kiren Rijiju**

[Back Ground]

The Government of India was exploring the possibility of allowing online voting for non-resident Indians (NRIs) as well as considering linking Aadhaar with the electoral rolls to check fraudulent voting, Law Minister Kiren Rijiju said in the Lok Sabha on Friday.

[Concept]

Non resident Indians (NRI):

- * An NRI is an Indian who is a resident in a foreign country.
- * Non-Resident Indian are referred to as Indian Diaspora, are the people of Indian birth or descent living outside the Republic of India.

- * To qualify as a resident Indian, an individual should have spent 182 days or more of a financial year in India, or stayed in India for 60 days or more in the year and for a period of 365 days or more in the 4 years preceding the relevant financial year
- * NRIs enjoy voting rights in India
- * NRIs are eligible for public offices
- * NRIs need not to take permission visit restricted places in India

2.Indian Economy

2.1 [News] : GDP to grow at 8.9% in 2021 22 instead of 9.2%

[Back Ground]

India's gross domestic product (GDP) is estimated to grow at 8.9% in 202122 instead of the 9.2% estimated earlier, with year on year growth during October December 2021. Gross Value Added (GVA) in the economy is expected to grow by 8.3% this financial year, from a 4.8% contraction in 2020 21, the National Statistical Office (NSO) said.

[Concept]

Gross Domestic Product (GDP)

- * Its the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.
- * It is calculated on a regular basis to account for changes in the production structure, relative pricing, and better documentation of economic activity.

National Statistical Office:

- * The government has formed an overarching body NSO by merging the National Sample Survey Office (NSSO), Computer Centre and Central Statistical Office (CSO).

- * NSO was first envisaged by Rangarajan Commission to implement and maintain statistical standards and coordinate statistical activities of Central and State agencies as laid down by the National Statistical Commission (NSC).
- * NSO would be headed by Secretary (Statistics and Programme Implementation).
- * CSO coordinates the statistical activities in the country and also evolves statistical standards.
- * NSSO is responsible for the conduct of large scale sample surveys in diverse fields on an all India basis.
- * Parent Ministry: It is the statistical wing of the Ministry of Statistics and Programme Implementation (MoSPI).

2.2 [News]



[Concept]

- * The chief minister of Tamil Nadu MK Stalin launched an ambitious skill Development Scheme called Tamil Nadu Naan Mudhalvan Scheme on 1st March 2022.
- * Through this scheme, the government is going to equip 10 lakh youth across the state annually with skills that will help them to realize their talents for the benefit of the country.
- * Through this scheme, academic guidance will be provided to talented students in government-run and State educational institutions.
- * This scheme will identify the talents and train the students which will ultimately help them in getting a better career.
- * Through this scheme, spoken English lessons will be provided to the students so that they can face the interview panel successfully

2.3 [News] : Trade deficit widens to \$21 bn again as imports climb 35%**[Back Ground]**

India's merchandise exports rose 22.3% to \$33.81 billion in February, while imports shot up 35% to surpass \$55 billion, widening the trade deficit to \$21.2 billion, as per preliminary foreign trade estimates.

[Concept]

Trade Deficit

- * A Trade deficit occurs when the cost of a country's imports exceeds the cost of its exports.
- * It's also known as a negative balance of trade, and it's one way of measuring international commerce.
- * A trade deficit is calculated by subtracting the total value of a country's exports from its total value of imports.

2.4 [News] : CBI arrests former NSE MD Chitra Ramkrishna

[Back Ground]

The Central Bureau of Investigation (CBI) on Sunday arrested Chitra Ramkrishna, former Managing Director of the National Stock Exchange (NSE), in a case registered in May 2018, to probe the alleged abuse of the exchange's server architecture for granting preferential access of market data to a stock broker, ahead of others.

[Concept]

National Stock Exchange



- * Its the largest financial market in India established in 1992.
- * The Securities Contracts (Regulation) Act, 1956, designated it as a stock exchange, and it began operations in 1994.
- * It was the country's first completely computerised electronic trading exchange.
- * It is the world's eleventh-largest stock exchange by market capitalization and India's largest by daily turnover and number of trades for both equities and derivatives trading.
- * The S&P CNX Nifty, often known as the NSE NIFTY (National Stock Exchange City), is a market capitalization-weighted index of fifty large stocks.

2.5 [News] : Labour Ministry launches 'donate a pension' scheme

[Back Ground]

It allows a citizen to pay premium for unorganised workers

The Union Labour and Employment Ministry on Monday launched the “donate a pension” scheme allowing any citizen to pay the premium amount on behalf of an unorganised worker under the Pradhan Mantri Shram Yogi Maan–Dhan Scheme.

[Concept]

Pradhan Mantri Shram Yogi Maan–Dhan Scheme

- * Pradhan Mantri Shram Yogi Maan–Dhan (PM–SYM) was launched by Prime Minister Narendra Modi under the Ministry of Labour and Employment in February 2019.
- * PM–SYM is the world’s largest pension scheme. Pradhan Mantri Shram Yogi Maan–Dhan is a central sector scheme that is introduced for old age protection and social security of Unorganised Workers (UW).
- * The Pradhan Mantri Shram Yogi Maan–Dhan is a voluntary and contributory pension scheme that aims to provide security and protection to unorganized workers as well as to the old age group.
- * This scheme seeks to benefit around 42 crore workers from the unorganized sector of the country.
- * The scheme is meant to benefit workers in the unorganized sector
- * Under this scheme, the beneficiary after attaining the age of 60 years would receive an assured monthly pension of Rs 3000/- per month and 50% of the

pension shall be entitled to the spouse of the beneficiary as family pension after the death of the beneficiary.

- * If a beneficiary has given regular contribution and died due to any cause (before the age of 60 years), his/her spouse will be entitled to join and continue the scheme subsequently by payment of regular contribution or exit the scheme as per provisions of exit and withdrawal.

Eligibility

- He/she should be an unorganized worker (UW) aged between 18 years to 40 years.
 - He/she should have a monthly income of Rs. 15,000 or below.
 - He/she should possess an Aadhar card along with a Savings Bank Account/Jan Dhan account number with IFSC.
- * Any individual who is engaged in the Organised Sector (membership of EPF/NPS/ESIC) and is an income taxpayer will not be eligible to apply for the PM-SYM Scheme.

2.6 [News] : MSME Minister Narayan Rane launches Special Entrepreneurship Promotion Drive for Women – “SAMARTH”

[Back Ground]

Micro, Small and Medium Enterprises, MSME Minister Narayan Rane launched a Special Entrepreneurship Promotion Drive for Women – “SAMARTH” on the occasion of International Women’s Day 2022 in New Delhi today. On the occasion, Mr. Rane also conferred awards to twenty women entrepreneurs from different entrepreneur sectors across the country.

[Concept]

SAMARTH Initiative

- * Under the Samarth initiative of the Ministry, following benefits will be available to aspiring and existing women entrepreneurs:
- * 20% Seats in free Skill Development Programs organised under skill development schemes of the Ministry will be allocated for Women.
- * 20% of MSME Business Delegations sent to domestic & international exhibitions under the schemes for Marketing Assistance implemented by the Ministry will be dedicated to women owned MSMEs.
- * 20% Discount on annual processing fee on National Small Industries Corporation’s (NSIC) Commercial Schemes.
- * NSIC is a Government of India Enterprise under the Ministry of MSME.
- * Special Drive for registration of women-owned MSMEs under Udyam Registration.

* Also, to enhance the participation of women entrepreneurs in Public Procurement, a special discount of 20% shall also be offered on annual processing fee on NSIC's following commercial schemes during the year 2022-23:

- Single Point Registration Scheme
- Raw Material Assistance and Bill Discounting
- Tender Marketing
- B2B Portal msmemart.com

2.7 [News]: As India aspires for a \$5 Trillion economy, our exports share in GDP should rise to at least 20%, says Shri Piyush Goyal

[Back Ground]

* The Minister of Commerce and Industry, Consumer Affairs, Food and Public Distribution and Textiles, Shri Piyush Goyal today said India's exports share in GDP should rise to at least 20%. Shri Goyal also said a strong Rupee will be good for exports.

2.8 [News] : Cabinet nod for new firm to monetise land assets

[Back Ground]

The Union Cabinet on Wednesday approved the setting up of a new government-owned firm for pooling and monetising sovereign and public sector land assets.

[Concept]

National Land Monetisation Corporation (NLMC)

- * The NLMC will be a wholly owned Government of India company with an initial authorized share capital of Rs 5000 crore and paid-up share capital of Rs 150 crore.
- * NLMC will undertake monetization of surplus land and building assets of ‘Central Public Sector Enterprises’ (CPSEs) and other Government agencies.
- * The proposal is in pursuance of the Budget Announcement for 2021-22.
- * NLMC is expected to own, hold, manage and monetize surplus land and building assets of CPSEs under closure and the surplus non-core land assets of Government owned CPSEs under strategic disinvestment.
- * This will speed up the closure process of CPSEs and smoothen the strategic disinvestment process of Government owned CPSEs.
- * These assets may be transferred to NLMC to hold, manage and monetize these assets.
- * NLMC will also advise and support other Government entities (including CPSEs) in identifying their surplus non-core assets and monetizing them in a professional and efficient manner to generate maximum value realization.

