

JULY EDITION 2022

**05**  
ISSUE

# Varthaman

**MONTHLY CURRENT AFFAIRS MAGAZINE  
BY RV TRAINING ACADEMY**



**CURRENT AFFAIRS  
& ESSAYS OF THE MONTH**

# TEST SERIES TO ENHANCE UPSC MAINS 2022 PREPARATION

WE, AT RV TRAINING ACADEMY HAVE FORMULATED THE MAINS TEST SERIES WITH INTENT IN HELPING STUDENTS TO FOCUS ON THEIR AIM OF DOING THEIR LEVEL BEST FOR UPSC MAINS EXAMS. THE TEST SERIES IS METICULOUSLY PLANNED AND A DESIGNED ENDEAVOUR, THAT HAS A SERIES OF TESTS FOR STUDENTS FOR A CONSTANT WRITING PRACTICE AND IT ALSO CONTRIBUTES TOWARDS AN IN-DEPTH KNOWLEDGE THROUGH COMPREHENSIVE ASSESSMENT, FEEDBACK AND MENTORING SESSIONS.

THE PURPOSE OF THE TEST SERIES IS TO MAKE THE STUDENTS 'EXAM READY' BY ENHANCING THEIR WRITING SKILLS, DETAILED UNDERSTANDING AND LANGUAGE PROFICIENCY.

## Be “Mains Ready”

**PROVIDE AMPLE ANSWER WRITING**

**ENRICH ANSWER WRITING SKILLS**

**FLEXIBILITY TO TAKE EXAM**

**MULTI-LAYERED EVALUATION AND FEEDBACK**

**DETAILED DISCUSSION**

**PERSONALIZED MENTORING**

Test Series begins from

25<sup>th</sup> June 2022

**2.5 MONTHS**

**8 SECTIONAL TESTS**

**4 FULL LENGTH TESTS**



# Lala Lajpat Rai

Lala Lajpat Rai was born on 28th January 1865 in Dhudike, India. He was a revolutionary, politician, Indian writer, a leader of the Hindu supremacy movement, and a powerful orator. He was famous as the 'Lion of Punjab' or 'Punjab Kesari'. He was one of the three members of the Lal Bal Pal trio.

He had his initial education in Government Higher Secondary School, Rewari, Punjab province, where his father was posted as an Urdu teacher. In 1880, Lajpat Rai joined Government College at Lahore to study law, where he came in contact with patriots and future freedom fighters, such as Lala Hans Raj and Pandit Guru Dutt. After studying law at the Government College in Lahore, Lajpat Rai practiced at Hisar and Lahore, where he helped to establish the nationalistic Dayananda Anglo-Vedic School and became a follower of Dayananda Sarasvati, the founder of the conservative Hindu society Arya Samaj ("Society of Aryans"). After joining the Congress Party and taking part in political agitation in the Punjab, Lajpat Rai was deported to Mandalay, Burma (now Myanmar), without trial, in May 1907. In November, however, he was allowed to return when the viceroy, Lord Minto, decided that there was insufficient evidence to hold him for subversion. Lajpat Rai's supporters attempted to secure his election to the presidency of the party session at Surat in December 1907, but elements favoring cooperation with the British refused to accept him, and the party split over the issues.

During World War I, Lajpat Rai lived in the United States, where he founded the Indian Home Rule League of America (1917) in New York City. He returned to India in early 1920, and later that year he led a special session of the Congress Party that launched Mohandas (Mahatma) Gandhi's Non Cooperation movement. Imprisoned from 1921 to 1923, he was elected to the legislative assembly on his release. In 1928 he introduced the legislative assembly resolution for the boycott of the British Simon Commission on constitutional reform.

In 1928, the United Kingdom set up the Simon Commission, headed by Sir John Simon to report on the political situation in India. The commission was boycotted by Indian political parties because it did not include any Indian members, and it was met with country-wide protests. When the Commission visited Lahore on 30th October 1928, Lajpat Rai led a non-violent march in protest against it and gave a slogan "Simon Go Back!". The protesters chanted the slogan and carried black flags. The police superintendent in Lahore, James A. Scott, ordered the police to lathi charge the protesters and personally assaulted Rai. Despite being severely injured, Rai subsequently addressed the crowd and said "I declare that the blows struck at me today will be the last nails in the coffin of British rule in India"

Lajpat Rai did not fully recover from his injuries and died on 17 November 1928. Lajpat Rai was a heavyweight veteran leader of the Indian Nationalist Movement, Indian Independence movement led by the Indian National Congress, Hindu reform movements and Arya Samaj, who inspired young men of his generation and kindled latent spirit of patriotism in their hearts with journalistic writings and lead-by-example activism. Lajpat Rai's most important writings include "The Story of My Deportation" (1908), "Arya Samaj" (1915), "The United States of America: A Hindu's Impression" (1916), "England's Debt to India: A Historical Narrative of Britain's Fiscal Policy in India" (1917), and "Unhappy India" (1928).

Lajpat Rai was the founder of many organizations, including Hisar Congress, Hisar Bar Council, and National DAV Managing Committee. Lala Lajpat Rai was also head of the "Lakshmi Insurance Company," and commissioned the Lakshmi Building in Karachi, which still bears a plaque in remembrance of him. Lakshmi Insurance Company was merged with Life Insurance Corporation of India when en masse nationalization of Life Insurance business happened during 1956. Lajpat Rai established a trust in his mother's memory to build and run a tuberculosis hospital for women, known as the Gulab Devi Chest Hospital one of the biggest hospital of present Pakistan.

## Purpose of the magazine

The purpose of **Varthaman** is to focus solely on issues which are relevant to the actual as well as applied aspects of the General Studies syllabus. The unique way the "Varthaman" team puts forward the facts and analysis would help you understand, retain and reproduce the information during the journey towards toppers' list.

## The sources relied for selection and application of issues

The Hindu  
The Indian Express  
Times of India  
PIB  
Live Mint  
Hindustan Times  
News on Air  
Prasar Bharati website  
IDSA Website  
NASA website  
PRS India Website  
Down to Earth  
Rajya Sabha tv website  
Lok Sabha tv website  
Economic and Political Weekly  
Yojana  
Kurukshetra  
NITI Aayog reports  
BBC

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## Features of the magazine

### Current Affairs Analysis

- This month's edition covers the analysis of news from the immediately preceding month.
- The news are categorized subject wise viz. Polity, Economics, Environment & Ecology, Science & Technology, International Relations, etc. for easy and efficient study.
- Lead articles on burning issues are included.

### Essays of the month

- Selected essays from RVTA students.

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# Polity and Governance

## CRIMINALISATION OF POLITICS

In News: 40% Newly Elected Rajya Sabha MPs Have Criminal Cases.

### Cause for concern

The Supreme Court on Thursday flagged the alarming increase in incidence of criminals in politics

#### MPs with pending criminal cases:



■ The 2018 Constitution Bench judgment that formed the basis for Thursday's verdict said: Rapid criminalisation of politics cannot be arrested by merely disqualifying tainted legislators but should begin by "cleansing" political parties

No political party offers an explanation as to why candidates with pending criminal cases are selected as candidates

JUSTICE NARIMAN, on February 13, 2020



#### More on the Topic:

- The criminalization of politics means the participation of criminals in politics. Means that persons with criminal background contest in the election and get selected as a member of parliament or state legislature.
- The use of muscle power along with money power is a weapon used by all political parties to maximize electoral gains.
- The increasing percentage of members of parliament who have a criminal background:
- 2004- 24%;2009-30%;2014-34%;2019-43%

#### Reasons for Politicisation:

- **Vote Bank:** The political parties and individual have astronomical expenditure for vote buying and other illegitimate purposes through which these people's are so called goondas. A politician's link with then constituency provides the congenial climate to political crime.
- **Toothless Law:** laws against convicted criminals standing for elections further encourage this process. Under current law, only people who have been convicted at least on two counts be debarred from becoming candidates.
- **Politician Bureaucrat Nexus:** The increasing interference of politicians in administration may be regarded as another reason for the criminalisation of politics.
- **Poor Governance:** The poor governance of the country also plays an important role in increasing the criminalization of politics. It doesn't have the proper laws and rules for governing the procedure of the election.

#### Way Ahead:

- There should be an amendment in the Representation

of People act to debar those persons from contesting elections against whom serious Nature of crimes is pending.

- Bringing greater transparency in campaign financing is going to make it less attractive for political parties to involve criminals and criminals backed candidates.
- **The election commission should be given more rights** to prevent the criminalization of politics.
- Political parties should themselves refuse tickets to the tainted.
- **Fast-track courts** are necessary to try politicians as they are able to delay the judicial process and serve for decades before prosecution.
- Political parties will have to be encouraged to have stronger **inner party democracy** to attract this new set of leaders to join the party.

## ANTI-DEFECTION LAW

In News: The political crisis in Maharashtra has thrown the spotlight on the anti-defection law.



#### More on the Topic:

- The anti-defection law provides for the disqualification of MLAs who, after being elected on the ticket of a political party, "voluntarily give up their party membership".
- **The Supreme Court has interpreted the term broadly** and ruled an MLA's conduct can indicate whether they have left their party.
- The law is also **applicable to independent MLAs**. They are prohibited from joining a political party, and in case they do so, they can also lose their membership in the legislature.
- But the anti-defection law **does not apply if the number of MLAs who leave a political party constitute two-thirds of the party's strength in the legislature**.
- These MLAs can merge with another party or become a separate group in the legislature.

#### About the Constitutional Provision of Anti Defection Law:

- Parliament added it to the Constitution as the **Tenth Schedule in 1985**. Its purpose was to **bring stability to governments** by discouraging legislators from changing parties.
- The Tenth Schedule - popularly known as the Anti-Defection Act - was included in the Constitution via the 52nd Amendment Act, 1985 and sets the provisions for disqualification of elected members on the grounds of

defection to another political party.

### Governor's Role in the Time of Political Instability:

- The Governor has a crucial role when there is political instability in a state.
- Before 1994, Governors were quick to dismiss a state government, charging that it did not have a majority in the state legislature and recommending the imposition of the President's rule in the state.
- But the Supreme Court ended this practice with its judgment in the S R Bommai case in 1994.
- In this landmark case, the court ruled that the place for deciding whether a government has lost its majority was in the legislature.
- The Chief Minister of a state can recommend to the Governor to dissolve the legislature before the end of its five-year term and call for elections. Here, the Governor's discretion comes into play.
- The Governor may choose not to dissolve the legislature if he or she believes that the recommendation is coming from a council of ministers who do not enjoy the confidence of the state legislature.

### REGISTERED POLITICAL PARTIES

In News: The Election Commission has ordered the deletion of 111 registered unrecognized political parties that it found to be "non-existent".



#### More on the Topic:

- The parties in question had violated sections of the Representation of the People Act, 1951 that required them to submit their address of communication and any change in address to the EC.
- Unrecognised Political Parties are those newly registered parties which have not secured enough percentage of votes in the assembly or general elections to become a state party, or which have never contested elections since registered.
- They don't enjoy the benefits extended to the recognised parties.
- A recognised political party shall either be a National party or a State party if it meets certain laid down conditions.
- To become a recognised political party either at the state or national level, a party has to secure a certain minimum percentage of polled valid votes or certain number of seats in the state legislative assembly or

the Lok Sabha during the last election.

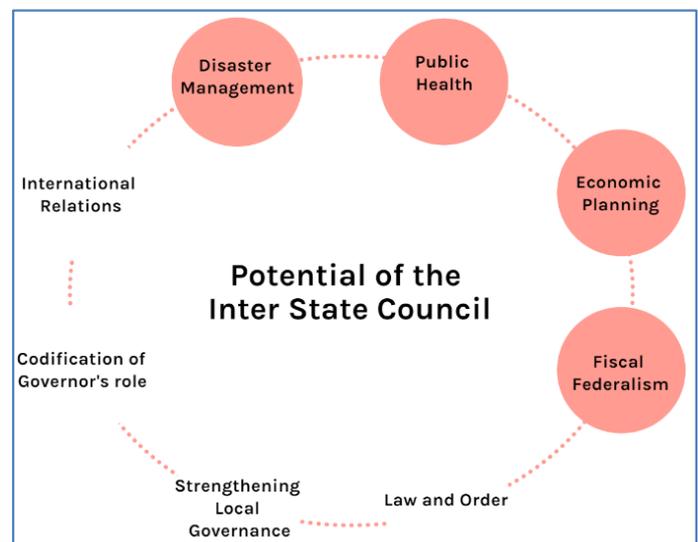
- The recognition granted by the Commission to the parties determines their right to certain privileges like allocation of the party symbols, provision of time for political broadcasts on the state-owned television and radio stations and access to electoral rolls.

### Why Regulation of Registered Political Parties Are Important?

- Misuse of Income Tax exemption on donations given to registered parties was misused by RUPPS.
- Few RUPPs involved in "serious financial impropriety".
- Regulation of registration of political parties is crucial to avoid money laundering, corrupt electoral practices and abuse of money power.
- Thus, the ECI should impose strict norms for the registration of an association of persons as a political party apart from taking the stringent step of de-listing those parties which fail to adhere to the rules.
- IT scrutiny of unrecognised parties should be taken up, especially of those which do not contest in elections but declare receipt of voluntary contributions.

### INTER-STATE COUNCIL

In News: Tamil Nadu Chief Minister M K Stalin wrote to Prime Minister asking that at least three meetings of the Inter-State Council should be held every year to "strengthen the spirit of cooperative federalism".



#### More on the Topic:

- The Inter-State Council was established under **Article 263 of the Constitution**, which states that the President may constitute such a body if a need is felt for it.
- **The Prime Minister is the chairman of the Council**, whose members include the Chief Ministers of all states and UTs with legislative assemblies, and Administrators of other UTs. Six Ministers of Cabinet rank in the Centre's Council of Ministers, nominated by the Prime Minister, are also its members.

- In 1988, the Sarkaria Commission suggested the Council should exist as a permanent body, and in 1990 it came into existence through a Presidential Order.

### Functions of The Council:

- Inter-State Council is a mechanism that was constituted "to support Centre-State and Inter-State coordination and cooperation in India".
- The Council is basically meant to serve as a forum for discussions among various governments.
- The main functions of the Council are inquiring into and advising on disputes between states, investigating and discussing subjects in which two states or states and the Union have a common interest, and making recommendations for the better coordination of policy and action.

### Criticism Regarding Functioning of Inter State Council:

- **Lack of regular meetings:** The Council has met only once in the last six years – and that there has been no meeting since July 2016.
- Since its constitution in 1990, the body has met only 11 times, although its procedure states it should meet at least three times every year.
- There is an institutional gap in the Indian union due to non-functional Inter State Council. It needs to be filled before inter-state frictions get out of control.
- The council also lack a permanent secretariat which might have ensured the periodic meetings and fruitful results.

### RAJYA SABHA ELECTION

In News: Rajya Sabha Elections for some states has been held recently.

Lok Sabha	Rajya Sabha
<ul style="list-style-type: none"> <li>• Members of Lok Sabha are directly elected by the eligible voters</li> <li>• The period of Lok Sabha is five years</li> <li>• The maximum strength 552 members</li> <li>• Money bills can only be introduced in the Lok Sabha. It grants the money for running the administration of the country</li> <li>• More powerful than Rajya Sabha</li> </ul>	<ul style="list-style-type: none"> <li>• Members of Rajya Sabha are elected by the elected members of state legislative assembly</li> <li>• It is a permanent body, one third of its member retire every two years</li> <li>• It has not more than 250 members</li> <li>• The Rajya Sabha does not exercise much power over money bills.</li> <li>• Less powerful than the Lok Sabha</li> </ul>

### More on the Topic:

- The Rajya Sabha, constitutionally the Council of States, is the upper house of the bicameral Parliament of India.
- The potential seating capacity of the Rajya Sabha is 250 (238 elected, 12 appointed), according to article 80 of the Indian Constitution.
- Members term is six years. About a third of the 233 designates up for election every two years, in even-numbered years.
- The Rajya Sabha meets in continuous sessions, and unlike the Lok Sabha the Rajya Sabha is not subjected

to dissolution.

- However, the Rajya Sabha, like the Lok Sabha, can be prorogued by the president.

### Election to Rajya Sabha:

- As of 2021 it has a maximum membership of 245, of which 233 are elected by the legislatures of the states and union territories using single transferable votes through open ballots, while the president can appoint 12 members for their contributions to art, literature, science, and social services.
- 'None of the above (NOTA)' option is not applicable in RS Election.
- If the electors don't vote for the party candidate won't cause disqualification under anti-defection law as well.

### CENTRAL INFORMATION COMMISSION

In News: Union Minister Dr Jitendra Singh appreciated Central Information Commission for achieving consistent decline in pendency with corresponding rise in disposal of RTI appeals.



### More on the Topic:

- The Central Information Commission is a statutory body, set up under the Right to Information Act in 2005.
- It is intended to act upon complaints from those individuals who have not been able to submit information requests to a Central Public Information Officer or State Public Information Officer due to the following reasons,
  - Either the officer not have been appointed, or because the respective Central Assistant Public Information Officer or State Assistant Public Information Officer refused to receive the application for information under the Right to Information Act.
- The commission includes one chief information commissioner and not more than ten information commissioners who are appointed by the President of India.

- They are appointed on the recommendation of a **committee consisting of the Prime Minister as Chairperson**, the Leader of Opposition in the Lok Sabha and a Union Cabinet Minister to be nominated by the Prime Minister.
- After the amendments in 2019, central government will notify term of office for Chief Information Commissioner and ICs.

## FRIVOLOUS PILS

**In News:** The Supreme Court has expressed concern at the “mushroom growth” of frivolous Public Interest Litigations, which encroach upon valuable judicial time.



### More on the Topic:

- Public Interest Litigation is a litigation for the protection of the public interest.
- A PIL may be introduced in a court of law by the court itself (suomotu), or by public spirited citizens.
- For the exercise of the court’s jurisdiction, it is not necessary for the victim of violation rights to personally approach the court.
- In a PIL, the right to file suit is given to a member of the public by the courts through Judicial Activism. The member of the public may be Non-Governmental Organization, (NGO), an Institution or an Individual.

### Constitutional Provisions:

- **PIL is not defined in any statute or in any act.** It has been interpreted by judges to consider the intent of the public at large.
- It is the power given to the public by courts through judicial activism.
- **Article 32 of the India constitution** contains a tool which directly joins the public with Judiciary.
- The concept of Public Interest Litigation (PIL) is in consonance with the principles enshrined in Article 39-A of the Constitution of India to protect and deliver prompt social justice with the help of Law.
- Justice P.N. Bhagwati and Justice V.R. Krishna Lyer were among the first judges to admit PILS in court.
- Filing a PIL is not as cumbersome as a usual legal case; there have been instances when letters and telegrams addressed to the court have been taken up as PIL and heard.

## Supreme Court on PIL:

- The Supreme Court of India has defended Public-Interest Litigation by stating that Judiciary has stepped in to give directions because due to executive in –action, the laws enacted by Parliament and the State Legislatures for the poor since independence have not been properly implemented.

## REMOTE VOTING FOR MIGRANT VOTERS

**In News:** The Election Commission of India (EC) has said it will start exploring possibilities of remote voting on a pilot basis.



### More on the Topic:

- Voters migrate from the place of their registration to cities and other places for education, employment and other purposes.
- **India accounts for over 400 million internal migrants**, with an estimated 120 million circular migrant workers.
- It becomes difficult for them to return to their registered polling stations to cast their vote.
- A committee will be set up to examine the issues of migrant voters.
- The EC has been working with IIT-Madras on using **Blockchain technology for remote voting**. A technical advisory committee has also been formed.

### Election Commission of India:

- The Election commission of India is a **permanent, autonomous, quasi-judicial and constitutional body created under Article 324 in part 15 of the constitution**.
- It is the supreme body vested with powers of supervision, control and direction over all aspects of electoral governance in the country.
- The body administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies, State Legislative Councils and the offices of the President and Vice President of the country.

## GUIDELINES TO PREVENT MISLEADING ADVERTISEMENTS

**In News:** The Central Consumer Protection Authority (CCPA), under the Department of Consumer Affairs, has notified 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022'.



### More on the Topic:

- Guidelines forbid advertisements from **exaggerating the features of a product or service** in such a manner as to lead children to have unrealistic expectations of such product or service and claim any health or nutritional claims or benefits without being adequately and scientifically substantiated by a recognized body.
- Guidelines for duties of manufacturers, service providers, advertisers and advertising agencies, due diligence to be carried out before endorsing and others.
- Free Claims Advertisements shall not describe any goods, products or services free if consumers pay for packaging or any other unavoidable cost.
- Penalties for violating the guidelines are also clearly outlined. CCPA can impose a penalty of up to Rs 10 lakh on manufacturers, advertisers and endorsers for any misleading advertisements.
- For subsequent contraventions, CCPA may impose a penalty of up to Rs 50 lakh.
- The Authority can prohibit the endorser of a misleading advertisement from making any endorsement for up to 1 year and for subsequent contravention, prohibition can extend up to 3 years.

### Significance of the Guidelines:

- The guidelines seek to ensure that consumers are not being fooled with unsubstantiated claims, exaggerated promises, misinformation and false claims.
- Such advertisements violate various rights of consumers such as the right to be informed, the right to choose and the right to be safeguarded against potentially unsafe products and services.
- Guidelines aim to protect consumers' interests by bringing in more transparency and clarity in the way advertisements are being published.

## The Central Consumer Protection Authority (CCPA):

- The Central Consumer Protection Authority (CCPA) has been established under **section 10 of the Consumer Protection Act, 2019** for regulating matters relating to violation of the rights of the consumers, unfair trade practices and false or misleading advertisements which are prejudicial to the interests of public and consumers and to promote, protect and enforce the rights of consumers as a class.

