

WEEKLY CURRENT AFFAIRS MAGAZINE for



U.P.S.C. - C.S.E.

SEPTEMBER-VOL-III-2022

16 September to 22 September



-
- UPSC/MPSC/NDA/CDS/CAPF/AFCAT
 - PUNE/THANE/DADAR/ANDHERI/KALYAN/
PCMC/NERUL/BORIVALI
 - Offline/Online batches/Video course
 - www.pioneeracademypace.com/.in
 - IVR No. – 75060 10635
-

INDEX

Topic No	Topic Covered	Page No
ECONOMY		
01	SHRINKFLATION	5
02	DECOUPLING	7
03	MIBOR	8
04	RBI REMOVES CENTRAL BANK OF INDIA FROM PCA FRAMEWORK	10
05	NEED TO BE READY TO PREVENT ANY 'BLACK SWAN' EVENT, SAYS FM	13
06	DRAFT REGULATIONS FOR THE FRONT-OF-THE-PACK NUTRITIONAL LABELLING	14
07	IBBI AND IBC	16
08	EMERGING MARKET	19
09	NATIONAL LOGISTICS POLICY	20
10	ECONOMICS OF STOCKPILING	21
11	MARKET BASED ECONOMIC DESPATCH	24
12	CLIMATE FINANCE	26
13	SMALL COMPANY UNDER COMPANIES ACT 2013	27
14	FINANCIAL STABILITY AND DEVELOPMENT COUNCIL	29
15	CLIMATE RISK DISCUSSION PAPER BY THE RESERVE BANK OF INDIA	30
POLITY		
16	LIVE STREAMING FOR SC PROCEEDINGS	32
17	CHIEF JUSTICE OF INDIA AS THE MASTER OF ROASTER	33
18	SUPREME COURT BENCH RELATING TO THE PROCEDURAL NORMS FOR IMPOSING THE DEATH SENTENCE	34
19	RELIGIOUS CONVERSION AND QUOTA BENEFITS	34
20	ELECTION COMMISSION DELISTS 86 PARTIES	35
21	MADRAS HIGH COURT FOUND YOUTUBER SAVUKKU SHANKAR GUILTY OF CRIMINAL CONTEMPT OF COURT	36
22	CITIZENSHIP AMENDMENT ACT 2019	37
23	NORDIC MODEL OF DEMOCRACY	38
ENVIRONMENT		
24	PUSA DECOMPOSERS	38
25	NO SPOTTED DEER BROUGHT TO KUNO AS PREY	40

26	EXTENSION OF DEADLINE FOR POLLUTION CONTROL TECHNOLOGIES IN TPPS	40
27	ECOSYSTEM SERVICES	41
28	THE SIGNIFICANCE OF ETHEREUM'S MERGE FOR THE FUTURE OF CRYPTOCURRENCIES	43
29	CHEETAH CONSERVATION FUND	45
30	WILDLIFE TRUST OF INDIA (WTI)	46
31	ECOLOGICAL NICHE MODELLING	46
32	WORLD OZONE DAY	47
33	BIG CATS OF INDIA	50
ART & CULTURE		
34	QUTUB MINAR	51
35	CHOLA DYNASTY	53
36	SPECIAL TOURIST TRAIN TO RUN ON 'AMBEDKAR CIRCUIT'	55
HISTORY		
37	HISTORY OF KOHINOOR	56
38	HISTORY OF KOHINOOR	58
39	HYDERABAD STATE LIBERATION DAY	59
GEOGRAPHY		
40	WITHDRAWAL OF MONSOON	59
41	THE 'TRIPLE DIP' LA NIÑA, AND ITS LIKELY IMPACT ON INDIA	61
GOVERNANCE		
42	CBI'S UNEASY HISTORY	64
43	CHILD WELFARE COMMITTEES	65
SCIENCE & TECHNOLOGY		
44	ISRO SUCCESSFULLY TESTS HYBRID PROPULSION SYSTEM TO AID FUTURE TECHNOLOGIES	66
45	LUMPY SKIN DISEASE	67
46	SCIENTISTS WORK ON SMART MATERIALS TO HELP CONVERT WASTE HEAT TO ELECTRICITY	68
47	QUANTUM ENTANGLEMENT IN ATOMIC CLOCKS	71
48	NEW INDUSTRY STANDARDS AND BATTERY NORMS FOR ELECTRIC VEHICLES	72

49	THE WATER SCARCITY CLOCK	73
GOVERNMENT SCHEME		
50	DHARAMSHALA DECLARATION	74
51	RASHTRIYA VAYOSHRI YOJANA (RVY)	75
52	KRITAGYA	77
53	ANGAN 2.0	77
54	'E-BAAL NIDAN' PORTAL	78
INTERNATIONAL RELATION		
55	EUROPEAN UNION EXECUTIVE RECOMMENDS SUSPENDING IN FUNDS FOR HUNGARY	79
56	HUNGARY NO LONGER A FULL DEMOCRACY	80
57	THE EASTERN ECONOMIC FORUM AND INDIA'S BALANCING ACT	81
58	WTO DISPUTE SETTLEMENT MECHANISM	82
HEALTH SECTOR		
59	NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF CANCER, DIABETES, CARDIOVASCULAR DISEASE AND STROKE	83
SOCIAL ISSUE		
60	SAWAR, SAWARA AND SAUNRA: ONE AND THE SAME TRIBE NOW	85
JUDICIARY		
61	DIGITISATION TO CRISIS-PROOF JUSTICE DELIVERY: JUSTICE CHANDRACHUD	85

Topic 1. SHRINKFLATION

Important for subject: Economy



To cut down on the excessive cost of raw materials, many FMCG (fast-moving) consumer good (FMCG) firms in India are reducing the size of their product packaging and keeping prices unaffected.

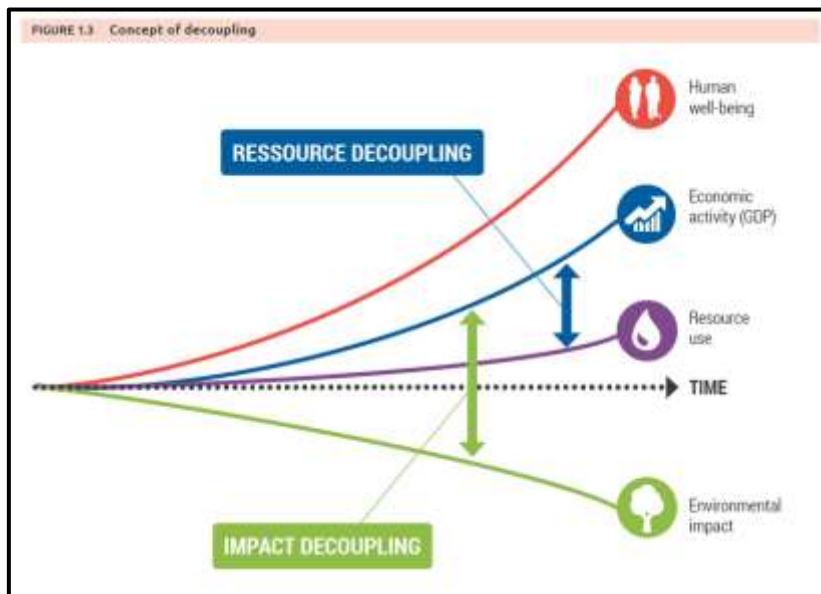
SHRINKFLATION:

- In the field of economics, shrinkflation refers to the process of reducing the size or the quantity of a product, while the cost of the product remains the same or increases.
- In certain cases this term could mean an improvement in the quality of the product or its ingredients but the cost remains the same.
- It also covers products that are changed.
- For instance, Cadbury Dairy Milk stopped using foil to ensure that chocolate did not lose its flavor and quality to cut costs.
- **Examples:** Shrinkflation is prevalent in the FMCG sector, specifically for the food and drinks sector.
- Firms like Hindustan Unilever, Nestle, Dabur, P&G, Coca-Cola and Pepsico have all adopted this strategy.

- British economist Pippa Malmgren is widely acknowledged as the one who invented the term "smart" in 2009.
- It's a type of inflation that is hidden because the price per unit of the product does not increase, but the cost per unit of volume or weight has increased.
- **The causes are:** Increases in the price of raw materials, ingredients including energy commodities, as well as labor costs increase the cost of production and, in turn, reduce the profitability of producers.
- Markets are flooded with competition.
- Food and beverage industry is typically very competitive, since consumers have the ability to avail a range of alternatives.
- Thus, they look for ways to allow them to maintain the trust of their clients while maintaining their margins of profit in the process.
- **Effect:** Converts consumers to believe that brands aren't in any way affected by the effects of inflation.
- This decreases brand loyalty because consumers feel deceived and lose faith in the producer's brand.
- Making manufacturers cash in the end, since vessel and container sizes are reduced by small amounts.
- Underestimating inflation price points can be confusing when the totality of goods can't always be measured using size of the item.
- **Suggestion:** To India it is the Right to Information has been acknowledged as a right for consumers in the Consumer Protection Act, 2019.
- This means that the buyer is entitled to be aware of the amount, quality, potency of the product, its purity, standard and the price of products.
- The Central Consumer Protection Authority can provide guidelines to people when an item is decreased.

Topic 2. DECOUPLING

Important for subject: Economy



The continued decline of a handful of major markets could impact the domestic market in the near or long term.

- So, the notion of India's disconnection from global markets may be a fable.
- Information: Indian stocks have outperformed international markets for the past few months. This creates an perception that the Indian market has decoupled from the global market.
- But, the past suggests India was able to outperform global indexes between 1999 and 2007, but bears were caught up in the aftermath of 2000 and 2008 financial crisis.
- **Problem:** A rise in energy prices could have serious repercussions on India's balances of payments.
- Risk of a recession in the Overseas region - on the background of tightening monetary policy within Europe, the USA as well as Europe.
- It is believed that the Indian economic system is closely interconnected with the global economy.

Coupling vs Decoupling:

- In a world that is globalized in which one region of the globe affects other nations across the globe. Therefore, all economies are interconnected. This is referred to as

"coupling".

- When one economy fails it slows global economic growth.
- The world's markets that are interconnected are known as 'coupled economics'..
- There are also nations that are exempt from the effects of this.
- These economies don't grow or slow down in line with the rest of the world.
- They are referred to as 'decoupled' economies.
- The process of decoupling and coupling in financial crises is illustrated by the decoupling thesis that was posited in 2007 it that Latin American and Asian economies particularly emerging ones have widened and gotten deeper to the point where they were no longer dependent in the United States economy for growth which meant they were protected from a slowdown and even a complete recession.
- Other aspects of decoupling in financial markets.
- Decoupling is whenever the performance of an asset class differ from the expected or normal pattern of correlation with other asset classes.
- A good example is decoupling when oil moves in one direction and natural gas is moving in an other direction.
- In the field of environmentalism and economics Decoupling occurs when an economy can expand without creating more environmental stress or damage.
- Decoupling of this kind is known as eco-economic decoupling.
- Decoupling is also a reference to the gap between official policies and actual practice in companies. It could be a result of an interest conflict.

Topic 3. MIBOR

Important for subject: Economy

RBI announces a Variable Rate Repo (VRR) auction of one-day tenors under the Liquidity Adjustment Facility.

- The facility will provide liquidity of Rs50,000 crore to assist the banking system in tackling the deficit in liquidity and reduce call rates.
- The banking system's liquidity entered deficit mode following the stay within surplus status for more than 40 months.
- The impact of the liquidity deficit Interbank call money rate increased over the repo rate: In light of the liquidity crisis, short-term lending rates could rise more quickly

than long-term rates.

- Call money rate an amount at which short-term money is borrowed and lent on the money market.
- The length of the loan is one day.
- Banks make these kinds of loans in order to meet the gap in their liability that are in compliance with the legal CRR and SLR requirements, and to meet the demands for cash.
- RBI, banks, primary dealers etc. are all participants in the market for call money.
- The liquidity supply and demand influence the rate of call money.
- A situation of tight liquidity results in a rise the rate of call money and reverse.
- It's the unsecured portion of the overnight market, and is the best indicator of mismatches in the systemic liquidity.
- The money market is primarily used to facilitate the lending and borrowing of money between banks and other entities such as Primary Dealers (PDs).
- Banks and PDs are able to lend and borrow overnight or for short periods to fill short-term gaps in their funds positions.
- The borrowing and lending are in an unsecure manner.
- "Call Money" refers to the lending or borrowing of money for a day.
- When money is lent or borrowed for a period of between two days and 14 days, it is called "Notice Money'.
- "Term Money" is a term used to describe borrowing or lending funds for periods of more than 14 days.
- **It is the Mumbai Interbank Overnight Rate-MIBOR:** In accordance with the recommendations from the Committee for the Development of Debt Market
- The National Stock Exchange (NSE) announced Mumbai Interbank Offer Rate (MIBOR) and Mumbai Interbank Bid Rate Mumbai Interbank Offer Rate (MIBOR) as well as the Mumbai Interbank Bid Rate (MIBID) in June 1998.
- It's the amount at which banks can borrow unsecure money from one another on an interbank marketplace.
- The rate is calculated through a representative survey of 30 banks and dealers and aggregating the quotes they gave.
- The FBIL overnight rate MIBOR Financial Benchmarks in India Private Limited

(FBIL) since July 22nd of 2015, took over the administration of the benchmark used for the overnight interbank rate, which will be based on the current traded rate, thus replacing the current 'FIMMDA NSE Overnight MIBID MIBOR' benchmark with 'FBIL Overnight MIBOR'.

- It is a joint venture created with FIMMDA, Foreign Exchange Dealers Association of India (FEDAI) and Indian Banks Association (IBA).
- The rate of benchmarking is determined on the basis of actual call money transaction information obtained through the NDS-call platform of Clearing Corporation of India Ltd (CCIL).
- The CCIL serves as the Calculating Agency.
- It is based upon trade-weighted interbank calls and money transactions.
- Therefore it is the case that reference rates are based on rates that are actually traded instead of polled rates that are used to calculate the FIMMDA NSE MIBOR/MIBID prices.
- "VRR Auction is a reference to Variable rate Repo auction.
- Repo refers to the interest rate that RBI gives short-term credit to Banks.
- Part of it is performed at a fixed cost, and the rest is at a variable rate.

Topic 4. RBI REMOVES CENTRAL BANK OF INDIA FROM PCA FRAMEWORK

Important for subject: Economy

The Reserve Bank of India (RBI) recently removed the Central Bank of India from its Prompt Corrective Action Framework (PCAF) after the lender demonstrated improvement in several financial ratios, such as the minimum regulatory capital as well as net non-performing assets. Prompt Corrective Action (PCA) Framework PCA is a framework that banks that have weak financial metrics are placed under surveillance by the RBI.

- The RBI introduced the PCA framework in 2002, as an organized early intervention system for banks that are inadequately capitalized due to low quality of their assets, or are prone to being harmed because of a loss in profitability.
- It is designed to address the issue of non-performing assets (NPAs) that are found in the Indian banking sector.
- The framework was reviewed in the year 2017 following suggestions of the group working on the Financial Stability and Development Council on Resolution

Regulations that apply to Financial Institutions in India and the Financial Sector Legislative Reforms Commission.

- PCA is designed to inform the regulator as well in depositors and investors when the bank is in danger of trouble.
- The goal is to prevent off issues before they take the level of a crisis.
- In essence, PCA assists RBI examine the performance of banks by analyzing key indicators and take corrective steps to restore their financial stability.
- The PCA framework defines banks as at risk if they fail to meet certain triggers - Capital to Risk Weighted Assets Ratio (CRAR) Net NPA (NPA), Return on Assets (RoA) as well as Tier 1. Leverage ratio.
- Certain types of discretionary and structured actions are initiated as a result of banks who have been hit by trigger points.
- The PCA framework applies only to commercial banks, not to cooperative banks , nor non-banking financial corporations (NBFCs).

What are the latest modifications?

- The new regulations will become effective as of January 1 2022, according to an RBI announcement stated.
- The updated framework doesn't include the asset return as a parameter that could be a trigger for any action within the framework.
- Small financing banks (SFBs) are also taken off the lender list for whom immediate corrective actions can be taken.
- Asset quality, capital and leverage would be most important areas to be monitored in the updated framework.
- The indicators to track for asset quality, capital and leverage include CRAR Common Equity tier 1 ratio net NPA ratio and the leverage ratio for tier I in accordance with the new framework.
- In matters relating to governance In governance-related actions, the RBI is able to supersede the board in accordance with Article 36ACA under the BR Act, 1949.
- Any breach of a threshold of risk could lead to activation by the PCA.
- The framework will be applicable to all banks that are operating in India as well as foreign banks that have branches or subsidiaries on the basis of breaches of the risk

thresholds of defined indicators.

- A bank will typically be placed under the PCA framework based on annual audited financial statements and the continuous review of the supervisory status by the RBI.
- The RBI can decide to impose PCA for any institution over the course of the year (including the transfer of a limit to another) when the circumstances allow.
- Exit from PCA When a bank is placed under PCA and the bank is taken out of the PCA Framework and/or withdrawal of limitations imposed by PCA

The Framework will be considered in the following manner:

- If there are no violations of the risk thresholds for each of those parameters are found according to the four financial statements that are continuous for each quarter and one of them should be an audited annual financial statement (Important for being subject to evaluation by the RBI)
- Based on the Supervisory satisfaction of the RBI and a report on the viability for the institution.
- The corrective measures that could be prescribed to the institution that is under PCA are:
 1. Risk Threshold 1 Restriction on dividend distribution/remittance of profits. Promoters/Owners/Parent (in the case of foreign banks) to bring in capital
 2. Risk Threshold 2 alongside the obligatory measures of Threshold 1 Limitation on branch expansion either in the United States or overseas.
 3. Risk Threshold 3 in addition to the mandatory actions of Thresholds 1, 2.
- Proper restrictions on capital expenditure except for technological advancement within Board approved limit.
- The common menu for discretionary actions includes special supervisory actions, strategy related, governance-related, capital-related, credit risk related, market risk related, HR-related, profitability related and operations/business-related among others.

Topic 5. NEED TO BE READY TO PREVENT ANY 'BLACK SWAN' EVENT, SAYS

FM

Important for subject: Economy

Certainty	<p>Black Swan Event: Highly improbable</p> <p>3 principal characteristics:</p> <ul style="list-style-type: none"> > Unpredictable > Massive impact > After the fact, explained to appear less random and more predictable. 	<p>Grey Swan Event: High probability</p> <p>3 principal characteristics:</p> <ul style="list-style-type: none"> > Predictable > Impact can easily cascade > After the fact, shifts focus to errors in judgment or some other human form of causation. 	<p>White Swan Event: High certainty</p> <p>3 principal characteristics:</p> <ul style="list-style-type: none"> > Certainty > Impact easily estimated > After the fact explanation shifts the focus to errors in judgment or some other human form of causation.
------------------	--	---	---

The FM recently addressed that the financial world's future as VUCA-volatile complicated, uncertain and completely uncertain, she also stated that one must be aware of the parameters available and "be prepared to avoid any kind of black swan-related event".

Black Swan event?