- * It is expected that NLMC will act as a repository of best practices in land monetization, assist and provide technical advice to Government in implementation of asset monetization programme.

2.9 [News] : Explained. What does RBI's \$5 billion dollar-rupee swap mean?

[Back Ground]

When the central bank sells dollars, it sucks out an equivalent amount in rupees, thus reducing the rupee liquidity in the system. Dollar inflow into the market will strengthen the rupee which has already hit the 77 level against the US dollar.

[Concept]

- * The RBI sold \$5.135 billion to banks on March 8 and simultaneously agreed to buy back the dollars at the end of the swap settlement period.
- * When the central bank sells dollars, it sucks out an equivalent amount in rupees, thus reducing the rupee liquidity in the system.
- * Liquidity means the availability of liquid assets in the market.
- * Dollar inflow into the market will strengthen the rupee which has already hit the 77 level against the US dollar.

- * The swap auction can be done in the reverse way also when there is shortage of liquidity in the system.
- * The RBI then buys dollars from the market and releases an equivalent amount in the rupees.

2.10 [News] : Rural development Secretary chairs a webinar on Captive Employment Policy under Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

[Back Ground]

Union Rural Development Secretary Shri Nagendra Nath Sinha today (10th March, 2022) chaired a webinar promoting the 'Captive Employer' initiative under the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY). More than 16 Sector Skill Councils participated in today's webinar, which also saw participation from more than 180 stakeholders.

[Concept]

Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

- * DDU-GKY is uniquely focused on rural youth between the ages of 15 and 35 years from poor families.
- * Objective:

- Adding diversity to the incomes of rural poor families
 - Cater to the career aspirations of rural youth.
- * Alumni meet is an important component of the scheme.
- The Alumni meets provide healthy ground for experience sharing by the former trainees with their present counterparts on topics like placements, career goals, challenges they faced in finding employment before undertaking the training and the benefits they reaped after.
 - Some of the former trainees are also felicitated at the events for their exemplary performances at their workplaces.

2.11 [News] : India – Canada to re-launch the Comprehensive Economic Partnership Agreement (CEPA) negotiations to unlock full potential of bilateral trade

[Back Ground]

India and Canada held the fifth Ministerial Dialogue on Trade & Investment (MDTI) here today. Minister of Commerce and Industry, Consumer Affairs and Food, and Public Distribution and Textiles, Shri Piyush Goyal and Ms. Mary Ng, Minister of Small Business, Export Promotion and International Trade, Government of Canada co-chaired the MDTI.

[Concept]

Comprehensive Economic Partnership Agreement (CEPA)

- * It is a kind of free trade pact which covers negotiation on the trade in services and investment, and other areas of economic partnership.
- * It may even consider negotiation on areas such as trade facilitation and customs cooperation, competition, and Intellectual Property Rights.
- * Partnership agreements or cooperation agreements are more comprehensive than Free Trade Agreements.
- * CEPA also looks into the regulatory aspect of trade and encompasses an agreement covering the regulatory issues.

2.12 [News] : Reserve Bank eases norms for microfinance firms

[Back Ground]

Central bank removes ceiling on interest rates, but urges against usurious levies.

The Reserve Bank of India (RBI) on Monday allowed microfinance institutions the freedom to set interest rates they charge borrowers, with a caveat that the rates should not be usurious.

[Concept]

Microfinance institutions

- * Microfinance offers a solution to small business owners, who do not have access to banking and associated services.

- * These institutions offer services similar to that of a bank.
- * They do charge interest on loans but the interest rate is lower than that charged by most banks in the country.
- * They help small- and medium-sized businesses scale up with access to funds at the right time.
- * They worked as an alternative, with an aim to create financial equality.
- * In India, there are two channels through which microfinance operates:
 - SHG – Bank Linkage Programme (SBLP)
 - Microfinance Institutions (MFIs)

2.13 [News]: RBI working towards phased introduction of Digital Currency. MoS Finance in Lok Sabha

[Back Ground]

The Minister of State for Finance Pankaj Chaudhary today informed Rajya Sabha that Reserve Bank of India is currently working towards a phased implementation strategy for introduction of Central Bank Digital Currency (CBDC).

[Concept]

Central Bank Digital Currency (CBDC)



- * A Central Bank Digital Currency (CBDC), or national digital currency, is simply the digital form of a country's fiat currency.
- * Instead of printing paper currency or minting coins, the central bank issues electronic tokens. This token value is backed by the full faith and credit of the government.

[Extra]

SC Garg Committee recommendations (2019):

- * Ban anybody who mines, hold, transact or deal with cryptocurrencies in any form.
- * It recommend a jail term of one to 10 years for exchange or trading in digital currency.
- * It proposed a monetary penalty of up to three times the loss caused to the exchequer or gains made by the cryptocurrency user whichever is higher.
- * However, the panel said that the government should keep an open mind on the potential issuance of cryptocurrencies by the Reserve Bank of India.

2.14 [News] : Weather-Based Index Insurance Scheme

[Back Ground]

The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying is implementing a flagship scheme namely Pradhan Mantri Matsya Sampada Yojana (PMMSY) with a highest ever investment of Rs. 20,050 crore for a period of 5 years with effect from 2020-21 to 2024-25 in all the States/Union Territories.

[Concept]

Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- * It is a flagship scheme for focused and sustainable development of fisheries sector in the country with an estimated investment of Rs. 20,050 crores for its implementation during a period of 5 years from FY 2020-21 to FY 2024-25 in all States/Union Territories, as a part of AatmaNirbhar Bharat Package.
- * The PMMSY is an umbrella scheme with two separate Components namely (a) Central Sector Scheme (CS) and (b) Centrally Sponsored Scheme (CSS).
- * The Centrally Sponsored Scheme (CSS) Component is further segregated into Non-beneficiary oriented and beneficiary orientated subcomponents/activities under the following three broad heads:
 - Enhancement of Production and Productivity
 - Infrastructure and Post-harvest Management

- Fisheries Management and Regulatory Framework

*** Under CSS**

- North Eastern & Himalayan States : 90% Central share and 10% State share.
- Other States : 60% Central share and 40% State share.
- Union Territories (with legislature and without legislature): 100% Central share.

*** End Implementing Agencies (EIAs)**

*** The PMMSY would be implemented through the following agencies:**

- Central Government and its entities including National Fisheries Development Board
- State/UT Governments and their entities
- State Fisheries Development Boards
- Any other End Implementing Agencies as decided by Department of Fisheries

*** Objectives**

- PMMSY is designed to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability, establishing a robust fisheries management framework and fishers' welfare.

2.15 [News] : Narasinghapettai nagaswaram bags GI tag

[Back Ground]

- * Nagaswaram players used the short ‘timiri’ nagaswaram before the ‘pari’ nagaswaram was made.
- * Nagaswaram made in Narasinghapettai in Thanjavur district has been granted the Geographical Indication (GI) tag on the application filed by the Thanjavur Musical Instruments Workers Co-operative Cottage Industrial Society Ltd.

[Concept]

Narasinghapettai nagaswaram



- * Narasinganpettai village-based artisans who inherited these wooden instruments making skills from their forefathers, are manufacturing them through a process that requires specialized skills.
- * The nagaswaram that is being used by artists nowadays is named pari nagaswaram and that is longer than the thimiri.

The shape of the nagaswaram

- * This musical instrument has a body that is cylindrical in shape and takes the shape of a bell at the bottom. This form of the nagaswaram provides volume and tone. The instrument's length is two and a half feet.

The manufacturing process of Narasinghapettai nagaswaram

- * Most of the Narasinghapettai nagaswaram is manufactured using the aacha or Hardwickia binata tree.
- * Most of the time, woods from the parts of old houses are also used by the artisans. Drilling machines, along with carpentry tools are also utilized by artisans to manufacture the nagaswarams that are played in various functions like festivals, weddings, fairs, etc.

[Extra]

GI Tag

- * Geographical Indication (GI) is an indication used to identify goods having special characteristics originating from a definite geographical territory.
- * The Geographical Indications of Goods (Registration and Protection) Act, 1999 seeks to provide for the registration and better protection of geographical indications relating to goods in India.

- * It is governed and directed by the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- * It was decided and also stated under Articles 1 (2) and 10 of the Paris Convention that the protection of industrial Property and Geographical Indication are elements of Intellectual Property.
- * It is primarily an agricultural, natural or a manufactured product (handicrafts and industrial goods).
- * This tag is valid for a period of 10 years following which it can be renewed.

Significance

- * Once a product gets this tag, any person or company cannot sell a similar item under that name.
- * GI registration of a product provides it legal protection and prevention against unauthorised use by others.
- * GI tag helps in promoting the exports of the product.
- * It also provides comfort to customers about the authenticity of that product.

2.16 [News] : Govt. raises minimum support price for jute

[Back Ground]

The Cabinet Committee on Economic Affairs on Tuesday approved the Minimum Support Price (MSP) for raw jute for the 2022–2023 season.

[Concept]

Minimum Support Price (MSP)

- * The MSP for a crop is the price at which the government is supposed to procure/buy that crop from farmers if the market price falls below it.
- * MSPs provide a floor for market prices, and ensure that farmers receive a certain “minimum” remuneration so that their costs of cultivation (and some profit) can be recovered.

Objective.