## CHIEF OF DEFENCE STAFF

**In News:** The government has amended service rules of the armed forces, making all serving and recently retired three-star officers – Lt General, Air Marshal and Vice Admiral – under the age of 62 eligible for the post of Chief of Defence Staff (CDS).

### More on the Topic:

- According to the new rules, all three-star and four-star officers from the three services, including those who retired in the last two years, will be eligible for consideration. The government, however, has put an age limit of 62 years.
- The mandate of the CDS include:
- **Principal Military Advisor to the Defence Minister** on all tri-services (Army, Navy and Indian Air Force) matters.
- **The permanent Chairman of the Chiefs of Staff Committee** which will also have three service chiefs as members.
- **Advisory role in the Nuclear Command Authority (NCA).**
- Creating jointness among the armed forces
- Creation of integrated theatre commands
- Prioritising capital acquisition for the modernisation of the forces.
- The CDS is also appointed as **Secretary of the Department of Military Affairs.**
- CDS is considered as one of the most significant reforms in the top echelons of the military.

## 'THIRUVANANTHAPURAM DECLARATION'

**In News:** The first National Women Legislators' Conference has concluded with 'Thiruvananthapuram Declaration'.

### More on the Topic:

- The resolution called upon all political organisations, Union government and parliamentarians to take immediate steps for the passage of the Women's Reservation Bill.
- The Constitution (One Hundred and Eighth Amendment) Bill, 2008 seeks to reserve one-third of all seats for women in the Lok Sabha and the state legislative assemblies.

## DRAFT NATIONAL DATA GOVERNANCE FRAMEWORK POLICY

**In News:** The government has invited inputs on the Draft National Data Governance Framework Policy (NDGFP).

### More on the Topic:

- The new policy is a replacement of the now scrapped 'India Data accessibility and Use policy'.
- It aims to enhance access, quality, and use of data, in line with the current and emerging technology needs of the decade.

### Provisions of the Policy:

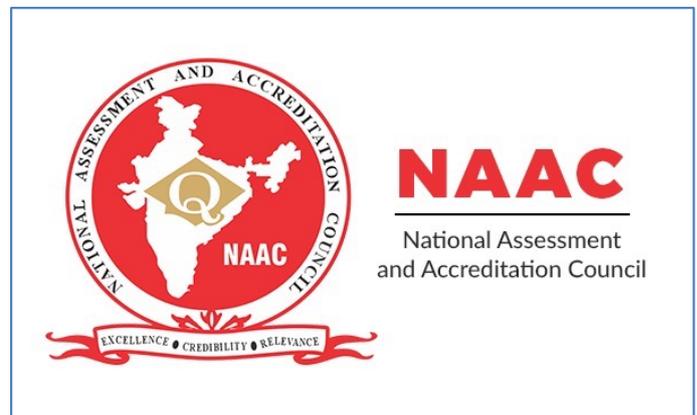
- **India Data Management Office (IDMO):** An 'India Data Management Office (IDMO)' shall be set up under the Digital India Corporation (DIC) under MeitY and shall be responsible for framing, managing and periodically reviewing and revising the Policy.
- The IDMO will also be responsible for developing rules, standards, and guidelines under this Policy that will be published periodically.
- It will act as a single point from different stake holders like states, so that all data come there and quick decisions can be made after collating the data received.
- **Data anonymization:** For data anonymisation, the IDMO will set and publish data anonymisation standards and rules to ensure informational privacy is maintained.
- **Indian Datasets programme:** India Datasets programme will consist of non-personal and anonymised datasets from Central government entities that have collected data from Indian citizens or those in India. Private companies will be "encouraged" to share such data.
- **Open Sale of Data:** Data selling provision from the previous draft has been omitted. No data will be sold at the Central level in the open market.
- **Redressal mechanism:** The IDMO shall institute a mechanism for citizens to request datasets register grievances.
- It will establish responsibility of DMUs under the IDMO to respond in a timely manner, to facilitate transparent and accountable data sharing ecosystem.
- **User Charges:** The IDMO may decide to charge User charges/ Fees for its maintenance/ services.

### Concerns:

- Collating data at one point can create 360-degree data profiling. This data in turn could be misused by government for state sponsored mass surveillance.

## NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)

**In News:** The National Assessment and Accreditation Council (NAAC) has proposed that college-level examination papers be redesigned so that at least 10 per cent of marks are given based on the evaluation of "higher-order cognition" among students to encourage the development of critical thinking.



### More on the Topic:

- The National Assessment and Accreditation Council is a government organization in India that assesses and accredits Higher Education Institutions.
- It is an autonomous body funded by the University Grants Commission and headquartered in Bangalore.
- The NAAC has been set up to facilitate the volunteering institutions to assess their performance vis-a-vis set parameters through introspection and a process that provides space for participation of the institution.
- NAAC gives institutions grades ranging from A++ to C.

## NATIONAL COUNCIL FOR TEACHER EDUCATION

**In News:** National Council for Teacher Education launches portal to streamline the process of recognition of teacher education programs of HEIs/TEIs.



### More on the Topic:

This portal will bring a paradigm shift in the functioning of NCTE. It aims to provide an automated robust framework thereby enhancing accountability, transparency and ease of doing business.

- The portal will take care of the application right from the time of inviting application for courses till the stage of issue of recognition orders including the inspection of institutions.
- The applications for the recently launched 4 Year ITEP applications will be processed on this portal.
- Online applications for Integrated teacher's education (ITEP) will be processed by NCTE through 'Admin Login' of the website.

## INDIAN BUSINESS PORTAL

**In News:** Ministry Commerce and Industry has launched the Indian Business Portal.



### More on the Topic:

- The portal will serve as an international trade hub for Indian exporters and foreign buyers.
- The portal is a business to business digital marketplace to empower small medium enterprises exporters, artisans and farmers to identify new markets for their products and grow their sales globally.

## Government Schemes

### DIGITAL SKILLING PROGRAM

**In News:** Union Education Minister Dharmendra Pradhan has launched a digital skilling programme in emerging and future technologies recently.



### More on the Topic:

- The digital skilling initiative will focus on **skilling, reskilling and upskilling students** via internships, apprenticeships, and employment to one crore students in the emerging technologies, according to the press release.
- The programme is the first-ever collaboration on a national scale between Ministry of Education (MoE), the Ministry of Skill and affiliated NSDCs, Skill India programs (National Educational Alliance for Technology) and AICTE.
- Objective of the programme: This program is to **connect the right candidates with skill trainers** and various courses providing expertise on emerging technologies.
- It includes artificial intelligence, blockchain, big data, data analytics, cyber security, and cloud computing.

### AIM-ILEAP PROGRAMME

**In News:** NITI Aayog's Atal Innovation Mission (AIM) has successfully concluded the 5th edition of AIM-iLEAP programme on 'Innovations in Audio-Tech'.



### More on the Topic:

- The programme is an effort towards using technology to solve the audio industry's most pressing problems and boost the Indian culture.
- AIM iLEAP (Innovative Leadership for Entrepreneurial Agility and Profitability) is a series of Enterprise and

Investor Demo Days.

- AIM iLEAP was launched to support #startupsuccess by overcoming two major bottlenecks they face - market and investor access.

#### Atal Innovation Mission:

- NITI Aayog's flagship program - Atal Innovation Mission (AIM) has been at the forefront of promoting a culture of innovation and entrepreneurship.
- The program aims to seek, select, support and nurture technology-based innovations that solve sectoral challenges of national importance and societal relevance.

#### THE AGNIPATH SCHEME

In News: The Union Cabinet approved the Agnipath military recruitment scheme recently.

**AGNIPATH: 46K TO BE SIGNED UP WITH SALARY OF ₹30K-₹40K**

<b>THE SCHEME</b> <ul style="list-style-type: none"><li>&gt; All recruitment in Army, Navy &amp; IAF (except officers) to be under the pan-country 'Agnipath' scheme</li><li>&gt; <b>46,000 youth</b> (17.5 to 21 age group) to be recruited this year</li><li>&gt; <b>4-year tenure</b> will include 6-month basic training (instead of existing 9 to 11 months)</li><li>&gt; After 4 years, <b>25% Agniveers will be selected</b> for regular cadre for a full term of another 15 years</li><li>&gt; 75% Agniveers will be demobilized with 'Seva Nidhi' exit package of <b>₹11.71 lakh</b> &amp; skill certificates. <b>No pension or gratuity</b></li><li>&gt; Scheme to be progressively be opened for women based on service requirements</li></ul>	 <p><b>STATED AIMS</b></p> <ul style="list-style-type: none"><li>&gt; Slash ballooning salary &amp; pension bills</li><li>&gt; Reduce average age from existing 32 to 24-26 in 6-7 years</li><li>&gt; Induct tech-savvy youth for future warfare</li><li>&gt; Ensure nation-building through disciplined youth with military ethos in civil society</li></ul>
<b>CRITICISM</b> <ul style="list-style-type: none"><li>&gt; No pilot project to test the scheme</li><li>&gt; Will dilute professionalism, military ethos &amp; fighting spirit</li><li>&gt; Takes 7-8 years to become a fully trained combat-ready soldier</li></ul>	<ul style="list-style-type: none"><li>&gt; Agniveers will be risk-averse, with the bulk looking for a second career</li><li>&gt; Will hit the basic ethos of 'Naam, Namak and Nishaan' (reputation of battalion, fidelity &amp; ensign/colours) for which soldiers fight</li><li>&gt; Lead to militarization of society with around 35,000 combat-trained youth being rendered jobless every year</li></ul>

#### More on the Topic:

- It will allow Indian youth to serve in the armed forces for four years.
- The scheme aims to bring about a **transformational shift towards more tech-savvy armed forces by hiring youngsters who are in tune with contemporary technological trends.**
- Recruits will get an attractive monthly package along with risk and hardship allowances.
- Up to 25 percent of each batch of Agniveers will be enrolled as regular cadre of the armed forces.
- For those who are re-selected, the initial 4 year period will not be considered for retirement benefits.
- The move is expected to decrease the average age profile of armed forces personnel from the current 32 to 24-26 years over a period of time.
- Enrolment will be undertaken through an online centralised system for all armed forces.

#### PAYMENTS INFRASTRUCTURE DEVELOPMENT FUND (PIDF) SCHEME

In News: The Reserve Bank of India has proposed to modify the Payments Infrastructure Development Fund (PIDF) scheme.



#### More on the Topic:

- The PIDF scheme was operationalised by the RBI in January 2021 to **incentivise the deployment of payment acceptance infrastructure such as physical Point of Sale (PoS), mPoS (mobile PoS), Quick Response (QR) codes in Tier-3 to 6 centres and north-eastern States.**
- As of end-April 2022, **more than 1.18 crore new touch points have been deployed under the scheme**, against a target of 90 lakh PoS terminals and QR codes to be deployed over three years by 2023-end.
- Beneficiaries of **PM SVANidhi Scheme** in Tier-1 and 2 centres were later included in August 2021.
- PM SVANidhi stands for Prime Minister Street Vendor's AtmaNirbhar Nidhi. It is a central sector scheme launched in June 2020.

#### E-VIDHAN SYSTEM FOR PAPERLESS LEGISLATION

In News: A delegation of MLAs from Gujarat visited the Uttar Pradesh Legislative Assembly to learn about the novel e-Vidhan system for paperless proceedings.

#### More on the Topic:

- The National e-Vidhan Application (NeVA) is a system for digitising the legislative bodies of all Indian states and the Parliament through a single platform on which house proceedings, starred/unstarred questions and answers, committee reports etc. will be available.
- Nagaland became the first state to implement NeVA, in March 2022.
- The NeVA system has been developed to make all the work and data related to legislative bodies available

online for the use of both citizens and the members of Assemblies.

- It includes a website and a mobile app.

## INDIAN RAILWAY INNOVATION POLICY

In News: Under the Indian Railway Innovation Policy, the Railways will invest in start-ups so that they are able to procure innovations directly from the start-ups.



### More on the Topic:

- The funding mechanism will be on **cost-sharing basis in equal proportions, 50:50**, by the Indian Railways and an innovator.
- Grant up to Rs. 1.5 Crore will be provided to innovators.
- The policy is not just limited to the idea.
- Indian Railways will follow it through to the product after proof of concept and scaling it up, doubling the grant support and finally adoption of successfully developed product/technology for regular use and even support for two to three years.
- The annual budget for the policy will be around Rs 40-50 crore and an additional fund for the divisional railway managers so that they can find on-field solutions to on-field problems.
- Developed Intellectual property rights (IPR) will remain with innovators only.

### Significance of the Policy:

- Great innovative solutions may churn and many technological challenges can be resolved if start-ups collaborate with Indian Railways.
- De-centralization of complete product development process at divisional level to avoid delays.
- The selection of start-ups will be through open, transparent and fair process which will entail innovators uploading their concepts with necessary proof on a dedicated portal, the Indian Railway Innovation Portal.

## AYUSHMAN BHARAT DIGITAL MISSION

In News: The National Health Authority (NHA) under its flagship scheme of Ayushman Bharat Digital Mission (ABDM) has launched a public dashboard for

real-time information. There are four major components of the scheme:

An infographic with a light blue background. At the top left is a portrait of Prime Minister Narendra Modi. To the right is the 75th anniversary logo of India with the text 'आज़ादी का अमृत महोत्सव'. Below the portrait is the slogan 'Now Health is just a click away' and the title 'Ayushman Bharat Digital Mission'. A section titled 'Salient Features' lists three points with icons: 1. Create a seamless online platform through a wide range of data, information &amp; infrastructure services. 2. Enable exchange of longitudinal health records of citizens with their consent. 3. Ensure security, confidentiality &amp; privacy of health-related personal information.

### More on the Topic:

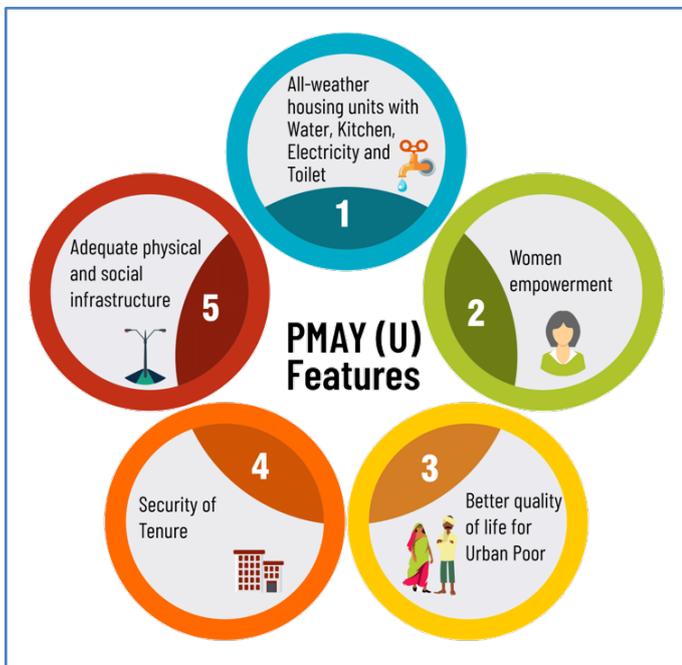
- The public dashboard will be a one-stop solution for information on the mission's progress at state level.
- The dashboard will display detailed information on core registries under the mission – Ayushman Bharat Health Account (ABHA) numbers, Healthcare Professionals Registry (HPR) and Health Facility Registry (HFR).
- ABDM is built on the principles of **accessibility, transparency, inclusivity and inter-operability**.

### Ayushman Bharat Digital Mission:

- Ayushman Bharat is a flagship scheme of India which was launched as recommended by the National Health Policy 2017, to achieve the vision of Universal Health Coverage (UHC).
- Under the mission, citizens will be able to create their Ayushman Bharat health account numbers, to which their digital health records can be linked.

## PM AWAS YOJANA

In News: Pradhan Mantri Awas Yojana (PMAY) scheme has completed seven years recently.



**More on the Topic:**

- It was launched in the month of June, 2015 with the mission of achieving ‘Housing for All’ by 2022.
- PMAY- Urban is implemented by the Ministry of Housing and Urban Affairs (MoHUA).
- The scheme is split into two parts: The Pradhan Mantri Awas Yojana-Urban or PMAY-U and the Pradhan Mantri Awas Yojana-Rural or PMAY-R (It is implemented by Ministry of Rural Development (MoRD)).

**Details of the Scheme:**

- Under the PMAY scheme, **the government provides a subsidy on availing loans for the purchase, construction, extension, or improvement of a house.**
- The scheme is converged with other government schemes to ensure that houses have a toilet, and access to electricity and drinking water.
- The scheme caters to **Economical Weaker Sections (EWS), Lower Income Groups (LIG), and Middle Income Groups (MIG)** of the society.
- It was launched with a target of completing 2.7 crore houses by 2022. So far nearly 67% of the target has been completed.

**There are four major components of the scheme:**

- **Credit subsidy:** Under the Credit Linked Subsidy Scheme of PMAY, the government provides an interest subsidy to the beneficiaries based up on which category of beneficiary they are.
- **Slum redevelopment:** This part of the scheme aims to redevelop slums using land as a resource in partnership with private organisations.
- **Affordable Housing in Partnership:** As part of this scheme, the government provides financial assistance to the tune of Rs. 1.5 lakh to EWS families for the purchase of houses. States and UTs can partner with the private sector to develop such projects.

- **Subsidiary for Beneficiary-led Construction or Enhancement:** This component aims to financially assist EWS families in the construction of a new house or the enhancement of an existing one.

**PRADHAN MANTRI KISAN SAMPADA YOJANA**

**In News:** The Ministry Of Food Processing Industries has Invited applications Under Sub-Schemes Of Pradhan Mantri Kisan Sampada Yojana (PMKSY).



**More on the Topic:**

- It is an umbrella scheme incorporating ongoing schemes of the Ministry like Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, Food Safety and Quality Assurance Infrastructure, etc. and also new schemes like Infrastructure for Agro-processing Clusters, Creation of Backward and Forward Linkages, Creation / Expansion of Food Processing & Preservation Capacities.
- The objective of PMKSY is to **supplement agriculture, modernize processing and decrease Agri-Waste.**
- MoFPI provides **mostly credit-linked financial assistance (capital subsidy)** in form of grants-in-aid to entrepreneurs for setting up of food processing/preservation industries.

**Significance of the Scheme:**

- The agriculture sector in India has long been dominated by middlemen who reap profits at the expense of farmers and end consumers.
- Pradhan Mantri Kisan Sampada Yojana can save India from this trend by **creating integrated cold chain and preservation infrastructure facilities, without any break, from the farm gate to the consumer.**
- Further PMKSY can play a huge role in ensuring the quality of food products manufactured and sold in the market by supporting the creation of **Food Safety and Quality Assurance Infrastructure.**

- Under the scheme the Government also provides credit linked financial assistance (capital subsidy) in the form of grants-in-aid to stakeholders for setting up of food processing industries/ units/ projects.
- Besides giving a boost to the food processing industry in India, the PMKSY will also ensure a better return for farmers and help in doubling their income, creating vast employment opportunities, reducing wastage of agricultural produce, and enhancing exports of processed foods.

## PM EVIDYA SCHEME

**In News:** UNESCO recognized the use of information and communication technology (ICT), under a comprehensive initiative called PM eVIDYA by the department of school education, Ministry of Education.



### More on the Topic:

- PM eVIDYA was launched on the wake of Covid-19 pandemic.
- It was launched by the Ministry of Education in May 2020 which aimed at unifying all efforts to enable multi-mode access to education in the wake of lock down.
- Under 'Atmanirbhar Bharat Abhiyan,' the initiative's objective is to benefit 25 crore school children with its comprehensive accessibility.
- One of the major initiatives of PM eVidya is 12 eVidya TV Channels based on the line – 'One Class-One Channel' for classes 1 to 12, airing educational content related to the respective classes.
- 12 eVidya DTH channels are especially useful for the learners of those **remote areas where stable internet is not available**.
- These channels telecast curriculum-based educational content developed by NCERT and other agencies such as CBSE, KVS, NIOS, Rotary, etc.

### Models Of PM eVIDYA Program

#### Digital infrastructure for knowledge sharing:

- Through this platform learning material that fits the need of the prescribed School curriculum is provided. This portal can be accessed in English and various other languages.

### Swayam portal:

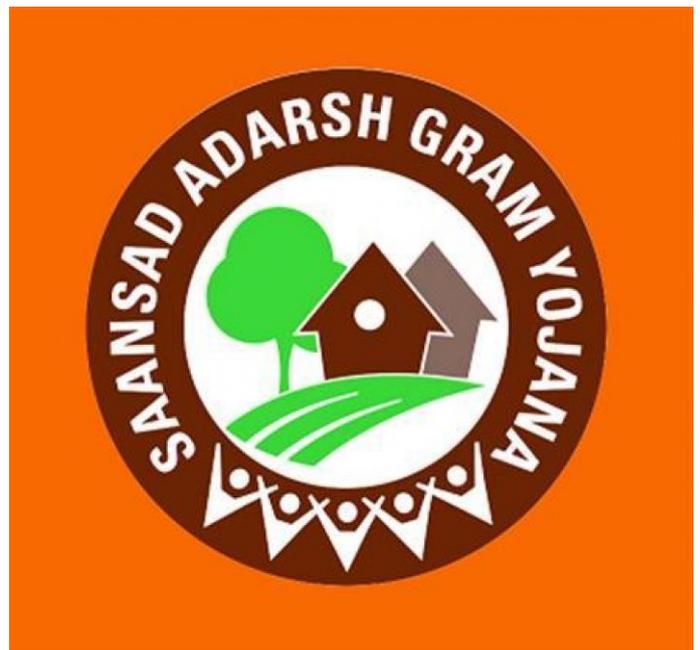
- This portal has been initiated in order to achieve three cardinal principles of education that are access, equity, and quality. Through this portal best teaching-learning resources for all the students in available including the most disadvantaged. Any student at any time can access this portal free of cost.