- Nassim Nicholas Taleb is an ex- Wall Street trader, in his book "The Black Swan".
- The Effect of the Improbable" formulated the black Swan theory.
- A black swan can be described as an unpredictability that goes far beyond the normal expectations of a scenario and can have potential for serious consequences.
- Black Swan events are distinguished by their rareness, their severe impact, and the general belief that they were evident in retrospect.
- It is so rare that the possibility that it could occur is not known.
- This can have an impact that is catastrophic when it happens. Can be explained retrospectively as if it was unavoidable
- There are no limits to the manner in which an Black Swan incident can occur.
- It could range from natural disasters to a conflict, a financial collapse or the spread of a disease.

Topic 6. DRAFT REGULATIONS FOR THE FRONT-OF-THE-PACK

NUTRITIONAL LABELLING

Important for subject: Economy

HEALTH INDICATORS			
Most countries follow either of these four packaged food labelling formats, or their variation. Of these, the "Warning Label" system is increasingly being considered the best in guiding consumers to healthier food choices			
TRAFFIC LIGHT	SUMMARY INDICATORS	REFERENCE INTAKE OR GUIDELINES DAILY AMOUNT	WARNING LABEL CHILE and ISRAEL
WHAT IT IS	Traffic lights-like colour coding for salt, sugar, fats and saturated fats. Green for low, amber for medium and red for high	Overall rating for nutrition. These are of two types: (i) Health Star (0.5 to 5 rating) (ii) Nutri-score (A to E)	Information on amount of energy and nutrients with percentages of daily reference intake exhausted on consumption as per serve size
ADOPTED BY	UK (2006), Ecuador (2014), Iran (2017), Sri Lanka (2016 for beverages and 2019 for foods)	New Zealand and Australia adopted Health Star (2014); France (2017), Belgium (2020) and Luxembourg (2021) adopted Nutri-score	Malaysia and Thailand. Also adopted voluntarily by industry bodies in a few countries
COMMENT	Chile (2016); Peru (2019); Mexico, Israel and Uruguay (2020); Brazil, Columbia (in 2022), Canada (to be implemented)	Can provide conflicting information as a product can be simultaneously red and green	Not nutrient specific; diabetics, hypertensive cannot know about items high in sugar, salt. Vulnerable to manipulation as industry can improve score by adding fruit, fibres
		Summary of information on negative nutrients at the back of the pack. Too many numbers. Difficult to understand. Industry's favourite	Easy to understand, give clear information, most advanced type interpretive label, current best practice

The Food Safety and Standards Authority of India (FSSAI) has issued draft regulations on the front-of-the-pack nutritional labelling (FOPNL) for packaged food manufacturers.

- It is non-binding for a period of four years.
- The plan is to introduce five-star ratings on labels on the front of packaged food items to provide consumers with more information on the nutritional content of packaged food items.
- It has proposed the mathematical formula that explains star ratings are calculated.
- It also formulated base reference values for sugars, energy, sodium and saturated fats that are associated with health risk factors.
- It also stipulates the minimal percentage of positive nutrients, including fruits and vegetables as well as legumes, nuts as well as fibres and protein.
- In light of these two criteria, food items will be awarded Indian Nutrition Rating

(INR) scores, which determine the amount of stars that will be awarded to the food item.

- For example, a solid food product that has INR scores within the range 21-24 is eligible for just 1 rating (higher that number means it will meet more nutrient requirements).
- It is the first time that it defines the term "high Fat Sugar and Salt (HFSS) food products HFSS is an item of processed food that contains high levels of saturated fat , total sodium or sugar.
- **Food exceptions:** fresh eggs, meat, poultry and spices, as well as herbs masalas, honey, the natural mineral waters, buttermilk infant formula, and single ingredient products such as table-top salt white sugar vinegar and mustard.

Front-of-Pack (FoP) Labelling System:

- The FoP labelling system has for a long time been recognized in the list of world's best practices for guiding consumers to make healthier food choices.
- The front of the pack nutrition labeling has been implemented in several nations where overweight and health issues are a major health risk.
- It is the World Health Organization (WHO) defines FoP labels as nutritional labels that are displayed on the front of food packaging within the main field of view; and provide simple, usually graphic representations of the content of nutrients or the nutritional quality of the product.
- In the Codex Alimentarius Commission mentions that "FoP labels are designed to aid in understanding the nutritional declarations".
- Codex Alimentarius Commission (CAC) It is an intergovernmental institution formed by the UN's Food and Agriculture Organisation (FAO) as well as the World Health Organisation (WHO) in 1963 in the context of the Joint Food Standards Programme.
- The Secretariat of the CAC is housed at FAO Headquarters in Rome.
- It was created to safeguard consumer health as well as ensure an ethical food industry.
- It is a regular session each year and alternates with Geneva as well as Rome. It currently is home to the number of Codex Members.
- **Codex Alimentarius:** It is an international collection of food standards which have been accepted by the CAC.

- The Standards include all major food items, semi-processed, processed or even raw, which are the ingredients utilized in further processing of food items.
- Codex regulations concern hygiene and nutritional qualities of food products, including the microbiological standards, additives to food pesticide and veterinary drugs residues.
- India was admitted to Codex Alimentarius in 1964 Membership of the Commission is accessible to any Member Nations as well as Associate members of FAO and WHO that are interested in international food standards.

Topic 7. IBBI AND IBC

Important for subject: Economy

The Insolvency and Bankruptcy Board of India has amended the IBBI Regulations (Insolvency Resolution Process for Corporate Persons). This was done with the "objective of maximising value in resolution."

- **Amendments:** The Committee of Creditors can now investigate whether an arrangement or compromise can be made for a corporate creditor during the liquidation period.
- In cases where the resolution plan for the entire business is not available, a resolution professional and/or the CoC will seek to sell one or more corporate debtor assets
- It will allow a resolution plan that includes sale of one or several assets of CD (Corporate debtor) to one of the successful resolution applicants.
- The resolution plan must include resolution plans for such assets, and appropriate treatment for any remaining assets.
- The Insolvency and Bankruptcy Code, 2016, (IBC).
- The Insolvency and Bankruptcy Code, (IBC), allows for market-linked and time-bound resolution of stressed assets.
- It applies to all individuals, businesses, Limited Liability Partnerships, LLPs, and partnership firms.
- The code's goal is to quickly address insolvencies.
- The evaluation and viability determination must take place within 180 days.
- The Company is Important for Subject to a 180-day Moratorium (which can be extended to 270 days).

- Start-ups and small businesses must resolve within 90 days. This time period can be extended up to 45 days.
- IBC's Objectives To consolidate and modify all Indian insolvency laws.
- To expedite and simplify the Insolvency and Bankruptcy Proceedings In India.
- To safeguard the interests of creditors, including all stakeholders in a company.
- To bring back the company in a timely manner.
- To promote entrepreneurship.
- To obtain the relief that creditors need and to increase credit supply.
- To devise a new and prompt recovery procedure for banks, financial institutions, or individuals.
- To establish an Insolvency and Bankruptcy Board of India.
- Maximizing the value of corporate assets

The following institutions/bodies make up the framework:

- **Insolvency professionals:** They will manage the resolution process.
- They manage the debtor's assets, and they provide information to creditors to assist them in making decisions.
- **Insolvency Professional Agencies (IPA):** Insolvency professionals will be registered with professional agencies to assist them insolvency.
- To certify insolvency professionals, exams would be held. The agencies would enforce a code for behavior.
- **Information utilities:** They keep track of creditors' debts, repayments, and defaults.
- Adjudicating authorities are those who approve the resolution process, appoint an insolvency professional and sign off on creditors' final judgment.
- The National Company Law Tribunal, (NCLT), is the ultimate authority for limited liability companies and corporations.
- The Debt Recovery Tribunal (DRT) adjudicates the debts of individuals and partnerships.
- The Insolvency and Bankruptcy Board oversees insolvency professionals, professional agencies and information utilities created under the Code.
- The Insolvency Resolution Process Any of the parties to the firm can initiate an insolvency resolution process: creditors/debtors/employees/firm.

- If the adjudicating authority agrees, an Insolvency Resolution Professional (IP) will be appointed.
- The committee of creditors (CoC) takes over the power of the board and management of the firm.
- They do so through the IP.
- The IP must decide whether to liquidate the company (liquidation) or revive it (insolvency resolution).
- They must find someone to purchase the company if they want to revive it.
- Also, creditors must accept a substantial reduction in their debt.
- A haircut is a reduction.
- The firm is open to all interested parties.
- They select the party that has the best resolution plan and is acceptable by the majority (75% in CoC) to assume the management of the company.
- Insolvency and Bankruptcy Board of India was established under the Insolvency and Bankruptcy Act, 2016, (Code).
- It is the pillar that controls the implementation of the Code.
- The Code consolidates and amends laws relating to the reorganisation and resolution of corporations, partnership firms, and individuals in a time-bound manner to maximize the assets of such persons, promote entrepreneurship, credit availability, and balance the interests all stakeholders.
- It has regulatory oversight of the Insolvency Professionals and Insolvency Professional Agencies, Insolvency Professional Entities, Insolvency Professional Entities, and Information Utilities.
- It creates and enforces rules that govern processes such as corporate insolvency resolution, corporate liquidity, and individual bankruptcy.
- In furtherance of the Code's purposes, it was recently tasked with promoting the development and regulation of insolvency professionals, professional agencies, information utilities, and other institutions.
- It was also designated the "Authority" under the Companies (Registered Valuers and Valuation Rules), 2017, for the regulation and development the profession of valuers within the country.

Topic 8. EMERGING MARKET

Important for subject: Economy



Uday Kotak emphasized that India must manage inflation and growth effectively to move beyond the EM label and become a standalone destination for investment.

- **Emerging Market:** A country is in the process to develop its economy and become more advanced.
- Emerging market economies are countries that have some but not all of the characteristics of developed markets.
- **Features:** Emerging markets economies often have a single currency, stock market and banking system.
- They are also in the process or industrializing.
- It aims to shift away from agricultural and resource extraction activities and towards industrial and manufacturing activities.
- As emerging markets develop, they are more integrated into the global economy.
- This means that it can have more liquidity in local equity and debt markets, increase trade volume, and foreign direct investments.
- To encourage economic growth and industrialization, their governments often pursue deliberate industrial and commercial strategies.
- These strategies include import substituting industrialization and export-led growth.

- Emerging market economies account for 80% of the world's population, and nearly 70% of the world's GDP growth.
- Emerging Market Risks -Political instability and domestic infrastructure problems, currency fluctuations, and illiquidity are all risks that emerging markets face. They lack the same high-quality market and regulatory institutions found in developed countries.
- **Emerging market economies have a key feature:** they are able to adopt reforms and institutions similar to those in developed countries over time.
- This encourages economic growth.
- Different observers classify emerging market economies in different ways.
- International Monetary Fund (IMF), classifies 23 countries in emerging markets Morgan Stanley Capital International, (MSCI), classifies 24 countries in emerging markets. Brazil, Chile. China, Colombia. Czech Republic. India, Indonesia. Korea, Malaysia. Peru, Philippines. Russia, Qatar. South Africa. Thailand. Turkey.
- Five emerging markets, namely Brazil, Russia, India and China, are represented by the BRICS countries.

Topic 9. NATIONAL LOGISTICS POLICY

Important for subject: Economy

NEW LOGISTICS POLICY

<p>INTEGRATION OF DIGITAL SYSTEM (IDS): Will integrate data from several ministerial departments to smooth cargo movement</p> <p>UNIFIED LOGISTICS INTERFACE PLATFORM (ULIP): Will display all modes of transport available to facilitate cargo movement</p> <p>EASE OF LOGISTICS (ELOG): Will simplify rules for logistics business</p>	<p>SYSTEM IMPROVEMENT GROUP (SIG): Officers from ministries will monitor all logistics projects regularly to remove bottlenecks in a time-bound manner</p> <p>FOCUS ON SKILLING: Attention will be given to skilling. Generating employment will also be a key focus area</p> <p>E-HANDBOOK: Will aim to standardise warehouses of physical assets</p>
---	---

Prime Minister Narendra Modi launched Saturday the National Logistics Policy (NLP), and

the Unified Logistics Interface Platform ULIP.

- To lower the logistics costs in India, which are high when compared to other developed countries.
- India's logistics expenses account for around 13-14 percent of its GDP, compared to 9-10% in Europe and the US, and 11-12% in Japan. According to the World Bank Logistics Index 2018, India ranks 44th in terms of logistics costs.
- **The National Logistics Policy 2022 - Key Features:** Vision- Develop a technologically enabled and integrated, cost-efficient and resilient, sustainable, and trusted logistics system in the country for accelerated, inclusive growth.
- To reduce logistics costs in India and make them comparable to global benchmarks by 2030.
- The Policy will be implemented by a Comprehensive Logistics Action Plan, (CLAP).
- The eight major interventions under the CLAP can be divided into eight areas.
- Integrated Digital Logistics Systems Standardization of physical assets and benchmarking quality standards Logistics Human Resources Development and Capacity Building EXIM (Export Import) Logistics Service Improvement Framework Sectoral Plan for Efficient Logistics Facilitation of Development of Logistics Parks.
- **Unified Logistics Interface Platform:** This platform aims to create a National Single Window Logistics Portal.
- ULIP will monitor cargo movements in real time and provide confidentiality with end-to-end encryption.
- It will also reduce logistic costs by a large extent.
- It was designed by National Industrial Corridor Development Corporation Limited, (NICDC), with the support of NITI Aayog.
- ULIP Platform Components Integration with existing data sources Ministry Data exchange with private parties Unified document reference within the supply chain

Topic 10. ECONOMICS OF STOCKPILING

Important for subject: Economy

India has greatly benefited from large food and forex reserves.

- Stockpiling is a good idea.

- On the back of rising inflation in developed nations like the USA, there has been a steady tightening of monetary policy (rate of interest increase) which has led to large-scale dollar flight and depreciation.
- Imports will be more expensive due to a shortage of dollars and devaluation of the domestic currency.
- This could lead to supply problems, especially for fuel and food.
- Stockpiling costs: Above the PDS operational requirements, the cost of maintaining and holding stocks is in food.
- The purchase of excess dollars by forex-RBI results in the exchange of local currency.
- Inflation can be caused by RBI's decision to sell government bonds if this rupee liquidity is removed.
- The fiscal cost of reserve building is when the interest on these bonds exceeds the RBI's forex assets deployed in overseas securities or banks.
- Agriculture Supply Chain. The Government's policy on procurement of Food grains has two main objectives: to ensure MSP to farmers and to make food grains affordable for the poorer sections.
- Food Corporation of India-FCI works with other State Agencies to procure wheat and paddy in price support schemes.
- As per instructions from the Government of India, State Government Agencies procure coarse grains for Central Pool.
- FCI and State Government/its agencies ensure farmers aren't forced to sell below the support price.
- MSP procurement is open-ended.
- All foodgrains offered by farmers and that meet the quality standards prescribed by Government of India are purchased at MSP.
- Some states also declare State bonuses on wheat and paddy above and beyond MSP.
- FCI and other State Agencies, in consultation with the State Government, have established a large number purchase centers at key points and mandis to facilitate food grain procurement.
- Farmers can sell their produce to other buyers if they get higher prices than the support price.
- Centralized and decentralized procurement systems: Centralized (Non DCP)

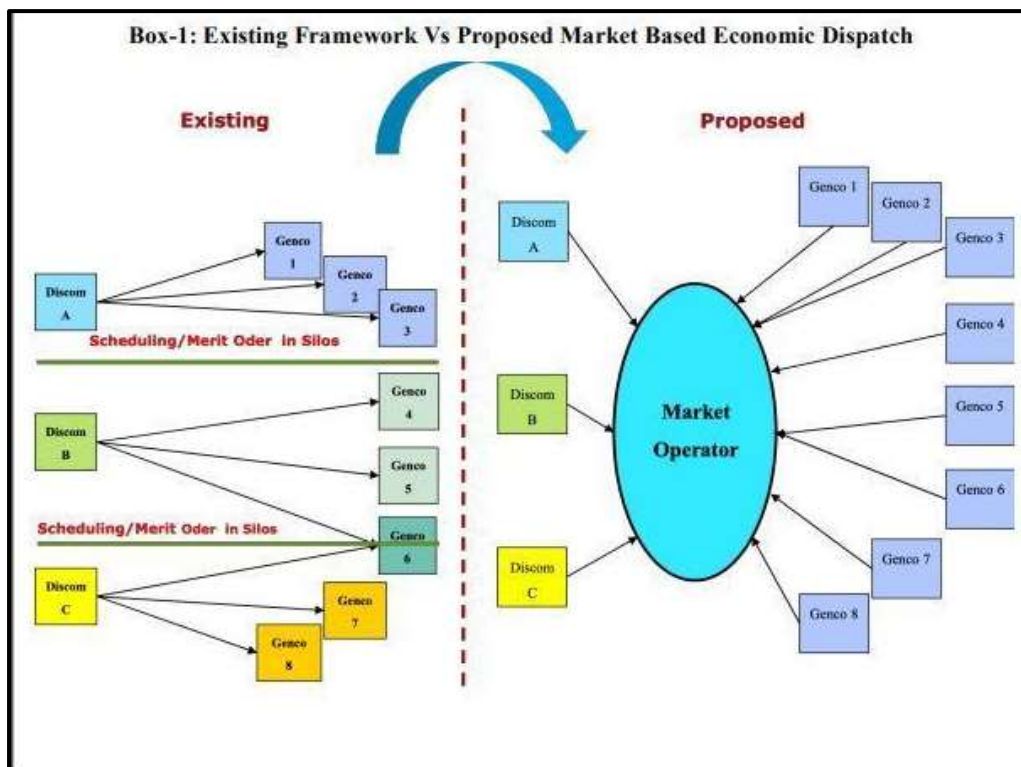
procurement system: Foodgrains are procured in Central Pool either directly by FCI or by State Govt. Agencies (SGA).

- SGAs are used to procure quantity.
- FCI stores it and issues GOI allocations to the State.
- FCI reimburses the cost of foodgrains purchased by State agencies.
- Decentralized (DCP) Procurement: The State Government/its agencies procure, store, and distribute rice/wheat/coarse grain within the state.
- The surplus stocks (Rice and wheat) that the State/its agencies have procured are transferred to the Central Pool by FCI.
- Government of India reimburses the State Government for the expenditure it has incurred on DCP stock storage, distribution and procurement.
- Food stockpiling: The storage plan of FCI is designed to meet the storage requirements for stocks that can be used to satisfy the Public Distribution System (PDS) and other welfare schemes undertaken by the Government of India, and to ensure food security of the country.
- A good scientific storage is essential to meet the policy objectives of the Food Corporation of India.
- FCI has a network of storage depots strategically located throughout India, including silos.
- FCI does not have its own storage capacity.
- FCI has also hired storage capacities from Central Warehousing Corporations and State Warehousing Corporations.
- State Agencies, Private Parties, and State Warehousing Corporations.
- These storage capacities can be used for short-term or guaranteed periods under the Private Entrepreneurs Guarantee Scheme.
- FCI is currently building new godowns mainly through private participation under the Private Entrepreneurs Guarantee scheme.
- **Stockpiling Foreign Exchange Reserves:** The Reserve Bank of India Act of 1934 outlines the legal provisions that govern management of foreign currency reserves.
- It monitors developments in foreign and domestic financial markets closely and intervenes by buying and selling foreign currency.
- Market operations can be conducted either directly or via public sector banks.