- * The government incentivises the production of certain crops, thus ensuring that India does not run out of staple food grains.
- * MSPs create the benchmark for farm prices not just in those commodities for which they are announced, but also in crops that are substitutes.
- * The MSPs are announced by the Union government and as such, it is the government’s decision.
- * But the government largely bases its decision on the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- * While recommending MSPs, the CACP looks at the following **factors**:
 - The demand and supply of a commodity

- Its cost of production
- The market price trends (both domestic and international)
- Inter-crop price parity
- The terms of trade between agriculture and non-agriculture (that is, the ratio of prices of farm inputs and farm outputs)
- A minimum of 50 per cent as the margin over the cost of production.
- The likely implications of an MSP on consumers of that product.

[Extra]

The crops included in MSP

- * Cereals (7) – paddy, wheat, barley, jowar, bajra, maize and ragi
- * Pulses (5) – gram, arhar/tur, moong, urad and lentil
- * Oilseeds (8) – groundnut, rapeseed/mustard, toria, soyabean, sunflower seed, sesamum, safflower seed and nigerseed
- * Raw cotton
- * Raw jute
- * Copra
- * De-husked coconut
- * Sugarcane (Fair and remunerative price)
- * Virginia flu cured (VFC) tobacco

2.17 [News] : Google Pay unveils 'Tap to Pay' for UPI payments

[Concept]

Unified Payments Interface (UPI)

- * UPI is a payment system launched in April 2016 by National Payments Corporation of India(NPCI), that allows money transfer between any two bank accounts by using a smartphone.
- * It facilitates customers to make round-the-clock payments instantly using a virtual payment address created by the customer.
- * UPI allows a customer to pay directly from a bank account to different merchants, both online and offline, without the hassle of typing card or bank details.
- * It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience.
- * UPI is built over the IMPS infrastructure

3 Environment

3.1 [News] : IPCC warns of multiple climate hazards

[Back Ground]

The world faces unavoidable multiple climate hazards over the next two decades with global warming of 1.5°C, and even temporarily exceeding this warming level would mean additional, severe impacts, some of which will be irreversible, according to a report by the Intergovernmental Panel on Climate Change (IPCC)

[Concept]

Intergovernmental Panel on Climate Change

- * It is the international body for assessing the science related to climate change.
- * It was set up in 1988 by the World Meteorological Organisation (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

- * IPCC assessments provide a scientific basis for governments at all levels to develop climate related policies, and they underlie negotiations at the UN Climate Conference – the United Nations Framework Convention on Climate Change (UNFCCC).

3.2 [News]: Smooth coated otters seen near Mukkombu after many years

[Back Ground]

Known as neer naai (aquatic dogs) in Tamil, the animal plays an important role in controlling the population of fish in rivers. A search for a migratory stork in the Upper Anaicut near Mukkombu (on the road leading to the Butterfly Park) turned up another surprise visitor instead for the city's nature lovers recently the smoothcoated otter, a freshwater fish loving animal that hasn't been seen along the Cauvery river stretch for many years.

[Concept]



* The **Smooth-coated Otter** is distributed throughout the country from the Himalayas southward. But the Common Otter and the Small-clawed Otter are restricted to the Himalayas, to the north of the Ganges and

to southern India. These otters have generally been described as fish specialist.

* Protection Status

- IUCN Red List: Vulnerable
- CITES: Appendix II
- Indian Wildlife Protection Act, 1972: Schedule II

3.3 [News] : Start removing invasive plant species immediately, says HC

[Back Ground]

The Madras High Court on Monday asked the State government to immediately commence a pilot project for the eradication of invasive alien plant species such as eucalyptus, wattle and prosopis juliflora, and carry out proper ecological restoration of natural habitats.

[Concept]

Eucalyptus

- * tree consumes 90 litres of water a day
- * During summers and times of drought, its roots can go down up to 30ft
- * It was introduced in Karnataka in 1960s.

- * There are more than 700 species of eucalyptus and most of them are native to Australia.

Prosopis juliflora. (Seemai Karuvelam)

- * Native species to: Mexico, South America and the Caribbean.
- * Invasive weed in: Africa, Asia, Australia
- * Ill- effects:
 - Contributing factor to continuing transmission of malaria.
 - It grows egregiously in the forest areas and prevents the growth of other species.
 - It hampers movement of wild animals like elephants in the forests.

3.4 [News] : Rs. 1,470 crore sanctioned for water supply schemes

[Back Ground]

They will cover 918 habitations spread over five districts under the Jal Jeevan Mission. Nine hundred and eighteen habitations, spread over five districts, are going to have combined water supply schemes at a cost of about Rs. 1,473 crore under the Jal Jeevan Mission.

[Concept]

Jal Jeevan Mission

- * Launched in 2019, it envisages supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024.
- * JJM looks to create a jan andolan for water, thereby making it everyone's priority.
- * It comes under Jal Shakti Ministry.
- * The mission ensures functionality of existing water supply systems and water connections, water quality monitoring and testing as well as sustainable agriculture.
- * It also ensures conjunctive use of conserved water; drinking water source augmentation, drinking water supply system, grey water treatment and its reuse.
- * Funding: The fund sharing pattern between the Centre and states is 90:10 for Himalayan and North-Eastern States, 50:50 for other states, and 100% for Union Territories.

3.5 [News] : Endangered turtles play fast and loose with borders

[Back Ground]

Animals in nature know no international boundaries and this has come as some sort of a surprise and challenge to experts and forest officials who installed GPS transmitters on Northern River Terrapin in Indian Sundarbans.

[Concept]

Northern River Terrapin



- * The Northern river terrapin is a rare freshwater turtle native to Southeast Asia. They are categorised as critically endangered by IUCN Red List.
- * They are currently found in Bangladesh, India, and Myanmar. They are mostly aquatic but use terrestrial sites for nesting.
- * The terrapins use areas like estuaries, rivers, and mangrove forests for nesting. Some important details about Northern river terrapins are given below
- * The northern River Terrapins are confined to the tropical zone.

3.6 [News]: Antarctic explorer Shackleton's ship discovered after a century

[Back Ground]

Scientists say they have found the sunken wreck of polar explorer Ernest Shackleton's ship Endurance, more than a century after it was lost to the Antarctic ice. The Falklands Maritime Heritage Trust says the vessel lies 3,000 meters below the surface of the Weddell Sea.

[Concept]

Weddell Sea



- * The Weddell Sea is part of the Southern Ocean and contains the Weddell Gyre.
- * Its land boundaries are defined by the bay formed from the coasts of Coats Land and the Antarctic Peninsula.

- * Much of the southern part of the sea is covered by a permanent, massive ice shelf field, the Filchner–Ronne Ice Shelf.
- * The sea is contained within the two overlapping Antarctic territorial claims of Argentine Antarctica, the British Antarctic Territory, and also resides partially within the Antarctic Chilean Territory.

3.7 [News]. Novel strategy to synthesize solid adsorbents for CO₂ capture and utilization discovered.

[Back Ground]

Indian Scientists have discovered a strategy to synthesize novel solid adsorbents for CO₂ capture and utilization. Carbon capture and utilization are growing fields of research focusing on reducing CO₂ emissions. Although several industrial advancements have already been demonstrated, none of the technologies can provide an economically viable and complete CO₂ capture and utilization solution. Therefore, fundamental research on novel solid adsorbents might offer a critical material for CO₂ capture and CO₂ utilization.

[Concept]

- * Carbon capture, utilization and storage (CCUS), also referred to as carbon capture, utilization and sequestration, is a process that captures carbon

dioxide emissions from sources like coal-fired power plants and either reuses or stores it so it will not enter the atmosphere.

3.8 [News]. Chilika lake area to be off limits for motorboats

[Back Ground]

Plan to provide migratory birds an undisturbed ecosystem in Mangalajodi for six months every year. The Odisha government has proposed to ban movement of mechanised fishing boats in the Mangalajodi area of the Chilika lake, an important haunt of migratory birds, to provide the winged guests an undisturbed ecosystem for six months every year.

[Concept]

Chilika Lake



* Chilika is Asia's largest and world's second largest lagoon.

- * In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- * Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satapada Island.
- * The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.
- * Kalijai Temple - Located on an island in the Chilika Lake.

3.9 [News]. Rs. 19,000–crore afforestation plan launched

[Back Ground]

It would help recharge groundwater, generate Rs. 449 cr. and provide employment of 344 million man–days. The Centre envisages a Rs. 19,000–crore project to rejuvenate 13 major rivers by planting trees, officials in the Environment and the Jal Shakti Ministries said at a joint press conference on Monday.

[Concept]

Afforestation – Concept

- * Afforestation tends to focus on planting trees on abandoned agricultural or other lands owing to low soil quality or overgrazing.

- * The soil becomes drained over time, and not much can currently grow there.
- * Smaller afforestation operations can be carried out in abandoned urban areas, such as land that was formerly cleared for buildings that no longer exist.
- * Afforestation can occur on land that may or may not have previously been covered in forests.
- * There may be no evidence of a forest being in the area designated for afforestation, or deforestation may have occurred on lands hundreds of years ago.

[Extra]

Afforestation vs. Reforestation

- * Both afforestation and reforestation have the goal of increasing the number of trees, however, there are a few major distinctions.
- * Afforestation is the process of planting trees where none previously existed.
- * Planting trees in places that were previously forested but have lost trees due to fire, disease, or clear-cutting for logging operations is known as reforestation.