### Children with Special Needs:

- Children with special needs will be provided with **special e-content**. Website was accessible to people with disabilities.
- Keyboard support, ease of navigation, display setting, content readability and structure, alternate description for images, and audio-video description will be provided through the website to the students so that students do not have to face any obstacle in getting an education.

## PM ADI ADARSH GRAM YOJANA

**In News:** Union tribal affairs minister announced inclusion of villages of Kalahandi of Odisha in the new PM Adarsh Gram Yojana.



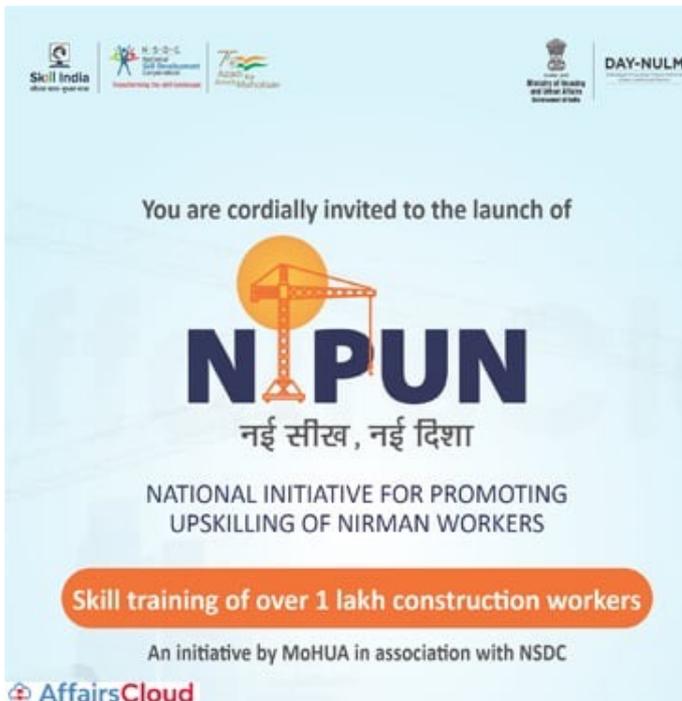
### More on the Topic:

- Pradhan Mantri Adarsh Gram Yojana (PMAGY) is a rural development programme launched by the central government in India in the financial year 2009–10 for the development of villages having a **higher ratio (over 50%) of people belonging to the scheduled castes through convergence of central and state schemes and allocating financial funding on a per village basis**.
- Some of these schemes are Bharat Nirman, Pradhan Mantri Gram Sadak Yojana (PMGSY) for rural roads, water supply, housing, electrification and other big-ticket schemes like Sarva Shiksha Abhiyan, Mahatma Gandhi National Rural Employment Guarantee Act, Integrated Child Development Services, and sanitation.

- This program would be applicable to around 44,000 villages which had a scheduled castes population above 50% and so qualified for PMAGY.
- The construction industry is poised to become the largest employer by 2022 and needs 45 million additional skilled workers over the next 10 years.

## NIPUN SCHEME

**In News:** In order to train over 1 lakh construction workers, Union Housing and Urban Affairs Minister Hardeep Puri has launched an innovative project for skill training of construction workers called 'NIPUN' (National Initiative for Promoting Upskilling of Nirman) workers to enable them for better job opportunities.



### More on the Topic:

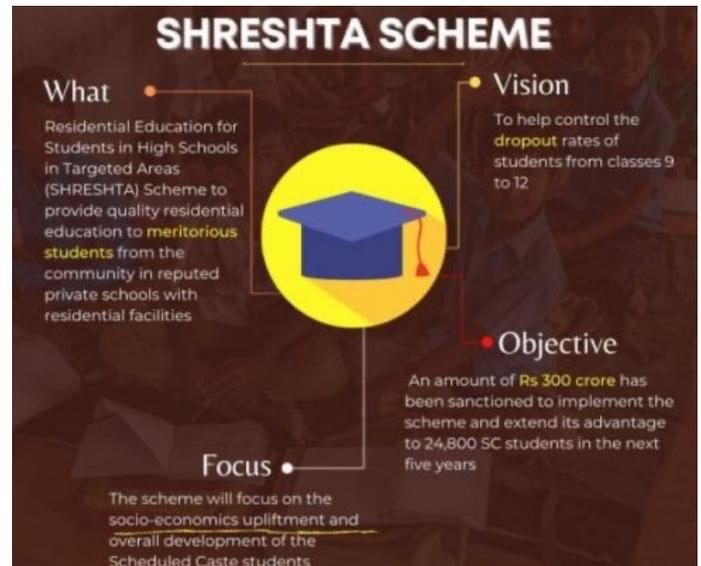
- The project NIPUN is an initiative of the Ministry under its flagship scheme of the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) to train over 1 lakh construction workers, through fresh skilling and upskilling programmes and provide them with work opportunities in foreign countries also.
- This initiative will enable Nirman workers to be more proficient and skilled while making them adopt future trends in the construction industry by increasing their capabilities and diversifying their skill sets.
- The National Skill Development Corporation (NSDC), the nodal agency under the Ministry of Skill Development and Entrepreneurship (MSDE), Government of India, will be the implementation partner for the project NIPUN.

### Significance:

- The construction industry is a significant contributor to the nation's GDP and we are proud of world class construction being undertaken in the country.
- The NIPUN Project will enable the construction workers to seek better job opportunities, increase their wages and even pursue overseas placements - an indication of a new eco-system.

## SCHEME FOR RESIDENTIAL EDUCATION FOR STUDENTS IN HIGH SCHOOLS IN TARGETED AREAS (SHRESTHA)

**In News:** Ministry for Social Justice and Empowerment has launched SHRESTHA scheme for Residential Education for Students in High Schools in Targeted Areas (SHRESTHA).



### More on the Topic:

- The Scheme for Residential Education for Students in Targeted Areas (SHRESHTA) in the initial stage aims to provide quality education & opportunities to 3,000 students belonging to scheduled caste category.
- SHRESHTA envisions high quality free residential education from class 9th to class 12th to meritorious students from SC communities.
- The students whose parental annual income is up to Rs. 2.5 Lakh per annum will be covered under the scheme.

### The Bridge Course:

- Another highlight of the scheme is the provision for a bridge course in it. To help students adapt to the new school environment, a bridge course of 3 months is provided to students from state schools and rural areas.

## PRIME MINISTER'S EMPLOYMENT GENERATION PROGRAMME (PMEGP)

**In News:** The government has announced the extension of its scheme for employment generation Prime Minister's Employment Generation Programme (PMEGP) over the 15th Finance Commission Cycle from 2021-22 to 2025-26.

### More on the Topic:

- The scheme has supported around 7.8 lakh micro enterprises with a subsidy of Rs 19,995 crore to create employment for around 64 lakh people.

- **PMEGP is a central sector scheme** administered by the Ministry of Micro, Small and Medium Enterprises (MoMSME).
- At the national level, the Scheme is being implemented by Khadi and Village Industries Commission (KVIC), a statutory organization under the administrative control of the Ministry of MSME as the single nodal agency.
- At the State level, the Scheme will be implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks.
- The Government subsidy under the Scheme will be routed by KVIC through the identified Banks for eventual distribution to the beneficiaries / entrepreneurs in their Bank accounts.
- **Assistance under the Scheme is available only to new units to be established.**
- Existing units or units already availed any Govt. Subsidy either under State/Central Govt. Schemes are not eligible.

## JAL JEEVAN MISSION

In News: The Ministry of Jal Shakti has achieved the milestone of 50 per cent of rural households having access to tap water connections.



### More on the Topic:

- Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through **individual household tap connections by 2024 to all households in rural India.**
- The programme will also implement **source sustainability measures** as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting.
- The Jal Jeevan Mission **will be based on a community approach to water** and will include extensive Information, Education and communication as a key component of the mission.

- **Jal Jeevan Mission App:** The Jal Jeevan Mission App helps improve awareness among stakeholders and for greater transparency and accountability of schemes under the Mission.
- **Rashtriya Jal Jeevan Kosh:** Through this platform any individual, institution, corporation, or philanthropist, be it in India or abroad, can help provide tap water connection in every rural household, school, Anganwadi centre, ashram shala, and other public institutions.

### Social Impact of Jal Jeevan Mission:

- The burden of arranging water for daily household needs mostly fell on women and young girls.
- There is sufficient evidence to suggest that school attendance among girls was significantly lower in summers when due to increased requirements for water, multiple trips were needed.
- After the launch of Jal Jeevan Mission and improvement in access to tap water connection within their premises, considerable improvement in this regard has been noticed.

## NATION SSR AND SRIMAN GUIDELINES

In News: The Science and Technology Ministry has released the Scientific Social Responsibility and Scientific Research Infrastructure Sharing Maintenance and Networks- SRIMAN Guidelines.

### More on the Topic:

- According to a recent study by NSTMIS, DST (2013), **94% of the research equipment used in India are imported while only 6% are being manufactured indigenously.**
- Further, the study showed that **large number of equipment's are not shared and are marred with issues related to maintenance and want of spares.**
- This adds to the burden of research infrastructure costs.
- A suitable ecosystem for sharing of scientific equipment is a solution to this problem. SRIMAN is conceived in this regard.
- A culture of collaboration/sharing between institutions helps in optimum utilization of equipment resulting in better maintenance of the equipment.
- **The SRIMAN Guidelines aims to promote efficient utilisation and wider access of Research Infrastructure to scientists, researchers and industry professionals across the country by creating a network of relevant stakeholders.**

### Scientific Social Responsibility:

- SSR is an institutional mechanism and is a **significant step to reaching out to the widest spectrum of stakeholders of S&T with knowledge, human resources and infrastructure to make effective use of existing assets for the benefit of society.**
- In tune with the spirit of CSR to earmark some profit for public service, **SSR will enable sharing of knowledge and Infrastructure.**

## CRECHE SCHEME

In News: Ministry of Women and Child Development stopped payment to creches in FY 2021-22 stating that all creches were closed last year.



### More on the Topic:

- This centrally sponsored scheme is being implemented by the Ministry of Women and Child Development (WCD).
- The scheme, previously known as the Rajiv Gandhi National Creche Scheme for The Children of Working Mothers dates back to January 1, 2006.
- It was launched to primarily nurture children between six months to six years from mothers belonging to low-income groups who go to work at least 15 days in a month.
- While BPL families pay ₹20 per child per month, the fee ranges from ₹100 to ₹200 for others.
- The centre provides 60 per cent of the funds in all states, except the Himalayan and North Eastern states.
- The remaining 30 per cent funds are provided by the state, while NGOs put in 10 per cent from their corpus.
- Concerns: Ministry stated that Creches were not functioning during covid 19. The reality is that there were many creches which were functioning and they faced severe fund crunch.
- NGO which provided their funds for the scheme has not received their share from the government.
- As many as 11,582 creches functioning under this scheme have been shut down between FY18 and FY20.
- These facts have affected low income group working mothers adversely including quitting from work force to take care of their toddlers.

### Way Ahead:

- More funds should be allocated under the scheme to meet the growing demand for creches.

- The scheme may be revamped and expanded and the WCD ministry should be approached for more allocation, emphasising the need for creches in view of safety of children of working mothers.

## AKRUTI PROGRAM

In News: Advanced Knowledge and Rural Technology Implementation (AKRUTI) program was launched recently by Baba Atomic Research Centre.



### More on the Topic:

- The scheme aims at empowering villages through implementing different technologies for usage.
- This scheme will lead to sustainable growth of the rural sector across the country.
- The Nuclear Power Corporation of India Limited is assisting unemployed youth living near the Tarapur Atomic Power Station (TAPS) through AKRUTI.

## GOVERNMENT E MARKET PLACE

In News: The Union Cabinet has expanded the scope of the public procurement portal Government e-Marketplace (GeM) to allow cooperative societies to register as buyers.



### More on the Topic:

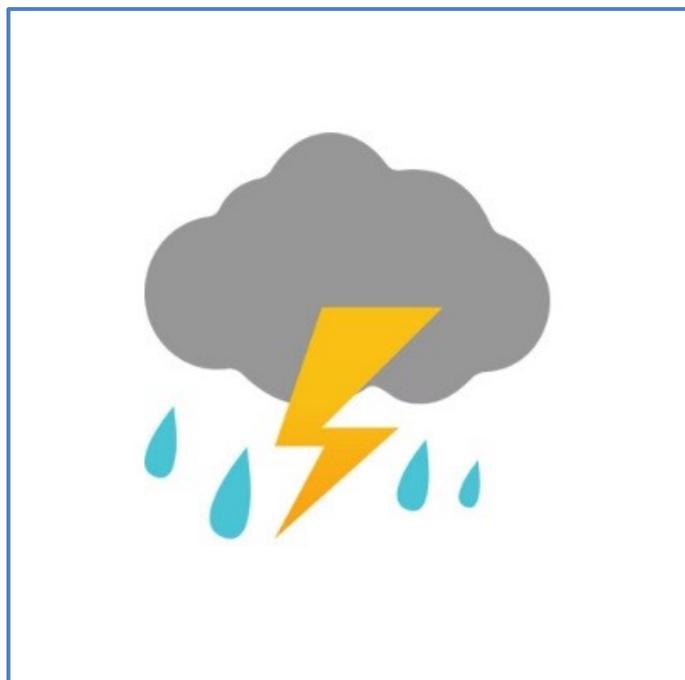
- The decision is expected to help cooperatives in getting competitive prices through an open and transparent process.
- It will enhance the Ease of Doing Business for cooperatives while providing a larger Buyer base to the GeM registered sellers also.

### About Government e-Marketplace (GeM):

- Government e-Marketplace (GeM) is a one stop portal to facilitate online procurement of common use Goods & Services required by various Government Departments / Organizations / PSUs.
- GeM aims to enhance transparency, efficiency and speed in public procurement.
- It provides the tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users achieve the best value for their money.
- The procurement of goods and services by Ministries and the Central Public Sector Enterprises (CPSEs) is mandatory for goods and services available on GeM.
- **Ministry of Commerce and Industry** is the nodal ministry of e Market Place.

### DAMINI - LIGHTNING ALERT APP

In News: Damini App will be made in to local languages.



### More on the Topic:

- Damini Lightning Alert application is for giving warning to the user about the lightning on the basis of user location.
- The app monitors the lightning occurrence all over India and alerts the user of lightning near them by a GPS notification under 20 km and 40 km.
- Further, the Damini app also triggers warning about lightning strikes three hours in advance which can help reduce losses to life and property.

- User can view Lightning which occurred in last 5 min, 10 min & 15 min on the map.

### 'E-SANJEEVANI' - FREE TELEMEDICINE SERVICE

In News: The National Health Authority (NHA) announced the successful integration of eSanjeevani with its flagship scheme Ayushman Bharat Digital Mission (ABDM).



### More on the Topic:

- This integration allows the existing users of eSanjeevani, the telemedicine service of Ministry of Health and Family Welfare (MoHFW) to easily create their Ayushman Bharat Health Account (ABHA).
- It can be used to link and manage their existing health records like prescriptions, lab reports, etc.
- The users would also be able to share their health records with doctors on eSanjeevani which will help in better clinical decision making and ensuring the continuum of care.

### About e Sanjeevani Services:

- eSanjeevani service is available in two variants. The first one is eSanjeevani Ayushman Bharat-Health and Wellness Centre (AB-HWC) – the Doctor-to-Doctor telemedicine service through which the beneficiaries visiting a Health and Wellness Centre and can virtually connect to doctors/ specialists in the Hub that could be at tertiary healthcare facility/hospital/medical college.
- This enables the government to provide general and specialised health services in rural areas and isolated communities.
- The second variant, eSanjeevani OPD is serving patients across the country, connecting them directly to doctors from the comforts of their homes.
- Both versions – eSanjeevani AB-HWC and eSanjeevani OPD have been integrated with ABDM platform.

## TECHNOLOGY DEVELOPMENT FUND

**In News:** The funding under the Technology Development Fund (TDF) scheme has been increased from Rs 10 crore per project to Rs 50 crore.



### More on the Topic:

- TDF is executed by Defence Research and Development Organisation (DRDO).
- It intends to back the indigenous development of components, products, systems and technologies by MSMEs and startups.
- DRDO has partnered with Invest India, as supporting agency, to assist in scheme
- Implementation.
- The scheme facilitates up to 90 per cent of the total project cost and allows industries to work in consortium with one another.

## INDIAN ECONOMY

### GST COMPENSATION

**In News:** The Centre has released the entire amount of GST compensation payable to states up to May 31, 2022.



### More on the Topic:

- The goods and services tax (GST) was introduced in the country from July 1, 2017 and states were assured of compensation for loss of any revenue arising on account of implementation of the tax reform measure according to the provisions of the GST (Compensation to States) Act, 2017 for a period of five years.
- For providing compensation to states, a cess is being levied on certain goods and the amount collected is being credited to the Compensation Fund. Example: Cess on sin goods like tobacco.
- Compensation to states is being paid out of the Compensation Fund from July 1, 2017.

### About Cess:

- Cess is a tax levied for a specific purpose and ought to be used for the same only.
- The process of cess levying occurs after Parliament has authorised its creation through an enabling legislation that specifies the purpose for which the funds are being raised.
- Article 270 of the Constitution allows cess to be excluded from the purview of the divisible pool of taxes that the Union government must share with the States.

### FISCAL DEFICIT

**In News:** The government's fiscal deficit for FY22 has come in at 6.7 percent of the Gross Domestic Product (GDP), skidding off the revised target of 6.9 percent.

### More on the Topic:

- Fiscal deficit is an indication of total borrowings by government to make up for higher expenditure.
- The difference between total revenue and total expenditure of the government is termed as fiscal deficit.
- It is an indication of the total borrowings needed by the government. While calculating the total revenue, borrowings are not included.
- Generally fiscal deficit takes place either due to revenue deficit or a major hike in capital expenditure. Capital

expenditure is incurred to create long-term assets such as factories, buildings and other development.

- A deficit is usually financed through borrowing from either the central bank of the country or raising money from capital markets by issuing different instruments like treasury bills and bonds.

## INDIA'S UNICORNS

**In News:** The Number of unicorns in India has reached 100.

### More on the Topic:

- The total valuation of these unicorns is more than 330 billion dollars, that is, more than 25 lakh crore rupees.
- They are operating in many fields like E-commerce, Fin-Tech, Ed-Tech, Bio-Tech,”
- A record 44 unicorns were established last year amidst the pandemic.
- The average annual growth rate of Indian unicorns is more than those of the USA, UK, and many other countries.
- Analysts also say that in the coming years there will be a sharp spike in these numbers.

### What is a unicorn startup?

- Unicorns are **privately held, venture-capital backed startups** that have reached a value of \$1 billion.
- The valuation of unicorns is not expressly linked to their current financial performance, but **largely based on their growth potential** as perceived by investors and venture capitalists who have taken part in various funding rounds.

### India's Start up Ecosystem:

- The country's startup ecosystem has seen a **nine-time increase in the number of investors**, and a seven-time increase in the total funding of startups.
- Indian start-ups are gradually transitioning from the age of unicorns to the age of decacorns.
- A decacorn is a company that has attained a valuation of more than USD10 billion.
- As of May 2022, 47 companies world over have achieved the decacorn status. India has four startups namely, Flipkart, BYJU's, Nykaa and Swiggy, added in the decacorn cohort.

## RBI ANNUAL REPORT

**In News:** The Reserve Bank of India in its annual report for 2021-22, has said that undertaking structural reforms to improve India's medium-term growth potential holds the key to securing a sustained, balanced and inclusive growth.

### More on the Topic:

- Other highlights from the report are as follows,
- **Inflation:** India's headline consumer price index (CPI)-based inflation rate accelerated to an eight-year high of 7.79 percent in April, staying above the RBI's upper tolerance ceiling of six percent for the fourth straight

month. The RBI is mandated to target inflation at four percent with a tolerance band of two percentage points stretching on either side.

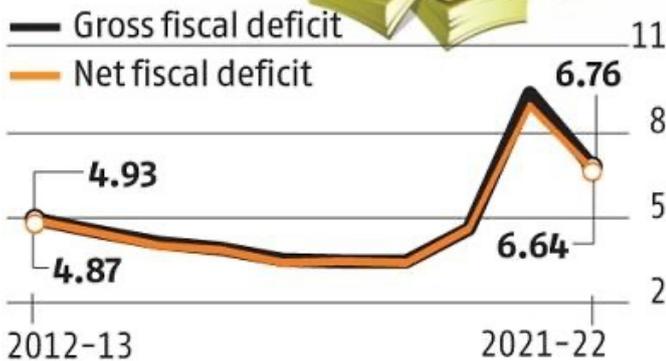
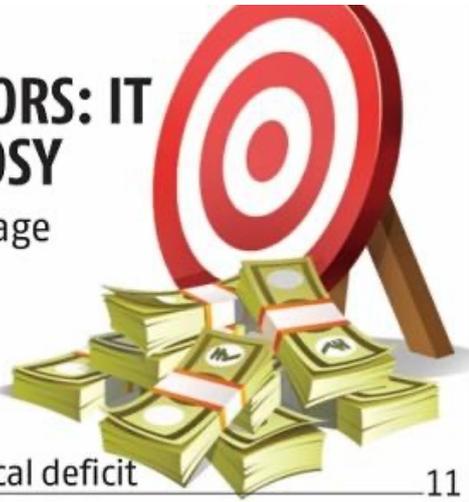
- Cost-push pressures from high industrial raw material prices, transportation costs, and global logistics and supply chain bottlenecks continue to impinge on core inflation.
- The Indian economy is witnessing a recovery despite the multiple headwinds in the previous year.
- **Supply-side bottlenecks:** Supply side bottle necks has to be addressed to have better post covid-19 recovery of the economy.
- Supply bottlenecks refers to the difficulties of supply of a commodity to take place even if there is demand for it.
- Main reason for supply bottleneck is poor production and productivity, primitive technology etc.
- The supply bottlenecks are a major reason for rising prices or inflation in developing countries.
- **Infrastructure and Investment:** Thrust given to infrastructure and investment in the Union Budget 2022-23 will play a major role in shaping the post-COVID-19 recovery.
- The Pradhan Mantri Gati Shakti, which brings together infrastructure plans under various ministries under a common digital platform, is expected to improve efficiency in execution and reduce logistic costs.
- **Fourth industrial revolution:** Policy support for the digital economy, financial technology, and climate transition would enable India to participate and benefit from the fourth industrial revolution.
- The Fourth Industrial Revolution is a **fusion of technologies like artificial intelligence (AI), robotics, the Internet of Things (IoT), 3D printing, genetic engineering, quantum computing, and other technologies.**
- It's the collective force behind many products and services that are fast becoming indispensable to modern life.
- **The War Effect:** The escalation of geopolitical tensions into war from late February 2022 has delivered a brutal blow to the world economy. It has affected Indian Economy as well.
- **Surging food and fuel prices,** in particular, and shortages of essential items are impacting the disadvantaged adversely.