- The RBI buys excess dollars to exchange for domestic currency.
- The Reserve Bank facilitates the availability of more derivative instruments on the foreign exchange market, in addition to traditional instruments such as forward and swap contracts.
- **The Reserve Bank of India Act allows the Reserve Bank to place reserves in the following instruments:** Deposits at Bank for International Settlements or other central banks; Deposits with foreign commercial bank branches; Debt instruments representing sovereign-guaranteed liabilities of no more than 10 years residual maturity.
- Other instruments and institutions approved by the Central Board of the Reserve Bank according to the Act.

Topic 11. MARKET BASED ECONOMIC DESPATCH

Important for subject: Economy



Market-Based Economic Dispatch/Centralised Power Model (MBED).

- Market-Based Economic Dispatch aims to centralize scheduling in order to dispatch the entire annual electricity consumption, which is approximately 1,400 billion units.

- A central pool would be able to allocate power at the best price, thus meeting the power demand of all states.
- This algorithm was developed by the National Load Dispatch Centre and called the Security Constrained Economic Dispatch.
- It is designed to assist regulators in making informed decisions about scheduling decisions on a national basis.
- MBED aims at establishing a uniform pricing structure that favors generators with the lowest cost and highest efficiency.
- The MBED model can be seen as a decrease in relative autonomy for states in managing their electricity sector Discoms, which are mainly state-owned distribution companies.
- They are completely dependent on centralised mandatory pool requirements.
- **Electricity sector:** The Constitution contains power in the Concurrent List.
- The electricity grid is divided in state-wise autonomous control areas, which are managed by the State Load Dispatch Centres.
- These are then supervised by Regional Load Dispatch Centres and the National Load Dispatch Centre.
- Each control area is responsible for balancing its generation with demand in real-time.
- Current power distribution companies get their power from the state's available resources.
- This results in a higher energy price.
- The MBED model proposes a solution.
- It will establish a central market operator that dispatches the intra-state and inter-state generation plants.
- This will narrow the options available under the voluntary market design, which requires power buyers or sellers to purchase or sell power in the real time market.
- India has a diverse electricity market that includes long-term power purchase arrangements (PPAs), cross-border PPAs and short and medium-term bilaterals.
- There is also a day-ahead power market and an online market.
- The majority of installed power capacity, more than 87 percent, is tied up by long-term PPAs over 25 years.
- It can also be used for power exchanges or as a part of short-term and medium term

bilateral agreements.

- Currently, every control area or state follows merit order dispatch (cheapest power dispatched earliest) from the intrastate resource basket and then buys or trades on the day ahead power exchange.
- It is possible to revise the schedules under long-term PPAs, but not the power traded at the daily-ahead power exchange.
- The private sector's un-tied generators are actively looking for buyers on both the bilateral market and on the voluntary power exchanges.

Topic 12. CLIMATE FINANCE

Important for subject: Economy

According to the International Fund for Agricultural Development, (IFAD), only 1.7% of climate finance goes to small farmers who produce 1/3 the world's food.

- International Fund for Agricultural Development (IFAD). IFAD is an international financial institution that provides loans and grants with low interest for allied programs.
- It helps marginalized and vulnerable groups like farmers with small holdings, pastoralists and fishermen, as well as small-scale entrepreneurs.
- They receive disaster preparedness, weather information, technology transfer, social learning, and access to technology.
- It was established in 1977 as a result of the 1974 World Food Conference.
- It has 177 members, including India.

Objectives:

- To increase the productivity of the poor.
- To maximize the benefits of market participation for them
- To increase the sustainability and climate resilience of their economic activities.
- Reports-Rural Development Report each year. Lifestyle for the Environment Movement (LiFE), launched in a "call for papers", inviting suggestions and ideas from universities and academics to promote a more environmentally-conscious lifestyle.
- The Prime Minister introduced the idea of LiFE at the 26th United Nations Climate


Change Conference of the Parties in Glasgow last year.

- It aims to persuade individuals across the world to undertake simple climate friendly actions in their daily lives or adoption of environment-conscious lifestyle.
- The Mission intends to build and sustain a global network of people, called 'Pro-Planet People (P3) P3 will share a common commitment to promote and adopt environmentally friendly lifestyles.

Topic 13. SMALL COMPANY UNDER COMPANIES ACT 2013

Important for subject: Economy

Small Company as per Companies Act 2013



- Introduced in Companies Act 2013
- Paid-up capital not exceed 50 Lakh
- Startups are small companies

The Corporate Affairs Ministry (MCA), has relaxed the threshold of paid up capital for small businesses, which facilitates further ease of doing business and reduces compliance burden for these companies.

- **Companies Act 2013, Definition of Small Company:** Details Earlier Present Paid up Share Capital as at reporting date. Not more than Rs2 crore.
- Not more than Rs4 crore.
- Not more than Rs20 crore. Not more than Rs40 crore
- The following companies are not considered small: A holding company, a subsidiary company.
- A company that is registered under Section 8 (the Act). A company or corporate body that is governed by any special act.
- **Benefits:** More companies will be able to take advantage of the Companies Act 2013, 2013 benefits.

- There is no need to prepare a cash flow statement in a financial statement.
- Small companies must provide information about the total remuneration received by directors and key managers in order to be compliant with other companies' requirements.
- Mandatory rotation is not necessary for auditors.
- Small company auditors are not required to provide information in their audit report about the effectiveness of internal financial controls.
- Only two meetings of the board are required per year.
- The Company Secretary can sign the Annual Return of the Company, or if there isn't a company secretary, a single director.
- For small companies, there are less penalties
- Small companies pay less for filing fees

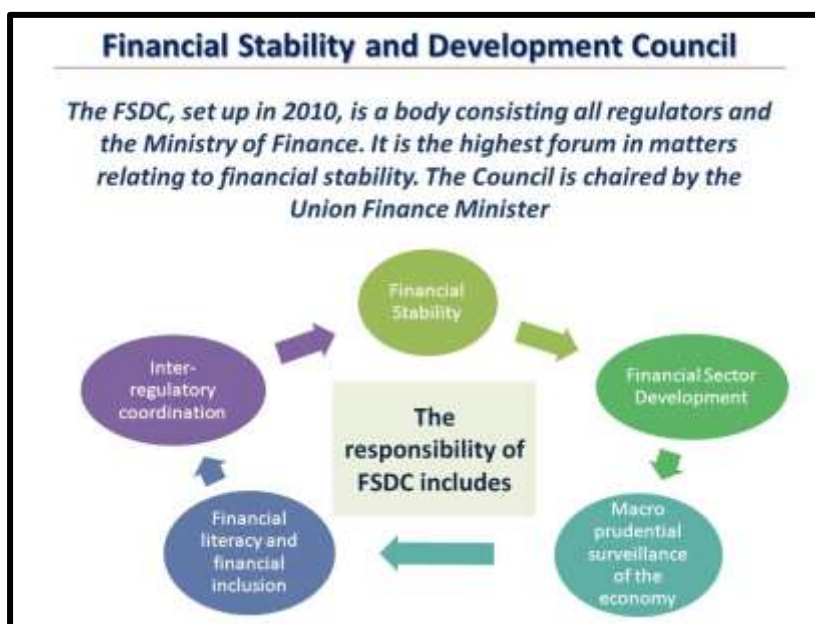
Types of share capital:

- **Authorised capital:** This refers to the authorized capital that a company can issue according to its Memorandum of Association.
- The authorised capital may also be called the normal capital or registered capital.
- It can be increased or decreased according to the Companies Act rules.
- **Issued Capital:** This refers to the part of the authorised capital that is made available to subscribers.
- It includes the shares allotted by the vendor and signatories to the company's memorandum.
- **Subscribed Capital:** This is the part of the capital that has been subscribed by the public.
- When the shares available for public subscription are fully subscribed by the public, the issued capital and subscribed capital become equal.
- **Called up Capital:** This is the capital that the company asks shareholders to pay.
- The company may ask shareholders to pay all or part of the share price.
- **Paid up Capital:** This is the part of the capital that has been actually paid out by shareholders.
- When all shareholders have paid the call amount, the called-up capital and the paid up capital will equal.

- It is also known as calls in arrears if a shareholder fails to pay a called-up amount.
- **Uncalled Capital:** This is the portion of the subscribed capital not yet used by the company.
- If there is a need for funds, the company may collect this amount.
- **Reserve Capital:** This is the portion of uncalled capital that a company may have as a reserve and which can only be used in the event that the company is wound up.
- In the event of a company's winding down, the creditors can access such capital.

Topic 14. FINANCIAL STABILITY AND DEVELOPMENT COUNCIL

Important for subject: Economy



26th meeting of Financial Stability and Development Council, (FSDC), held under the chairpersonship of Union Finance Ministry Smt. Nirmala Sitharaman.

- It emphasized the importance of continuous monitoring the risks in the financial system and discussed: issues of governance and management of systemically important financial institutions; cyber security framework for the financial sector; common KYC for all financial Service issues relating to financing the power sector; strategic role of the GIFT international Financial Services Centre (FSDC);
- It is a non-statutory apex body under the Ministry of Finance, created by an Executive Order in 2010.
- It was established to deal with all aspects of macroprudential and financial

irregularities in India's entire financial sector.

- The Raghuram Rajan Committee (2008), which examines financial sector reforms, first suggested the creation of FSDC.
- Composition of FSDC Chairperson: Union Finance Minister of India. FSDC members include the Heads of the Financial Sector Regulators listed below.
- Other members include the Finance Secretary, Secretary of Department of Financial Services and Chief Economic Advisor.
- The government reconstituted FSDC with the following members: Secretary of Department of Electronics and Information Technology, Minister of State responsible (DEA), Secretary of Department of Economic Affairs (DEA), Chairperson of Insolvency and Bankruptcy Board of India and Revenue Secretary.
- The Governor of RBI is the head of the FSDC sub-committee. If necessary, experts can be invited to the Council's meeting.

Aims and Objectives:

- To improve inter-regulatory coordination, and to promote the development of the financial sector.
- It also focuses upon financial literacy and financial inclusion.
- Coordinating India's international interface to financial sector bodies like the Financial Action Task Force and Financial Stability Board.
- **Functions:** To institutionalize and strengthen the financial stability mechanism, improve inter-regulatory coordination, and promote financial sector development.
- Monitor macro-prudential supervision. It evaluates the performance of large financial conglomerates.

Topic 15. CLIMATE RISK DISCUSSION PAPER BY THE RESERVE BANK OF INDIA

Important for subject: Economy

The paper of the RBI on climate action contains suggestions that are worthy of being adopted.

- The discussion paper: It highlights the shortcomings in India's treatment of climate change as a material threat.

- **It meticulously clarifies:** Risks of physical climate change.
- It refers to economic losses and economic costs resulting from extreme climate-related weather events like acute and chronic physical risk.
- Transition loss risks
- **This includes:** Changes in climate-related regulations and policies. Portfolios and cash flow reductions due to the emergence of new technologies.
- Customers' changing attitudes and behavior
- This consultation paper provides: Broad guidance, examples, and best practices for regulated entities regarding governance, disclosures strategy, processes, and risk management structure to address climate hazards. It also includes valuable insights for boards.
- It places more emphasis on the many financing options.
- foreign capital through sustainability-linked loans and bonds.
- **Climate change initiatives by the RBI:** The RBI established a Sustainable Finance Group in May 2021 within its Department of Regulation. This group aims to work with other agencies national and international on climate change issues.
- The Reserve Bank published on its website the results from a Survey on Climate Risk and Sustainable Finance that was conducted in January 2022.
- In January 2022, the Sustainable Finance Group (SFG), conducted a survey to evaluate the state of climate risk and sustainability finance in commercial banks.
- The survey included 12 Indian public sector banks, 16 Indian private sector banks, and 6 foreign banks.
- It offers valuable insights and will assist in shaping the regulatory approach and supervision of the RBI to climate risks and sustainable finance.
- The RBI published a bulletin in March 2022 that examined the effects of the transition to green energy on fossil fuel-dependent industries.
- The Reserve Bank of India (RBI) recently released a climate risk discussion paper to encourage financial sector in India to prioritise green-transition financing to ensure long term stability and address the rising threat of climate change.
- Network for Greening the Financial System
- It is a group consisting of supervisors and central banks who are willing to share their best practices and help develop climate and environment risk management in the

financial industry.

- It was established at the Paris One Planet Summit, December 2017, and its secretariat is hosted in France by the Banque de France.
- It seeks to mobilize mainstream finance in support of the transition to a sustainable economy.

Topic 16. LIVE STREAMING FOR SC PROCEEDINGS

Important for subject: Polity

The history of the world was created on the 26th of August, when proceedings of the Chief Justice's Court in the Supreme Court (SC) were live streamed.

- As part of the Swapnil Tripathi case in September the SC had cleared the way for live streaming of matters of national and constitutional importance.
- It ruled that live streaming proceedings are a part of the rights to access justice provided by article 21 in the Constitution.
- Rationale behind the move the case for live streaming of SC cases of constitutional/national importance is quite strong.
- These cases affect a variety of aspects of the lives of individuals.
- Thus, the ability of the public to be a part of this discussion by watching these sessions will improve the level of legal literacy.
- It could also enhance the on-going engagement of citizens to the Constitution and the laws.
- This type of direct interaction is much better than a process that is mediated by certain Delhi legal professionals or reporters for court especially when the technology is affordable and permits the live communication.
- One argument for live streaming would be that it could help improve the discipline of lawyers and judges conduct hearings, since they know that people are watching.
- Aspects that are of concern the live stream of the Courts are prone to abuses.
- It could raise security concerns for national security and may be a violation of the protection of privacy rights in disputes between matrimonial couples or cases of rape.
- The unlicensed reproduction of live streaming videos is a further issue to consider because its regulation will be extremely difficult for the government at its conclusion.
- Some concerns have been raised regarding the commercial aspect of the entire issue.

- These agreements between broadcasters must be non-commercial.
- Nobody should gain from this arrangement.
- The infrastructure, specifically internet connectivity is the most significant obstacle when it comes to implementing live sessions of Courts.

Additional Information:

- The e-Courts mission project was developed on the basis of "National Strategy and Action Plan to Implementation of Information and Communication Technology (ICT) in the Indian Judiciary - 2005" presented to the e-Committee, Supreme Court of India with a goal to change this Indian Judiciary by ICT enablement of courts.
- The e-Courts project is an Pan-India project that is managed and funded by the Department of Justice, Ministry of Law and Justice, Government of India for the District Courts across the country.

Topic 17. CHIEF JUSTICE OF INDIA AS THE MASTER OF ROASTER***Important for subject: Polity***

A new CJI designated Master of Roster Master of Roster refers to the right for the Chief Justice of establish Benches to listen to cases.

- A Constitutional Bench in the Supreme Court declared that the Chief Justice is the chief judge of the roster.
- He alone is the sole authority to form The Benches in the Court and to assign instances to Benches established.
- A Judge cannot take on the issue independently without the permission of the Supreme Court of India.
- The rules of the Supreme Court Rules, 2013 gives the Chief Justice the power to assign cases, exercising his discretionary power.
- Rules were created by Article 45 of the Constitution to empower chief justices to designate Benches for hearing cases, or appeal.
- It was also decided by the Supreme Court also held that the Chief Justice, in his own role can be regarded as the master of the Roster, and it is not an eminent Collegium comprising the first three or five Judges.

Topic 18. SUPREME COURT BENCH RELATING TO THE PROCEDURAL NORMS FOR IMPOSING THE DEATH SENTENCE.

Important for subject: Polity

The Supreme Court recently referred to an additional Bench issue that pertains to the procedural rules for the execution of the death sentence.

- The move is seen as a significant step towards filling in any gaps that trial courts grant the death penalty.
- The procedure for granting a death sentence Section 237 of Code of Criminal Procedure (CrPC) requires that a judge listen to the accused following conviction over the issue of sentence, and decide on a sentence as per the law.
- **Previous SC rulings:** Bachan Singh v State of Punjab (1980) A separate sentencing hearing must be conducted, where the judge will be convinced about the reason why a death sentence should not be imposed.
- Dattaraya in a case involving the Dattaraya v. State of Maharashtra (2020) for the purpose of obtaining an effective Hearing under Section 235(2) of the CrPC, the assertion that the court is planning to sentence death to the accused must be given to the person accused so that the accused is able to effectively argue against the death penalty by providing mitigating factors to the Court.
- The SC order to refer the case to a higher bench includes the social environment, degree of education, age and whether the convict been through trauma before or in the family, as well as psychological evaluation of the convict, and post-conviction behavior as factors that need to be taken into account in the hearing for sentencing.

Topic 19. RELIGIOUS CONVERSION AND QUOTA BENEFITS

Important for subject: Polity



Union Government is ready to create a national commission to examine the socio-economic and educational status of Scheduled Castes members, or Dalits who have converted to other religions than Sikhism, Buddhism, and Hinduism.

- The Constitution (Scheduled castes) Order of 1950 states that no one can be considered a member if they practice a different religion than the Hindu, Sikh, or Buddhist religion.
- This provision has been modified several times.
- Original order that only Hindus were considered SCs was modified to include Sikhs in 1956 and Buddhists in 1990. SCs are allowed to hold 15% of government jobs.
- Since there is no mandate from any religion for STs or the OBCs, this issue is only applicable to Dalits.
- Department of Personnel and Training (DoPT) site details the position regarding SC status and conversions.
- A person is considered to be a member of an SC/ST if he or she belongs to a caste or tribe that has been declared such.
- A member of the SCs shall not be considered to be someone who practices a religion other than the Hindu or Sikh religions.
- A person who is a SC/ST will be considered as such regardless of whether or not he/she marries to a non-Scheduled Caste/Scheduled tribe.
- A convert to Hinduism or Sikhism, or someone who has re-converted, will be accepted into the SC.
- However, there is no such religious bar for STs or Other Backward Class (OBCs).
- A Scheduled Tribe member has rights that are independent of their religious beliefs.

Topic 20. ELECTION COMMISSION DELISTS 86 PARTIES

Important for subject: Polity

The Election Commission of India delisted 86 nonexistent Registered Unrecognized Parties (RUPP).

- Since May, the EC has been working to remove 284 unrecognized parties from its register.
- 86 RUPPs were found to be inactive after a physical inspection by Chief Electoral

Offices of the concerned States/UTs, or based upon a report of undelivered letters/notices sent to the registered address for the concerned RUPP.

- An election commission can delist a party based on article 324 of the constitution of India, with regard to its superintendence powers.
- Every political party must notify the Commission immediately of any changes in its name, headoffice, office bearers, address or PAN, as per Section 29A of 1951's Representation of People Act.
- They would also not be eligible for benefits under the Symbols Order 1968.
- Registered Unrecognised Party (RUPP), Those parties that have just been registered or have not received enough votes in general or assembly elections to be considered a state party or have never contested an election since they were registered are unrecognised parties.
- These parties do not enjoy the same benefits as the recognized parties.
- Symbol Allocation: RUPP is provided with common symbols under the Symbols Order, 1968.
- RUPP is entitled to a common symbol if they promise to put up at least 5% of the total candidates for said legislative assembly elections in a State.
- It is possible that such parties could occupy the pre-election space and take advantage of permissible entitlements, without having to contest elections.
- This can also lead to confusion for voters and crowding out political parties that are actually running for elections.