3.10 [News]: India Cooling Action Plan

[Back Ground]

The India Cooling Action Plan (ICAP) provides an integrated vision towards cooling across sectors encompassing, inter alia, reduction of cooling demand, refrigerant transition, enhancing energy efficiency and better technology options by 2037-38 through forging synergies with on-going programmes/ schemes of the Government.

[Concept]

Following steps have been taken to implement the recommendation of various thematic areas of the ICAP:

- * With regard to reduction of cooling and energy demand in Space Cooling in building sector, a list of action points have been finalised after mapping of the recommendations of the India Cooling Action Plan with the ongoing government programmes/ schemes of the various Ministries.
- * Towards promoting passive cooling in buildings, Bureau of Energy Efficiency (BEE) has brought out the Energy Conservation Building Code (ECBC) for all large commercial (non-residential) buildings and Eco-Niwas Samhita (ECBC-R) for the residential buildings.
- * Studies on promoting non-Ozone Depleting Substances (ODSs) and low Global Warming Potential based technologies in Cold Chain, Building sector

and Public Procurement have been undertaken and reports have been published.

- * To promote indigenous development of low global warming potential refrigerants, the Department of Science and Technology, Government of India has funded a research project to the Council of Scientific and Industrial Research (CSIR)- Indian Institute of Chemical Technology, Hyderabad.
- * Indian Institute of Technology, Delhi, in collaboration with Bureau of Indian Standards has undertaken a simulation study for developing safety standards for flammable refrigerants in the Refrigeration and Air-conditioning sector.
- * Up-skilling and certification of 43,450 Refrigeration and Air-conditioning (RAC) service technicians has been undertaken under the national skill qualification framework (NSQF) of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) of the Ministry of Skill Development and Entrepreneurship (MSDE). In addition, 29,000 RAC service technicians are being trained as part of implementation of Hydrochlorofluorocarbons (HCFCs) phase out Management Plans under the Montreal Protocol.

3.11 [News]: **Protection of Great Indian Bustards**

[Concept]

Great Indian Bustards



- * One of the heaviest flying birds endemic to the Indian subcontinent.
- * State Bird of Rajasthan
- * **Habitat.**
 - Untamed, Arid grasslands.
 - A Maximum number of GIBs were found in Jaisalmer and the Indian Army-controlled field firing range near Pokhran, Rajasthan.
 - Other areas: Gujarat, Maharashtra, Karnataka and Andhra Pradesh.

Protection Status:

- IUCN Status: Critically Endangered.
- Listed in Wildlife Protection Act's Schedule 1.

3.12 [News]. Union Minister Dr. Jitendra Singh releases India's Arctic Policy in New Delhi today

[Concept]

India's Arctic Policy

- * Recently, the Ministry of Earth Science has unveiled India's Arctic Policy, titled 'India and the Arctic: building a partnership for sustainable development'.
- * India holds one of the 13 positions as the Observer in the Arctic Council.
- * The Arctic Council is an intergovernmental body that promotes research and facilitates cooperation among Arctic countries on issues related to the environmental protection and sustainable development of the Arctic region.

3.13 [News]: Suspected poisoning kills 100 vultures

[Back Ground]

Experts at the conservation centre save 12 Himalayan griffons and a steppe eagle. At least 100 vultures — all Himalayan griffons — died of suspected poisoning in Assam.

[Concept]

Himalayan griffon



- * The Himalayan vulture (*Gyps himalayensis*) or Himalayan griffon vulture is an Old World vulture native to the Himalayas and the adjoining Tibetan Plateau.
- * It is one of the two largest Old World vultures and true raptors.
- * It is listed as Near Threatened on the IUCN Red List.

3.14 [News]: Deep ocean mission to study origins of life, MoES

[Back Ground]

India will soon scour the ocean bed to unravel the mysteries of the origins of life as scientists are set to travel up to 6,000 m below the sea surface under a deep ocean mission (DOM).

[Concept]

Deep Ocean Mission (DOM).

- * DOM is a mission mode project to support the Blue Economy Initiatives of the Government of India.
- * Earlier, the Ministry of Earth Sciences had also rolled out the draft Blue Economy Policy.
- * Blue Economy is the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.

[Extra]

Other Blue Economy Initiatives

1. India–Norway Task Force on Blue Economy for Sustainable Development: It was inaugurated jointly by both the countries in 2020 to develop and follow up joint initiatives between the two countries.
2. Sagarmala Project: The Sagarmala project is the strategic initiative for port-led development through the extensive use of IT-enabled services for the modernization of ports.
3. O-SMART: India has an umbrella scheme by the name of O-SMART which aims at regulated use of oceans, marine resources for sustainable development.
4. Integrated Coastal Zone Management: It focuses on the conservation of coastal and marine resources, improving livelihood opportunities for coastal communities etc.

5. National Fisheries Policy: India has a National Fisheries policy for promoting the 'Blue Growth Initiative' which focuses on sustainable utilisation of fisheries wealth from marine and other aquatic resources.

3.15 [News]. Solomon Islands, China bolster ties

[Back Ground]

The Solomon Islands has signed a policing deal with China and will send a proposal for a broader security agreement covering the military to its Cabinet for consideration, an official of the Pacific island nation's government said on Thursday.

[Concept]

Solomon Islands.



- * Solomon Islands is a country in the southwestern Pacific Ocean.
- * It consists of a double chain of volcanic islands and coral atolls in Melanesia.
- * The Solomon Islands consist of six major and approximately 900 smaller volcanic islands, coral atolls and reefs.
- * The archipelago nation consists of several large volcanic islands to the south-east of Papua New Guinea.

3.16 [News]: Sariska blaze receding, tigers safe

[Back Ground]

Attempts are being made to douse the massive fire at the Sariska Tiger Reserve in Alwar district of Rajasthan on Wednesday with two Indian Air Force helicopters stepping up efforts to control the blaze by ferrying water from the nearby Siliserh Lake to spray over the forest.

[Concept]

Sariska Tiger Reserve

- * Its located in Aravali hills and forms a part of the Alwar District of Rajasthan.
- * Sariska was declared a wildlife sanctuary in 1955 and was declared the tiger reserve later in 1978, making it a part of India's Project Tiger.
- * The Reserve houses ruined temples, forts, pavilions and a palace.

- * Kankarwadi fort is located in the centre of the Reserve and it is said that Mughal emperor Aurangzeb had imprisoned his brother Dara Shikoh at this fort in struggle for succession to the throne.
- * The Reserve also houses a famous temple of lord Hanuman at Pandupole related to Pandavas.

4.Science and Technology

4.1 [News]: 3D manufacturing policy: Target of 500 items by '25

[Back Ground]

3D printing uses computer-aided designing to make prototypes or working models of objects by laying down successive layers of materials. The Ministry of Electronics and Information Technology (MeitY) aims to increase India's share in global additive manufacturing to 5 per cent within the next three years, with hopes that it could likely add \$ 1 billion to the gross domestic product by that time.

[Concept]

3D Printing

- * 3D printing or additive manufacturing uses computer-aided designing to make prototypes or working models of objects by laying down successive layers of materials such as plastic, resin, thermoplastic, metal, fibre or ceramic.
- * With the help of software, the model to be printed is first developed by the computer, which then gives instructions to the 3D printer.

- * 3D printing and a viable industry around it is mostly in the shape of additive manufacturing, wherein companies make specific products for projects where there are very specific demands such as lightweight equipment, etc.
- * One of the key applications for such products is in the medical and allied sector.
- * The USA remains the global leader in 3D printing, with more than 35% market share.
- * In Asia, about 50% of its market is cornered by China, followed by Japan at 30%, and South Korea at 10%.

4.2 [News]: **North Korea confirms tests on reconnaissance satellite**

[Back Ground]

North Korea performed data transmission and other key tests needed to develop a spy satellite, state media said on Sunday, in the second such tests in about a week, indicating the country intends to conduct a prohibited long-range rocket launch soon

[Concept]

Reconnaissance satellite



- * Intelligence satellite, commonly referred to as a spy satellite is an Earth observation satellite or communications satellite deployed for military or intelligence applications.

Some of its Types and their uses

- * **Missile early warning:** Provides warning of an attack by detecting ballistic missile launches. Earliest known are Missile Defense Alarm System.
- * **Nuclear explosion detection:** Detects nuclear detonation from space. Vela is the earliest known.
- * **Optical imaging surveillance:** Earth imaging satellites. Satellite images can be a survey or close-look telephoto. Corona is the earliest known.
- * Reconnaissance satellites have been used to enforce human rights, through the Satellite Sentinel Project, which monitors atrocities in Sudan and South Sudan.
- * To operate a reconnaissance satellite, North Korea must launch a long-range rocket to put it into orbit.

- * But the UN bans such a launch by North Korea because it considers that as a cover for testing its long-range missile technology.

4.3 [News]: Locally made trainer aircraft finishes sea trials

[Back Ground]

HANSA-NG is reportedly one of the most advanced trainers

A first-of-its-kind indigenous aircraft trainer, HANSA-NG, developed by the CSIR-National Aerospace Laboratories (CSIR-NAL), has completed sea-level trials in Puducherry, a necessary condition before evaluation by the Directorate General of Civil Aviation (DGCA).