## TWIN DEFICIT PROBLEM

**In News:** In its latest 'Monthly Economic Review', the Ministry of Finance has informed that India is emerging in to Twin deficit problem.

# FISCAL INDICATORS: IT AIN'T ROSY

(As percentage to GDP)



## More on the Topic:

- Twin deficit refers to a nation's current account deficit and a simultaneous fiscal deficit.
- The fiscal deficit is essentially the amount of money that the government has to borrow in any year to fill the gap between its expenditures and revenues.
- Higher levels of fiscal deficit typically imply the government eats into the pool of investible funds in the market which could have been used by the private sector for its own investment needs.
- At a time when the government is trying its best to kick-start and sustain a private sector investment cycle, borrowing more than what it budgeted will be counter-productive.

## The Current Account Deficit:

- The current account essentially refers to two specific sub-parts:
  - Import and Export of goods – this is the “trade account”.
  - Import and export of services – this is called the “invisibles account”.
- If a country imports more goods (everything from cars to phones to machinery to food grains etc) than it exports, it is said to have a trade account deficit.
- A deficit implies that more money is going out of the country than coming in via the trade of physical goods. Similarly, the same country could be earning a surplus on the invisibles account – that is, it could be exporting more services than importing.

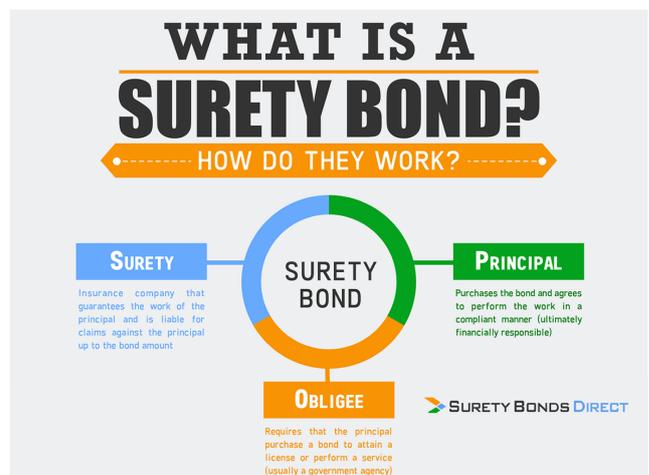
## Recommendations by the Report:

- The report underscores the need to trim revenue expenditure (or the money government spends just to meet its daily needs).

- Rationalizing non-capex expenditure has thus become critical, not only for protecting growth supportive capex but also for avoiding fiscal slippages.
- “Capex” or capital expenditure essentially refers to money spent towards creating productive assets such as roads, buildings, ports etc. Capex has a much bigger multiplier effect on the overall GDP growth than revenue expenditure.
- Fiscal Consolidation through tight monetary policy also a need of the hour.
- Import substitution/cuts, especially fossil fuels and non-essential goods should be done.

## SURETY BONDS

In News: Military in a bid to break the deadlock over the launch of Surety Bonds, the Ministry for Road Transport & Highways (MORTH) has asked insurance regulator IRDAI to develop a model product on Surety Bonds in consultation with general insurers.



## More on the Topic:

- A surety bond is provided by the insurance company on behalf of the contractor to the entity, which is awarding the project.
- When a principal breaks a bond's terms, the harmed party can make a claim on the bond to recover losses.
- It is intended to allow the harmed party to make a claim on the bond to recover losses.

## GOOGLE TAX

In News: India's equalization levy, or the so-called Google tax on offshore digital economy firms, is set to stay beyond 2023, as a global tax deal which was to replace such levies by individual nations by then faces implementation challenges.



### More on the Topic:

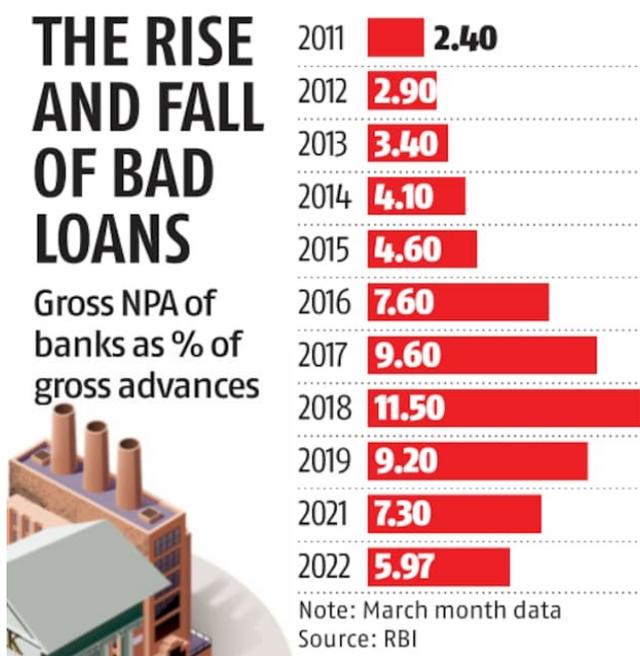
- The global tax reform agreed to by 140 nations covering both digital economy taxation and a plan for a minimum global corporate tax rate of 15% looks set to take longer as consultations continue around the finer aspects of digital economy taxation.

### Equalization Levy:

- India collects around 3,000-4,000 crore from equalization levy every year.
- The levy was introduced in 2016 on online advertisements and has subsequently been expanded to cover the sale of goods and provision of services through online platforms.
- EL is related with online advertisements payments received by non-resident companies without a permanent establishment (PE) here, if these exceeded ₹1 lakh a year. It was later expanded to non-resident e-commerce operators with the levy at the rate of 2%.
- India's revenue receipts from the taxation rights to be granted under the global tax reform are expected to be less than what New Delhi now collects as equalization levy

### NON-PERFORMING ASSETS

In News: Gross non-performing assets (NPAs) of the banking sector dropped below 6 per cent as of March 2022 – the lowest since 2016.



### More on the Topic:

- The asset quality of banks has improved, and the gross NPAs and net NPAs of the banks have improved from the pre-pandemic levels.
- The fresh slippages have broadly been brought under control. Banks have also enhanced their provisions including provisions for restructured accounts.

### About NPAs:

- All advances given by banks are termed “assets”, as they generate income for the bank by way of interest or

instalments.

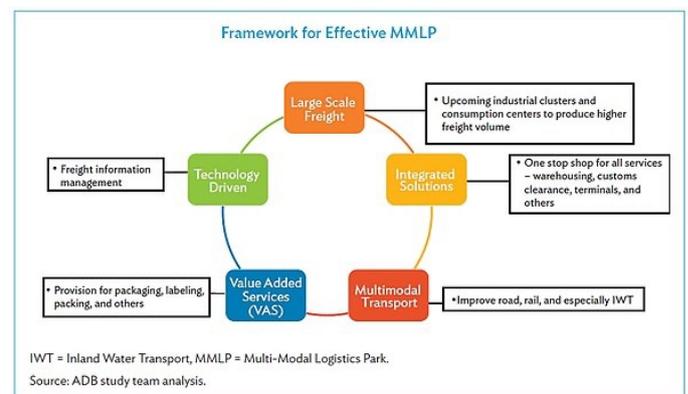
- However, a loan turns bad if the interest or instalment remains unpaid even after the due date – and turns into a nonperforming asset, or NPA, if it remains unpaid for a period of more than 90 days.

### Some of the NPA reforms by RBI:

- **The Debt Recovery Tribunals (DRTs) – 1993:** To decrease the time required for settling cases. They are governed by the provisions of the Recovery of Debt Due to Banks and Financial Institutions Act, 1993.
- **Credit Information Bureau – 2000:** It helps banks by maintaining and sharing data of individual defaulters and willful defaulters.
- **Lok Adalats:** For tackling and recovery of small loans however they are limited up to 5 lakh rupees loans only by the RBI guidelines issued in 2001.
- **ARC (Asset Reconstruction Companies):** The RBI gave license to 14 new ARCs recently after the amendment of the SARFAESI Act of 2002. These companies are created to unlock value from stressed loans.
- **Sustainable structuring of stressed assets (S4A) – 2016:** It has been formulated as an optional framework for the resolution of largely stressed accounts.
- **Bad Banks:** NARCL was established under the Companies Act and has applied for an Asset Reconstruction Company (ARC) licence from the Reserve Bank of India.
- In various phases, NARCL will buy stressed assets totalling roughly Rs 2 lakh crore from various commercial banks.

### MULTI-MODAL LOGISTICS PARKS

In News: Under the second phase of central scheme Bharatmala Pariyojana, the government has identified 11 locations across the country to set up multi-modal logistics parks (MMLPs), taking the total number of such facilities in the country to 53.



### More on the Topic:

- The programme focuses on **optimising efficiency of freight and passenger movement across the country** by bridging critical infrastructure gaps through effective interventions such as economic corridors and multi-modal integration through roadways, logistic parks, ports, and ropeways among others.

- Since logistic parks in every state will involve multiple stakeholders, for every MMLP there will be a **special purpose vehicle (SPV) having members from the private operators, the concerned state port authority, roadways, railways, electricity, power utilities and so on.** If a state has more than one MMLP, then the SPV can be the same.
- The MMLPs will be built under **public-private partnership (PPP model).** The government will provide the land and water, electricity, road and railways connectivity to each such park.
- One MMLP will be run by one private operator, who will be concessioned for 45 years during which the entire park will have to be operated and maintained.

#### Significance of MMLP:

- Through the 35 MMLPs planned in the first phase, the government aims to reduce logistic costs from the current 14-16% of the country's gross domestic product (GDP) to about 9%.
- It also hopes to create two lakh jobs with this as mega logistic parks are likely to trigger creation of manufacturing or assembling clusters around these facilities, while massively cutting freight transportation costs and time.

#### NEW TAX DEDUCTED AT SOURCE (TDS) PROVISION ON VIRTUAL DIGITAL ASSETS (VDAS)

In News: The Central Board of Direct Taxes (CBDT) on Wednesday (June 22) issued detailed guidelines on the tax deducted at source (TDS) rule for virtual digital assets (VDAs) such as cryptocurrencies.



#### More on the Topic:

- The Finance Act, 2022 introduced Section 194S in The Income Tax Act, 1961, under which a TDS of 1 per cent will be levied on the transfer of VDAs effective July 1 if the value of transactions exceeds Rs 10,000 in a year.
- The threshold limit for TDS would be ₹50,000 a year for specified persons, which include individuals/HUFs who are required to get their accounts audited under the IT Act.
- The CBDT has defined four primary VDAs as bitcoin, ether, USD Tether, and USD Coin for the purpose of tax deduction on lesser known cryptocurrencies.

#### Significance of Taxation of VDAs:

- It will help the tax department to trace the VDA transactions as form 27QE require detailed information about the

payments made on transfer of VDAs (like date of transfer, amount paid etc.)

- It will improve revenue collection of the Government.

#### About Virtual Digital Assets:

- A medium of exchange can be defined as currency only if it is issued by the central bank.
- Anything which is outside of that is not a currency. They are virtual digital assets created by individuals.
- These Private virtual currencies do not represent any person's debt or liabilities as there is no issuer. They are not money and certainly not currency.
- Government will be taxing the profits which are made during transactions of such private created assets at 30%.

#### RBI 'PAYMENTS VISION 2025'

In News: The Reserve Bank of India has published its 'Payments Vision 2025' document.



#### More on the Topic:

- Total digital payments have increased by 216 per cent and 10 per cent in terms of volume and value, respectively, for the month of March 2022 when compared to March 2019.
- The document seeks a three-fold jump in the number of digital payments, is progressive and aims to establish India as a powerhouse of payments globally, opined industry players.
- It also envisages more than 3x increase in number of digital payments.
- Increase in debit card transactions at PoS by 20%;
- Reduction in Cash in Circulation (CIC) as a percentage of GDP; among others.
- The core theme of the vision documents is 'E-Payments for Everyone, Everywhere, Everytime' (4Es), with an overall objective to provide every user with safe, secure, fast, convenient, accessible, and affordable e-payment options.

- The document envisions the **global outreach of UPI, RTGS, NEFT and RuPay cards with internationalisation.**
- The Vision document leverages India's efforts and builds on the focus of G-20 to enhance cross-border payments by addressing the four key challenges of cost, speed, access and transparency.
- The Vision comes with an **objective of providing strategic direction and implementation plan for structured development of the payment and settlement systems in India** through periodic Payments Vision documents, which was started from the year 2001.

## SMALL FINANCE BANK

**In News:** The Reserve Bank of India (RBI) asked small finance banks (SFBs) to focus on sustainable growth and accord importance to business model and governance.



### More on the Topic:

- SFBs were advised to continue to evolve in tune with the differentiated banking licence given to them with proportionate growth in their capital base.
- The small finance bank shall **primarily undertake basic banking activities of acceptance of deposits and lending to unserved and underserved sections** including small business units, small and marginal farmers, micro and small industries and unorganised sector entities.
- There will not be any restriction in the area of operations of small finance banks.
- The minimum paid-up equity capital for small finance banks shall be Rs. 100 crore.
- **Small Finance Banks are governed by the provisions of the:** Banking Regulation Act, 1949; Reserve Bank of India Act, 1934; Foreign Exchange Management Act, 1999; etc.
- **Significance:** Small finance banks can play an **important role in the supply of credit to micro and small enterprises, agriculture and banking services in unbanked and under-banked regions** in the country.
- RBI has decided to licence new "small finance banks" in the private sector.

## Background:

- In India an experiment with small banks was taken up by RBI issued guidelines for setting up of Local Area Banks (LABs) - 1996.
- The LABs were conceived as low cost structures which would provide efficient and competitive financial intermediation services in a limited area of operation, i.e., primarily in rural and semi-urban areas.

## ANNUAL PERIODIC LABOUR FORCE SURVEY

**In News:** The annual report of the Periodic Labour Force Survey for July 2020 to June 2021 was published by the National Statistical Office (NSO) recently.

### More on the Topic:

- The unemployment rate or the proportion of persons in the labour force who could not find jobs has dipped to 4.2 per cent in July 2020-June 2021 from 4.8 per cent a year ago amid the pandemic that caused economic disruption.
- Worker Population Ratio (WPR) has also improved. The WPR is defined as the percentage of employed persons in the population.
- The WPR has increased to 39.8 per cent in 2020-21 from 38.2 in 2019-20, 35.3 per cent in 2018-20 and 34.7 per cent in 2017-18.
- The WPR in females also improved to 24.2 per cent in 2020-21 from 21.8 per cent in 2019-20. The WPR among males also rose to 54.9 per cent from 53.9 per cent in 2019-20.

### About Periodic Labour Force Survey:

- Considering the importance of availability of labour force data at more frequent time intervals, National Statistical Office (NSO) launched Periodic Labour Force Survey (PLFS) in April 2017.
- The objective of PLFS is primarily twofold:
- **to estimate the key employment and unemployment indicators** (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS).
- **to estimate employment and unemployment indicators in both 'Usual Status' (ps+ss) and CWS in both rural and urban areas annually.**

### Key Terminologies:

- **Labour Force Participation Rate (LFPR):** LFPR is defined as the percentage of persons in labour force (i.e. working or seeking or available for work) in the population.
- **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.
- **Unemployment Rate (UR):** UR is defined as the percentage of persons unemployed among the persons in the labour force.
- **Activity Status- Usual Status:** The activity status of a person is determined on the basis of the activities pursued by the person during the specified reference period. When the activity status is determined on the basis

of the reference period of last 365 days preceding the date of survey, it is known as the usual activity status of the person.

- **Activity Status- Current Weekly Status (CWS):** The activity status determined on the basis of a reference period of last 7 days preceding the date of survey is known as the current weekly status (CWS) of the person.

## NEOBANKS

In News: The RBI is closely watching neo bank business model.

## RBI WORKING GROUP'S SUGGESTIONS

<p><b>1</b> Operations of digital banks/neobanks should be covered under RBI regulations</p>	<p><b>2</b> More of digital-only NBFCs to be encouraged and groundwork for digital banks should be laid</p>
<p><b>3</b> 'Over the top' entities posing as banks in promotional materials should be prohibited from doing so</p>	<p><b>4</b> Banks that partner OTT entities must set operational codes for them</p>
	<p><b>5</b> RBI sandbox should have a category for running pilot projects on digital lenders</p>

TOI FOR MORE INFOGRAPHICS, DOWNLOAD THE TIMES OF INDIA APP  

### More on the Topic:

- A neobank is a kind of digital bank without any branches. Rather than being physically present at a specific location, **neobanking is entirely online.**
- It's a wide umbrella of financial service providers who beseech today's tech-savvy customers. Neobanks can be called fintech firms that provide **digital and mobile-first financial solutions payments and money transfers, money lending, and more.**
- Neobanks **don't have a bank license of their own** but count on bank partners to provide bank licensed services.
- Data-driven decisions drive the decision-making process of a neobank. Since their platforms are also very modernized, **it becomes easier for them to collect and analyze data and understand how their customers behave in the neobanking ecosystem.**
- Because **Neobanks are customer-centric**, they provide personalized services to their customers that are fired up via technology.

### Concerns Associated with neo Banks:

- Unlike traditional banks, neo-banks don't have a physical presence, so customers cannot literally 'bank upon' them in case of any issues/challenges.
- Secondly, neo-banks are yet to be recognised by the Reserve Bank of India (RBI). So, they have to engage with regulated banks and financial institutions to offer financial products and services.
- Due to the absence of enabling regulations, neo-banks cannot accept deposits or offer lending products on their own books.
- As it is completely online, it also possesses digital security risks such as hacking and data theft.

- They offer only a small range of products and services and are not able to cater to non-tech savvy consumers

## EASE 5.0 'COMMON REFORMS AGENDA' FOR PSBS

In News: EASE 5.0 'Common reforms agenda' of EASE Next program has been developed for Public Sector Banks and was launched through video-conferencing by the Minister of Finance and Corporate Affairs recently.



### More on the Topic:

- EASENext is well-positioned to channel reforms with a specific focus on **customer-centric initiatives.**
- FM emphasised on customer-first strategy and focus on employee development.
- Under EASE 5.0, PSBs will continue to invest in **new-age capabilities and deepen the ongoing reforms to respond to evolving customer needs, changing competition and the technology environment.**
- EASE 5.0 will focus on **digital customer experience, and integrated & inclusive banking**, with emphasis on supporting small businesses and agriculture.
- Simultaneously, all PSBs will also create a bank-specific 3-year strategic roadmap.
- It will entail strategic initiatives beyond EASE 5.0. The initiatives will be across diverse themes - business growth, profitability, risk, customer service, operations, and capability building.

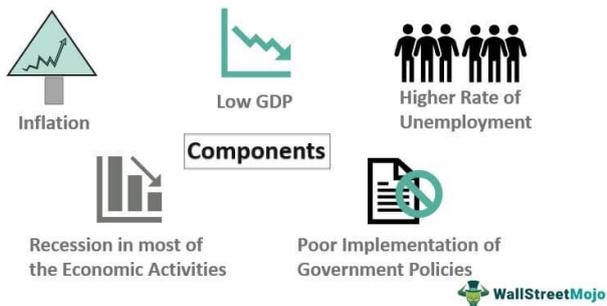
### About EASE Agenda:

- It was launched in January 2018 jointly by the **government and PSBs.**
- It was commissioned through **Indian Banks' Association and authored by Boston Consulting Group.**
- **EASE Reforms Index:** The Index measures performance of each PSB on 120+ objective metrics. The goal is to continue driving change by encouraging healthy competition among PSBs

## STAGFLATION

In News: Authorities worldwide are trying to formulate the appropriate set of policies to ensure that stagflation is not affecting their economies.

# Stagflation



## More on the Topic:

- Stagflation is a situation in which the inflation rate is high, the economic growth rate slows and unemployment remains steadily high.
- Stagflation can result when the economy faces a supply shock, such as a rapid increase in the price of oil.
- An unfavourable situation like that tends to raise prices at the same time as it slows economic growth by making production costlier and less profitable.
- Second reason can be the government can cause stagflation if it creates policies that harm industry while growing the money supply too quickly.
- These two things would probably have to occur simultaneously because policies that slow economic growth do not usually cause inflation, and policies that cause inflation do not usually slow economic growth.