Topic 21. MADRAS HIGH COURT FOUND YOUTUBER SAVUKKU SHANKAR GUILTY OF CRIMINAL CONTEMPT OF COURT

Important for subject: Polity

YouTuber Savukku Sankar was found guilty by the Madurai Bench of the Madras High Court of Criminal Contempt of Court and sentenced to six months in prison

- The 1971 Contempt of Courts Act defines contempt of court as either civil contempt or criminal contempt.
- Civil contempt is wilful disobedience to any court judgment, decree or direction, or writ, or will breach of an undertaking.
- Criminal contempt is, however, attracted by publication (either by words, spoken,

written or signs or other visible representations) of any matter or any act whatsoever that: scandalizes or tends not to scandalise any court, or lowers the authority of, any judge; or prejudices, interferes with, tends/tens to interfere in, or obstructs, or tends/obstructs the administration of justice in other ways.

- The government introduced an amendment in 2006 that now allows "truth" to be used as defense, provided it is true and in the public interest.
- **A-G consents to court proceedings being started in contempt:** A criminal contempt case can be brought before the court on its own motion, on a motion by the Advocate-General or any other person with the written consent of the Attorney General of India.

Topic 22. CITIZENSHIP AMENDMENT ACT 2019

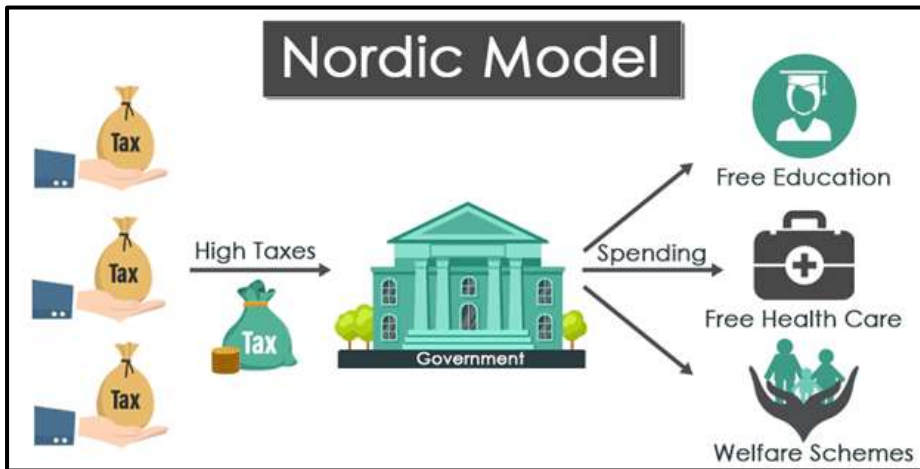
Important for subject: Polity

The objective is to grant Indian citizenship to persecuted minority groups: Hindu, Sikh and Jain from Pakistan, Afghanistan, and Bangladesh who arrived in India before 31 December 2014.

- It exempts members of six communities from criminal cases under the Foreigners Act 1946 and Passport Act 1920.
- It is controversial. Illegal immigrants are made to be different on the basis of their religion. Article 14 (Equality before the law and equal protection under the law) is violated. Naturalizes illegal immigrants in the region.
- **Exemptions under the Act:** The Act does not apply to areas listed under the 6th Schedule (Assam, Meghalaya Tripura, Mizoram).
- These areas are not covered by Inner Line Permit Bengal Eastern Frontier Regulation 1873 Act & Article 14.

Topic 23. NORDIC MODEL OF DEMOCRACY

Important for subject: Polity/International Relations



The Nordic Model of Social Democracy is a model that can be used to teach lessons to developing countries, even India, despite its many complexities.

- The Nordic model, also known as the Scandinavian Model, is a combination of economic and social welfare that Nordic countries (Sweden Norway, Finland Denmark and Iceland) have adopted.
- It blends the best of capitalism with social benefits such as state pensions, income distribution, and market economies.
- The Nordic model has important features such as public provision of social service, investment in human capital and strong social safety net.

Topic 24. PUSA DECOMPOSERS

Important for subject: Environment

PUSA DECOMPOSER

Benefits :

- ✓ Pusa Decomposer capsules contain Fungal Culture which is used for all types of Crops waste, Kitchen waste, Garden waste & Cow waste.
- ✓ Hastens the rate of decomposition of various Agriculture waste.
- ✓ Improves the fertility and productivity of the soil.

The advertisement also features an image of a green and white bag of PUSA Decomposer capsules.

The decomposers come in shape of pills created by removing fungi which aid the straw of paddy to break down in a faster pace than normal.

- The fungi aid in the production of the necessary enzymes needed for the degradation process.
- A Decomposer Mixture entails making a liquid formula by using decomposer capsules.
- It is then fermented it for 8-10 days, then spraying the mixture onto fields with stubble from crops to promote rapid bio-decomposition in the stubble.
- Farmers can make 25 litres of liquid mix using four capsules, jaggery and chickpea flour.
- The mix can fill a whole hectare.
- Duration of Decomposition: It can take approximately 20 to 30 days for the process of degradation to complete.
- In normal circumstances the shredded paddy straw, mixed with soil, requires minimum 45 days for decomposition.
- It is not enough time to farmers to prepare their fields for the crop of wheat at the right time.
- **Beneficial:** Decomposing enhances the fertility and effectiveness of the soil since the stubble is used as compost and manure for the crops , and less fertilizer usage is required in the future.
- The soil's quality decreases due to the effects of burning stubble, and also damages the beneficial bacteria and fungi that live within the soil, aside from causing damage to the natural environment.
- It's a highly effective and efficient, less expensive achievable, feasible, and practical way to prevent the burning of stubble.
- It is a green and environmentally efficient technology that will help to the achievement of Swachh Bharat Mission.

Topic 25. NO SPOTTED DEER BROUGHT TO KUNO AS PREY

Important for subject: Environment

Madhya Pradesh Forest Department has denied reports that chital also known as spotted deer in Rajasthan are being taken to Kuno National Park as prey for Cheetah.

- Concerning Chital Chital deer is also known as spotted deer can be seen in large herds grazing in forests clearings. It is indigenous of India. Indian Subcontinent.
- They sport a rust brown body, with white spots to help blend into the surroundings.
- The tines are the three branches of each antler.
- They are listed in Schedule 3 of the Wildlife protection act of 1972.
- The park is classified Least Concern on the IUCN red list. Kuno National Park Kuno is a National park in Madhya Pradesh, India.
- It was founded around 1981 as a refuge in the Sheopur and Morena districts.
- It was also named Kuno-Palpur and as Palpur-Kuno Wildlife Sanctuary.
- In the year 2018 it was granted the designation of an National Park. It is located within the Khathiar Gir Dry Deciduous forest ecoregion.
- The protected area is mostly dry and deciduous forest.

Topic 26. EXTENSION OF DEADLINE FOR POLLUTION CONTROL**TECHNOLOGIES IN TPPS**

Important for subject: Environment

The deadline to install pollution control technology in the country's thermal power stations (TPPs) was extended by the Ministry of Environment, Forests and Climate Change on September 5.

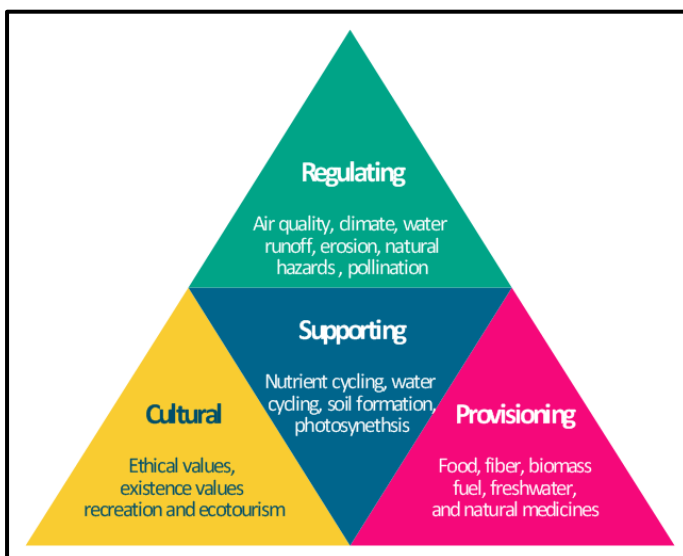
- The Environment Ministry revised emission norms for particulate (PM), sulfur dioxide, and oxides for nitrogen for TPPs in Dec 2015.
- They required them to install emission control system by December 2017.
- **Extended Timeline:** Three timelines are provided for three types of thermal power plants to ensure installation of pollution control technology.
- **Category 1:** Power plants located within 10 km of Delhi NCR or millions more cities - the deadline has been extended until December 31, 2024.
- **Category 2:** Power plants located within 10 km of cities that are critically polluted

have their deadline extended to December 31, 2025.

- **Category 3:** All power plants in the country that are not listed above the new deadline of December 31, 2026.
- Pollution from thermal power plants
- They are also responsible to 70 percent of all freshwater withdrawals by industries.
- Other pollutants include carbon monoxide and non-methane Hydrocarbons as well as lead.
- Flue gas desulfurization: This is the process of eliminating sulphur compounds in exhaust emissions from fossilfuelled power plants (coal-fired).
- By using absorbent materials, you can remove up to 95% sulphur by scrubbing.
- National Clean Air Programme (NCAP), a national strategy that addresses the problem of air pollution across the country, is long-term and time-bound.
- It aims to reduce the concentrations of particles by 20%-30% by 2024, keeping 2017 as its base year.
- Based on Air Quality data between 2014-2018, 122 cities that are not eligible for NCAP have been identified in the country.

Topic 27. ECOSYSTEM SERVICES

Important for subject: Environment



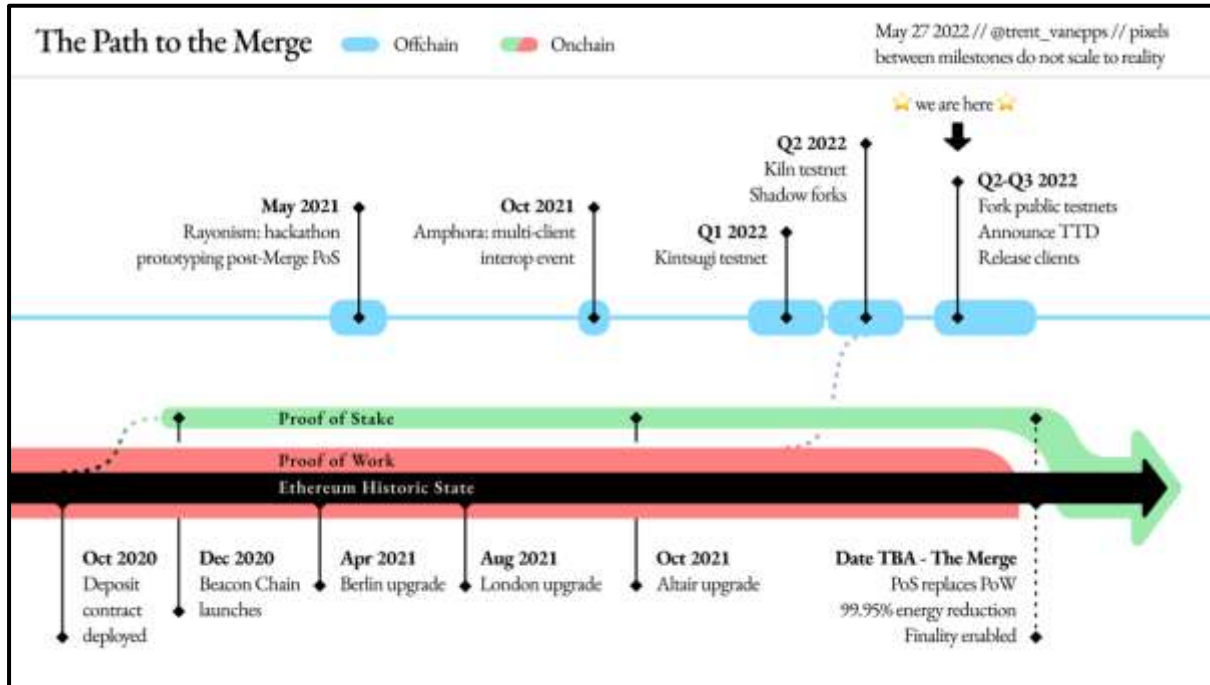
Ecosystems are a vital part of animal and plant life by ensuring balance of the natural world.

- If they are functioning properly ecosystems also bring many advantages to humans.

- These benefits range from the supply of essential commodities such as fuel and food as well as spiritual benefits, for instance, the visually appealing landscapes we are able to enjoy.
- The benefits people receive from nature are referred to as ecosystem services.
- Ecosystem services may be broadly classified into:
- Supporting services - the services that create the conditions to provide the ecosystem's other services like photosynthesis for instance, or soil creation
- Provisioning services - all items that are derived from ecosystems, such as like fuel, fiber, food, medicinal plants and herbs and genetic resources, as well as drinking water
- Regulating services is the ability of ecosystems to regulate significant natural processes, such as control of quality, climate and amount of water, for example.
- Cultural services are non-material benefits from ecosystems, like the aesthetic and recreational value of landscapes.
- Payouts for ecosystem services (PES) occur when people who benefit from an ecosystem service pay to the provider of the service.
- In real life, this can be the payment of a set of fees in exchange for an abundance of benefits or ecosystem services.
- The fundamental idea is that the person who offers services should be compensated to do so.
- Arranging for payments for the benefits that are provided by fertile soils, forests and other ecosystems of nature can be a means of acknowledging their importance and ensure these benefits last into the future.
- The payments for Ecosystem Services encourage the maintenance of natural ecosystems using sustainable practices that prevent harm to other people who use natural resources.
- Alongside protecting nature resources, the approach enhances rural areas and rural life styles.

Topic 28. THE SIGNIFICANCE OF ETHEREUM'S MERGE FOR THE FUTURE OF CRYPTOCURRENCIES

Important for subject: Environment



The Ethereum blockchain has been fully transformed to allow for a new method of processing transactions.

- This switch will enable energy efficiency. According to developers, the switch to a consensus mechanism called a "proof-of-stake" consensus will reduce Ethereum's energy consumption 99.95%.

What is Ethereum?

- Vitalik Buterin co-founded Ethereum. It is used by many developers to create decentralized apps (dApps), smart contract and crypto tokens.
- In terms of market capitalization, Ether, the platform's currency is second only to Bitcoin (BTC).
- Changes in Ethereum's blockchain construction process can have serious financial and cyber security consequences.
- Blockchains are used to process decentralised transactions using consensus mechanisms.

- The former Ethereum method, called 'proof of work', is still used by Bitcoin.
- It requires powerful mining hardware, which consumes large amounts of electricity and produces enormous heat.
- The energy is used to solve extremely complex mathematical puzzles.
- Once solved, new transactions can be added to the blockchain to reward miners with crypto.
- Many local environmentalists, policymakers, regulators and others have harshly criticized the impact of Bitcoin mining.
- China was one of the most common mining locations, before a complete crypto ban. The U.S., Russia and Kazakhstan were also popular -- both countries with low electricity rates and warmer climates.
- The website of Ethereum admitted that their crypto's annualized power consumption is almost equal to that of Finland, while its carbon footprint is comparable with that of Switzerland.
- While Europe was considering a ban on crypto mining, China actually implemented a nationwide crackdown against crypto miners, sending them fleeing Overseas.
- **Consequences from crypto mining** - Some Bitcoin supporters even go as far to claim that miners' actions, while causing harm to the environment, will lead to an energy revolution and faster adoption of nuclear, solar, and wind energy.
- The consequences of crypto mining have been devastating across the globe.
- They include mass electricity blackouts, fire incidents, overburdened grids and struggles between crypto miners and locals for more control over energy supply.
- A new mechanism is needed - Ethereum decided to change to a proof-of-stake consensus mechanism in response to backlash.
- In this system, Ether owners will place their coins to serve as collateral, and help process new block chain transactions in return for rewards.
- Crypto experts differ on which consensus mechanism provides better protection against hackers.
- Both verification methods can theoretically be hacked.
- Ethereum claims that the proof-of-stake consensus mechanism provides better security.

What other cryptocurrencies are now proof-of-stake?

- At the moment, there is no plan for an Ethereum-style merger by any other top coins.
- Dogecoin [DOGE] has become the most popular proof-of-work cryptocurrency after Bitcoin.
- Then comes Ethereum Classic [ETC], which was formerly part Ethereum before the community schism.
- **Way Forward-** This day is important for crypto trackers because Ethereum's Merge Event, as it is called, could alter the nature of crypto and Web3.0.
- Ethereum Classic made it clear that Ethereum Classic is committed to the proof-of-work mechanism.
- It invited miners to mine ETC, and said that stakers can choose ETH2.
- Both chains can co-exist, offering options for miners and stakers.
- Traders also monitor the charts and markets to determine if proof-of work coins are experiencing a price rise from investors who do not want to support proof-of-stake Ethereum.

Topic 29. CHEETAH CONSERVATION FUND

Important for subject: Environment

The Cheetah conservation Fund is an international non profit organization with its headquarters in Namibia, Africa.

- CCF operates in the United States of America, Canada, Australia, the United Kingdom and Australia with partners organizations in many other countries.
- It is responsible for the care and maintenance of the country's cheetah populations, which are the largest and most healthy in the world.
- Its Research and Education Centre can be found 44 km (27 mi) east Otjiwarongo.
- Laurie Marker, a conservation biologist who was awarded the Tyler Prize in 2010 for her work in Namibia, founded the CCF in 1990.

Topic 30. WILDLIFE TRUST OF INDIA (WTI)

Important for subject: Environment

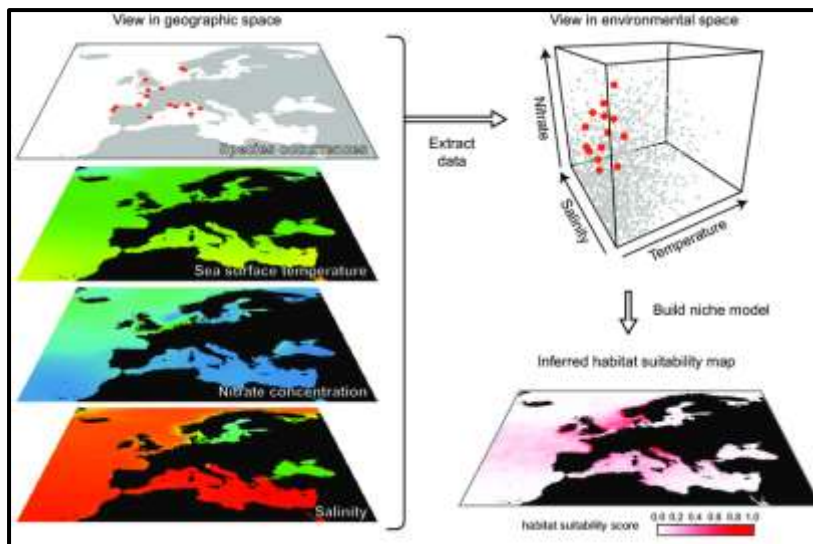


Wildlife Trust of India (WTI), was established in 1998 to address the numerous crises facing India's wild animals and habitats.