[Concept]

HANSA-NG



- * Recently, HANSA-NG, a first of its kind, indigenously developed aircraft trainer has completed sea level trials.
- * It is developed by the CSIR-National Aerospace Laboratories (CSIR-NAL).
- * National Aerospace Laboratories (NAL), a constituent of the Council of Scientific and Industrial Research (CSIR) established in the year 1959 is the only government aerospace Research & Development laboratory in the country's civilian sector.
- * The HANSA-NG, or HANSA-New Generation, is one of the most advanced flying trainers. HANSA-NG is an upgraded version of HANSA, which saw the first flight in 1993, and was certified in 2000.
- * It is powered by a Rotax Digital Control Engine and is designed to meet the need for trainer aircraft by flying clubs in India.
- * It is an ideal aircraft for Commercial Pilot Licensing (CPL) due to its low cost and low fuel consumption.

4.4 [News]. Science behind jets of plasma occurring all over Sun's chromosphere unravelled

[Back Ground]

Scientists have unravelled the science behind the jets of plasma – the fourth state of matter consisting of electrically charged particles that occur just about

everywhere in the sun's chromosphere, which is the atmospheric layer just above the Sun's visible surface.

[Concept]

- * These jets, or spicules, appear as thin grass-like plasma structures that constantly shoot up from the surface and are then brought down by gravity.
- * The amount of energy and momentum that these spicules can carry is of fundamental interest in solar and plasma astrophysics.
- * The processes by which plasma is supplied to the solar wind, and the solar atmosphere is heated to a million degrees Celsius, still remain a puzzle.
- * The plasma right below the visible solar surface (photosphere) is perpetually in a state of convection, much like boiling water in a vessel heated at the bottom. This is ultimately powered by the nuclear energy released in the hot-dense core.
- * The convection serves almost periodic but strong kicks to the plasma in the solar chromosphere, the shallow semi-transparent layer right above the visible solar disk. The chromosphere is 500 times lighter than the plasma in the photosphere. Therefore, these strong kicks from the bottom, not unlike alligator bellowing, shoot the chromospheric plasma outward at ultrasonic speeds in the form of thin columns or spicules.

- * Spicules come in all sizes and speeds. The existing consensus in the solar community has been that the physics behind the short spicules is different from that of taller and faster spicules.

4.5 [News]. petascale Supercomputer "PARAM Ganga" established at IIT Roorkee under National Supercomputing Mission

[Back Ground]

The National Supercomputing Mission (NSM) which is being steered jointly by Ministry of Electronics & Information Technology (MeiTY) and the Department of Science and Technology (DST) and implemented by Centre for Development of Advanced Computing (C-DAC) and Indian Institute of Science (IISc), Bangalore, has progressed significantly. The four major pillars of the NSM, namely, Infrastructure, Applications, R&D, HRD, have been functioning efficiently to realize the goal of developing indigenous supercomputing eco system of the nation.

[Concept]

PARAM Ganga



- * IIT Roorkee has been selected to have a node of the National Supercomputing Mission (NSM) coordinated by CDAC Pune, the Department of Science and Technology (DST) and the Ministry of Electronics and Information Technology (MeitY).
- * PARAM Ganga – High-Performance Computing (HPC) system under the NSM has been established at IIT Roorkee.
- * The supercomputer PARAM Ganga is based on a heterogeneous and hybrid configuration of Intel Xeon Cascade lake processors, and NVIDIA Tesla V100. There are 312 (CPU+GPU+HM) nodes with a total peak computing capacity of 1.67 (CPU+GPU+HM) PFLOPS performance. The cluster consists of compute nodes connected with the Mellanox (HDR) InfiniBand interconnect network. The system uses the Lustre parallel file system and operating system is CentOS 7.x.

4.6 [News]: Chandrayaan-2 makes first observations of distribution of Argon-40 in Moon's atmosphere

[Back Ground]

The Chandra's Atmospheric Composition Explorer-2 (CHACE-2), a quadrupole mass spectrometer onboard Chandrayaan-2 mission, has made the first-of-its-kind observations of the global distribution of Argon-40 in the tenuous lunar exosphere, according to the Indian Space Research Organisation.

[Concept]**Argon 40**

- * Recently, Chandra's Atmospheric Composition Explorer-2 (CHACE-2), a payload onboard Chandrayaan-2, has made the first-of-its-kind discovery on the distribution of one of the noble gases, Argon-40.
- * Ar-40 originates from the radioactive disintegration of Potassium-40 (K-40) present below the lunar surface.
- * Once formed, it diffuses through the inter-granular space and makes its way up to the lunar exosphere through seepages and faults.
- * The CHACE-2 observations provide the diurnal and spatial variation of Ar-40 covering the equatorial and mid latitude regions of the Moon.

[Extra]

- * India launched Chandrayaan-2, its second lunar exploration mission after Chandrayaan-1, from Satish Dhawan Space Centre, Sriharikota in July 2019.

4.7 [News]: Deepak Dhar and John J. Hopfield chosen for the Boltzmann medal

[Back Ground]

Prof. Dhar is the first Indian to receive this top honour in the field of statistical physics

[Concept]

Boltzmann medal

- * Initiated in 1975
- * Nobel laureate (1982) K.G. Wilson was the first recipient.
- * It has been given to one or two persons, once in three years.
- * The award consists of the gilded Boltzmann medal with the inscription of Ludwig Boltzmann.
- * **Awarded by:** the Commission on Statistical Physics (C3) of the International Union of Pure and Applied Physics.
- * **Ludwig Boltzmann:** Austrian physicist and philosopher, Contributed in the development of statistical mechanics

[Extra]

Deepak Dhar:

- * He became the first Indian to win this award.

* For his seminal contributions in the field of statistical physics.

4.8 [News]. Ministry of Tourism invites final comments on draft report for setting up National Digital Tourism Mission

[Back Ground]

Ministry of Tourism had constituted an inter-ministerial task force for National Digital Tourism Mission on 23rd July, 2021 to undertake consultations with the tourism industry and domain experts, define the context, mission, vision, objectives, and overall scope of the National Digital Tourism Mission.

[Concept]

National Digital Tourism Mission

Draft Report on the National Digital Tourism Mission – Key Points

* The draft report prepared by the inter-ministerial task force comprises the following:

- Domain and technology principles
- Standards
- Digital stack
- Governance structure
- Plan for implementation of the National Digital Tourism Mission

- * The draft report points out that the tourism sector in India is highly fragmented. Therefore, the tourism ecosystem is not able to harvest the combinatorial benefits of information exchange.
- * Sub-sectors of tourism i.e. accommodation, transport, restaurants and catering, and personal services face very different challenges and opportunities and therefore policies have to be devised accordingly.
- * In the tourism sector, the data systems don't interact with each other using a common language, thereby limiting data analytics and resultant policymaking. Therefore, it is important to have a seamless, standardized data exchange among various stakeholders in the tourism sector.

4.9 [News]: **Scientists develop energy-efficient hydrogen production by urea electrolysis**

[Back Ground]

Indian Scientists have designed an electrocatalyst system for energy-efficient hydrogen production with the help of electrolysis of urea. The urea electrolysis is helpful towards urea-based waste treatment with low-cost hydrogen production. This can be utilized for energy production towards our country's benefits.

[Concept]

Urea electrolysis

- * The urea electrolysis is helpful towards urea-based waste treatment with low-cost hydrogen production.
- * This can be utilized for energy production towards our country's benefits.
- * The energy requirement for production of hydrogen through water electrolysis can be reduced by 70 % through urea electrolysis.
- * The energy-intensive counterpart of water splitting, oxygen evolution, can be replaced with urea oxidation in urea electrolysis.
- * The low-cost, earth-abundant Ni-based catalysts are widely applied for this process.
- * The main challenge associated with urea oxidation is retaining the prolonged activity of the catalyst as the strong adsorption of the reactive intermediate (COx) on the active site, referred to as catalyst poisoning, causes activity loss.

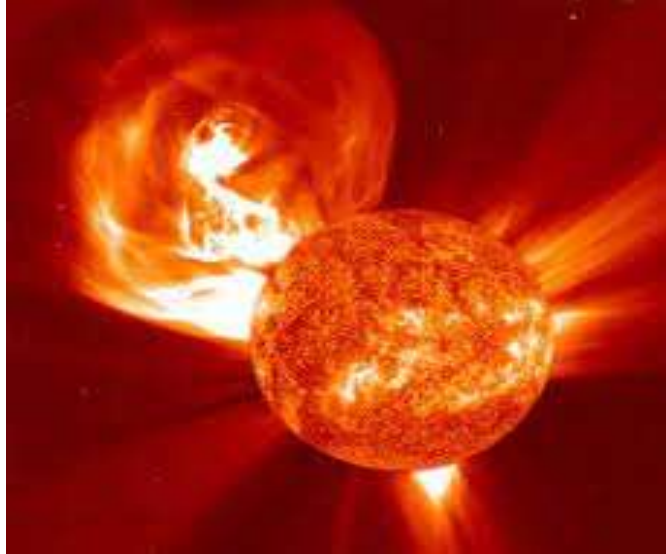
4.10 [News]: **simple image-processing technique to unravel the dynamics of Solar Corona can help detect Coronal Mass Ejections better**

[Back Ground]

Indian researchers have developed a simple technique of separating the constant background of the Solar Corona and revealing the dynamic corona.