## Reasons for latest concerns about stagflation:

- The outbreak of the COVID-19 pandemic and the curbs imposed to contain the spread of the virus caused the first major recent economic slowdown worldwide.
- But, the subsequent fiscal and monetary measures taken to address the downturn, including substantial increases in liquidity in most of the advanced economies, fuelled a sharp upsurge in inflation.
- The US Fed and the Bank of England are among central banks that have started raising interest rates to cool soaring prices.
- But, the ongoing war in Ukraine following Russia's invasion of its southern neighbour and the consequent Western sanctions on Moscow has caused a fresh and as yet hard-to-quantify 'supply shock'.
- Subsequently there were hike in petrol price as well.

## US CURRENCY MONITORING LIST

In News: USA has placed India along with 11 other major economies that merit close attention to their currency practices and macroeconomic policies.

## WHAT IT MEANS...

<p><b>For India</b>   There will be pressure on RBI to cut down intervention, allow the rupee to appreciate</p> <p><b>In terms of restrictions</b>   The tag does not involve any kind of trade restrictions</p>	<p><b>For economy</b>   A stronger rupee would partially offset the impact of rising oil prices on imports</p> <p><b>For RBI</b>   The central bank can increase diversification of its reserves to include non-dollar assets</p>
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## More on the Topic:

- US government placed these countries in to watch list as it feels these countries are engaging in "unfair currency practices" by deliberately devaluing their currency against the dollar.
- Criteria used by US for including Countries on the Monitoring List:
- A "significant" bilateral trade surplus with the US – one that is at least USD 20 billion over a 12-month period.
- A material current account surplus equivalent to at least 2% of Gross Domestic Product (GDP) over a 12-month period.
- "Persistent", one-sided intervention – when net purchases of foreign currency totalling at least 2% of the country's GDP over a 12 month period are conducted repeatedly, in at least six out of 12 months.
- Countries that meet two of the criteria are included in the watch list.

## WORLD TRADE ORGANIZATION – TUSSELE BETWEEN RICH AND DEVELOPING NATIONS

In News: In the upcoming ministerial conference of the World Trade Organization (WTO) the US, the EU, New Zealand, Canada and Singapore have proposed outcomes on new issues such as sustainable agriculture and food systems.



## More on the Topic:

- Developing countries claim this would divert the attention from important pending issues like finding a permanent solution to ensure food security for poor nations.
- Besides introducing sustainable agriculture, food systems, climate change and environment in agriculture negotiations, the developed countries have ignored the principle

of common but differentiated responsibility and Special and Differential Treatment (S&DT) that ensures flexibility and policy space to developing and poor countries.

- The rich nations have proposed to undertake work to achieve a permanent solution on public stocking for food security purposes (PSH) by the next ministerial.

### Common but differentiated responsibility and Special and Differential Treatment (S&DT):

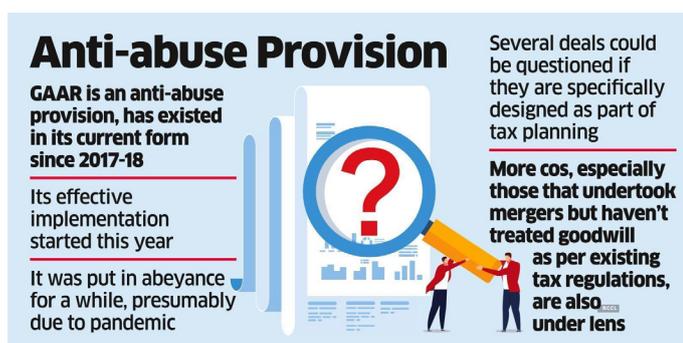
- Common But Differentiated Responsibilities (CBDR) is a principle within the United Nations Framework Convention on Climate Change (UNFCCC) that acknowledges different capabilities and differing responsibilities of individual countries in addressing climate change.
- The principle of CBDR is enshrined in Earth Summit 1992, held in Rio de Janeiro, Brazil.
- CBDR is based on two elements of responsibilities- one is the common responsibility of all the states to cater to the concerns of environmental protection and sustainable development and the other is of differentiated responsibility enabling the states to act, for environment protection, in their national capacity and as per their national priority.

### About Public stockholding:

- Public stockholding is a policy tool used by the governments to purchase, stockpile and distribute food when needed.
- While stocking and distributing food is permitted under WTO rules, governments purchasing food at prices higher than market prices are considered to be subsidizing their farmers.
- These recent proposals seek to limit the input subsidies that India gives for fertilisers and irrigation and also lower the subsidy ceilings called de minimis in trade parlance.
- The de minimis level for India and developing countries is 10% of value of food production.

## GENERAL ANTI-AVOIDANCE RULE (GAAR)

In News: The revenue department has launched investigations under the anti-tax avoidance law, General Anti-Avoidance Rule (GAAR), into companies and entities that may have used creative methods to avoid paying taxes.



**Anti-abuse Provision**

GAAR is an anti-abuse provision, has existed in its current form since 2017-18

Its effective implementation started this year

It was put in abeyance for a while, presumably due to pandemic

Several deals could be questioned if they are specifically designed as part of tax planning

More cos, especially those that undertook mergers but haven't treated goodwill as per existing tax regulations, are also under lens

### More on the Topic:

- GAAR is a set of rules that helps tax authorities decide whether a commercial entity has entered

into an arrangement with another entity or a subsidiary of it to avoid paying taxes to the government.

- The entities take the advantages of the loopholes present in the tax structure. GAAR is different from tax evasion or tax mitigation which are illegal activities.
- GAAR will address those cases which are technically not illegal but those cases which are not ethical.

### Why GAAR was introduced:

- Though legally tax avoidance is not a crime, it has the potential to cause huge revenue losses to the government due to aggressive tax planning by the business houses who often use the loopholes of the law to avoid taxes.
- Anti-avoidance rules have been brought in many countries to check revenue losses to the government.
- GAAR will bring out competitive advantages to several businesses that have been doing genuine transactions.

### Difference Between Tax Avoidance and Tax Evasion:

- Tax avoidance is an exercise in which the assessee legally tries to defeat the basic intention of the law, by taking advantage of the shortcomings in the legislature. It can be seen as finding out loopholes in the tax laws.
- On the contrary, tax evasion is a practice of reducing tax liability through illegal means, i.e. by suppressing income or inflating expenses or by showing lower income.

## THE RESKILLING REVOLUTION INITIATIVE

In News: The Reskilling Revolution initiative marked two years of progress at the World Economic Forum (WEF) Annual Meeting 2022.

### More on the Topic:

- The Reskilling Revolution initiative is a coalition of 50 CEOs, 25 ministers and 350 organisations committed to realising these gains for their economies, societies and organisations.
- The Reskilling Revolution initiative, launched at the World Economic Forum's 50th Annual Meeting in January 2020, is working to provide 1 billion people with better education, skills and economic opportunity by 2030.
- It works together with a growing network of national-level country accelerators launched to date in 12 countries – Bahrain, Bangladesh, Brazil, Cambodia, Georgia, Greece, India, Oman, Pakistan, South Africa, Turkey and the United Arab Emirates, with knowledge support from Denmark, Finland, Singapore and Switzerland.

## INDIAN TEXTILE EXPORTS HIGHEST EVER

In News: India's textile and apparel exports hit a new high of USD 44.4 billion in the fiscal year 2021-22.

### More on the Topic:

- The total exports statistic, which includes handicrafts, shows a significant growth of 41% and 26% over the corresponding figures in FY21 and FY20, respectively.
- USA was the top export destination for the country's textiles and apparel shipments accounting for 27 per cent share, followed by the European Union (18 per cent), Bangladesh (12 per cent) and UAE (6 per cent).

### India's Textile Industry:

- It employs large number of people (Second largest after agriculture)
- It has huge share in India's export (11% of India's total exports; US\$ 40 billion; 13% of world production of textiles)
- It contributes approximately 5% to India's Gross Domestic Product (GDP), and 14% to overall Index of Industrial Production (IIP).

### Government Schemes Textile Sector:

- For Integrated Textile Park, Production Linked Incentive Scheme, PM Mega Integrated Textile Region and Apparel Parks etc.

## BHARAT GAURAV TRAINS

In News: The Indian Railways has flagged off India's first privately-run train under the scheme 'Bharat Gaurav'.



### More on the Topic:

- The scheme was launched in November 2021, that allowed **private entities to operate theme-based train services across different circuits.**
- The services for this train are provided by South Star Rail. This registered company is part of Future Gaming & Hotel Services Private Limited.
- The service provider has paid Rs 1 crore as security deposit to Southern Railway for the rake with a composition of 20 coaches.

### What is the Bharat Gaurav policy?

- According to the Bharat Gaurav policy, any operator or service provider, or virtually anyone, **can lease trains from Indian Railways to run on a theme-based circuit** as a special tourism package.

- The tenure of the arrangement is a **minimum of two years and maximum of the codal life of the coach.**
- **The operator has the freedom to decide the route, the halts, the services provided, and, most importantly, the tariff.**
- The IRCTC runs such theme-based tourist trains, for instance, the Ramayana Express, which goes on a tour of several places connected to Lord Ram.
- In such packaged tours, typically the passengers stop over at a place, stay at hotels, undertake sight-seeing, etc. – all organised by tour operators.

### Two options:

- Registered Service Providers shall be offered rakes consisting of ICF coaches under **"Right to Use" model by Indian Railways (IR)** for operations of Bharat Gaurav Trains.
- Service Providers shall also have the option of **procurement of new coaches directly from production units through the Non Railway Customer (NRC) plan.**

## MAHARASHTRA OVERTOOK UP TO RE-EMERGE AS TOP SUGAR PRODUCER

In News: After a five-year gap, Maharashtra has overtaken Uttar Pradesh (UP) to regain its position as India's top sugar producer.

### More on the Topic:

- The key reason for decline include diversion of sugarcane for ethanol production by UP.
- The second is crop loss from excess rains and water-logging in many low-lying cane-growing areas of eastern UP.
- The third reason is about 87% of UP's cane area being planted under a single variety, Co-0238. While that variety helped significantly boost cane yields and sugar recovery in UP from 2013-14, it has become susceptible to red rot fungal disease.

### About Indian Sugar Cane Industry:

- Sugar industry is an important agro-based industry that impacts rural livelihood of about 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills.
- Employment is also generated in various ancillary activities relating to transport, trade servicing of machinery and supply of agriculture inputs.
- India is the second largest producer of sugar in the world after Brazil and is also the largest consumer.
- Today Indian sugar industry's annual output is worth approximately Rs.80,000 crores.

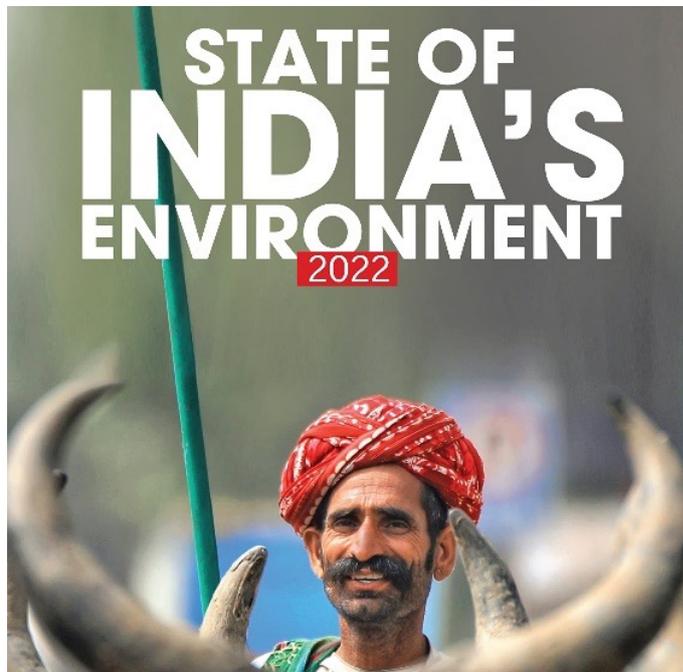
### Fair and remunerative Price:

- The concept of Statutory Minimum Price (SMP) of sugarcane was replaced with the 'Fair and Remunerative Price (FRP) of sugarcane for 2009-10 and subsequent sugar seasons.

## ENVIRONMENT AND ECOLOGY

### STATE OF ENVIRONMENT REPORT 2022

**In News:** The State of Environment Report 2022 was released by the environmental NGO, the Centre for Science and Environment (CSE).



#### More on the Topic:

- The report is an annual compendium of environment development data and is derived from public sources.
- Important findings of the report are as the following,

#### River Water Pollution:

- **Three out of every four river monitoring stations in India posted alarming levels of heavy toxic metals** such as lead, iron, nickel, cadmium, arsenic, chromium and copper.
- In about a fourth of the monitoring stations, which are spread across 117 rivers and tributaries, high levels of two or more toxic metals were reported.
- Of the 33 monitoring stations in Ganga, 10 had high levels of contaminants. The river, which is the focus of the Centre's Namami Gange mission, has high levels of lead, iron, nickel, cadmium and arsenic.
- Of the 588 water quality stations monitored for pollution, **total coliform and biochemical oxygen demand were high** in 239 and 88 stations across 21 States - **an indicator of poor wastewater treatment** from industry, agriculture and domestic households.
- **India dumps 72% of its sewage waste without treatment.** Ten States do not treat their sewage at all.

#### Coastline erosion:

- **Over a third of India's coastline** that is spread across 6,907 km saw some degree of erosion between 1990 and 2018.
- **West Bengal is the worst hit** with over 60% of its shoreline under erosion.
- The reasons for coastal erosion include increase in

- The cane price announced by the Central Government is decided on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP) after consulting the State Governments and associations of sugar industry.

#### About Sugar Cane Crop:

- It is a tropical as well as sub-tropical crop.
- It grows well in hot and humid climate with a temperature of 21°C to 27°C and an annual rainfall of 75-100cm.
- Medium and heavy soils where irrigation facilities are available are ideal for its cultivation.
- It can be grown on a variety of soils and needs manual labour from the time of sowing to harvesting.
- Sugarcane in South India is of the tropical variety and high sugar content and high yield.
- Sugarcane in North India is of the sub-tropical variety and has low sugar content.

frequency of cyclones and sea level rise and anthropogenic activities such as construction of harbours, beach mining and building of dams.

### Ocean Health Index:

- While the global average of the **Ocean Health Index**, a measure that looks at how sustainably humans are exploiting ocean resources, **has improved between 2012 and 2021**, India's score in the index has declined over the same period, the CSE report underlines.

### Forest Cover:

- India's **total forest cover has registered a little over a 0.5% increase** between 2017 and 2021 though most of the increase has taken place in the open forest category.
- At the same time, **very dense forests, which absorb maximum carbon dioxide from the atmosphere, occupy just 3% of total forest cover.**
- **A size bigger than Uttar Pradesh forest cover remains unaccounted** in the government forest data.

## PHASE OUT SINGLE USE PLASTICS

In News: The Centre has written to States to phase out Single-Use Plastics (SUP).

<p><b>BAGFUL OF TROUBLE</b></p> <p>Three meetings held recently, including one with Delhi chief secretary on Tuesday. An Information Education and Communication (IEC) plan to eliminate single-use plastic has been finalised, with awareness drives starting this week. <b>An action plan will be ready by August 16</b></p>			<p><b>IEC plan focus</b></p> <p>Awareness themes of waste segregation, thickness of plastic bags, why plastic items are harmful, discouraging the use of single-use plastic in packaging, plastic burning and how to reuse plastic</p> <p><b>Agencies working to spread awareness</b></p> <p>Environment dept, urban local bodies, education department, Delhi Pollution Control Committee</p>
<p><b>FROM SEPT 30, 2021</b> Plastic bags to be 120 microns in thickness, as opposed to existing 50 microns</p>	<p><b>FROM JAN 1, 2022</b> Sale and manufacturing of earbuds, plastic sticks, balloons, plastic flags, candy sticks and polystyrene (thermocool) to be prohibited)</p>		<p><b>FROM JULY 1, 2022</b> 13 items, including plates, cups, glasses and cutlery, to be phased out</p>

### More on the Topic:

- The Government has **banned the manufacture, import, stocking, distribution, sale and use of carry bags made of virgin or recycled plastic less than seventy-five microns** with effect from September 30, 2021 as per **Plastic Waste Management (PWM) (Amended) Rules, 2021**.
- The ULBs will need to **identify SUP alternatives** (such as cloth/jute/plastic bags, degradable cutleries, etc.) readily available in the market and create awareness about such alternatives among citizens.
- Further, States and ULBs have also been advised to enter into MoUs with nearby cement plants or other industrial units as well to **ensure that a part of the plastic waste generated is used either as an alternative fuel in cement plants or for road construction purposes.**
- The advisory also stresses **people participation** to carry forward the message of SUP ban and enforcement.
- Further, the ULBs will need to **identify SUP 'hot-spots' and eliminate them**, while parallelly leveraging the support of State Pollution Control Boards and forming special enforcement

squads, conducting surprise inspections and imposing heavy fines and penalties on defaulters, for enforcing SUP bans.

### The Effects of Single Use Plastics:

- Single Use Plastics **never break down completely**. Instead, they degrade and become micro plastics and continue to pollute the environment.
- Approximately 700 species, even endangered species, have been affected by plastic. **Animals die of starvation or entanglement.**
- Animals with stomachs full of plastic have no urge to eat, and they die of starvation.
- Plastic in the ocean and convert them into the so-called microplastics, which are later eaten through plankton and becomes part of the food chain of aquatic and human life.
- When disposable plastics degrade in the environment, **they emit several greenhouse gases.**
- The North Pacific Ocean contains a gyre of marine litter, known as the **Pacific Trash Vortex**. This vortex has an **exceptionally high concentration of single-use plastic** that has been
- trapped by currents.
- It has had a devastating effect on the marine ecosystems and has been estimated to be twice the size of Texas.

## PHASE-OUT OF COAL IN DELHI-NCR BY JANUARY 1, 2023

In News: The Commission for Air Quality Management (CAQM) has ordered the phasing out of coal from across Delhi and the National Capital from January 1, 2023.



### More on the Topic:

- Emissions from heavily polluting fuels like coal for various industrial, domestic and miscellaneous purposes contribute significantly to the degradation of air quality in the NCR and adjoining areas.
- According to current estimates, **1.7 million tonnes of coal is used annually by industries in the NCR**, and the fuel contributes significantly to the region's

air pollution levels.

- As the phasing out of coal cannot practically happen at one stretch in thermal power plants, **the ban excludes the usage of low-sulphur coal** – a less harmful alternative with comparatively lower sulphur dioxide emissions.

### Is the ban likely to have an impact on air quality in the NCR?

- The impact of the coal ban will be a boon for the regions outside NCT as they are bearing the brunt of the emissions, which locally worsen air quality.
- The move will lead to reduced pollutants including particulate matter (PM), nitrogen oxide (NO<sub>x</sub>), CO<sub>2</sub> and CO.

### The Commission for Air Quality Management (CAQM):

- The Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2021 was promulgated on April 13, 2021.
- The Ordinance provides for the constitution of a Commission for **better co-ordination, research, identification, and resolution of problems related to air quality** in the National Capital Region (NCR) and adjoining areas.
- Adjoining areas have been defined as areas in the states of Haryana, Punjab, Rajasthan, and Uttar Pradesh adjoining the NCR where any source of pollution may cause adverse impact on air quality in the NCR.

### Powers of the Commission:

- Powers of the Commission include:
  - (i) **restricting activities** influencing air quality,
  - (ii) **investigating and conducting research** related to environmental pollution impacting air quality,
  - (iii) **preparing codes and guidelines** to prevent and control air pollution, and
  - (iv) issuing directions on matters including **inspections, or regulation** which will be binding on the concerned person or authority.
- Further, the Commission may impose and collect **environment compensation from farmers causing pollution by stubble burning**. This compensation will be prescribed by the central government.

### MANY VIRTUES OF WETLANDS

**In News:** The Climate change estimates for India indicate rising temperatures, sea-level, intensified rainfall and more catastrophic events. Conservation and wise use of wide diversity of inland and coastal wetlands is a powerful climate change response.



### More on the Topic:

- The wetlands change atlas recently published by the Space Application Center indicates declining natural coastal wetlands (reducing from 3.69 million hectare to 3.62 million hectare in last decade).
- Areas surrounded by urbanised wetlands are expected to lead to a coastal squeeze in the face of sea-level rise ultimately leading to wetland loss.
- Several wetlands can also be a net source of GHGs, and emissions are exacerbated by anthropogenic disturbances, particularly pollution and alteration in water regimes.
- Degradation of wetlands diminishes **landscapes capability to absorb and moderate floods, droughts, and storm surges**.
- **Floods in the Kashmir Valley in September 2014 and Chennai in December 2015** illustrate how wetland degradation can threaten lives.

### Significance of Wetlands:

- **Wetlands assist in stabilisation CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and Green House Gas (GHG) concentrations** by minimising climate and land-use-mediated GHG releases and by boosting the potential to actively collect CO<sub>2</sub> from the atmosphere and sequester carbon.
- The coastal blue carbon soaked by mangroves, salt marshes and seagrasses via photosynthesis and stored in wet anaerobic soils is a significant eco system service provided by Wetlands.
- **Peatlands, considered to be one of the world's largest carbon reserves, are sparse in India and require immediate attention.**

### Government Effort to conserve Wetlands:

- The Environment Ministry supports implementation of management action plans for over 250 wetlands under schemes such as **National Plan for Conservation of Aquatic Ecosystems, Mangroves and Coral Reefs, and Integrated Development of Wildlife Habitats**.
- Towards the commitment under the Ramsar Convention, **India has designated 49 Ramsar sites, and is likely to expand the list to 75 wetlands.**
- But, even so, the government's efforts fall short of the rapid degradation of wetlands in virtually all parts of the

country.

- Only a few States have systematically included wetlands within State Climate Action Plans.