- It is an Indian Nature Conservation Organization WTI is registered in India under Section 12A of Income Tax Act 1961.

Topic 31. ECOLOGICAL NICHE MODELLING

Important for subject: Environment



Ecological niche modeling can be used for examining economic feasibility in the context of changing ecological situations.

- Ecological niche models (ENMs), which aim to create relationships between species

and their environments, allow us to identify areas in geography that might contain these species.

- Ecological niche modeling is a tool that can be used to predict new possibilities, such as new habitats or new locations in which a plant might thrive.
- Modelling involves using computer algorithms such as Maximum Entropy Algorithms (Max Ent) in order to compare environmental data and make predictions about what would be best for a particular ecological niche.
- Although these models have been used successfully in terrestrial organisms, their use in aquatic organisms remains elusive.
- Ecological Niche A species' interrelationship with all biotic and abiotic factors is called an ecological niche.
- It is how an organism (or population) responds to competition and the distribution of resources.
- A Niche is a unique niche for a species.
- This means that no two species can have the exact same niche.
- We must be able to preserve species in their natural habitats. This requires knowledge of their niche requirements and should make sure that they are met.

Topic 32. WORLD OZONE DAY

Important for subject: Environmen

World Ozone Day, which is observed every year on 16 September, commemorates the 1987 signing of the Montreal Protocol.

- Every year, World Ozone Day (Women's Ozone Day) is observed to raise awareness about the loss of the Ozone Layer and the steps that can be taken to protect it.
- The World Ozone Day 2022 theme is "Montreal Protocol@35 - global cooperation protecting life on Earth".
- India's accomplishments in Implementation the Montreal Protocol India eliminated Chlorofluorocarbons and Carbon tetrachloride as well as Halons, Methyl Bromide, Methyl Chloroform, Halons, Carbon tetrachloride and Halons for controlled uses starting 1 January 2010.
- This was in accordance with the Montreal Protocol schedule.
- Hydrochlorofluorocarbons Phase-out Management Plan (HPMP)Stage - I has been

successfully implemented from 2012 to 2016 and Hydrochlorofluorocarbons Phase-out Management Plan (HPMP) Stage - II is under implementation since 2017 and will be completed by 2023.

- According to the Ministry of Environment, Forest and Climate Change, the study on the reduction of Greenhouse Gases (GHG) emissions by phase-out of Ozone Depleting Substances, (ODS), the total reduction of GHG emissions from ODS phase-out until 2022 was 465 million tonnes CO₂ equivalent.
- The implementation of the actions arising from the India Cooling Action Plan, (ICAP), will complement efforts to adopt climate-friendly options and promote energy efficiency during HFC phase out under the Kigali Amendment.

What is Ozone?

- Ozone, which is composed of three atoms each of oxygen, can be found both at ground and in the Earth's upper atmosphere.
- Depending on where it is located in the atmosphere, Ozone can have a positive or negative impact on your health and the environment.
- Ground-level, or "bad", ozone is an irritant to the air and can cause damage to crops, trees, and other vegetation.
- It is the main ingredient in urban smog. The stratosphere, or "good" layer of ozone, extends up from 6 to 30 miles. It protects Earth's inhabitants from the sun's harmful ultraviolet (UV).
- The stratosphere is a natural source of ozone. But this "good" ozone is gradually being destroyed by man-made chemicals referred to as ozone-depleting substances (ODS), including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride, and methyl chloroform.
- Global Initiatives to Curb Ozone Declinement The 1985 Vienna Convention for the Protection of the Ozone Layer (an international agreement by United Nations members) recognized the essential importance of preventing any damage to the stratospheric layer of the ozone.
- To control consumption and production of some hydrofluorocarbons (HFCs), the 1987 Montreal Protocol on Substances That Deplete the Ozone Layer was negotiated.
- In 1987, 197 parties signed the Protocol to limit the use of ozone depleting substances

(mainly CFCs).

- CFCs and other ODS were required to be phased out by the Montreal Protocol. This has been accomplished in three decades.
- CFCs were gradually replaced, first by HCFCs, or hydrochlorofluorocarbons, in some cases, and eventually by HFCs which have minimal impact on the ozone layer.
- The 2016 Kigali Amendment will reduce some HFCs' production and consumption and help to avoid much of the global increase and climate change.
- Hydrofluorocarbons (or HFCs) are a group of chemicals that is used extensively in the refrigeration, air-conditioning and furnishing foam industries.
- Global warming is caused by HFCs, which are more harmful than carbon dioxide.
- According to UN Environment Programme (UNEP), global warming potential for 22 most commonly used HFCs is approximately 2,500 times greater than that of carbon dioxide.
- The top two HFC producers and consumers are China and the United States.
- India has successfully achieved the complete phase out of Hydrochlorofluorocarbon (HCFC)-141 b, which is a chemical used by foam manufacturing enterprises and one of the most potent ozone depleting chemical after Chlorofluorocarbons (CFCs). (HCFC-141b) is used as a blowing agent for the production of rigid polyurethane foams.
- The "Hydrofluorocarbon component R-32", Finance Ministry has imposed a definitive anti-dumping tax on imports from China of "Hydrofluorocarbon component R-32". R32 is a small-sized refrigerant that is used in split air conditioning units.
- The definitive antidumping duty will be in effect for five years.

Topic 33. BIG CATS OF INDIA

Important for subject: Environment



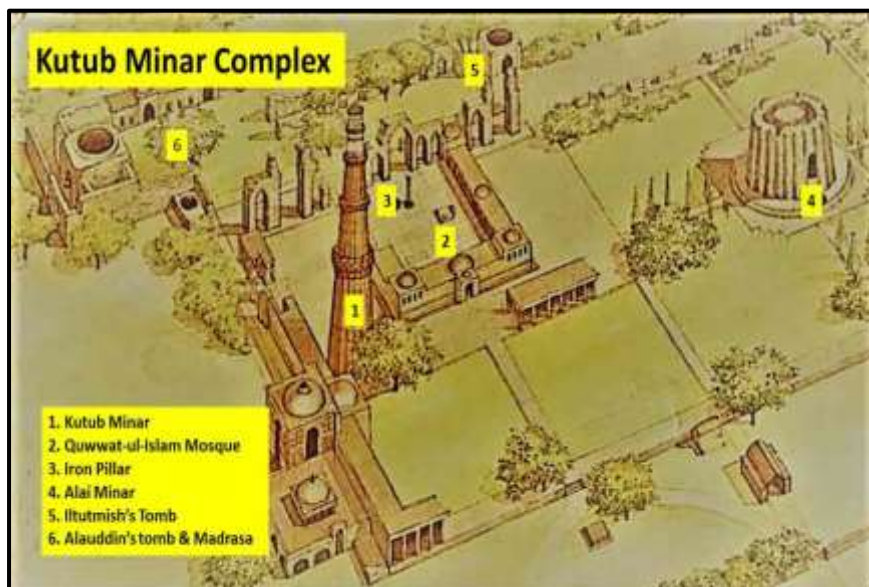
The Indian cheetah is being reintroduced from Africa to India. It is not to be confused or misunderstood with the leopard, which has some similarities in its spots.

- Here is a list of members belonging to the Acinonyx, Puma and Panthera geniuses.
- Key Features of Species IUCN Status Tiger (*Panthera Tigris*). Largest wild cat and earliest Panthera member.
- They include the Siberian Taiga and the Sunderban Delta.
- The South Korean Endangered Lion (*Panthera Leo*), India, Bangladesh, Malaysia and Malaysia are the national animals of these countries. This cat is native to Asia and Africa. It lives in prides.
- They love open forests like scrubland and their males have a prominent beard.
- Vulnerable Jaguar, *Panthera Onca*
- Commonly, black panthers are called melanistic (black) Jaguars.
- Near Threatened Leopard (*Panthera Pardus*). They are the most adaptable big cats and can be found in many habitats throughout Africa and Asia.
- Vulnerable Snow leopard (*Panthera Uncia*). This cat is a smokey-grey and lives above the snowline in Central and South Asia.
- It is the most mysterious of all big cats. It cannot roar and has the longest tail.
- The state animal of Himachal Pradesh and Ladakh is the snow leopard. Vulnerable

- Cougar (Puma). The cougar is America's second-largest cat. (The Jaguar is the largest).
- Cougars can also be called "mountain lion" and "panther" throughout their range, which includes the Canadian Yukon and the Southern Andes.
 - Cheetah of Least Concern (*Acinonyx*). Cheetah is currently the only living member of this genus.
 - It is found in Asia and Africa. The Asian population is approximately 40-50 years old, which is only found in Iran.
 - African cheetahs have a larger size than the Asiatic Cheetah. Vulnerable (African)
Critically Endangered (Asian)

Topic 34. QUTUB MINAR

Important for subject: Art and Culture



The Saket district court on Tuesday rejected the plea of intervention by Kunwar Mahender Dhvaj Pratap Singh who claimed that the Qutub Minar was constructed on land belonging to his family and therefore he must be a party to the main lawsuit filed in the court which seeks religious rights for the temples constructed inside an ASI-enforced memorial.

- Rejecting the plea The A District Judge Dinesh Kumar announced that he will hear the principal suit, which was which was filed by Jain god Tirthankar Lord Rishabh Dev and Hindu deity Lord Vishnu (through their close friends) which seeks to restore the 27 Hindu as well as Jain temples in the Quwwat-ul Islam Mosque in the Qutub Minar next month. Qutab Minar Qutab Minaris a high, soaring 73-meter tower of

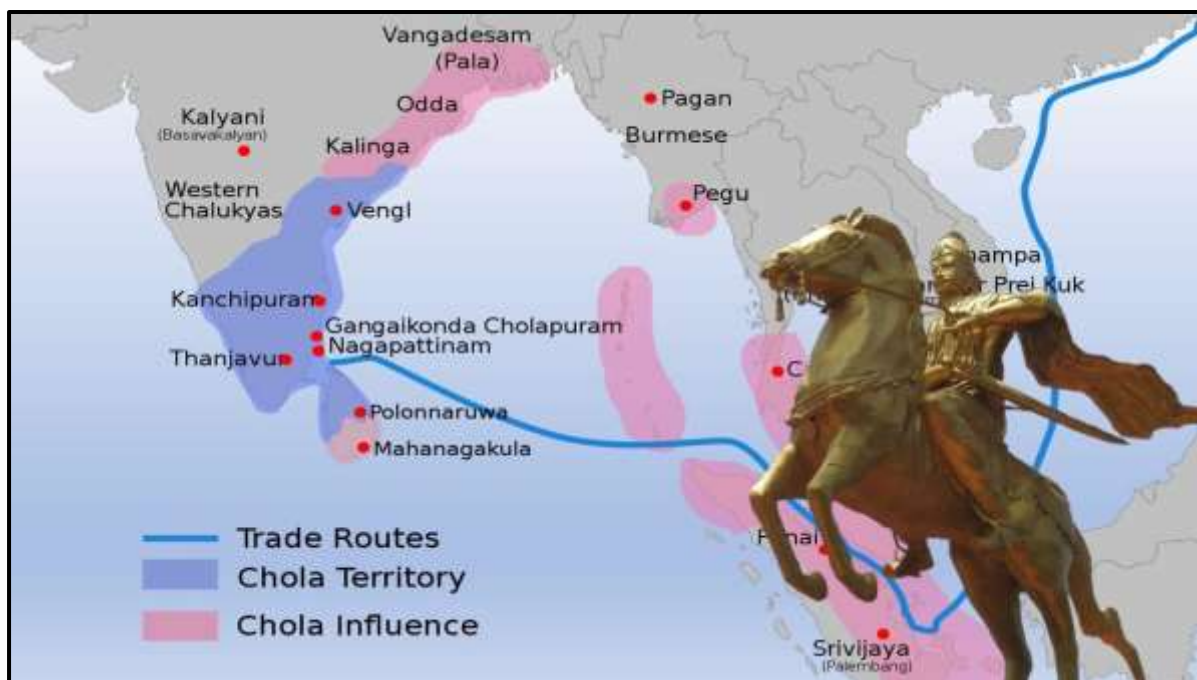
victory built in 1193 by the Qutab-ud-din-Aibak immediately following his defeat in Delhi's previous Hindu kingdom.

- The tower is made up of five distinct levels with each one marked by a balcony that projects and the tower swells from a 15 m diameter at its base to only 2.5 meters at the top.
- The first three floors are constructed of red sandstone.
- The fourth and fifth floors are made composed of sandstone and marble.
- On the other side of the tower lies the Quwwat-ul-Islam Mosque, the first mosque built in India.
- A inscription on its eastern gate hints that the structure was built using materials from demolishing 27 Hindu temples'.
- A 7-meter-high iron pillar can be seen at the entrance of the mosque's courtyard.
- It is believed that if you are able to wrap your hands around it while seated with your back towards it your desire will be granted.
- The roots of Qutab Minar are shrouded in controversy.
- Many believe that it was built as a monument to victory to symbolize the beginning of Muslim rulership in India.
- Some say it was used as a minaret for muezzins in order to call the faithful to pray.
- There is no way to doubt that the tower isn't only one of the top monuments in India as well as the world.
- Qutab-ud-din-Aibak, the earliest Muslim ruler of Delhi started his construction work of Qutab Minar in 1200 AD however, he was unable to finish the basement.
- Iltutmush, his successor Iltutmush was able to add three additional storeys.
- In 1368 Firoz Shah Tughlak built the fifth and final storey.
- The evolution of architectural styles ranging from Aibak through Tughlak is clearly visible in The relief work, and even the construction materials differ.
- The Qutab's 238 feet Minar has a length of 47 feet in the middle and tapers to 9 feet at the apex.
- The tower is decorated with bands of inscriptions, and four balconies protruding outwards that are which are supported by elaborately decorated brackets.
- Although it is in disrepair, it is still a magnificent structure. Quwwat Ui Islam (Light of Islam) Mosque in the Qutab complex is among the most beautiful structures

- anywhere in the world.
- Qutab-uddin Aibak began construction in 1193.
 - The mosque was finished in 1197.
 - Iltutmush in 1230 and Alla-uddin Khilji in 1315 added on to the structure.
 - The main mosque consists of an outer and inner courtyard, embellished with shafts, and surrounded by pillars.
 - The majority of these shafts come taken from those of the original 27 Hindu temples that were purged to build the mosque.
 - It's not to be expected it is not surprising that this Muslim mosque is decorated with the typical Hindu ornamentation.
 - Nearby to this mosque lies one of the city's intriguing antiques that is the Iron Pillar.

Topic 35. CHOLA DYNASTY

Important for subject: Art and Culture



Inspired by the splendour of the powerful Chola Dynasty, Tanishq on Tuesday launched The Chozha, an exclusive jewelry collection that celebrates the Thalassocratic Empire and discover the treasure trove of awe-inspiring splendor.

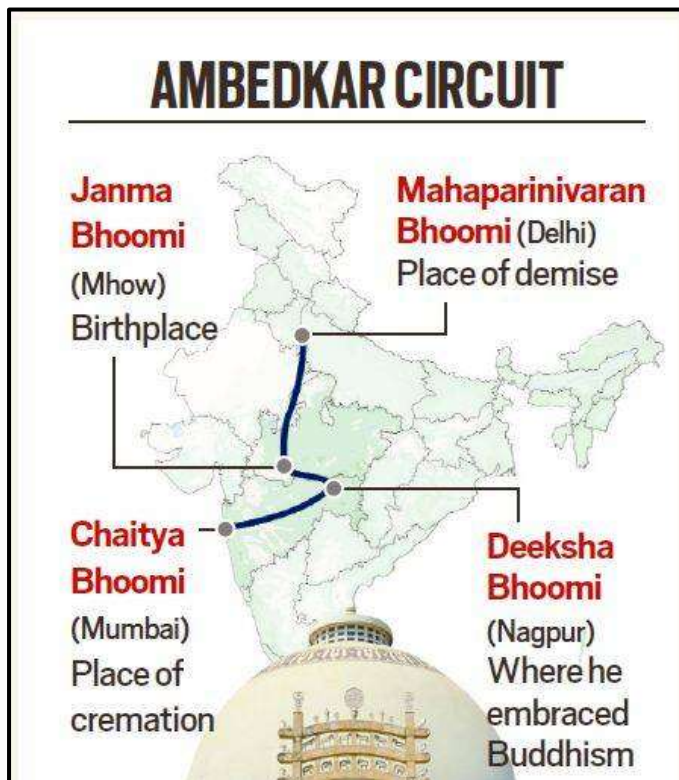
- **The medieval Chola Dynasty:** The Chola Dynasty was an Tamil Thalassocratic Empire in southern India and was one of the longest-ruling dynasties of the history of

the world.

- In the middle ages, the Chola Empire was founded by Vijayalaya.
- He conquered his kingdom of Tanjore kingdom around the eighth century.
- This brought about the rise of the formidable Cholas by destroying the Pallavas.
- Aditya I was succeeded by Vijayalaya as the Emperor of the Empire.
- He stopped king Aparajita while the empire was able to gain massive influence under his rule.
- He defeated the Pandya Kings as well as the Vadumbas and established the control of the Pallavas and their power in the region.
- Rajendra Chola succeeded in beating the powerful Rajaraja Chola. Rajendra I was the first to go towards the banks of the Ganges.
- He was referred to as "the Victor from the Ganges."
- His new empire capital was called the Gangaikondacholapuram where he received the title of 'Gangaikonda'.
- The period is known as the golden time of the Cholas.
- Following his rule was over, the kingdom experienced an overall decline.
- Culture and society Medieval Cholas were under Rajaraja as well as his successors created an extremely organized administration structure with central control as well as autonomous village assemblies.
- To ensure the administration this empire had to be divided into practical regions like valanadu, mandalam and nadu.
- Chola rule witnessed the maturation in the Tamil Temple architecture.
- Rajaraja built the great Brihadisvara Temple in Thanjavur.
- His son Rajendra imitated this effort by building the temple at his new capital Brihadisvara temple, the Gangaikondacholisvaram and the Airavatesvara temples.
- Art and sculpture were at their highest in this time.
- Gods and goddesses such as Shiva, Vishnu and Lakshmi were carved out of bronze. They serve as an ode to the golden time.

Topic 36. SPECIAL TOURIST TRAIN TO RUN ON ‘AMBEDKAR CIRCUIT’

Important for subject: Art and Culture



Recently, the Union Tourism and Culture Minister announced a special tourist train that would cover the "Ambedkar Circuit".

- **Circuit Ambedkar:** Ambedkar Circuit includes Madhya Pradesh's Mhow which is Ambedkar's birthplace, Nagpur where he converted from Buddhism, the residence in Delhi where Ambedkar lived his final years, and Dadar in Maharashtra where his body was cremated.
- The Tourism Ministry has prepared an action plan to support various circuits in its Swadesh Darshan scheme.
- **Swadesh Darshan Scheme** - The Swadesh Darshan Scheme was a Central Sector scheme that was launched by the Ministry of Tourism and Culture in 2014-15 to integrate the development of tourist circuits based on themes.
- The Swadesh Darshan Scheme provides central financial assistance - CFA to state governments and union territory administrations.
- This is for the development of circuits.
- **Tourist circuits based on themes** -- Buddhist Circuit. Coastal Circuit. Desert Circuit.