[Concept]

Coronal mass ejections (CMEs)



- * They are dynamic structures in the Solar Corona and are capable of driving the Space Weather in near-Earth space.
- * The density of the outermost layer of the atmosphere of the Sun – Corona – decreases with distance radially outwards.
- * As the intensity of the corona observed in white light depends on the density of particles in the atmosphere, it decreases exponentially.
- * If the contrast between the constant corona and transient CMEs is not high, detection of CMEs becomes a challenge.
- * This method, which subtracts the constant background, brings out the transient corona, followed by dividing the result by an azimuthally uniform background to reduce the radial decrease in intensity.

- * A combination of these two steps allows us to identify the structures such as CMEs throughout the field of view of the coronagraph images.

4.11 [News]: Govt. drugstores to sell nutraceuticals

[Back Ground]

Aimed at providing accessible, standardised and affordable generic medicines, the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) Kendras, which currently offer a product basket of 1,451 drugs and 240 surgical instruments, have added nutraceuticals products.

[Concept]

Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

- * In November 2008, with an objective to make available generic medicines at affordable prices to all, the Department of Pharmaceuticals under the Ministry of Chemicals and Fertilizers launched the “Jan Aushadhi Scheme”.
- * To reinvigorate the supply of affordable generic medicines with efficacy and quality equivalent to that of branded drugs, the scheme was revamped as “Pradhan Mantri Bhartiya Jan Aushadhi Yojana” in 2015.
- * To provide further momentum to the ongoing scheme, it was again renamed as “Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana” (PMBJP).

[Extra]

Nutraceuticals.

- * A nutraceutical or 'bioceutical' is a pharmaceutical alternative which claims physiological benefits.
- * Nutraceuticals are products derived from food sources that are purported to provide extra health benefits, in addition to the basic nutritional value found in foods.

4.12 [News]: Russia used phosphorus shells in Donbas attacks

[Back Ground]

A senior Ukrainian police officer has accused Russian forces of launching phosphorus bomb attacks in the eastern region of Lugansk.

[Concept]

White phosphorus munitions

- * White phosphorus munitions are weapons that use one of the common allotropes of the chemical element phosphorus.
- * White phosphorus is:
 - pyrophoric (it is ignited by contact with air);
 - burns fiercely;

- can ignite cloth, fuel, ammunition, and other combustibles.
- * White phosphorus is a highly efficient smoke-producing agent, reacting with air to produce an immediate blanket of phosphorus pentoxide vapor.
- * Smoke-producing white phosphorus munitions are very common, particularly as smoke grenades for infantry.
- * These create smoke screens to mask friendly forces' movement, position, infrared signatures, and shooting positions.

4.13 [News]. Dr Mansukh Mandaviya to inaugurate Step-Up to End TB – World TB Day Summit on occasion of World TB Day

[Back Ground]

Health and Family Welfare Minister Dr Mansukh Mandaviya will inaugurate the Step-Up to End TB-World TB Day Summit on the occasion of World TB Day on 24th of this month in New Delhi. Chief Guest at the summit will be Governor of Uttar Pradesh, Anandiben Patel, who will attend the summit virtually.

[Concept]

World Tuberculosis Day 2022

- * On this day in 1882, Dr. Robert Koch announced the discovery of a Mycobacterium tuberculosis that causes TB and his discovery opened the way towards diagnosing and curing this disease.
- * Even today the TB is one of the world's deadliest infectious killers. As per WHO (World Health Organisation), every day, over 4100 people lose their lives to TB and about 28,000 people fall ill with this disease. Deaths from tuberculosis have risen in 2020 for the first time in more than a decade.
- * Therefore, World TB Day is observed to educate people around the world about the disease TB and its impact.

[Extra]

Theme for World TB Day 2022

- * The theme is "Invest to End TB. Save Lives."
- * The theme emphasises the critical need to invest resources to accelerate the fight against tuberculosis and meet the commitments made by leaders around the world to end tuberculosis.

4.14 [News]. INITIATIVES TAKEN BY GOVERNMENT TO TACKLE MENTAL HEALTH RELATED ISSUES

[Back Ground]

As per the National Mental Health Survey conducted by the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore in 12 States of the country, the prevalence of mental disorders including common mental disorders, severe mental disorders, and alcohol and substance use disorders (excluding tobacco use disorder) in adults over the age of 18 years is about 10.6%.

[Concept]

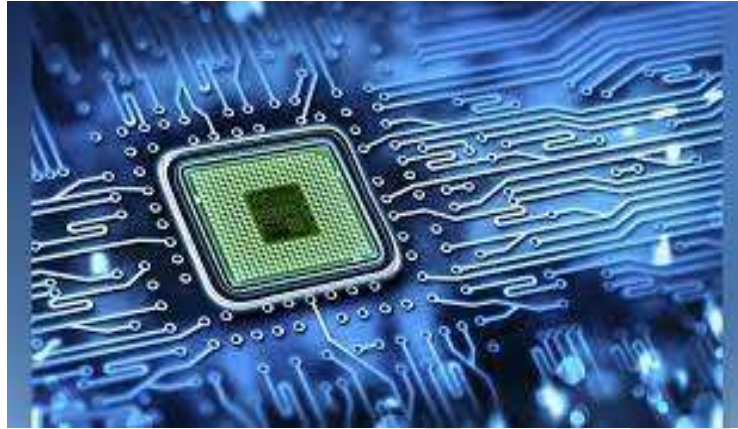
National Mental Health Survey

The major findings of the survey are as under:

- * The prevalence of mental morbidity is high in urban metropolitan areas.
- * Mental disorders are closely linked to both causation and consequences of several non-communicable disorders (NCD).
- * Nearly 1 in 40 and 1 in 20 persons suffer from past and current depression, respectively.
- * Neurosis and stress related disorders affect 3.5% of the population and was reported to be higher among females (nearly twice as much in males).
- * Data indicate that 0.9 % of the survey population were at high risk of suicide.
- * Nearly 50% of persons with major depressive disorders reported difficulties in carrying out their daily activities.

4.15 [News]: India Semiconductor Mission

[Concept]



- * India Semiconductor Mission (ISM) has been setup to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor design ecosystem.
- * Will enable a multi-fold growth of Indian semiconductor design industry by providing requisite support in the form of Electronic Design Automation (EDA) tools, foundry services and other suitable mechanisms for early-stage startups.
- * It will also promote and facilitate indigenous Intellectual Property (IP) generation and encourage, enable and incentivize Transfer of Technologies (ToT).
- * ISM will also enable collaborations and partnership programs with national and international agencies, industries and institutions for catalyzing collaborative research, commercialization and skill development.

4.16 [News]: N. Korea fires new ICBM in largest test since 2017

[Back Ground]

North Korea fired a new intercontinental ballistic missile on Thursday, Tokyo and Seoul said as they voiced outrage at Pyongyang's most powerful launch since 2017.

[Concept]

Intercontinental ballistic missile

Ballistic Missile:

- * A ballistic missile follows a ballistic trajectory to deliver one or more warheads on a predetermined target.
- * These weapons are guided only during relatively brief periods—most of the flight is unpowered.
- * Short-range ballistic missiles stay within the Earth's atmosphere, while intercontinental ballistic missiles (ICBMs) are launched on a sub-orbital trajectory.
- * Ballistic missiles can be launched from ships and land based facilities. For example, Prithvi I, Prithvi II, Agni I, Agni II and Dhanush ballistic missiles are currently operational in the Indian defence forces.

Intercontinental ballistic missiles (ICBMs)



- * ICBM is a missile with a minimum range of 5,500 kilometres designed for nuclear weapons delivery (delivering one or more thermonuclear warheads).
- * Similarly, conventional, chemical, and biological weapons can also be delivered with varying effectiveness, but have never been deployed on ICBMs.
- * India, Russia, the United States, North Korea, China, Israel, the United Kingdom and France are the only countries that have ICBMs.

4.17 [News]: Use of Nuclear Energy for Power Generation

[Concept]

- * India is not very rich in fossil fuel resources and considering the large and growing energy demand, all energy sources are deployed optimally.

- * Nuclear power is a clean and environment friendly base load source of electricity generation, which is available 24X7.
- * It also has a huge potential and can provide the country long term energy security in a sustainable manner.
- * Expansion of nuclear power capacity will help in the country's energy transition for meeting the goal of net zero economy.
- * India at COP26 Summit held in Glasgow: India will reach its non-fossil energy capacity to 500 GW by 2030 and India will meet 50 percent of its energy requirements from Renewable Energy by 2030.

4.18 [News]. Salient features of National Smart Grid Mission

[Back Ground]

National Smart Grid Mission (NSGM) was established by Government of India in 2015 to plan and monitor implementation of policies and programmes related to Smart Grid activities in India. The primary aim of the Smart Grids is to improve reliability of the Electricity networks and make the grid amenable to renewable energy inputs through distributed generation.

[Concept]

National Smart Grid Mission

- * Established by Government of India to plan and monitor implementation of policies and programmes related to Smart Grid activities in India.
- * The primary aim of the Smart Grids is to improve reliability of the Electricity networks and make the grid amenable to renewable energy inputs through distributed generation.
- * Increased efficiencies with Smart Grid and Smart Meters empower the consumers to manage their electricity consumption in a better manner and help them in reducing their bills.
- * The NSGM also envisages capacity building initiatives for Distribution Sector personnel in the field of Smart grids.