#### Way Ahead:

- Climate change and linked drivers and pressures are highly likely to increase vulnerability of wetlands.
- Avoidance of impacts to wetlands and associated carbon stocks and processes are likely to be the most effective management strategy for preventing increases in GHG emissions from wetlands.
- A first step in this direction would be to include carbon storage and GHG emissions from wetlands within the national carbon stock and flux assessments.
- A detailed peatland inventory is also much needed.
- Climate risks need to be factored in wetlands management.
- This can be done by strengthened wetland monitoring systems geared towards identification of climate risk indicators and trends thereof.

### THE GREEN ENERGY OPEN ACCESS RULES

In News: The Green Open Access Rules, 2022 have been notified recently.



#### More on the Topic:

- Highlights of the Notification:
- The Green Open access is allowed to any consumer and the limit of Open Access Transaction has been reduced from 1 MW to 100 kW for green energy, to enable small consumers also to purchase renewable power through open access.
- Approval to be granted in 15 days or else it will be deemed to have been approved subject to fulfilment of technical requirements. It will be through a national portal.
- Consumers will be given the green certificates if they consume green power.

#### Objectives of the New rule:

- These rules are notified for promoting generation, purchase and consumption of green energy including the energy from Waste-to-Energy plants.
- The notified Rules enable simplified procedure for the open access to green power.
- It will enable faster approval of Green OA, Uniform Banking, Voluntary purchase of RE power by commercial & industrial consumers, Applicability of OA charges etc.
- Commercial and Industrial consumers are allowed to

purchase green power on voluntarily basis.

- Captive Consumers can take power under Green Open Access with no minimum limitation.
- Discom Consumers can demand for supply of Green power to them.

### TASMANIA BECOMES CARBON NEGATIVE

In News: Tasmania has become one of the first places in the world to significantly reduce greenhouse gas emissions and achieve net carbon negative emissions.



#### More on the Topic:

- This has been achieved by cutting down logging activities.
- To date, only two countries have successfully gone carbon negative: Bhutan and Suriname.
- Unlike mainland Australia, Tasmania already has a low emission profile as the state relies mostly on hydroelectric power.
- Its primary source of greenhouse gas emission comes from logging of old-growth forests, where significant amounts of carbon dioxide is released when they're cut down.
- Forests are also important carbon sinks in the world; deforestation reduces forest's ability to absorb and sequester carbon, and help alleviate the impacts of climate change.

#### About Carbon Negative Status:

- Carbon negative means, in effect, that entities emit less than zero carbon dioxide and carbon dioxide equivalent (CO<sub>2</sub>e) greenhouse gasses.
- However, since it is impossible to emit a negative amount of carbon (or any other physical substance), being carbon negative refers to the net emissions created.

- To be carbon negative means to offset more carbon, through carbon capture, sequestration, or avoidance, than one contribute to the environment.

### 'LEADERS IN CLIMATE CHANGE MANAGEMENT' (LCCM)

**In News:** The National Institute of Urban Affairs (NIUA) and World Resources Institute (WRI) India, jointly announced 'Leaders in Climate Change Management' (LCCM).

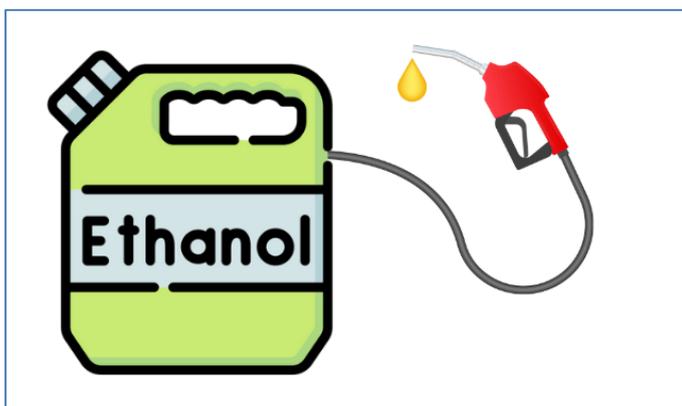


#### More on the Topic:

- It is a practice-based learning programme.
- The programme aims at building capacity among urban professionals to lead climate action across sectors and geographies in India.
- LCCM envisions capacitating 5,000 professionals, including mid to junior-level government officials and frontline workers, and preparing them to champion climate change adaptation and mitigation solutions towards a coordinated effort to achieve India's climate commitments.
- The launch also marked the achievements of the Ministry of Housing and Urban Affairs towards India's urban climate goals.

### TEN PERCENTAGE ETHANOL BLENDING IN PETROL

**In News:** India has achieved the target of blending 10 percent ethanol in petrol five months ahead of schedule.



#### More on the Topic:

- It has resulted in less carbon emissions, more savings for the country and better income for farmers.
- Ethanol is a fuel made from various plant materials collectively referred to as 'biomass'.
- The biofuel is procured from the fermentation and distillation of sugarcane and damaged food grains

such as rice.

- The raw materials for the production of ethanol can vary from country to country. While the US produces ethanol using corn, Brazil makes use of sugarcane.
- Regardless of whether ethanol is produced from sugar or starch-based feed, the end product has the same chemical formula.
- Ethanol is a colourless liquid with a higher octane number than gasoline, allowing it to increase the petrol octane number when blended.
- Ethanol is also considered a renewable energy source, given its raw materials and process for making it.
- Significance of Ethanol Blending:
  - Blending ethanol with petrol will not only reduce the fuel import bill for India but also contribute to greater self-reliance as the nation expands its own ethanol production capabilities.
  - Ethanol usage results in as much as 40 per cent reduced carbon emissions as compared to the extraction and use of fossil fuels like diesel, gasoline and petrol.
  - Ethanol production also results in employment creation as well as more income towards farmers.

#### Disadvantages of Ethanol Blended Fuel:

- A vehicle running on pure ethanol will have a fuel economy that is 30 to 35 per cent less than that of a vehicle using pure petrol.
- One of the primary problems is that ethanol is less energy-efficient as compared to something like petrol.
- This can, naturally, lead to increased costs for consumers who will have to fill up their tanks more often when using ethanol blends.

#### India's Ethanol Blending Challenges and Way Ahead:

- There is dependence on sugarcane for Ethanol production. Sugarcane is limited resource that affects the ethanol blending in the country.
- Alternative feedstock like agricultural waste, recycled cooking oil, provides for more environmentally friendly bio-fuels.
- There is a need for incentivising both public and private players to set up second-generation ethanol facilities.

### 'LIFESTYLE FOR THE ENVIRONMENT - LIFE MOVEMENT'

**In News:** On World Environment Day, Indian Prime Minister Narendra Modi launched a global initiative 'Lifestyle for the Environment - LiFE Movement' via video conference.



### About Dibang Valley:

- Dibang Valley is a district of Arunachal Pradesh named after the Dibang River.
- The district is rich in wildlife. Rare mammals such as Mishmi takin, Red goral and Gongshan muntjac occurs while among birds there is the rare Sclater's Monal.
- A flying squirrel has been recently discovered from this district.
- It has been named as Mishmi Hills Giant Flying Squirrel *Petaurista mishmiensis*.

### More on the Topic:

- The vision of LiFE is to live a lifestyle that is in tune with our planet and does not harm it. He added that those who live such a lifestyle are called "Pro-Planet People".
- The idea of LiFE was introduced by Indian Prime Minister during the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow last year.
- The idea promotes an environmentally conscious lifestyle that focuses on 'mindful and deliberate utilisation' instead of 'mindless and wasteful consumption'.
- The LiFE Movement aims to utilise the power of collective action and nudge individuals across the world to undertake simple climate-friendly actions in their daily lives.
- The LiFE movement, additionally, also seeks to leverage the strength of social networks to influence social norms surrounding climate.

### DIBANG VALLEY ECOLOGICAL CONCERNS

In News: Wildlife scientists and conservationists in Arunachal Pradesh flagged threats to local biodiversity from the proposed Etalinhydroelectric project in the Dibang valley.



### More on the Topic:

- Forest Advisory Committee, in its own deliberations had highlighted that the land in which the project is proposed covers two pristine forests with riverine growth that once cut cannot be replaced.
- The Etalin HEP is proposed on the Tangon and Dri Rivers.
- Anonpani small HEP and Athunli HEP are other HEP on the Tangon River.

### BLUE DUKE BUTTERFLY

In News: Sikkim has declared Blue Duke as the state butterfly.



### More on the Topic:

- Of the 720 butterfly species in Sikkim, Blue Duke was selected as the state butterfly securing majority of the votes in a recent online poll.
- Blue Duke, also called *Bassarona durga durga*, is unique to Sikkim and Eastern Himalayas, first discovered in the state in 1858.
- Blue Duke falls in Schedule 2 of the Wildlife Protection Act, 1972 and is a highly protected butterfly species in the Himalayas.
- Blue Duke is found at an altitude below 1500 metres in the Himalayas.

### INTEGRATED TIGER HABITAT CONSERVATION PROGRAMME

In News: German Development Cooperation provides an additional €12.5 million in funding for IUCN's Integrated Tiger Habitat Conservation Programme.



### More on the Topic:

- Divided into different phases, the ITHCP contributes to the Global Tiger Recovery Programme endorsed in St Petersburg in 2010, which aims to double tiger numbers in the wild by 2022.
- The programme's brand-new Phase Four will fund projects that aim to protect tigers but also other Pantherine species, in particular leopards and clouded leopards, a first for the Tiger Programme.

### About International Union for Conservation for Nature (IUCN)

- IUCN is an **international organization (Non-Governmental in nature)** working in the field of nature conservation and sustainable use of natural resources.
- It is involved in data gathering and analysis, research, field projects, advocacy, lobbying and education.
- The organization is best known for compiling and publishing the **IUCN Red List**, which assesses the conservation status of species worldwide.
- Its headquarters are in Gland, Switzerland.

### CHELONOIDIS PHANTASTICUS

**In News:** Chelonoidis phantasticus, a giant tortoise species



### More on the Topic:

- Chelonoidis phantasticus is a giant tortoise species believed to be extinct for more than a century. Now, a surviving member has been identified.
- Commonly called the Fernandina Island Galápagos giant tortoise, the species was so far known only from a single individual, collected in 1906.
- Fernandina Island is the youngest island of the Galápagos Islands.
- Like the others, the island was formed by the Galápagos hotspot.
- The island is an active shield volcano that has most recently been erupting since April 11, 2009.

### GREATER ONE-HORNED RHINO

**In News:** Greater one horned rhino/the Indian rhinoceros, saw its global population reach its highest level since the 1980s.



### More on the Topic:

- There are now a total of 4,014 greater one-horned rhinos in the wild, split between India and Nepal.
- Assam, the Indian state that hosts 70% of the species' population, just finished its biannual rhino survey and counted 274 more rhinos than the last survey.
- In addition to the pandemic, the International Rhino Foundation credits the governments of India and Nepal for helping grow the rhinos' populations.
- The species, listed as **vulnerable by the International Union for the Conservation of Nature**, is targeted by poachers for their horns.
- They came close to extinction at the start of the 20th century, with only about 200 greater one-horned rhinos existing in the wild,

### INDIAN MOUSE DEER

**In News:** In recent times, Indian Mouse deer has been reported in the news more often due to multiple incidents of hunting for bushmeat.



### More on the Topic:

- The Indian Mouse Deer's appearance is an **odd mix of a deer, mouse and pig**.
- Its face resembles a mouse, it is petite like a deer weighing between 3 to 7 kg, and its four-toed hooves, protruding canines, absent facial scent glands and underdeveloped third stomach bring them close to pigs.

- Its legs are short and thin, which helps it maintain a small profile while running through dense foliage without being easily spotted. Both males and females have visible canines, the males with longer ones used during fights.
- The species lives solitarily or in pairs and reaches sexual maturity between 5 to 10 months of age.
- They play an important role in ecology as seed dispersers and form prey to larger carnivores like tigers, leopards and the dhole. However, their biggest threat and predator remain humans.

#### Conservation Status:

- The International Union for Conservation of Nature (IUCN) has classified the status of the Indian Spotted Chevrotain as 'Least Concern' and 'Lowest Risk'. However, its true distribution and population size are largely unknown.
- The true status of the species is possibly unknown, as rampant poaching has been documented in recent times and fragmentation of wild habitats forms its biggest threat like other wildlife.

#### 'VERMIN'

**In News:** The Wild Life (Protection) Amendment Bill, 2021 brings in a major change by reducing the number of schedules from six to four. It proposes to remove Schedule V completely.

### WILDLIFE PROTECTION ACT

❖ The Wild Life Protection Act, 1972 is an Act of the Parliament of India enacted on 9<sup>th</sup> September, 1972.

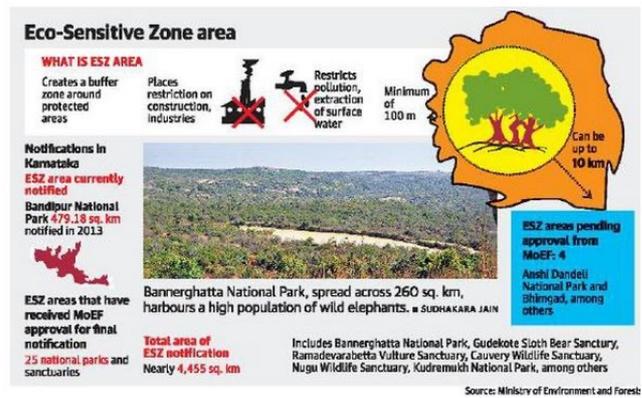
❖ It provides for protection of wild animals, birds and plants ; and for matters connected therewith or ancillary or incidental thereto.

#### More on the Topic:

- The WLPA, 1972 currently has six schedules that assign varying degrees of protection to animals and plants.
- Under Schedule I and II of the Act, for instance, animals and birds such as tigers and elephants are offered the highest protection.
- Schedule V lists species classified as 'vermin', such as common crows, fruit bats, rats and mice, which may be hunted freely.
- Though the act does not define the word 'vermin', WLPA's 62nd section grants the central government the power to declare any wild animal, other than those specified in Schedule I and Schedule II as 'vermin' for any area and a specified period.
- biases
- It potentially impact hundreds of species.

#### ECO-SENSITIVE ZONE

**In News:** The Supreme Court has directed that every protected forest, national park and wildlife sanctuary across the country should have a mandatory eco-sensitive zone (ESZ) of a minimum one km starting from their demarcated boundaries.



#### More on the Topic:

- Supreme Court has directed that the State has to act as a trustee for the benefit of the general public in relation to the natural resources so that sustainable development could be achieved in the long term.
- Eco-Sensitive Zones (ESZs) or Ecologically Fragile Areas (EFAs) are areas in India notified by the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India around Protected Areas, National Parks and Wildlife Sanctuaries.

#### Significance of Eco Sensitive Zones:

- The purpose of declaring ESZs is to create some kind of "shock absorbers" to the protected areas by regulating and managing the activities around such areas.
- They also act as a transition zone from areas of high protection to areas involving lesser protection.
- They also help in reducing man animal conflict.
- They aid in in-situ conservation as well.
- It will also reduce the impact of urbanisation and other developmental activities on protected areas.

#### Environment Protection Act and Eco Sensitive Zone:

- The Environment (Protection) Act, 1986 does not mention the word "Eco-Sensitive Zones".
- However, Section 3(2)(v) of the Act, says that Central Government can restrict areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards.
- Besides Rule 5(1) of the Environment (Protection) Rules, 1986 states that central government can prohibit or restrict the location of industries and carrying on certain operations or processes on the basis of considerations like the biological diversity of an area, maximum allowable limits of concentration of pollutants for an area, environmentally compatible land use, and proximity to protected areas.
- The above two clauses have been effectively used by the government to declare ESZs or EFAs.

#### NTPC BIODIVERSITY POLICY

**In News:** The NTPC Ltd, India's largest integrated energy producer has issued renewed Biodiversity Policy 2022.



#### More on the Topic:

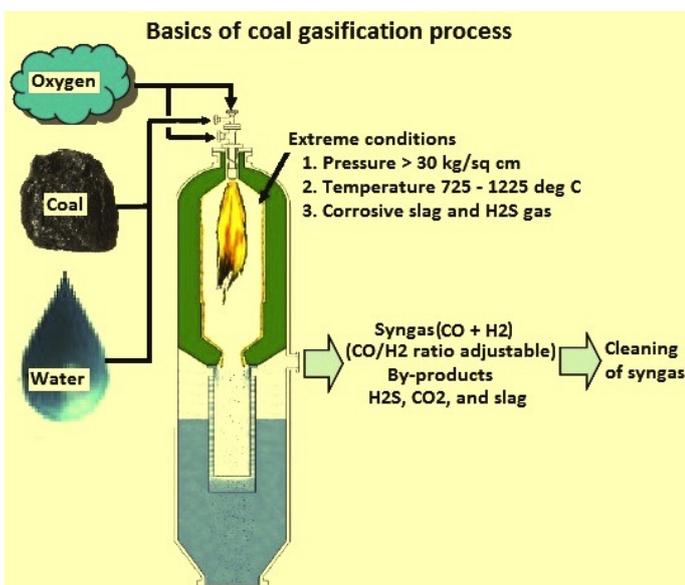
- The policy intends to establish a comprehensive vision and guiding principle for conservation, restoration, and enhancement of biodiversity.
- This Biodiversity Policy is an integral part of NTPC's Environmental Policy.
- Its objectives are aligned with environmental and sustainability policies.

#### Expected Outcomes:

- To support all the professionals of the NTPC Group to help them contribute toward the achievement of the targets set in this field.
- To achieve a 'no net loss' of biodiversity at all of its currently operating sites and ensure there is a net positive balance wherever applicable.
- To mainstream the concept of biodiversity across NTPC's value chain and adopt a precautionary approach for sustainable management of biodiversity in all the decision-making processes.

## COAL GASIFICATION

In News: United The Government of India has set a target to increase coal gasification to 100 million tonnes (MT) by 2030.



#### More on the Topic:

- According to Ministry of Chemicals and Fertilisers, the decision is geared towards reducing India's reliance

on imports and helping the country meet its CoP-21 Paris Agreement commitments.

#### What is coal gasification?

- Coal gasification is the process of converting coal into synthesis gas (also called syngas), which is a mixture of hydrogen (H<sub>2</sub>), carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).
- The syngas can be used in a variety of applications such as in the production of electricity and making chemical products, such as fertilisers.
- According to the International Energy Agency's Energy Technology Systems Analysis Programme (ETSAP), the coal gasification process holds good potential in the future, with coal being the most abundantly available fossil fuel across the world, and that even low-grade coal can be used in the process.

#### Significance of Syngas:

- Urea is currently produced using pooled natural gas, which comprises of both domestic natural gas and imported LNG.
- The usage of locally available coal for making fertilisers would help reduce the import of LNG.
- India currently imports 50 to 70 lakh tonnes of urea every year, and that the revival of the units would help increase the availability of domestically produced fertilisers.
- The project would generate direct and indirect employment of around 4,500 people.
- The project is environment-friendly and would help India in meeting its commitments under the CoP-21 Paris Agreement.

## NECESSITY TO TAP UNCONVENTIONAL WATER SOURCES

In News: The UN and partner water experts said that it is time to increase the tapping of Earth's diverse and abundant unconventional water sources.



#### More on the Topic:

- The millions of cubic kilometers of unconventional source of water is in deep land-based and seabed aquifers, in icebergs and fog, in the ballast holds of

thousands of ships, and elsewhere.

#### Six broad categories of unconventional water sources:

- **Harvesting water from the air with cloud seeding and fog collectors:** The atmosphere contains an estimated 13,000 km<sup>3</sup> of water vapor, some of which can be captured through **cloud seeding and the collection of water from fog and mist.**
- Remote communities in Chile, Morocco, and South Africa have used vertical mesh nets to harvest fog for over 100 years.
- **Desalination:** Every day desalination contributes over 100 million cubic meters of water, supporting approximately 5% of the world's population.
- While desalination is energy intensive today, innovative technologies such as nanoparticle enhanced membranes and forward osmosis are reducing energy inputs by 20 to 35%.
- **Reusing water:** Advanced municipal wastewater treatment systems offer a water source while protecting high-quality freshwater surface and groundwater.
- Today around 70% of municipal wastewater in high-income countries is treated, but this falls to only 8% in low-income countries.
- **Agricultural drainage water:** more food can be grown using the same amount of water through better conservation and reuse of irrigated agricultural drainage water.
- The used agriculture drainage water requires extra care and management as drainage water will always be more saline than the irrigation water from which it is generated.
- **Tapping fresh and brackish groundwater offshore and onshore:** The volume of renewable groundwater may be as great as 5 million km<sup>3</sup>, though much of it tends to be brackish (salty). Using technology fresh water can be filtered out.
- **Micro-scale capture of rainwater that would otherwise evaporate:** In dry environments over 90% of rainwater is typically lost to evaporation and surface runoff. Micro-catchment rainwater harvesting provides a unique opportunity to capture water for crop production and local needs.
- **Moving water physically to water-scarce areas in ships' ballast holds, or towing icebergs**

#### WMO THE STATE OF THE GLOBAL CLIMATE IN 2021 REPORT

In News: The World Meteorological Organization (WMO) has released the State of the Global Climate in 2021 report.

#### More on the Topic:

- **Green House Gas Emissions Trend:** GHG Emission reported an upward trend despite setbacks from COVID-19.
- Greenhouse gas concentrations reached a new global high in 2020, when the **concentration of carbon dioxide (CO<sub>2</sub>) reached 413.2 parts per million (ppm)**

globally, or 149 per cent of the pre-industrial level.