Eco Circuit. Heritage Circuit. Northeast Circuit. Himalayan Circuit. Sufi Circuit. Krishna Circuit. Rural Circuit. Spiritual Circuit. Tirthankar Circuit. Wildlife Circuit. Tribal Circuit.

Topic 37. HISTORY OF KOHINOOR

Important for subject: History



Although no official date has been set yet for the coronation ceremony, it is known that many of the Crown Jewels and the Kohinoor Diamond will be present.

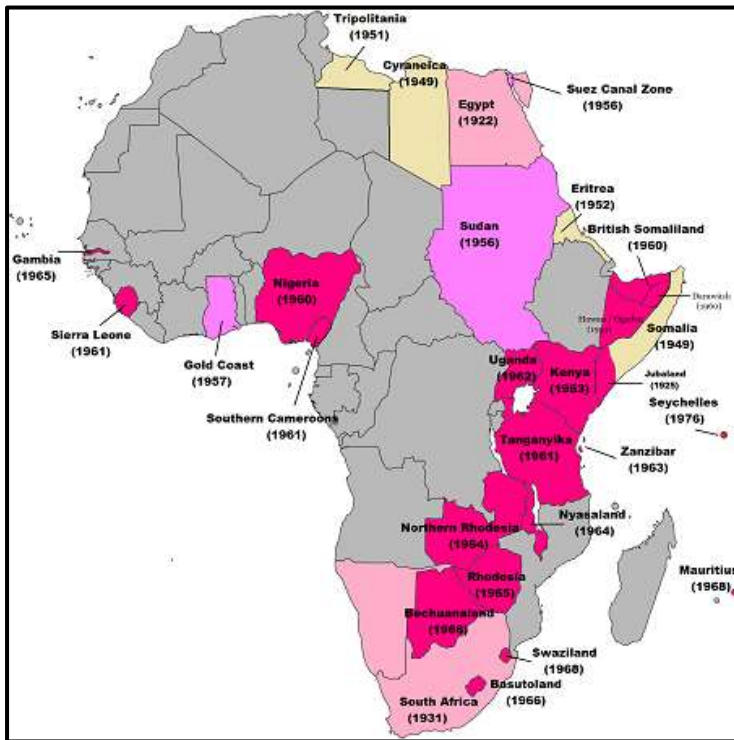
- The Koh-i Noor is a large and colorless diamond found near Guntur, India. It was probably discovered in the thirteenth century.
- It weighed 793 carats (158.6 grams) uncut, and was originally owned by the Kakatiya Dynasty.
- Timeline of Possession 14th century AD: In the early 14th centuries, Alauddin Khilji (second ruler of the Turkic Khilji Dynasty of Delhi Sultanate), and his army began to rob the kingdoms south of India.
- Khilji's general Malik Kafur won a successful raid on Warangal 1310. He probably also acquired the diamond.
- **16th Century AD:** It remained in the Khilji family and was later transferred to the Delhi Sultanate's succeeding dynasties, until it was acquired by Babur.
- 17th Century AD: Shah Jahan (the fifth Mughal emperor) had the stone placed in his

elaborate Peacock Throne.

- Aurangzeb, his son-in-law, took the sick emperor to nearby Agra Fort in 1658.
- Aurangzeb was the owner of the stone.
- The stone's weight dropped from 793 carats (155.6 g) down to 186 carats (37.2g).
- Borgia was punished 10,000 rupees for this carelessness.
- **18th century (1739 AD):** After the 1739 invading of Delhi by Nader Shah (the Shah of Persia), the treasury was taken by his army in AN organised and through the acquisitions of the wealth of the Mughal nobility.
- The Shah also took away a number of valuable items, including the Daria-i-Noor and the Peacock Throne.
- **18th Century (1747 AD).** After the assassination of Nader Shah and the fall of his empire in 1747, the stone was handed to Ahmad Shah Durrani (later the amir of Islamic State of Afghanistan).
- **19th Century (1813 AD).** After Ahmad Shah, the Diamond was taken into possession by Ahmad Shah Durrani's descendent Shauja Shah Durrani.
- In 1813, Shah Shuja Durrani brought back the Koh-i-noor to India and gave it to Ranjit Singh, the founder father of the Sikh Empire.
- Ranjit Singh assisted Shah Shuja in his retreat to the throne of Islamic State of Afghanistan.
- **19th Century (1849 AD).** On the 29th of March 1849, after the Second Anglo-Sikh War ended, the Punjabi dominion was officially annexed by British India.
- Also, the Last Treaty of Lahore was signed.
- This formally cession of the Koh-i-Noor assets to the Empress and other assets to the company.

Topic 38. BRITISH COLONIES IN AFRICA

Important for subject: History



Several voices are seeking accountability for the British's violent legacy in Africa, despite the outpouring of grief and sorrow following the death of Queen Elizabeth II.

- The Nandi group, an East African tribe based in Kenya and belonging to the East African ethnic Nandi, has urged Britain recently to return the head of Koitalel Samoei. This was a spiritual leader who was murdered in 1905 under British colonial rule.
- Samoei was a leader of his community during a long rebellion against the British. Richard Meinertzhagen, a British officer, lured Samoei to a meeting to discuss truce but instead shot him. According to widely documented testimony, Samoei's head and body were then cut off and sent to England as a trophy.
- Britain ruled large parts of Africa for almost a century, before its empire collapsed at the beginning of the 1900s.
- Important British Colonies in Africa Sudan and The Republic of the South Sudan: Lesotho.

Topic 39. HYDERABAD STATE LIBERATION DAY

Important for subject: History

On 17 September 2022, the Telangana Government will celebrate 75 years of Liberation of Hyderabad. This is to mark the merger of Hyderabad State under Nizam rule and the Indian Union.

- India Hyderabad, Princely State of Hyderabad integration was one of India's largest native/princely states.
- It was ruled over by the Nizams, who accepted the supremacy of the British sovereign.
- Like the Nawab of Junagadh, the Nizam of Hyderabad and the ruler from Kashmir, the Nizam of Hyderabad did not accept India's accession before independence on 15 August 1947.
- Pakistan and Muslim natives peoples encouraged him to remain an independent power and to strengthen his armed forces in order to resist integration.
- This military improvisation created internal chaos in Hyderabad.
- The Indian Army was then sent to Hyderabad on 13 September 1948 under Operation Polo (military operations to annexe Hyderabad into the Union of India).
- It was based on the fact that Hyderabad's law-and-order situation threatened South India's peace.
- The Razakars, a private militia that was resisting the integration, were unable to stop the troops and the military took full control of the state between the 13th and the 18th September.
- Massive communal violence resulted in the operation, with death estimates ranging from 27,000 to 4000 to more scholarly numbers of around 200,000.
- The integration resulted in the Nizam being retained as the head state, just like the other princes who had acceded India.

Topic 40. WITHDRAWAL OF MONSOON

Important for subject: Geography

Southwest monsoon starts early and then ends in Rajasthan

- September 30 is believed to be as the day that ends the season across the whole

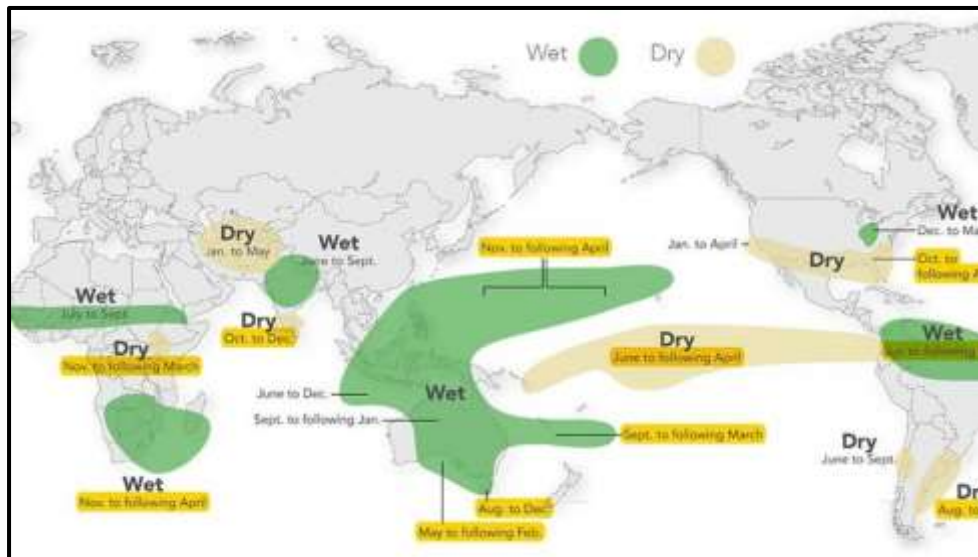
nation. While India has had 77% more rain than usual, the southern peninsula and central areas have experienced most of the excess with 29 percent and 33 percent, respectively.

- The withdrawal or retreat of the monsoon can be a gradual process.
- The end of the monsoon commences in northwestern states in India in early September.
- In mid-October, it is withdrawn entirely from northern part of the peninsula.
- The retreat from the southern part of the peninsula happens quite fast.
- At the beginning of Dec, monsoon was gone from the rest the country.
- The withdrawal takes place in a gradual manner from north to southern beginning in the first week of December through the beginning of January.
- At this point, the majority part of India is in the grip of this winter monsoon.
- In October, and in November, the months are renowned as the months of retreating monsoons.
- In September, towards the end the southwest monsoon starts to become less pronounced because the low-pressure trough in the Ganga plain begins moving to the south in response to the southward movement of sun.
- The monsoon is fading from western Rajasthan in the end of the first week of September.
- It will be withdrawn it from Rajasthan, Gujarat, Western Ganga plain, as well as it is removed from the Central Highlands by the end of the month.
- The season of southwest monsoon that is in retreat is characterized by clear skies, and an increase in temperatures.
- The ground is still wet.
- Due to the conditions of extreme humidity and high temperatures The weather can become intense.
- This is often referred to as the "October heat."
- In the second week of the month, temperature drops quickly, especially in the northern part of India.
- The weather of the retreating monsoon is dry across north India however, it is associated by rains in the east region of the peninsula.
- At the beginning of October the low pressure is covering northern regions of the Bay

of Bengal and by the beginning of November, it is moving across Karnataka along with Tamil Nadu.

Topic 41. THE 'TRIPLE DIP' LA NIÑA, AND ITS LIKELY IMPACT ON INDIA

Important for subject: Geography



La Nina refers to the ENSO phase, in which the sea's surface temperatures are lower than normal.

- The warmer phase is also known by the name El Nino.
- The outcome of interaction between the ocean and wind system, El Nino and La Nina are essentially opposite in their effects on weather conditions.
- The current La Nina phase of the equatorial Pacific Ocean has just been estimated to last for at most six months, which makes it the longest La Nina episodes in recorded time.
- It's also only the third episode in the series since 1950 that has lasted to the third year.
- "Triple dip" La Nina- El Nino and La Nina episodes typically last approximately nine months to one year.
- They typically develop during the months of March and June, and tend to be the most robust in the winter months (November-January for the Northern Hemisphere) but then they weaken or begin disappearing by the time of the end of March or April next year.
- At times they can last for longer time periods.

- In the past in recent years, the El Nino of 2015-16, which lasted for 19 months, was the longest ever recorded.
- It was called "Godzilla" because of the intensity that remained constant.
- The present La Nina episode has already exceeded the previous one in length.
- The La Nina phenomenon began in September 2020, it has ruled for the past 24 months, and appears set to last for the next six months, and has is classified as "triple dip' La Nina.

Why is the current La Nina event is different from previous La Nina La Nina-related events?

- Both of the earlier eventsone occurring between 1973 and 1976 and another in between the years 1998-2001 were preceded by robust El Nino.
- The prolonged La Nina events during these instances can explain the the heat accumulated within the oceans were more and consequently required a longer period of time to evaporate.
- Without an intense El Nino preceding it, the cause of today's La Nina episode is not quite clear at present.
- The duration of ENSO (El Nino La-Nina Southern Oscillation) cycle El Nino and La Nina events are not mirror images of one the other.
- They vary in length and the strength. El Nino episodes occur more frequently and are often connected with more powerful weather occasions.
- La Nina, on the contrary has a longer duration.
- That's why the multi-year La Nina events, those that last longer than 12 months are popular.
- The likelihood of an El Nino is more likely to be a one-year event.
- According to a research paper from Chinese researchers, nearly 50% (six thirteen) from all La Nina events since 1950 have lasted for two years.
- Three of them, including the current one have lasted for three years.
- Contrary to this, over 75 percent of El Nino events (15 out of 20) concluded within one year.
- There is no evidence that El Nino has ever stretched to the third year.
- Assessing the potential impact on India in the Indian perspective, La Nina is

associated with good rainfall in the monsoon period.

- This is in contrast to El Nino that is known to dampen monsoon rainfall.
- Therefore, a prolonged period in La Nina could lead to the expectation of another year of consistent rain, or even normal, in the monsoon.
- Up to now the monsoon season of this year has seen 77% more rainfall compared to the norm.
- In the past year, the season's rainfall was nearly 100%. However, despite being extremely intense, the ENSO situation is just one of numerous factors that influence monsoon rain in India.
- There is no single connection with ENSO and rainfall. ENSO conditions and how much rain.
- **Facts for Prelims-** The current (year 2022) La Nina phase is one of the longest La Nina episodes in recorded time.
- It's also only the third time in the year 1950 that stretches into the third year.
- It's known as "Triple-Dip" La-Nina's event as it has passed 24 months, and is expected to last for another six months.
- Therefore, it is expected to continue for the third year in consecutive years (That's why they call it Triple-Dip).
- The triple dip was hanned twice time in the recent past i.e.1973-1976 in 1998, and 1999-2001.
- The La-Nina episode is distinct from the two previous ones, since the previous two were preceded by strong El-Nino-related event. This isn't the case with this event.
- For instance, in terms of the Indian setting, La Nina is associated with good rainfall in the monsoon season.
- This is causing drought conditions in the USA as well as the Horn of Africa, while the Horn of Africa is experiencing excessive rainfall in South Asia (India, Pakistan, Indonesia etc) and Australia.
- La Nina's cooling effect is temporarily reducing the rise of global temperatures, but it does not stop or reverse the warming trend.

Topic 42. CBI'S UNEASY HISTORY

Important for subject: Governance

About the Central Bureau of Investigation (CBI) The CBI is the top investigative agency in India.

- **Ministerial:** Ministry of Personnel, Public Grievances and Pensions.
- The purpose of the organization was initially created to look into corruption and corruption in the government.
- In 1965, the agency was granted an expanded authority to look into violations of laws that are enforced through authorities of the Government of India, multi-state organised crime, multi-agency , or international cases.
- CBI is exempt from requirements that are in Right to Information Act.
- CBI is India's official sole point of contact with Interpol.
- The CBI Headquarter of the CBI is in New Delhi.
- About **Enforcement Directorate (ED)** It is an agency for law enforcement and economic intelligence organization responsible in enforcing the law on economics and combating economic criminality in India.
- Minister: Department of Revenue, Ministry of Finance
- **The principal goal is to ensure the implementation of two important Acts:** The Foreign Exchange Management Act 1999 (FEMA) The Prevention of Money Laundering Act 2002 (PMLA)
- **Headquarters:** New Delhi Five regional offices: Mumbai, Chennai, Chandigarh, Kolkata and Delhi led by special directors of Enforcement.
- CBI vs ED CBI vs ED: Despite the similar elements, there are significant differences regarding exclusive jurisdiction between ED as well as the CBI.
- The CBI is primarily responsible to look into cases in which corruption is identified.
- However, the ED is mostly tasked with tasks that include investigation to stop money-laundering.
- Additionally to that, the ED has the sole authority of the cases legally assigned to them. However, the CBI is required to share their legal jurisdiction with other relevant bodies when conducting any investigation into corruption.

Topic 43. CHILD WELFARE COMMITTEES

Important for subject: Governance



The Juvenile Justice (Care and Protection Amendments) Model Amendment Rules, 2022, was notified on September 1, and went into effect immediately.

- This is the result of the Juvenile Justice (Amendment Bill) Bill 2021, which was passed by Parliament in July 2013.
- Recent amendments to the Juvenile Justice Act 2015 prohibit anyone associated with an organization receiving foreign funds from being part of child welfare boards (CWCs).
- These committees are responsible for giving direction for the care and protection for children who have been abandoned, abused, or neglected.
- Child Welfare Committees (CWCs), established by the State Governments in accordance to the Act.
- The Committees are empowered to decide cases concerning the care, protection and treatment of children in need of protection and to provide basic protection and protection.
- This stipulates that no person can be eligible for membership of the CWC if they have any record of violating human rights or child right, have been convicted of an offense involving moral turpitude or are removed from the service of any central government or state government or a government undertaking is involved in the management of child care institutions in a district.
- **Removal of members:** Any member of the CWCs shall be removed by the state

government following an inquiry if they do not attend the proceeding for at least three months consecutively without any valid reason, or if they miss more than three-fourths (or all) of the sittings within a year.

Topic 44. ISRO SUCCESSFULLY TESTS HYBRID PROPULSION SYSTEM TO AID FUTURE TECHNOLOGIES

Important for subject: Science & technology

ISRO was able to demonstrate the hybrid propulsion system which utilized a solid fuel as well as a liquid an oxidiser.

- The test was conducted in the ISRO Propulsion Complex (IPRC) located in Mahendragiri located within Tamil Nadu supported by Liquid Propulsion Systems Centre (LPSC).
- The motor utilized Liquid Oxygen (LOX) as an catalyst and Hydroxyl-terminated Polybutadiene (HTPB) as the fuel.
- The hybrid motor of 30kN tested at IPRC can be stacked and scalable.
- Liquids have significance in throttling and controlling how much flow is controlled by LOX.
- Contrary to traditional solid motors hybrid technology allows for the ability to throttle and restart the motor.
- While each of HTPB as well as LOX both are green LOX can be safer manage.
- In contrast to solid-liquid or liquid-liquid combos the hybrid motor uses solid fuel and a liquid oxidizer.
- The aim of the test is to identify the latest propulsion technology for the launch vehicles that are coming.

Topic 45. LUMPY SKIN DISEASE

Important for subject: Science and Technology

Lumpy skin disease

- Animal may develop large, firm nodules of 5 cm in diameter in the skin
- Depression, anorexia, rhinitis, conjunctivitis, excess salivation

Incubation period

- Between 4 and 14 days post-infection

Initial period

- High fever (41°C)
- Swollen lymph glands

Marked decrease in milk production

Morbidity

Mumbai Police ban the transportation of fodder and cattle to help prevent the spreading of lumpy skin diseases.