5. International Relations

5.1 [News]: Fighting in Ukraine must stop: UN chief

[Back Ground]

“Enough is enough,” said UN Secretary General Antonio Guterres, addressing the UN General Assembly (UNGA), hearing a resolution to condemn Russia’s attack on Ukraine as he called for an immediate cessation of violence and withdrawal of Russia’s military from Ukrainian territory.

[Concept]

United Nation General Assembly

- * The United Nations General Assembly (UNGA) is one of the six principal organs of the United Nations.
- * The UNGA is a principal component of the United Nations. It is the main governing body of the organisation and is also the most representative body in the UN.
- * All the members of the UN are represented in the UNGA, which is sometimes referred to as simply the GA. Hence, it has 193 members (all the UN member countries).

- * It meets annually in its headquarters in New York City, generally in the month of September. It can also meet at other times according to the need.
- * The UNGA is headed by its President, who is elected for a term of one year.
- * It is sometimes called the parliament of the world.
- * The UNGA deliberates and decides on important matters such as peace and security, and other international issues.
- * It also decides on the admission of new members.
- * Decisions are taken by voting. Generally, a simple majority is considered but in case of important decisions, a two-thirds majority is considered. Each member has one vote.
- * Unlike the Security Council, there is no veto power bestowed to anyone.
- * In 1953, Vijaya Lakshmi Pandit became the eighth President of the UNGA, the only Indian GA President to date.
- * The commissions of the UNGA are:
 - Disarmament Commission
 - International Law Commission
 - International Civil Service Commission
 - United Nations Conciliation Commission for Palestine
 - United Nations Commission on International Trade Law (UNCITRAL)
 - United Nations Peacebuilding Commission

5.2 [News]: What constitutes a war crime?

[Back Ground]

The International Criminal Court has announced that it will open an investigation into possible war crimes carried out in Ukraine. There are specific international standards for war crimes.

[Concept]

The International Criminal Court (ICC)

- * Its located in The Hague, is the court of last resort for prosecution of genocide, war crimes, and crimes against humanity.
- * It is the first permanent, treaty based, international criminal court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community.
- * Its founding treaty, the Rome Statute, entered into force on July 1, 2002.
- * Funding: Although the Court's expenses are funded primarily by States Parties, it also receives voluntary contributions from governments, international organisations, individuals, corporations and other entities.
- * The Assembly is presided over by a president and two vice-presidents, who are elected by the members to three-year terms.

5.3 [News]: Russia seizes nuclear plant

[Back Ground]

Russian forces have seized the Zaporizhzhia nuclear power plant in Ukraine, the largest in Europe, after intense fighting with Ukrainian defenders, Ukrainian authorities said on Friday. At an emergency meeting, UN Security Council members expressed alarm at the prospect of a nuclear incident.

[Concept]

Zaporizhzhia



- * Its located in southeastern Ukraine is the largest nuclear power plant in Europe and among the 10 largest in the world.
- * It was built by the Soviet Union near the city of Enerhodar, on the southern shore of the Kakhovka Reservoir on the Dnieper river.

5.4 [News]: Conflict will worsen chip shortage: Moody's arm

[Back Ground]

The Russia-Ukraine war could hit global supply chains that are already constrained due to the pandemic and the worst impact would be on the ongoing chip shortage because the warring nations control significant supplies of key raw materials used in semiconductors.

[Concept]

Semiconductors

- * Semiconductors are materials which have a conductivity between conductors and insulators. They can be pure elements, silicon or germanium or compounds; gallium, arsenide or cadmium selenide.
- * **Significance of Semiconductor Chips:** They are the basic building blocks that serve as the heart and brain of all modern electronics and information and communications technology products.
- * These chips are now an integral part of contemporary automobiles, household gadgets and essential medical devices such as ECG machines.

[Extra]

INDIA SEMICONDUCTOR MISSION (ISM)

- * The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem.
- * This will serve to pave the way for India's growing presence in the global electronics value chains.

- * India Semiconductor Mission (ISM) has been setup as an Independent Business Division within Digital India Corporation.
- * The Corporation has administrative and financial autonomy to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor design ecosystem.
- * ISM will serve as the nodal agency for efficient, coherent and smooth implementation of the schemes.
- * Following **four schemes** have been introduced under the India Semiconductor Mission (ISM):

1. Scheme for setting up of Semiconductor Fabs in India

- * It provides fiscal support to eligible applicants for setting up of Semiconductor Fabs which is aimed at attracting large investments for setting up semiconductor wafer fabrication facilities in the country.

2. Scheme for setting up of Display Fabs in India

- * It provides fiscal support to eligible applicants for setting up of Display Fabs which is aimed at attracting large investments for setting up TFT LCD / AMOLED based display fabrication facilities in the country.
- * The Scheme provides fiscal support of up to 50% of Project Cost subject to a ceiling of INR 12,000 crore per Fab.

3. Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India.

- * The Scheme provides a fiscal support of 30% of the Capital Expenditure to the eligible applicants for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab and Semiconductor ATMP / OSAT facilities in India.

4. Design Linked Incentive (DLI) Scheme

- * It offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.
- * The scheme provides “Product Design Linked Incentive” of up to 50% of the eligible expenditure subject to a ceiling of Rs 15 Crore per application and “Deployment Linked Incentive” of 6% to 4% of net sales turnover over 5 years subject to a ceiling of Rs 30 Crore per application.

5.5 [News]: Ukraine drops pitch for NATO

[Back Ground]

President Volodymyr Zelensky said he was no longer pressing for NATO membership for Ukraine, a delicate issue that was one of Russia's stated reasons for invading its pro-Western neighbour.

[Concept]

North Atlantic Treaty Organization (NATO)



- * Its a military alliance established by the North Atlantic Treaty (also called the Washington Treaty) of April, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.
- * There are currently 30 member states.
- * Its original members were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.

- * Joining the original signatories were Greece and Turkey (1952), West Germany (1955, from 1990 as Germany), Spain (1982), the Czech Republic, Hungary, and Poland (1999), Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia (2004), Albania and Croatia (2009), Montenegro (2017), and North Macedonia (2020).
- * Headquarters: Brussels, Belgium.
- * NATO's essential and enduring purpose is to safeguard the freedom and security of all its members by political and military means.

5.6 [News]: India, Bangladesh, and Nepal finalise MoU for implementation of BBIN Motor Vehicles Agreement

[Back Ground]

Bangladesh, India, and Nepal held a meeting to discuss the passenger and Cargo protocols to operationalize the BBIN Motor Vehicles Agreement (MVA). The two-day meeting held in Delhi concluded on Tuesday. Bhutan participated in the meeting as an observer. This is the first meeting of the group since the outbreak of the Covid-19 pandemic. The last meeting was held in February 2020 in New Delhi.

[Concept]

- * The project was conceived after the South Asian Association for Regional Cooperation (SAARC) failed to agree on a regional motor vehicles agreement at a summit in Nepal in 2014, mainly because of opposition from Pakistan.
- * **Origin.** The BBIN Motor Vehicle Agreement for the Regulation of Passenger, Personal and Cargo Vehicular Traffic between the 4 countries was signed during a transport ministers' meeting in Thimpu on 15th June 2015.
- * **Objective.** Operationalising the MVA by concluding the Passenger and the Cargo Protocol will help realise the full potential of trade and people to people connectivity between the BBIN countries by fostering greater sub-regional cooperation.
- * **Bhutan's Reluctance.** The BBIN project suffered a setback in 2017 when Bhutan temporarily opted out of it after being unable to get parliamentary approval for the MVA.
- * The 3 other countries decided at the time to press ahead with the agreement.
- * **Persisting Issues:** There are still some agreements holding up the final protocols, including issues like insurance and bank guarantees, and the size and frequency of freight carriers into each country, which they hope to finalise this year before operationalizing bus and truck movements between them.

[Extra]

- * Similar Connectivity Initiatives which India is a part of

- Bangladesh–China–India–Myanmar (BCIM) Corridor
- India–Myanmar–Thailand Trilateral Highway
- Kaladan Multi–Modal Transit Transport (KMMTT)

5.7 [News]: India, China hold 15th round of military talks

[Back Ground]

The 15th round of Corps Commander talks between India and China began on the Indian side of the Chushul Moldo Meeting Point in eastern Ladakh on Friday with the immediate focus on working out a disengagement agreement at Patrolling Point 15 in the Gogra–Hot Springs area as part of the overall disengagement and de–escalation process.

[Concept]

Patrolling Point 15 and 17A.

- * Along the Line of Actual Control (LAC) between India and China, Indian Army has been given certain locations where its troops have access to patrol the area under its control.
- * These points are known as patrolling points, or PPs, and are decided by the China Study Group (CSG).
- * PP15 and PP17A are two of the 65 patrolling points in Ladakh along the LAC.

- * LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory
- * PP15 is located in an area known as the Hot Springs, while PP17A is near an area called the Gogra post.

Location of Hot Springs and Gogra Post

- * Hot Springs is just north of the Chang Chenmo river and Gogra Post is east of the point where the river takes a hairpin bend coming southeast from Galwan Valley and turning southwest.