- **Ocean heat Trend:** "The upper 2000m depth of the ocean continued to warm in 2021 and it is expected that it will continue to warm in the future."
- **Ozone Hole Trend:** In 2021, the Ozone hole has also been reported as larger and deeper than 70 per cent of Ozone holes since 1979, reaching a maximum area of 24.8 million km<sup>2</sup>.
- **Global Warming Trend:** Even though La Niña set in cooling conditions in 2021 which made the year relatively cooler, the report still notes the last 7 years as the warmest on record.
- There will be intense and frequent occurrences of heatwaves and humid heat stress in South Asia this century.
- **Draughts Trend:** Eastern Africa is facing the very real prospect that the rains will fail for a fourth consecutive season, placing Ethiopia, Kenya and Somalis into a drought of a length not experienced in the last 40 years.
- **Humanitarian Crisis:** Worsening humanitarian crises in 2021 have **put a growing number of countries at risk of famine.** "Of the total number of undernourished people in 2020, more than half live in Asia (418 million) and a third in Africa (282 million)."

#### Recommendations:

- Early Warning Systems are critically required for climate adaptation, and yet these are only available in less than half of WMO's Members.
- Extreme weather has the most immediate impact on our daily lives. **Years of investment in disaster preparedness will result at saving lives.**

#### FIRST MOVERS COALITION

In News: India has joined First Movers Coalition to decarbonise carbon-heavy sectors.



#### More on the Topic:

- It is a global initiative aimed at decarbonising the heavy industry and long-distance transport sectors responsible for 30 per cent of global emissions.
- Led by the WEF and the US government, the First Movers Coalition targets sectors, including aluminium, aviation, chemicals, concrete, shipping, steel and trucking.
- The coalition's members have committed to purchasing

- out of their total industrial materials and long-distance transport spending - a percentage from suppliers using near-zero or zero-carbon solutions, despite the premium cost.

- Besides India, Denmark, Italy, Japan, Norway, Singapore, Sweden and the United Kingdom have also joined the US as government partners to create early markets for clean technologies through policy measures and private sector engagements.
- India, along with Japan and Sweden, has also joined the steering board of the coalition.

## STOCKHOLM +50 CONFERENCE

**In News:** The Stockholm +50 conference is being held in Sweden.



### More on the Topic:

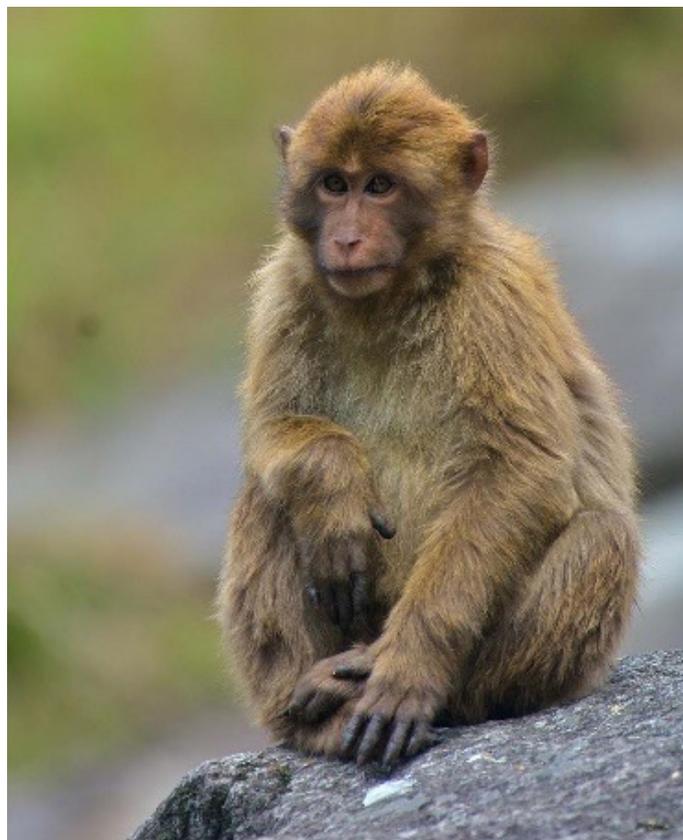
- The conference is being held to commemorate 50 years of the Stockholm Conference – the first United Nations conference on environment.
- **Theme of Stockholm+50:** A healthy planet for prosperity of all – our responsibility, our opportunity.

### About Stock Holm Conference:

- It is also known as **United Nations Conference on the Human Environment**.
- The 1972 Stockholm conference was the **first globally to put the spotlight on environmental issues** and present 26 principles on conserving the environment.
- It also marked the start of a **dialogue between industrialized and developing countries** on the link between economic growth, the pollution of the air, water, and oceans and the well-being of people around the world.
- Key principles of the conference included **assistance to developing countries, safeguarding wildlife and natural resources, control pollution and assert human rights**.
- One of the major results of the Stockholm conference was the **creation of the United Nations Environment Programme (UNEP)**.
- Then Prime Minister Indira Gandhi was the only foreign head of government out of 113 nations to attend the conference.

## SELA MACAQUE

**In News:** New species of Arunachal Macaque was named after snow-clad Sela pass.



### More on the Topic:

- Arunachal macaque (*M. munzala*) is an endangered and recently discovered cercopithecine primate from Western Arunachal Pradesh, India.
- In the samples collected from Arunachal Pradesh, the researchers observed 'spatially distributed substantial inter-species genetic divergence'.
- The results of the study suggested that **Arunachal macaque evolved into two phylogenetic species**.
- Phylogenetics relates to the evolutionary development and diversification of a species or group of organisms.
- **Sela macaque was geographically separated from the Arunachal macaque of the Tawang district by Sela Pass.**
- According to the study, the Sela mountain pass in Arunachal Pradesh acted as a barrier by restricting the migration of individuals of these two species for approximately two million years.
- **Sela is situated between Dirang and Tawang towns in western Arunachal Pradesh.**
- Sela macaque has a pale face and brown coat colour.
- Other features of the species include brown collar hair and muzzle, thick brown hair around the neck, and the absence of chin whiskers.

## CHEETAHS FROM SOUTH AFRICA AND NAMIBIA

**In News:** India has finalised deals for cheetahs from South Africa and Namibia.



#### More on the Topic:

- This would initiate India's ambitious plan of transcontinental relocation of cheetahs.
- To begin with, there will be 12 cheetahs from South Africa and eight from Namibia. More would follow in subsequent years.
- India will release cheetahs from South Africa and Namibia into the wild at Kuno Palpur in Sheopur district of Madhya Pradesh.
- The project to translocate cheetahs from Africa to India is a long-term, one-time project being implemented by the environment ministry with the help of the Wildlife Institute of India to reintroduce the cheetah into wild, which became extinct in India in the 1950s.

#### About Cheetah:

- The cheetah is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- The cheetah is also the world's fastest land mammal.
- It is listed as vulnerable in IUCN red listed species.
- The Asiatic cheetah is classified as a "critically endangered" species by the IUCN Red List, and is believed to survive only in Iran.

### VALMIKI TIGER RESERVE

In News: The forest department of Bihar has established an elephant rescue centre at Bihar's Valmiki Tiger Reserve (VTR) to rehabilitate stray, abandoned and injured elephants.



#### More on the Topic:

- VTR is spread over 899 square kilometres in West Champaran district, with Nepal to its north and Uttar Pradesh

to its west.

- It represents one of the last patches of forests having a unique combination of the terai-bhabar vegetation.
- The forests of Bihar don't have any elephants right now.
- Herds of elephants stray into Bihar either from Chitwan and Parsa wildlife sanctuary of Nepal or from forest of Jharkhand.
- A study and survey have been conducted by a team of forest officials and wildlife experts on the availability of food, water and natural habitat for the rescued elephants in the VTR.

### 'OPERATION RAKTH CHANDAN'

In News: Red Sanders Worth Rs. 11.70 crore was Seized by DRI Under 'Operation Rakth Chandan'.



#### More on the Topic:

- Red Sanders is a flora species that is endemic to a small area of forest in Andhra Pradesh's Eastern Ghats region and is listed as endangered on the International Union for Conservation of Nature's (IUCN) Red List.
- The Red Sanders is also listed in the Convention on International Trade in Endangered Species of Wildlife, Fauna, and Flora's Appendix-II (CITES).
- Its rich hue and therapeutic properties account for its high demand in cosmetics, medicinal products, and high-end furniture and woodcraft in Asia, particularly China. According to India's Foreign Trade Policy, the export of Red Sanders is prohibited.

### GREEN MINING

In News: Coal India is exploring Green Mining Options to Minimise Adverse Environmental Impacts.



### More on the Topic:

- For this purpose, coal India is looking at exploring ramping up its underground production by four-fold to 100 million tonne by FY2030 from 25.6 MT in FY22.
- Underground output is environmentally clean, minimally invasive on land degradation, and society friendly.
- Around 70% of the country's coal reserves are conducive for UG mining.

### Significance:

- With land turning out to be a major pain point for expansion of coal mining operations, eco-friendly technologies bypass land acquisition and avoid its degradation.
- The locked-up coal assets left out earlier due to techno-commercial and safety concerns can now be unearthed through these technologies

## CHAMBAL SANCTUARY

**In News:** To end illegal mining, Madhya Pradesh plans to make it legal in parts of Chambal sanctuary.



### More on the Topic:

- National Chambal Sanctuary, also called the National Chambal Gharial Wildlife Sanctuary, is a **tri-state protected area** in northern India for the protection of the **Critically Endangered gharial**, the **red-crowned roof turtle** and the **Endangered Ganges river dolphin**.
- Located on the Chambal River near the tripoint of **Rajasthan, Madhya Pradesh and Uttar Pradesh**, it was first declared in Madhya Pradesh in 1978.
- It now constitutes a long narrow **eco-reserve co-administered by the three states**. Within the sanctuary, the pristine **Chambal River cuts through mazes of ravines and hills with many sandy beaches**.

## BT COTTON

**In News:** The Haryana government has issued a no-objection certificate (NOC) to private firm to conduct field trials of new variety of Bt Cotton.



### More on the Topic:

- New variety is **herbicide tolerant and insect resistant variety of BT cotton**.
- The HTBt cotton variant adds another layer of modification, making the plant resistant to the herbicide glyphosate, but has not been approved by regulators.
- With HTBt, simply one round of glyphosate spraying is needed with no weeding. It saves Rs. 7,000 to Rs. 8,000 per acre for farmers.
- Fears include **glyphosate having a carcinogenic effect**, as well as the unchecked spread of herbicide resistance to nearby plants through pollination, creating a variety of superweeds.
- Scientists are also in favour of this crop, and even the World Health Organization (WHO) has said it does not cause cancer.

### Recent Changes in the Rules Related with Genome Edited Crops:

- The Ministry of Environment and Forests had, in the order, **exempted SDN1 and SDN2 genome edited plants from Rules 7-11 of the Environment Protect Act (EPA)** for manufacture, use or import or export and storage of hazardous microorganisms or genetically engineered organisms or cells rules-1989.
- Pertaining to this rule certain types of genome-edited crops from the stringent regulations applicable on genetically modified or GM crops, paving the way for further R&D on them.

### About Bt Cotton:

- Bt cotton has been genetically modified by the insertion of one or more genes from a common soil bacterium, **Bacillus thuringiensis**.
- These genes encode for the production of insecticidal proteins, and thus, genetically transformed plants produce one or more toxins as they grow.
- The genes that have been inserted into cotton produce toxins that are limited in activity almost exclusively to caterpillar pests (Lepidoptera).

## TENDU LEAF

**In News:** Chhattisgarh tribal have filed FIR against forest official over tendu leaf collection.



#### More on the Topic:

- The villagers have claimed that the Gram Sabhas of 13 villages had passed a proposal to collect and sell tendu leaves on their own earlier this year.
- Advance notice was also given to all the concerned government bodies and departments in this regard.
- Against their will officer has confiscated Tendu leaves and this became the reason for the tension.
- Tendu leaf collectors allege that the government gives them a lower price for the leaves, while it fetches a higher price in the open market.

#### About Tendu Leaves:

- Tendu (*Diospirus melanocaylon*) is also called 'green gold' and is a prominent minor forest produce in India.
- Tendu leaves are used to make bidis, an indigenous leaf-rolled cigarette made from coarse uncured tobacco, tied with a coloured string at one end.
- In 1964, the trade in tendu leaves was nationalised in then-undivided Madhya Pradesh. Until then, people were free to sell tendu leaves in markets across the country.
- Under this arrangement, the state forest department collects tendu leaves, allows their transportation and sells them to traders.
- The tribals, after having obtained forest rights leases under the FRA 2006, now want to sell tendu leaves on their own, with the permission of Gram Sabhas and make good profits.

### BROWN COTTON

In News: Karnataka's Kandu or Brown Cotton is in news.

#### More on the Topic:

- Brown Cotton, is a local (to Karnataka) indigenous variety of desi cotton that is recognised for its natural brown colour.
- Brown cotton is a rain-fed variety of cotton that is well-suited for south India's environment.
- Naturally grown brown cottons are pest and drought-resistant.
- With brown cotton, entire dyeing process is eliminated, dye treatments are limited, there is less usage of water, less wastewater, less consumption of chemicals.

### DRAGON FLY

In News: Dragonfly enthusiasts have recorded the presence of a rare dragonfly named Spiny Horntail (*Burmagomphus chaukulensis*) that was hitherto unseen in Kerala.

**Dragonfly census on August 18**

► Organised by WWF India and Bombay Natural History Society (BNHS)

**WHY DRAGONFLIES ARE IMPORTANT**

<p><b>Predators</b>   Help control population of harmful insects</p>	<p><b>Dragonfly larvae</b>   Feed on mosquito eggs and larvae</p>
<p><b>Cleanliness</b>   Survive in clean water, assuring purity of a waterbody/lake</p>	

**3,012** species of dragonflies known in 2010; India has about **500** recorded species

**51** dragonfly species in Delhi



#### More on the Topic:

- The species is endemic to the Western Ghats was discovered in Maharashtra earlier this year.
- The new species can be separated from its congeners by the markings on the lateral thorax and peculiar shape of anal appendages.
- A dragonfly is a flying insect belonging to the order Odonata, infraorder Anisoptera.
- Adult dragonflies are characterized by a pair of large, multifaceted compound eyes, two pairs of strong, transparent wings, sometimes with coloured patches, and an elongated body.

### PINK BOLL WORM

In News: The Pink Bollworm has attacked Cotton Crop in Haryana and Punjab.



**More on the Topic:**

- The PBW infestation was discovered during the early stages of the cotton crop cycle.
- Pink Bollworm (*Pectinophora gossypiella*) is an insect known as pest of cotton, possibly a native of eastern Indian Ocean region.
- PBW is resistant to first generation transgenic BT Cotton, and insecticides.
- The adult female PBW lays eggs on cotton balls. Once hatched the larvae eat the seeds and damage the fibres of the cotton, reducing the yield and quality.
- PBW is a cryptic pest that is rarely detected early. Farmers, on the other hand, who become more aware, can detect the flower infestation early.
- Basic schedule pesticides, neem-based sprays, and botanicals are all recommended.
- Farmers are also advised to install pheromone traps and monitor moth catches as well as rosette flower damage.

**'BLACK DEATH'**

In News: According to a German study published in 'Nature', the bacteria that caused world's deadliest pandemic, the medieval bubonic plague, originated in central Eurasia.



**More on the Topic:**

- Also known as the 'Black Death', the plague that spread through Eurasia and Northern Africa between 1346 and 1353 was one of the largest infectious disease episodes in human history, drastically reducing the world's population.
- While studies have put the toll at 25 million, estimates suggest the number of fatalities could have reached 200 million.
- The bubonic plague, a rare zoonotic disease, is one of

the deadliest epidemics in the history of humankind.

- The Black Death was caused by *Yersinia pestis* - a bacillus bacterium.
- The *Y. pestis* was spread by infected fleas that were carried by rodent hosts.
- The onset of symptoms was followed by intense fever, joint pains and vomiting of blood.
- After the initial infection, most victims died within 2-7 days.

**DUTCH DISEASE**

In News: Some countries have faced uneven growth due to the sudden discovery of natural resources. This phenomenon is known as Dutch Disease.

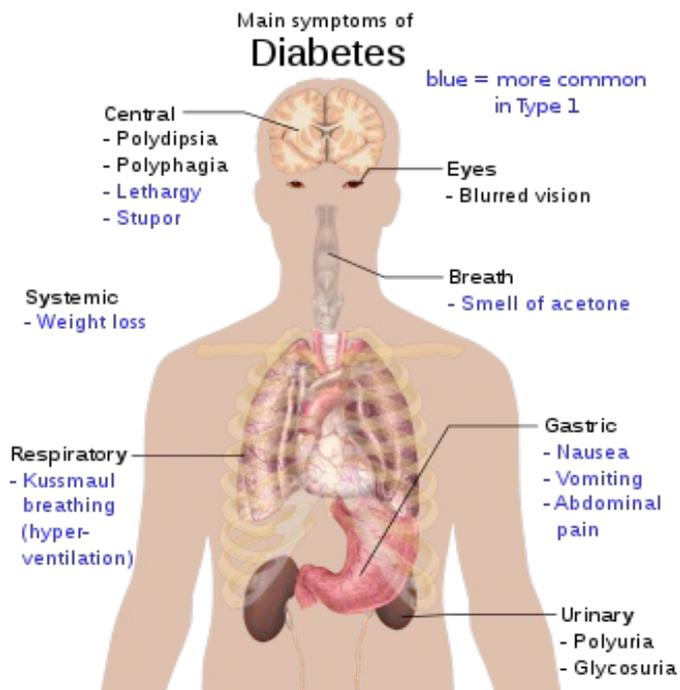
		<h2 style="margin: 0;">DUTCH DISEASE</h2>
<input type="checkbox"/> It is a situation when a country suffers negative consequences from having excessive valuable natural resources <input type="checkbox"/> There is a huge influx of foreign money into the country		
<b>IMPACT</b>	<b>NEGATIVE ASPECT</b>	
<ul style="list-style-type: none"> <li>▪ BOP</li> <li>▪ Growth &amp; sustainability</li> <li>▪ Stagnated development</li> <li>▪ Unemployment</li> <li>▪ Price instability</li> </ul>	Reason why these countries suffers: <ul style="list-style-type: none"> <li>❖ Failed to focus &amp; develop economic</li> <li>❖ Domestic currency appreciation driven by strong exports for resources has make other segments of economy globally uncompetitive</li> </ul>	
<b>EXAMPLE</b>		
<input type="checkbox"/> Venezuela is rich in crude oil supplies <input type="checkbox"/> Oil prices in the Venezuelan economy dropped from \$100 to \$21.5 per barrel <input type="checkbox"/> Reasons is country's heavy dependence on export crude oil sales <input type="checkbox"/> Oil sales constitute 99% of export earnings and one-fourth of country's GDP <input type="checkbox"/> Due to falling prices their production hit new low <input type="checkbox"/> GDP shrunk by two-thirds as demand for oil was affected due to pandemic		

**More on the Topic:**

- The term was coined in 1977 by The Economist to describe the decline of the manufacturing sector in the Netherlands after the discovery of the large Groningen natural gas field in 1959.
- The presumed mechanism is that as revenues increase in the growing sector (or inflows of foreign aid), the given nation's currency becomes stronger (appreciates) compared to currencies of other nations (manifest in an exchange rate).
- This results in the nation's other exports becoming more expensive for other countries to buy, and imports becoming cheaper, making those sectors less competitive.
- While it most often refers to natural resource discovery, it can also refer to "any development that results in a large inflow of foreign currency, including a sharp surge in natural resource prices, foreign assistance, and foreign direct investment"

**DIABETES**

In News: According to ICMR, around 95,600 children are suffering from type-1 diabetes below the age of 14 years in India with nearly 16,000 new cases diagnosed each year in the age- group.



**AMYLOIDOSIS**

**World Kidney Day**

**BUILD UP OF AMYLOID PROTEINS THAT FORM CLUMPS INSIDE YOUR ORGANS, SUCH AS YOUR KIDNEYS, AND TISSUES, CAUSING DAMAGE.**

**THERE ARE TWO TYPES OF AMYLOIDOSIS THAT OFTEN AFFECT THE KIDNEYS:**

**PRIMARY AMYLOIDOSIS, WHICH CAN CAUSE KIDNEY DISEASE**

**DIALYSIS-RELATED AMYLOIDOSIS, WHICH CAN HAPPEN BY BEING ON DIALYSIS FOR A LONG TIME.**

### More on the Topic:

- Type 1 Diabetes is an autoimmune disease characterised by insulin deficiency and hyperglycemia in people with underlying genetic susceptibility.
- The risk of Type 1 Diabetes is three per cent, five per cent, and eight per cent, respectively, when the mother, father, and sibling have a disease history.
- It develops in children and teens as the pancreas either stops making insulin or makes it in very low amounts.
- Without insulin, blood sugar can't get into cells and builds up in the bloodstream.
- Type 1 diabetes is thought to be caused by an autoimmune reaction, which destroys the cells in the pancreas that make insulin, called beta cells.

### India Diabetes Statistics:

- India is home to the world's second-largest adult diabetes population and every sixth person with diabetes in the world is an Indian.
- The past three decades witnessed a 150 per cent increase in the number of people with diabetes in the country.
- Matter of immense concern is the progressive lowering of the age at which type 2 diabetes is being diagnosed.
- The disease prevalence becoming apparent in the age group of 25 to 34 years in both urban and rural areas.

### AMYLOIDOSIS

**In News:** Former Pakistan President General Pervez Musharraf is suffering from Amyloidosis.

### More on the Topic:

- Amyloidosis is a rare disease that occurs when an abnormal protein, called amyloid, builds up in one's organs, affecting their shape and functioning.
- Amyloid deposits can build up in the heart, brain, kidneys, spleen and other parts of the body, leading to life-threatening conditions like organ failure.
- Amyloid isn't normally found in the body, but can be formed from several different types of proteins. Some varieties of amyloidosis occur in association with other diseases.
- These types may improve with treatment of the underlying disease. Some varieties of amyloidosis may lead to life-threatening organ failure.
- Amyloidosis may be secondary to a different health condition or can develop as a primary condition as well. Sometimes, it is due to a mutation in a gene, but usually, the cause of amyloidosis remains unknown.