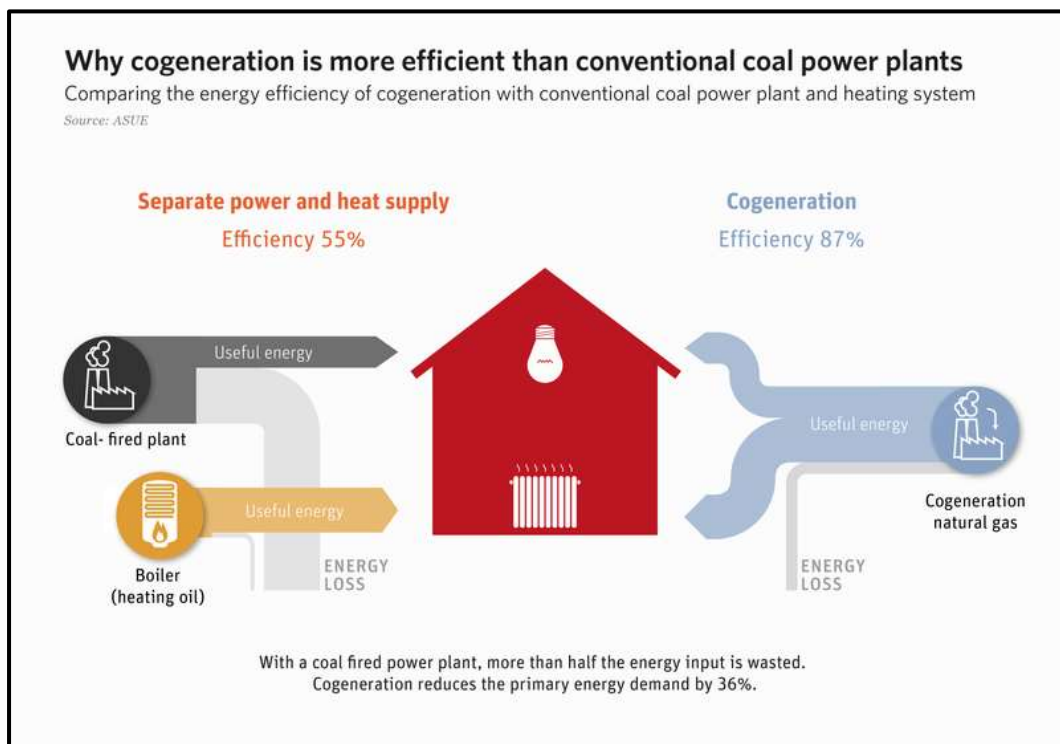
- Lumpy Skin Disease LSD is caused by an infection of water buffalo or cattle by Capri poxvirus.
- Capri poxvirus Lumpy skin Disease (LSDV) or Capri poxvirus (LSDV).
- It is genetically linked to the goatpox as well as the sheeppox viruses.
- Lumpy skin disease first recognized as an outbreak in Zambia in 1929.
- At first, the condition was believed to be due to either hypersensitivity or poisoning bites from insects.
- As per The Food and Agriculture Organization (FAO) The mortality rates are lower than 10%.
- The disease is transmitted primarily through bites of insects (vectors) like bite flies and mosquitoes.
- The signs and symptoms are mainly composed of fever and fluid expulsion from the nose and eyes as well as dribbling of saliva out of the mouth, and blisters on the body.
- Animals stop eating and has difficulties when chewing or eating, leading to a

reduction in milk production.

- Treatment and Prevention Immunization to prevent these ailments is provided under the Livestock Health and Disease Control Programme of India.
- There aren't any specific antiviral medicines that can be used to treat the lumpy, swollen skin condition.
- The only treatment that is available is supportive care for cattle.
- This may include treating skin lesions with products for wound care and antibiotics to stop the spread of infections to other parts of your skin and also pneumonia.
- Anti-inflammatory painkillers are a great option to increase the appetite of the animals affected.

Topic 46. SCIENTISTS WORK ON SMART MATERIALS TO HELP CONVERT WASTE HEAT TO ELECTRICITY

Important for subject: Science and Technology



Many industrial and energy-generation processes produce large amounts of heat waste that is absorbed into the atmosphere.

- Scientists in India are developing new materials to recover heat from these processes, and make it easier to use.

- Kanishka Biswas and his Jawaharlal Nehru Centre for Advanced Scientific Research have discovered several smart materials that can convert heat into electricity efficiently and power small appliances.
- Thermoelectric materials - Materials that convert heat from waste to electricity are known as thermoelectric materials.
- The heating of one side of the material and cooling the other creates electrical voltage.
- To achieve this thermoelectric effect, it is necessary to combine three properties in one material: high electrical conductivity for metals, high thermoelectric sensitive of semiconductors, and low thermal conductivity for glass.
- Scientists from JNCASR study the thermoelectric properties a specific class of inorganic chemical compounds called chalcogenides, which include lead, bismuth and tin.
- They investigate materials that, because of their unique structure and intrinsic glass-like thermal conductivity, and crystal-like electric conductivity.
- These materials have been used in a variety of applications, including cooling and refrigeration, energy saving, sensing and thermo power systems.
- These are also used in certain cars' seat climate-control systems, which use thermoelectric devices to generate heat from the engine.
- Thermoelectric materials offer a sustainable alternative to energy.
- The rising demand for energy can be addressed primarily by using the earth's renewable resources.
- Only a small fraction of this is used and more than half of it is wasted as heat.
- Because they use waste heat to generate electricity, thermoelectric devices are therefore a key component of global sustainability.
- Thermoelectric devices offer a complete package solution to address the energy crisis and meet heat's universal nature.
- These materials have an environmental significance.
- The country can leapfrog to new sustainable technologies using the new, efficient thermoelectric materials.
- They also facilitate the country's National Mission for Enhanced Energy Efficiency.
- (NMEEE) is one of eight national missions under National Action Plan on Climate Change (NAPCC).

- This will ensure a quicker transition to a low-carbon economy.
- They could also help climate change mitigation and pave the way towards India's ambitious targets for climate change as reflected in recently submitted Nationally Determined Contributions to the Paris Agreement.
- **Space missions:** The importance of these materials research is also important.
- These energy-converting thermoelectric materials were used in the U.S. National Aeronautics and Space Administration's deep space mission to convert radioactive plutonium heat energy to electrical energy.
- This could provide energy for satellites for more than 30 years since the half life of plutonium is only 30 years.
- To meet similar needs of Indian Space Research Organisation (ISRO), the Bhabha Atomic Research Centre is collaborating with them.
- ISRO's plans for a space station and the other missions it is planning to launch require continuous space energy.
- ISRO's upcoming missions include Gaganyaan, India's first human space flight mission; Aditya L-1, India's first solar observatory; X-ray Polarimeter Satellite, (XPoSat); Mangalyaan-2; Chandrayaan-3; and Shukrayaan, India's Venus orbiter mission.
- This is why ISRO's main center for satellite design and development, UR Rao Satellite Centre, (URSC), has developed a Radioisotope Generator (RTG).
- RTGs, a type nuclear-powered battery, use thermoelectricity to convert heat from radioactive decay into electricity.
- Although normal satellites are bulky due to heavy equipment used for energy generation, RTG systems make travel easier and more efficient.
- It can also operate on the dark side of the satellite, as it doesn't require solar power.
- These technologies will require the use of thermoelectric materials that have been developed in-house.
- India must improve the efficiency of these materials. India should develop fabrication methods that make them more cost-effective.
- Another study, published in Science last year, showed that researchers added cadmium (Cd), silver antimony telluride, (AgSbTe_2) to the mixture through a process called doping. This is done in an effort to improve the material's electrical transport

properties.

- Although most thermoelectric materials that are efficient and effective have lead as a major component, scientists limit their use in mass-market applications.
- The AgSbTe₂ is free from lead, which can cause toxic environmental effects.
- This has led to a paradigm shift in research into thermoelectric materials.
- Scientists are currently working on a thermoelectric device that converts low-grade waste heat into electricity.
- These energy-saving materials can be used in small appliances, automobiles, and space missions.

Topic 47. QUANTUM ENTANGLEMENT IN ATOMIC CLOCKS

Important for subject: Science & Technology

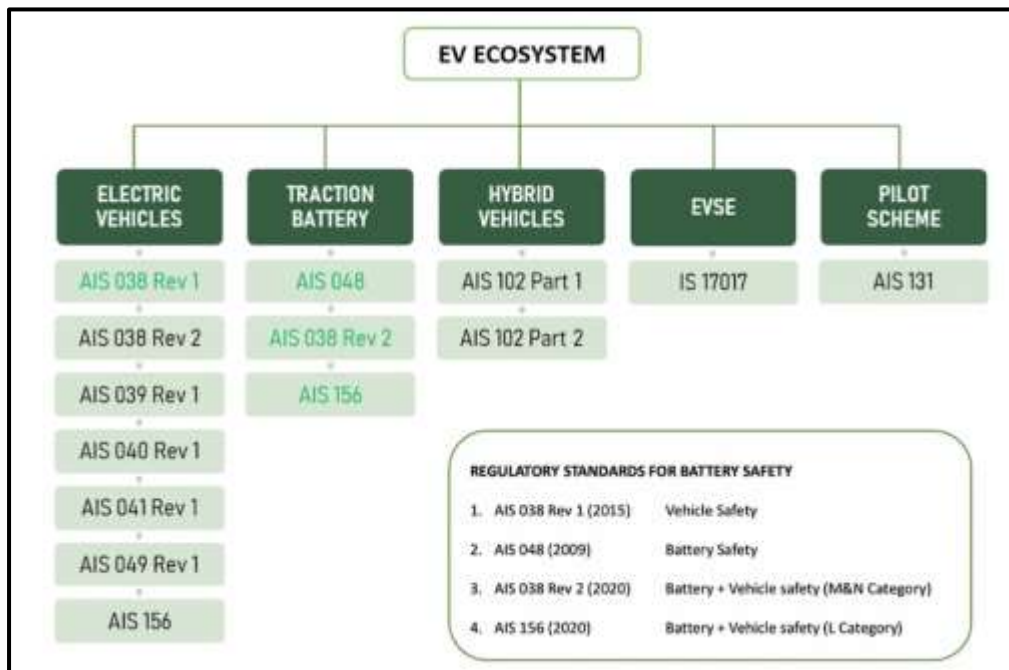
Researchers have created quantum entangled atomic clocks, which can be synced with greater precision by using their precision.

- Quantum entanglement connected two atomic clocks.
- This property inherently links them, so any changes to one can impact the other.
- This connection makes it easier to sync the clocks. It can also be used to accurately measure dark matter or gravity.
- Atomic Clocks Atomic clocks are made of atoms controlled by lasers.
- It is a device that uses energy from the sample atoms to establish an established frequency standard for timekeeping devices.
- An orbital with less energy can be transformed into an orbital with more energy. Electrons can then gain energy.
- The electron can emit radiation or stay in its orbit after it has emitted radiation.
- The electron emits microwave radiation quickly because there is only so much energy. It then returns to its original orbit.
- This is one of the two energy levels.
- One second refers to the time taken by 9,192,631,770 oscillations in a cesium-atom.
- The precision of the cesium clocks at the dawn of the 21st century was so high that they could lose or gain one second in approximately 20,000,000 years.
- This record is currently broken by optical lattice clocks, which are so precise that they lose one second out of every 15 billion years.

- Quantum entanglement refers to a quantum mechanical phenomenon in which multiple quantum states must be described together, even though they may be spatially different.
- It is a physical phenomenon in which a pair or group of particles interacts so that the quantum states of each particle can't be separated.

Topic 48. NEW INDUSTRY STANDARDS AND BATTERY NORMS FOR ELECTRIC VEHICLES

Important for subject: Science and Technology



This development follows a string of EV fires that occurred in different parts of the country over the past few months due to faulty batteries. The government formed expert committees to investigate and to propose regulatory changes to make EVs safer.

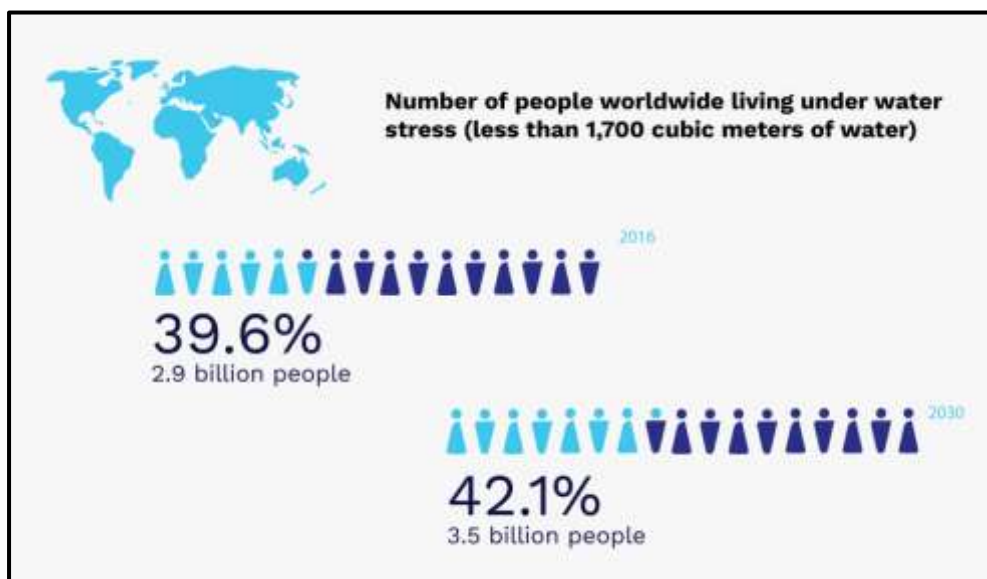
- **India's battery safety standards:** Following the fires that erupted, the MoRTH established an expert committee made up of representatives from the Centre for Fire, Explosive & Environment Safety, Indian Institute of Science, IIT-Madras, and the Centre for Explosive, Explosive & Environment Safety.
- The Ministry published September amendments to Automotive Industry Standards AIS-156.
- These Specific Requirements For Electric Powertrain of Motor Vehicles With At least

Four Wheels Used for Carrying Goods. However, they may also be used to transport persons.

- These safety standards, which will be in effect from October, include additional requirements regarding battery cells, onboard chargers, design of battery packs, battery management system (BMS), and thermal propagation due internal cell short circuit leading fire.
- The MoRTH also issued a draft notification last week mandating conformity to production (CoP), for traction batteries that are used in electric powertrain vehicles.
- The proposed regulation will also be effective as of October 1. The NITI Aayog has been working with academia and the industry to create an open-source BMS that can be used in EVs of two- and three-wheelers.
- This system will be built according to Indian standards, and as an effort to reduce import dependence. Thermal runaway

Topic 49. THE WATER SCARCITY CLOCK

Important for subject: Science and Technology



Water Scarcity Clock: This clock was created by World Data Lab, funded by Deutsche Gesellschaft für Internationale Zusammenarbeit and in partnership by the International Institute of Applied Systems Analysis.

- What are the main features of the Water Scarcity Clock clock?
- This webtool is free and visualizes how many people live in areas with limited water

supply.

- It allows you to explore the affected areas of the globe through interactive functions.
- You can use the Water Scarcity Clock to compare water availability between countries.
- The water availability numbers can also be dynamically displayed and adjusted to show the percentage of local and global populations that live in areas with different thresholds for scarcity.
- What is the purpose of this tool?
- The Water Scarcity Clock's goal is to raise awareness worldwide about water's finite resources and to provide decision-makers with actionable and granular information that will help them to take action to achieve the UN Sustainable Development Goal 6.

Topic 50. DHARAMSHALA DECLARATION

Important for subject: Government

The "Dharamshala declaration 2022" was issued at the close of the three-day national gathering on tourism, which was attended by the ministers of 12 states as well as governors UT administrator and officials from the Central Government.

- The declaration affirms the government's the commitment to developing responsibly and sustainable tourism.
- It places India as a world tourist industry leader in 2047.
- The future of the tourism industry in India Prospects for tourism in India World Travel and Tourism Council estimated that the industry of tourism India brought in US\$210 billion which is 9.2 percent of the country's GDP in 2018, and contributed to 42.673 million jobs, or 8.1 percent of the total work force.
- It is the World Economic Forum's Travel and Tourism Development Index 2021 was released in the wake of its replacement for the earlier Travel and Tourism Competitiveness Report is ranked
- India is 54th among the 117 countries in total.
- As per the government's central office, the nation's tourism industry will try to get back to its pre-pandemic state by 2024, and contribute 250 billion dollars in the country's GDP by 2030.
- India plans to reach USD 1 trillion in the sector by 2047.

- **Dharamshala Declaration:** Position India as a key tourist destination when it is chairing the G20 in 2023.
- Make sure you are able to demonstrate rigor and commitment and show off our rich cultural heritage while welcoming the world into India.
- Implement necessary adjustments that are needed, including visa reforms accessibility to travel, airports for immigration and the willingness to allow international travel.
- National Tourism Policy drafted with an overall vision and strategy to revitalize India's tourism industry and aims to add one trillion USD to India's GDP in 2047.
- In 2024, tourism is expected to add \$150 billion dollars to GDP, 30 billion USD of Foreign Exchange earnings and get 15 million foreign visitors.
- Major tourist promotion schemes in India including: Pilgrimage Revitalization and the Spiritual and Heritage Augmentation Drive (PRASHAD) Integral development of tourist Circuits with specific Themes (SWADESH DARSHAN) (SWADESH Darshan) Choose to adopt Heritage Project Development of Iconic Tourist Site

Topic 51. RASHTRIYA VAYOSHRI YOJANA (RVY)

Important for subject: Government Schemes



Rashtriya Vayoshri Yojana is a program that provides physical aids and Assisted living devices to senior citizens who fall under the BPL category.

- **Implementing agency:** This Central Sector Scheme is fully funded by Central Government.

- The "Senior Citizens Welfare Fund" pays the expenses.
- Artificial Limbs Manufacturing Corporation, a PSU of the Ministry of Social Justice and Empowerment, implements the Scheme.
- Beneficiary: Only senior citizens will receive the physical aids.
- This means that those over 60 years old will receive free assistance with living and any other devices they may need to sustain their lives.
- They must be members of the BPL family and have a valid BPL card from the relevant authority.
- The scheme's most important features include: Free distribution of devices according to the degree of disability/infirmity among eligible seniors.
- In case of multiple disabilities/infirmities manifested in the same person, the assistive devices will be given in respect of each disability/impairment.
- Artificial Limbs Manufacturing Corporation will provide one-year maintenance free of aids and assisted living devices. Beneficiaries in each district will be identified by the State Governments/UT Administrations through a Committee chaired by the Deputy Commissioner/District Collector.
- Women shall make up at least 30% of each district's beneficiaries.
- The State Government/UT Administration/District Level Committee can also utilize the data of BPL beneficiaries receiving Old Age Pension under the NSAP or any other Scheme of the State/UT for identification of senior citizens belonging to BPL category.
- These devices will be distributed in Camp mode.
- **Eligibility:** Senior citizens who fall under the BPL category and are suffering from an age-related disability/infirmity.
- These devices will provide assistance to those with low vision, hearing impairment, loss of teeth, and locomotor disability.
- All Senior Citizens in the country are expected to benefit from this scheme. **SUPPORTED DEVICES** Walking sticks Elbow crutches Walkers/Crutches Tripods/Quadpods Hear Aids Wheelchair Artificial dentures Spectacles.