[Extra]

- * Pangong Tso lake: Pangong Lake is located in the Union Territory of Ladakh. one-third of the Pangong Lake lies in India and the other two-thirds in China.
- * Galwan Valley: The valley refers to the land that sits between steep mountains that buffet the Galwan River. The river has its source in Aksai Chin.
- * Chang Chenmo River: It is a tributary of the Shyok River

5.8 [News]: India for talks on 'biolabs' issue

[Back Ground]

As Russia called for a Security Council meeting on the issue of biological laboratories in Ukraine, India said any matters relating to obligations under the Biological and Toxin Weapons Convention (BTWC) should be addressed through consultation and cooperation between the parties concerned.

[Concept]

Biological and Toxin Weapons Convention (BTWC)

- * This agreement was signed in 1972.
- * It came into force in 1975.
- * As of 2019, 109 countries have signed the treaty and 183 nations are party to this treaty. Tanzania was the most recent country to become a party to the treaty.
- * It was the 1st multilateral disarmament treaty to ban the production of Biological Weapons.
- * It bans the nations from producing, stockpiling, acquiring, or retaining biological agents that can be used as weapons.
- * India ratified this treaty in 2015.

5.9 [News]: U.S., allies to end normal trade relations with Russia

[Back Ground]

U.S. President Joe Biden announced on Friday that the U.S. and others in the Group of Seven (G7) advanced economies would end normal trade relations with Russia as Moscow pursues its invasion of Ukraine.

[Concept]

Group of Seven (G7):

- * It is an intergovernmental organisation that was formed in 1975.
- * The bloc meets annually to discuss issues of common interest like global economic governance, international security and energy policy.
- * The G7 countries are the UK, Canada, France, Germany, Italy, Japan and the US.
- * All the G7 countries and India are a part of G20.
- * The G7 does not have a formal charter or a secretariat. The presidency, which rotates among member countries each year, is in charge of setting the agenda. Sherpas, ministers and envoys hammer out policy initiatives before the summit.

5.10 [News]: Zelensky requests no-fly zone, security aid in Congress speech

[Back Ground]

In a sombre and sometimes emotional address, delivered virtually to members of the U.S. Congress, Ukrainian President Volodymyr Zelensky called for a closing of the sky over Ukraine — a no fly zone and further sanctions against Russia.

[Concept]

No-Fly Zone

- * It is an area established by the military of a country or an alliance over which certain aircraft are not allowed to fly.
- * Such zones are sometimes imposed over government buildings or public places for security reasons, or over sacred sites for religious and cultural reasons.
- * During conflicts or wars, ‘no-fly’ zones are imposed to prevent enemies from attacking the country being protected in the zone.

5.11 [News]: India extends \$1 billion credit to Sri Lanka

[Back Ground]

India on Thursday extended a \$1 billion credit facility to Sri Lanka to assist the island nation through its worst foreign exchange crisis and enable it to procure food, medicines and other essential items.

[Concept]

Credit facility

- * A credit facility is a type of loan.
- * It allows the borrowing party to take out money over an extended period of time rather than reapplying for a loan each time it needs money.

Line of Credit (LOC)

- * A line of credit (LOC) is a preset borrowing limit that can be tapped into at any time.
- * The borrower can take money out as needed until the limit is reached, and as money is repaid, it can be borrowed again in the case of an open line of credit.

5.12 [News]. Ukraine war could cut 1% off global growth. OECD

[Back Ground]

The Ukraine crisis could knock more than a percentage point off global growth this year and add two-and-a-half percentage points to inflation, the OECD

estimated on Thursday, calling for targeted government spending increases in response.

[Concept]

Organisation for Economic Co-operation and Development (OECD)

- * OECD originated in 1948, as the Organisation for European Economic Co-operation (OEEC). OEEC was renamed as the OECD in 1961 when the USA and Canada joined to reflect a broader membership.
- * Reformed in subsequent years as OECD by the Convention on the Organisation for Economic Co-operation and Development.
- * Most OECD members are high-income economies with a very high Human Development Index (HDI) and are regarded as developed countries. OECD members are democratic countries that support free-market economies.
- * The OECD member states collectively comprised 2% of global nominal GDP (US \$49.6 trillion) and 42.8% of global GDP (Int \$54.2 trillion) at purchasing power parity (PPP) in 2017.
- * OECD is known as a statistical agency, as it publishes comparable statistics on a wide number of subjects.
- * OECD is an official United Nations Observer.

5.13 [News]: 'Japan still hopes India will join RCEP'

[Back Ground]

Japan has still not given up hope that India might reconsider joining the Regional Comprehensive Economic Partnership (RCEP) from which it opted out in 2019, a senior Japanese official said

[Concept]

RCEP

- * It is a trade deal between the 10-member Association of Southeast Asian Nations (ASEAN) and China, Japan, South Korea, Australia and New Zealand.

Aims and Objectives of RCEP:

- * To lower tariffs, open up trade in services and promote investment to help emerging economies catch up with the rest of the world.
- * To help reduce costs and time for companies by allowing them to export a product anywhere within the bloc without meeting separate requirements for each country.
- * It also touches on intellectual property, but will not cover environmental protections and labour rights.

6. Internal Security

6.1 [News]: Nod for defence acquisition procedure

[Back Ground]

- * The Defence Ministry has Accorded In-Principle (AIP) approval to four projects under Make-I, government funded, and five under Make-II, industry-funded, categories of Defence Acquisition Procedure 2020 which includes development of a light tank for the Army and communication equipment for the Indian Air Force.
- * “The industry will be provided financial support for prototype development of these projects,” the Ministry said.

[Concept]

DAP 2020.

- * The DAP contains policies and procedures for procurement and acquisition from the capital budget of the MoD in order to modernise the Armed Forces including the Coast Guard.

Highlights of the new policy.

Reservations for Indigenous firms.

- * The policy reserves several procurement categories for indigenous firms.

- * DAP 2020 defines an “Indian vendor” as a company that is owned and controlled by resident Indian citizens, with foreign direct investment (FDI) not more than 49 per cent.

New Buy (Global–Manufacture in India) category.

- * This stipulates indigenisation of at least 50 per cent of the overall contract value of a foreign purchase bought with the intention of subsequently building it in India with technology transfer.

Greater indigenous content.

- * It promotes greater indigenous content in arms and equipment of the military procures, including equipment manufactured in India under licence. In most acquisition categories, DAP-2020 stipulates 10 per cent higher indigenisation than DPP 2016.

Import embargo list.

- * The “import embargo list” of 101 items that the government promulgated last month has been specifically incorporated into DAP 2020. (An embargo is a government order that restricts commerce with a specified country or the exchange of specific goods.)

Offset liability.

- * The government has decided not to have an offset clause in procurement of defence equipment if the deal is done through inter-government agreement (IGA), government-to-government or an ab initio single vendor.
- * The offset clause requires a foreign vendor to invest a part of the contract value in India.

6.2 [News]: Ninth edition of India-Sri Lanka Naval Exercise SLINEX begins in Visakhapatnam

[Back Ground]

The ninth edition of India-Sri Lanka Naval Exercise, SLINEX, is scheduled at Visakhapatnam from today to this Thursday. The exercise is being conducted in two phases, the Harbour Phase at Visakhapatnam on 07 to 08 March this year, followed by the Sea Phase on 09 to 10 March in the Bay of Bengal.

[Concept]

SLINEX.



- * The exercise is being conducted in two phases, the Harbour Phase at Visakhapatnam followed by the Sea Phase in the Bay of Bengal.
 - The **Harbour Phase** would include professional, cultural, sporting and social exchanges.
 - **Sea Phase** will include surface and anti-air weapon firing exercises, seamanship evolutions, aviation operations including cross deck flying, advanced tactical manoeuvres and special forces operations at sea.
- * It aims to enhance interoperability, improve mutual understanding and exchange best practices and procedures for multi-faceted maritime operations between both navies.
- * SLINEX exemplifies the deep maritime engagement between India and Sri Lanka and has grown in scope over the years to strengthen mutual cooperation, in consonance with India's policy of 'Neighbourhood First' and vision of 'Security and Growth for All in the Region (SAGAR)'.

[Extra]

- * Other Exercises between India and Sri Lanka
 - Exercise MITRA SHAKTI (Military Exercise)
 - Dosti Trilateral Exercise (Coast guard India, Maldives and Sri Lanka).

7.Indian History

7.1 [News]: Ahom warrior Lachit Borphukan and the battles of Alaboi & Saraighat

[Back Ground]

In Assam, President Ram Nath Kovind inaugurated the year-long celebration of the 400th birth anniversary of Lachit Borphukan, commander of the Ahom forces and an icon of Assamese nationalism.

[Concept]

Lachit Borphukan



- * He was a commander in the Ahom kingdom.
- * Known for his leadership in the 1671 Battle of Saraighat that thwarted a drawn-out attempt by Mughal forces under the command of Ramsingh I to take over Ahom kingdom.
- * The battle of Saraighat was fought on the banks of the Brahmaputra in Guwahati.
- * During the last phase of the Battle of Saraighat 1671, when the Mughals attacked the Assamese forces through the river in Saraighat, many

Assamese soldiers began losing their will to fight. It was Lachit's clarion call to all the soldiers that made them fight till their last breath, ultimately resulting in the defeat of the Mughals.

[Extra]

- * The National Defence Academy (NDA), ever since 1999 has been conferring the best passing out cadet with the Lachit Borphukan gold medal.