Topic 52. KRITAGYA

Important for subject: Government schemes

Indian Council of Agricultural Research, its National Agricultural Higher Education Project, and Crop Science Division are organizing Hackathon 3.0 'KRITAGYA' to promote 'speed breeding for crop improvements'.

- KRITAGYA stands for Krishi, TA for Taknik and GYA for Gyan.
- In this competition, students, faculty and innovators/entrepreneurs from any university/technical institute across the country can apply and participate in the program as a group.
- Students who participate can work with students from local technology institutes or start-ups.
- They can also win up to INR 5 Lakhs.
- The event will also provide support for the winners to further develop their concept propositions, scalability, and future plans in collaboration with Agri Business Incubators and MSMEs, and other investors via support from ICAR.

Topic 53. ANGAN 2.0

Important for subject: Government Schemes

A three-day international conference ANGAN2022 (Augmenting Nature with Green Affordable New-habitat), titled "Making Zero-Carbon Transitions in Buildings", began on 14 September 2022.

- ANGAN 2.0 will be organized by the Bureau of Energy Efficiency, Ministry of Power in collaboration with Swiss Agency for Development & Cooperation(SDC) under the Indo-Swiss Building Energy Efficiency Project.
- Theme: The conference saw deliberations on important issues such as "Unlocking Finance For Low-Carbon buildings", "Thermal Comfort And Climate Resilience In Residential Buildings" and "Unlocking Finance For Low-Carbon Homes".
- Special sessions were held at the Conference on "Women in the Resource Efficiency conversation".
- This conference's objective: To promote a healthy ecosystem. It was mentioned at COP 26, Glasgow, by LiFE (Lifestyle And Environment), and Panchamrit. The goal

is to make India Net Zero by 2070.

- **Highlights:** The conference will also host an exhibition featuring low-carbon products, technologies, and innovations that can be used in the building sector.
- Conference attendees were encouraged to present innovative technologies and solutions for low-carbon buildings.
- Around 20 companies displayed their products and services at the conference.
- Building Energy Efficiency Project, (BEEP).
- The Building Energy Efficiency Project is a bilateral cooperation between the Ministry of Power of India and the Federal Department of Foreign Affairs of the Swiss Confederation.
- The project was initiated in India. Its main focus is to promote Energy-Efficient, Thermally Comfortable (EETC), Building Design for residential and commercial buildings.
- BEEP's implementing agent for the Ministry of Power is the Bureau of Energy Efficiency, while the Swiss Agency for Development and Cooperation manages the project for FDFA.
- BEEP collaborates with policy makers and owners of buildings to encourage adoption of EETC-compliant building design and technologies.
- BEEP provided technical support for BEE in the formulation and implementation of Eco-Niwas Samhita (energy conservation code for residential buildings), the design of approximately 50 buildings, and training more than 5000 professionals in the building sector.

Topic 54. 'E-BAAL NIDAN' PORTAL

Important for subject: Government scheme

In keeping with the observations of the Hon'ble Supreme Court regarding the coordinated work of NCPCR and SCPCRs, and Section 13(2) CPCR Act 2005, the NCPCR will provide access to all SCPCRs via the "E-Baal Nidan" portal.

- To fulfill its mandate and perform its functions under Section 13 CPCR Act 2005, the NCPCR had created an online complaint mechanism called "E-BaalNidan" for 2015.
- This online portal allows anyone to report any violation against a child.
- After such registration, the complainant will receive a number for their complaint.

- The complainant can track the progress of the Commission's redressal.

Topic 55. EUROPEAN UNION EXECUTIVE RECOMMENDS SUSPENDING IN FUNDS FOR HUNGARY

Important for subject: International Relations

Executives of the European Union recommended that Hungary be denied funding in excess of 7.5 billion euros for corruption. This was the first case under a new sanction to protect the rule-of-law.

- **European Union:** This is a political-economic union consisting of 27 member states, primarily located in Europe.
- **Timeline of the History of the European Union: 1952** - The Treaty of Paris (1951) established the European Coal and Steel Community (ECSC).
- **1957** - European Atomic Energy Community (EAEC, or Euratom), an International Organization established under the Euratom Treaty (1957).
- **1957**- The Treaty of Rome (1957) created the European Economic Community (EEC).
- **1965**- Merger Treaty (1965 in Brussels): An agreement was reached to combine the three communities (ECSC and EAEC) into a single institution, creating the European Communities.
- **1985**- Schengen Agreement (1985), which opened the door to open borders and passport control between the majorities of member states.
- **It was signed into force in 1995. 1992**- The Maastricht Treaty-1992 (also known as the Treaty on European Union), by which European Communities (ECSCs, EAECs, and EEC) were incorporated into the European Union.
- The European citizenship allows citizens to freely move between Member States and can be used as a residence permit.
- **Organs of European Union: European Council** - This is a group that determines the overall direction and priority for the European Union.
- **European Parliament:** This is the only parliamentary institution in the European Union (EU), that is directly elected and controlled by EU citizens over 18 years of age.
- **Council of the European Union:** This body is part of the EU's essentially bicameral

legislature (the European Parliament being the other legislative body) and represents the ministers (executive governments) of the EU member states.

- **European Commission (EC),:** This is the executive body of European Union. It proposes legislation, implements decisions and manages the day-to-day operations of the EU.
- **European Court of Auditors:** This body investigates the management of finances in both EU entities and EU funding.
- **The Court of Justice of the European Union:** This interprets EU law in order to ensure that it is applied in the exact same manner in all EU countries. It also settles legal disputes between EU institutions and national governments.
- **The European Central Bank (ECB):** This is the central bank that issues the euro. It also administers monetary policy in the Eurozone, which includes 19 member countries of the European Union.
- **Brexit:** Article 50 of the Treaty of Lisbon provides for a clause that allows a member to exit the European Union.
- On 31 January 2020, the United Kingdom resigned from the European Union.

Topic 56. HUNGARY NO LONGER A FULL DEMOCRACY

Important for subject: Polity/International Relations

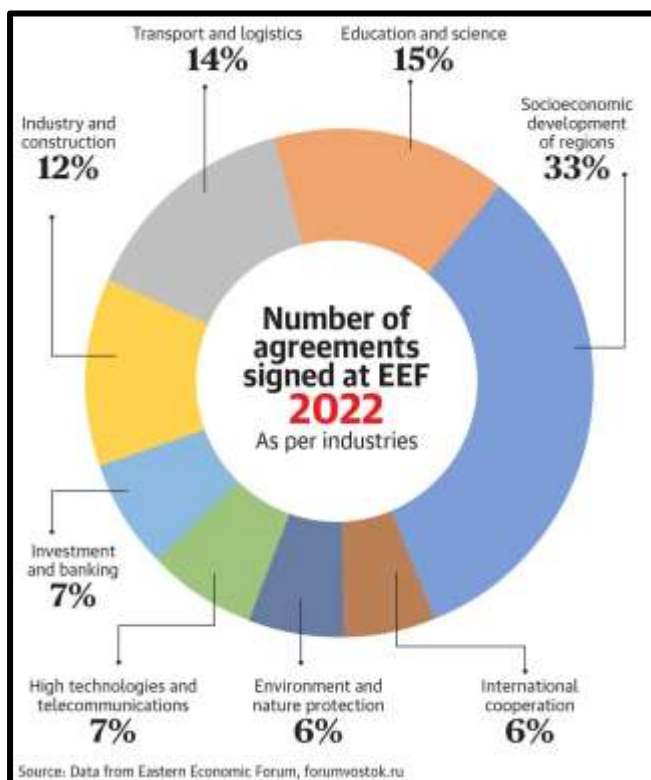
The European Parliament stated that Hungary is not a "full democracy" anymore and that the European Union must do all it can to bring it back in line with European values.

- EU Legislators voted to describe Hungary, ruled by populist Prime Minister Viktor Orban and who has close ties with Russian President Vladimir Putin, as "a hybrid regime electoral autocracy" in "serious violation" of EU democratic norms.
- This vote was symbolic in nature and does not alter the direction of the Union's decision making.
- To adopt major issues such as sanctions against Russia, it requires the unanimity among all 27 member states, including Hungary.
- The European Union is a bloc of 27 countries that operates as an economic and political unit.
- These 19 countries use EURO as the official currency. 8 EU member countries (Bulgaria, Croatia, Czech Republic, Denmark, Hungary, Poland

- Romania, Slovakia, Slovenia, Sweden, and Denmark) don't use the euro.
- European Parliament is the only parliamentary institution within the European Union that is directly elected and controlled by EU citizens over 18 years of age.
 - It acts as the legislative arm of the EU, along with the Council of the European Union (also called the 'Council').
 - The European Parliament doesn't have the same legislative power as the parliaments of its member countries.
 - **Council of the European Union:** This body is part of the EU's essentially bicameral legislature (the European Parliament being the other legislative body) and represents the ministers (executive governments) of the EU member states.
 - The Council is where ministers of each EU country meet to discuss and amend laws and coordinate their policies.
 - Ministers can commit their governments to the actions decided upon at the meetings.

Topic 57. THE EASTERN ECONOMIC FORUM AND INDIA'S BALANCING ACT

Important for subject: International Relation

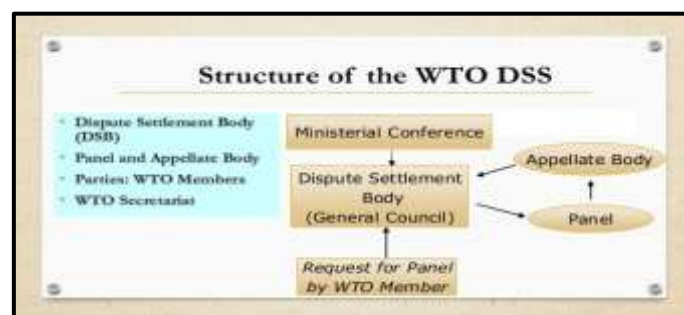


Russia hosted the 7th Eastern Economic Forum (EEF), Vladivostok, recently.

- This forum provides entrepreneurs with a platform to expand their business into Russia's Far East (RFE) over the course of four days.
- **About the EEF:** The EEF was created by the Russian Federation's president in 2015 in order to promote foreign investment in the RFE.
- The EEF demonstrates the region's economic potential, favorable business conditions, and investment opportunities.
- It is held each year in Vladivostok (a Russian city).
- The forum reached agreements on infrastructure, transportation projects and mineral excavations.
- They also addressed construction, industry, agriculture, and other issues.
- **RFE:** RFE is strategically located at a strategic spot and acts as an entry point into Asia.
- Russia is strategically developing the region in order to connect Russia with Asian trading routes.
- The government is aiming to increase investments in the region by modernizing cities such as Vladivostok and Khabarovsk.
- EEF's goals are to increase foreign direct investments in the RFE.
- This region covers one-third Russia's territory.
- It is rich in natural resources like fish, oil, natural gases, wood, diamonds, and other minerals.
- Another reason people choose to live and work in Far East is the small population.
- Despite the availability and abundance of materials, it is difficult to procure and supply them due to the inability of staff.

Topic 58. WTO DISPUTE SETTLEMENT MECHANISM

Important for subject: International Relations



A meeting was held in Bali by the US Trade Representative to discuss reforms related to dispute settlement at World Trade Organisation (WTO).

- The US blocked the appointment of members to the appellate body (AB).
- WTO dispute settlement mechanism
- A panel would resolve trade disputes cases in the first stage.
- Appellate bodies can appeal against decisions made by panels.
- The Appellate Body has the power to uphold, modify, or reverse the legal conclusions and findings of a panel.
- The Appellate Body's decision is final and the dispute settlement body will adopt it within 30 days.
- In the event of a member's failure to follow the rulings of the Appellate Body, sanctions can be imposed.
- The WTO dispute settlement process involves three major stages: (i), consultations between the parties, (ii), adjudication by panels, if applicable by the Appellate body, and (iii), the implementation of the ruling which includes countermeasures in case of failure by the losing side to implement the ruling.
- **WTO's Appellate Body** - The Appellate Body was established in 1995 and consists of seven members.
- It hears appeals against WTO member's trade-related disputes judgments.
- To function, the dispute settlement mechanism must have at least three members.
- If a country is involved in a dispute about measures that are alleged to violate a WTO agreement, or obligation, they can approach the Appellate body if they believe the report of the panel established to investigate the issue should be reviewed on legal points.
- Existing evidence is not reviewed, but legal interpretations of the evidence are.
- The Appellate Body has the power to modify, reverse, or uphold the legal findings of the panel which heard the dispute.
- Appeal can be filed by countries on either side of the dispute.

**Topic 59. NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF
CANCER, DIABETES, CARDIOVASCULAR DISEASE AND STROKE**

Important for subject: Health Sector

The NPCDCS Scheme NPCDCS Scheme The aim in the NPCDCS scheme is to increase consciousness of the risk factors that can cause risk, and to establish an infrastructure (like NCD clinics, cardiac care units) and to conduct opportunities for screening at the basic health care levels.

- As a response to WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020, India is the first nation to implement this National Action Plan with specific goals and indicators for the nation that aim to reduce the number of premature deaths caused by NCDs by 25 percent in 2025.
- **Sub Components:** Integration of the NPCDCS in the National Health Mission (NHM) led to an increase in human and infrastructure, especially in the frontline workers, they are the ANM along with an Accredited Social Health Activist (ASHA).
- Management and prevention of chronic obstructive pulmonary disorder (COPD) as well as chronic kidney disease (CKD) as well as better treatment of co-morbidities like tuberculosis and diabetes are taken into consideration in the program.
- The integration of Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH) NPCDCS is a further step to promote healthier lifestyles among the populace.
- Health promotion via social media can also be employed to increase awareness about the prevention and treatment of NCDs for example, the using mobile technology in apps like mDiabetes for diabetes management and mCessation for helping quit smoking and stress to help with managing stress in the mind.
- About Non-Communicable Diseases (NCDs) Non-communicable illnesses (NCDs) refer to medical illnesses or conditions that are not caused by infectious agents.
- These are chronic diseases with prolonged duration and usually have a slow rate of progression.
- They are caused by the combination of physiological, genetic and environmental as well as behavioral factors.
- These diseases are which cause extreme levels of disability and deaths among adolescents, children and young adults, if left untreated or not diagnosed.
- NCDs encompass heart diseases as well as cancers, diabetes, and asthma and others. In the world, NCDs are the main cause of mortality and morbidity.
- They are responsible for 71% of the world's deaths, according to World Health

organisation (WHO).

Topic 60. SAWAR, SAWARA AND SAUNRA: ONE AND THE SAME TRIBE NOW

Important for subject: Social Issue

The Union Cabinet approved last week spelling variations for 11 tribes in the List of Scheduled Tribes of Chhattisgarh. Among those was 'Sawara or 'Sawara.

- Article 342(1) & (2), like the case for STs, provides that a Presidential list will be issued first in consultation to the governor of each state.
- Any subsequent changes in the list can only be made by parliamentary law.
- **Procedure** - If the bill is passed, any caste can be included or excluded after the initial press notification. This can only be done by an Act of Parliament.
- The criteria for SCs is untouchability.
- STs must be shown that the community is an isolated tribe and that it lives in vulnerable circumstances.
- Scheduled Tribe communities are distinguished by their primitiveness, geographic isolation, shyness, and social, educational, and economic backwardness.
- This must be proven anthropologically.
- The Constitution does not specify the criteria that a community must meet to be designated as a Scheduled Tribe.
- This is made possible by the well-established process of referring all proposals for inclusion on the SC and ST lists to the Registered General of India, which has an expert anthropological arm.
- The government then moves a bill to the Parliament.

Topic 61. DIGITISATION TO CRISIS-PROOF JUSTICE DELIVERY: JUSTICE CHANDRACHUD

Important for subject: Judiciary

The Juvenile Justice (Care and Protection Amendments) Model Amendment Rules, 2022, was notified on September 1, and went into effect immediately.

- This is the result of the Juvenile Justice (Amendment Bill) Bill 2021, which was passed by Parliament in July 2013.

- Recent amendments to the Juvenile Justice Act 2015 prohibit anyone associated with an organization receiving foreign funds from being part of child welfare boards (CWCs).
- These committees are responsible for giving direction for the care and protection for children who have been abandoned, abused, or neglected.
- Child Welfare Committees (CWCs), established by the State Governments in accordance to the Act.
- The Committees are empowered to decide cases concerning the care, protection and treatment of children in need of protection and to provide basic protection and protection.
- This stipulates that no person can be eligible for membership of the CWC if they have any record of violating human rights or child right, have been convicted of an offense involving moral turpitude or are removed from the service of any central government or state government or a government undertaking is involved in the management of child care institutions in a district.
- **Removal of members:** Any member of the CWCs shall be removed by the state government following an inquiry if they do not attend the proceeding for at least three months consecutively without any valid reason, or if they miss more than three-fourths (or all) of the sittings within a year.

PI PIONEER ACADEMY

PUNE

PUNE Address :
 204/2, 304/3, 3rd & 3rd Fl., Poinciana Paradise (Near Durvankar Hotel), Above
 Central Bank, Tolk Road, Sadashiv Park, Pune - 411 030
 Mob: 97453 3324 / 25

THANE

THANE Address :
 201/202/203/204, 2nd Fl., Laxmi Anand, Raghoba Shantkar Road,
 Chendani, Thane (W) - 400 601
 Mob: 70090 10635

DADAR

DADAR Address :
 350/7/8, 3rd Fl., Blue Pearl Society, Servipat Nagar Road, Plot No. 14, Near
 Janki Cloth Market, Near Dadar Railway Station, Dadar (W), Mumbai - 400 028
 Mob.: 93281 5027 / 91375 41208

ANDHERI

ANDHERI Address :
 3rd Fl., Syedkhan Chamber, Above Valluvar Restaurant, Next to
 Better Home Hotel, Opp. Andheri (E) - 400 601
 Mob.: 94518 55673 / 70302 92316

KALYAN

KALYAN Address :
 277/1, 2, Bawani Plaza, Opp. Railway Station, Near Deshpande Road,
 Kalyan (W) - 421 301
 Mob.: 81691 40960

PIMPRI-CHINCHWAD

PIMPRI CHINCHWAD Address :
 3rd Fl., Kund Plaza, Mumbai Pune Road, Chinchwad Station,
 Chinchwad, Pune - 411019
 Mob.: 9975459324 / 9503459325

NERUL

NERUL ACADEMY
 18, 20 & 21, 1st Fl., Om Surya complex, Opp. Nerul Railway station,
 Beside Abhaya Bank, Sector 15, Nerul (S), Near Mumbai - 400707
 Mob.: 83212 87241 / 83212 89027

BORIVALI

BORIVALI ACADEMY
 313/314, 3rd Fl., V Star Plaza, Chhatravkar Rd., Near Sankar Bank,
 Sunde Nagar, Borivali (W), Mumbai - 400002
 Mob.: 83212 49713 / 96533 04874

Email : pioneeracademypace@gmail.com
 Website : www.pioneeracademypace.com / .in
 Contact : + 91 75060 10635

Success is born of action...