### RAMSAY HUNT SYNDROME

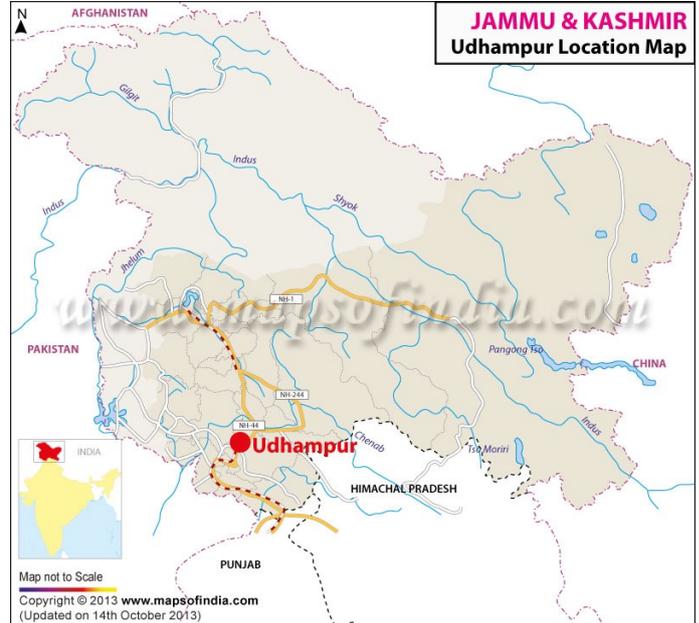
**In News:** Pop sensation Justin Bieber has revealed that Ramsay Hunt syndrome caused him partial facial paralysis.



# GEOGRAPHY

## SEISMOLOGICAL OBSERVATORY AT UDHAMPUR

**In News:** Ministry of Earth Science has inaugurated a seismological observatory at Udhampur in Jammu and Kashmir.



### More on the Topic:

- The observatory will help in collecting, collating, and integrating various data sets to provide site-specific risk maps as per user needs.
- It is part of an effort titled “Seismic Microzonation”, which aims to generate vital geotechnical and seismological parameters for developing earthquake risk-resilient building design codes for structures and infrastructures.
- It has also initiated action to set up an Earthquake Early Warning System (EWS) on a pilot basis for a small area in the Himalayas.
- Jammu and Kashmir is the westernmost extension of the Himalayas.
- Udhampur district lies between the two major seismogenic faults namely the Main Frontal Thrust (MFT) and the Main Boundary Thrust (MBT) which are among the potential factors for generating earthquakes in the J&K region.
- The new seismological observatory will help further strengthen the region’s earthquake monitoring.

## SUMMER SOLSTICE 2022

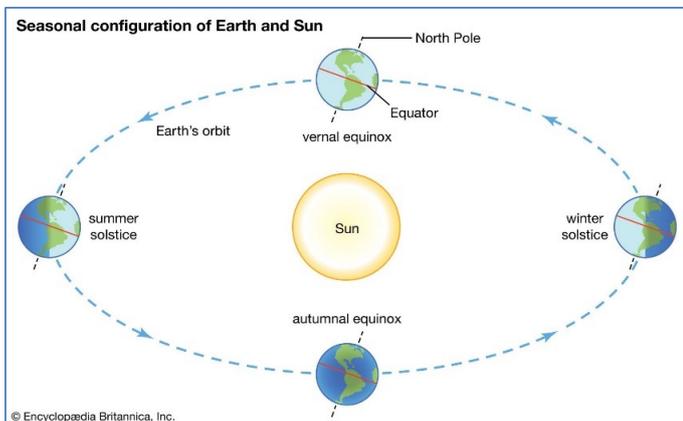
**In News:** People around the world celebrated the summer solstice on June 21.

### More on the Topic:

- Ramsay Hunt Syndrome is neurological disease in which a virus – Varicella Zoster – causes inflammation of the nerves involved in facial movements.
- When the nerves get inflamed, they lose their ability to function, leading to temporary facial palsy or paralysis.
- What it means is that facial muscles in the infected person cannot receive necessary signals to function properly.
- There are 12 cranial nerves in the body. Ramsay Hunt Syndrome is the viral infection impacting the 7th cranial nerve that is involved in facial movements.
- The symptoms include painful, red rash and blisters in and around the ear, and facial paralysis on the same side.
- Patients also report hearing loss in the ear that has been impacted apart from Tinnitus or ringing sounds. Inability to close the eye causes dryness.

### About The Varicella Zoster Virus (VZV):

- The Varicella Zoster Virus (VZV) is the same virus that causes chickenpox and shingles.
- this virus belongs to the herpesvirus group and can stay in the body as a latent infection. The virus can stay dormant in a person’s body and can reawaken to attack the nerves. According to doctors, VZV can get reactivated due to weakening of the immune system. Stress is also considered a trigger.
- It is treated using **anti-viral drugs, steroids and physiotherapy**. Steroids and anti-viral drugs are the cornerstone of the treatment.
- The disease is **not contagious** but can lead to chickenpox in those not vaccinated for the disease.
- The disease is **reversible**. Patients get cured within 15 days to three months of starting the treatment.



**More on the Topic:**

- It happens twice yearly, once in each hemisphere (Northern and Southern). For that hemisphere, the summer solstice is the day with the **longest period of daylight and shortest night of the year**, when the Sun is at its highest position in the sky.
- Within the Arctic circle (for the Northern hemisphere) or Antarctic circle (for the Southern), there is continuous daylight around the summer solstice. The opposite event is the winter solstice.
- The summer solstice occurs during summer. This is the June solstice (usually 20 or 21 June) in the Northern hemisphere and the December solstice (usually 21 or 22 December) in the Southern.
- A summer solstice occurs when "Earth arrives at the point in its orbit where the North Pole is at its maximum tilt [about 23.5 degrees] toward the Sun, resulting in the longest day and shortest night of the calendar year.

**TWIN TROPICAL CYCLONES**

**In News:** Cyclones Asani and Karim, titled after the northern and southern hemispheres, are twin cyclones that formed at almost uniform longitude in the recent month.



**More on the Topic:**

- The twin tropical cyclones are induced by Rossby waves near the equator.
- These symmetric tropical storms are created by the interaction of the wind and monsoon systems, as well as the Earth system.
- Rossby waves are massive ocean surges with a

wavelength range of 4,000–5,000 kms.

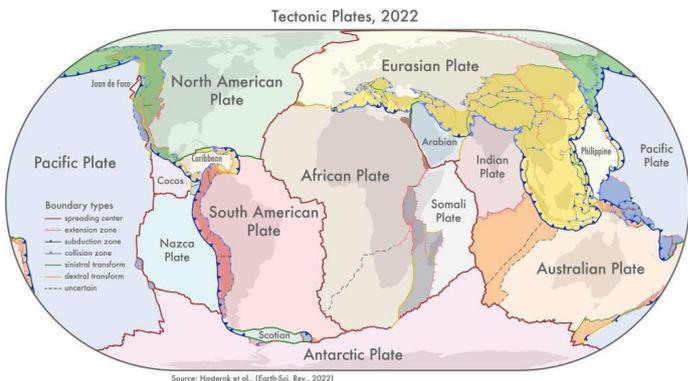
- These waves are termed after notable meteorologist Carl-Gustaf Rossby, who was the first to illustrate that all these waves emerged due to the earth's rotation.

**Structure of the Twin Cyclones:**

- This structure has a whirlpool in the northern latitudes and the other in the southern region that are mirror images of one another.
- The vortex in the northern latitudes moves anticlockwise and has a positive turn, whereas the one in the southern hemisphere turns clockwise and it has a negative spin.
- The Coriolis effect—a strength steered by Earth's axis diverts sweeping winds in one way in the Northern Hemisphere as well as the opposite way in the Southern Hemisphere.
- Coriolis Force causes cyclone winds to turn anticlockwise in the Northern Hemisphere but clockwise in the Southern Hemisphere.

**NEW MAP OF EARTH'S TECTONIC PLATES TO HELP UNDERSTAND QUAKES, VOLCANOES BETTER**

**In News:** Researchers from the University of Adelaide, Australia, have carried out a new study that includes an updated map of the earth's tectonic plates.



**More on the Topic:**

- The material will help in forming a better understanding of natural hazards like earthquakes and volcanoes.
- A tectonic plate "is a massive, irregularly shaped slab of solid rock", made up of lithosphere or the earth's top layer. Tectonic plate movements often lead to earthquakes and volcanoes.
- The study focussed into the past construction of continents like the first supercontinent, Vaalbara.
- Vaalbara fragmented to form other supercontinents over the years, the last being Pangea, which existed some 335-65 million years ago. Pangea again gave way to the seven modern continents which make the earth's land surface today.
- The last time the tectonic plate model was updated was back in 2003.

**Significance of the New Study:**

- The new study added several new microplates to the existing tectonic plate model like the Macquarie microplate which sits south of Tasmania and the Capricorn microplate

that separates the Indian and Australian plates.

- The new model now includes all the deformation zones north of India as the plate bulldozes its way into Eurasia.
- The plate model can be used to evaluate risks from natural hazards; the province model can be used for further exploration of minerals and the orogeny model for a better understanding of the evolution of the earth.
- Orogeny, or mountain building, is the result of collision between two landmasses. This may occur via collision of continental crust (continent-continent collision) or when oceanic and continental crust collide (ocean-continent collision).

## INTERNATIONAL RELATIONS

### INDIA SENDS DIPLOMATS TO KABUL

In News: India has sent a multi-member team of senior diplomats to Afghanistan for the first time since the Indian Embassy in Kabul was evacuated in August 2021 following the arrival of the Taliban at the Afghan capital.



#### More on the Topic:

- The visit acquires significance as India has refused to recognise the Taliban administration in Afghanistan and has urged the international community to go slow in recognising the Taliban.
- The Indian team included a woman official, which is being interpreted as a subtle reminder to the Taliban to ensure equitable treatment for women in Afghanistan.

#### Indian Support to Afghan People:

- As part of its cautious approach to the Taliban, India has been supportive of the humanitarian requirements of the Afghan people, and has been sending medicines and food to Kabul since 2022 January.
- New Delhi has sent 20,000 metric tonnes of wheat, 13 tonnes of medicines, 500,000 doses of COVID-19 vaccines, and winter clothing to Afghanistan.
- India has sent one million doses of COVID-19 vaccines to Iran for distribution among Afghan refugees staying in Iran.
- India has built infrastructure for Afghanistan in the previous regime.

#### Indian Concerns:

- Indian security establishment believes that Taliban government may spread its radical ideological influence across the subcontinent, boosting the morale of the Islamist terror groups operating in India and generating stronger recruitment and violence.
- New Delhi fears that Pakistan will use Afghan soil more freely to train, equip and motivate anti-India terror groups like the Lashkar-e-Tayyaba and JeM under the Taliban's watch and eventually use them to foment instability in Jammu & Kashmir (J&K).
- A recent UN report indicates the training of Jaish-e-Muhammad training camps at Afghanistan.
- Growing influence of China over Kabul also a concern for India.

## INDIA-TAJIKISTAN FRIENDSHIP HOSPITAL (ITFH)

**In News:** A fully-fledged 50 bedded hospital India-Tajikistan Friendship Hospital (ITFH) was formally handed over to the government of Central Asian country Tajikistan. .



### More on the Topic:

- This hospital which was renovated by India under a MoU between the two countries in 2013 has been giving free-of-cost valuable medical services for almost eight years to the Armed Forces and civilian population of that country.
- This free medical service is possible due to the financial assistance and technical support by the Indian government.
- India has sent more medical support to the Central Asian country in other forms. This includes through UNICEF 2 million doses of oral polio vaccine in 2010 following the outbreak of Polio in south-west Tajikistan.
- Also, almost 700,000 'Made in India' Covishield vaccines were supplied to Tajikistan in 2021.

### About Tajikistan:

- Tajikistan is a country in Central Asia surrounded by Afghanistan, China, Kyrgyzstan and Uzbekistan.
- The Fann Mountains, near the national capital Dushanbe, have snow-capped peaks that rise over 5,000 meters.
- It has **Alay Range in North and Pamir Mountains** (part of the roof of the world, High Asia) in the southeast as main mountain ranges.
- Fedchenko Glacier, world's largest non-polar glacier is situated at Tajikistan.

## INDIA'S TRADE WITH GULF COOPERATION COUNCIL

**In News:** India's trade with Gulf Cooperation Council is increasing at rapid pace.



### More on the Topic:

- India imports predominately crude oil and natural gas from the Gulf nations like Saudi Arabia and Qatar, and exports pearls, precious and semi-precious stones; metals; imitation jewellery; electrical machinery; iron and steel; and chemicals to these countries.

### Significance of GCC to India:

- **Indian expatriate community:** Besides trade, Gulf nations are host to a sizeable Indian population. Out of about 32 million non-resident Indians (NRIs), nearly half are estimated to be working in Gulf countries.
- **Remittance:** According to a November 2021 report of the World Bank, India got USD 87 billion in foreign remittances in 2021. Of this, a sizeable portion came from the GCC nations.
- **The Extended Neighbourhood:** The Gulf is an integral part of India's 'extended neighbourhood', both by way of geographical proximity and as an area of expanded interests and growing Indian influence.
- **Energy Security:** India is dependent on the six Gulf Cooperation Council (GCC) states for 42 per cent of its overall oil imports; three of the top five oil suppliers to India are Gulf states.

### About Gulf Cooperation Council:

- The GCC was formed in 1981 by an agreement among Saudi Arabia, Bahrain, Oman, Kuwait, Qatar and the United Arab Emirates (UAE), that was concluded in Riyadh, Saudi Arabia. It is an economic and political union comprising of all the Arab countries of the Persian Gulf except Iraq.

## CHINA TAIWAN ISSUE

**In News:** China said that it would not hesitate to start a war if Taiwan declares independence.



- Just 15 countries around the world recognise Taiwan. Most are very small, many are remote island nations. Although they do not have formal diplomatic ties, Taiwan and India have been cooperating in various fields. India has refused to endorse the “one-China” policy since 2010.

### UN SECURITY COUNCIL

In News: Ecuador, Japan, Malta, Mozambique and Switzerland were elected as UNSC non-permanent members for 2023-2024 term.



### More on the Topic:

- Since Taiwan is entirely dependent on the US for its defence against possible Chinese aggression, every spike in military tensions between China and Taiwan injects more hostility in the already strained relationship between Washington and Beijing.

### China- Taiwan relations- Background:

- China has claimed Taiwan through its “one China” policy since the Chinese civil war forced the defeated Kuomintang, or Nationalist, to flee to the island in 1949 and has vowed to bring it under Beijing’s rule, by force if necessary.
- While Taiwan is **self-governed and de facto independent**, it has never formally declared independence from the mainland.
- Under the “**one country, two systems**” formula, Taiwan would have the right to run its own affairs; a similar arrangement is used in Hong Kong.
- Presently, Taiwan is claimed by China, which refuses diplomatic relations with countries that recognise the region.
- Although largely unrecognised by other countries, Taiwan, **officially the Republic of China (RoC)**, sees itself as a **de jure sovereign state**.
- Taiwan is looking to invest in other countries to reduce their dependence on China, as most of the Taiwanese have invested in China.

### Where does Taiwan stand in relation to China and the world?

- Taiwan, earlier known as Formosa, a tiny island off the east coast of China.
- The island is located in the **East China Sea**, to the northeast of Hong Kong, north of the Philippines and south of South Korea, and southwest of Japan.
- The US has a policy of “**strategic ambiguity**” towards Taiwan.
- This means that it maintains ties with Taipei, and sells weapons to it, but officially subscribes to the PRC’s “One China Policy” in which Taiwan does not exist as a separate entity.

### More on the Topic:

- The Security Council consists of 15 countries. Five of them – China, France, Russia, the United Kingdom and the United States – are permanent members with the right to veto.
- The General Assembly, which comprises all 193 UN Member States, elects the 10 non-permanent members who serve for two-year terms.
- To secure a place on the Council, countries must receive a two-thirds majority, or 128 votes, even if they run uncontested.

### About UNSC:

- The United Nations Security Council is one of the six principal organs of the United Nations and is charged with ensuring international peace and security, recommending the admission of new UN members to the General Assembly, and approving any changes to the UN Charter.

### NUCLEAR SUPPLIERS GROUP

In News: The External Affairs Minister S Jaishankar has announced that India is expected to join the Nuclear Suppliers Group (NSG) while taming the political impediments that go against global interests.

## MISSION ELITE CLUBS

<p><b>WHAT IS NSG?</b></p> <ul style="list-style-type: none"> <li>48-nation grouping that controls nuclear related-exports</li> </ul>		<p><b>What is MTCR?</b></p> <ul style="list-style-type: none"> <li>34 nation grouping that controls export of missile technology, including drones</li> </ul>
<ul style="list-style-type: none"> <li>Set up in '74 to counter India's nuclear tests</li> </ul>		<ul style="list-style-type: none"> <li>Set up in 1987 by Canada, France, Germany, Italy, Japan, the U.K &amp; U.S.</li> </ul>
<ul style="list-style-type: none"> <li>India has sought NSG membership since 2008</li> </ul>	<ul style="list-style-type: none"> <li>India applied for membership in October 2015, request was not considered</li> </ul>	

### More on the Topic:

- The 48-member NSG is an elite club of countries that deals with the **trade-in nuclear technology and fissile materials** besides contributing to the non-proliferation of nuclear weapons.
- NSG was formed with the **objective of averting the proliferation of nuclear weapons and preventing acts of nuclear terrorism.**
- It was formed in 1974 as a response to the **Indian nuclear test (smiling Buddha).**
- NSG consists of 48 members which include the five nuclear weapon states US, UK, France, China, and Russia.
- It is **not a formal organization**, and its guidelines are not binding.

### Who is opposing India's Entry:

- China has been stridently opposing India's NSG bid** primarily on the grounds that New Delhi is not a signatory to the Nuclear Non-Proliferation Treaty (NPT).
- Its opposition has made India's entry into the group difficult as the NSG works on the principle of consensus.
- Other than China, countries that are opposing India's inclusion in the NSG are **Turkey, South Africa, Ireland and New Zealand.**
- While considering India's membership application, the NSG will also have to consider the fact that accepting this application can pose problems on **the processing of applications from Pakistan and Israel**, both of whom have not signed the NPT.

### Why India Want to Join NSG:

- If India becomes a member, it would have better international markets for both the export and import of nuclear-related material.
- It would also facilitate access to better nuclear equipment.
- Joining the NSG will give India **better access to low-cost, clean nuclear energy -- important for its economic growth.**
- NSG membership would put India on a firmer footing to propose **the idea of plutonium trade for its thorium programme** that has been waiting in the wings.
- An early adoption of thorium technology would give India enormous energy independence and security.

### NPT (Nonproliferation Treaty):

- NPT (Nonproliferation Treaty) is an international treaty, which came into force in 1970. The main objective was to prevent the spread of nuclear weapons and weapons technology.
- India, Pakistan and Israel have also not signed NPT.
- India refused to sign NPT because
- (1) The NPT defines "nuclear weapons states" as those that tested devices before 1967, which means India cannot ever be one.
- (2) No fixed timelines have been mentioned for disarmament.
- (3) NPT is unfair treaty as nuclear weapon states have no obligation to give them up while non-nuclear states are not allowed to have them.

## INTERNATIONAL NORTH SOUTH TRANSPORT CORRIDOR (INSTC)

In News: INSTC was operationalised recently as Russia sends consignments for Indian port.



### More on the Topic:

- Russia has sent consignments for India from **St Petersburg** which will travel to India via the **Caspian Port of Astrakhan and Iranian Port of Anzali** and from there to **Bandar Abbas Port** and thereafter to Western Indian ports to operationalise INSTC.
- The total journey will take less than 25 days, compared to the nearly 40 days it currently takes to transport goods from Russia to India and vice-versa.

### About INSTC:

- The INSTC is a **7,200 km-long multimodal transportation network** encompassing sea, road, and rail routes.
- It links the **Indian Ocean to the Caspian Sea** via the **Persian Gulf** onwards into Russia and Northern Europe and offers the shortest connectivity route between them.
- Multimodal routes through sea, rail, and road under the INSTC aim to **reduce the carriage cost between India and Russia by about 30%** and bring down the transit time from 40 days by more than half.

### Participants of INSTC:

- The foundation of the North-South transport corridor was laid on September 12, 2000, in accordance with an intergovernmental agreement signed between Russia,

Iran, and India.

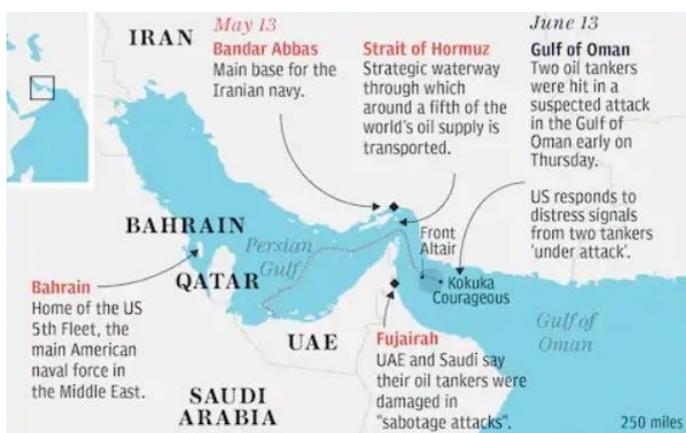
- Azerbaijan joined this agreement in 2005. This agreement was ratified by 13 countries (Azerbaijan, Belarus, Bulgaria, Armenia, India, Iran, Kazakhstan, Kyrgyzstan, Oman, Russia, Tajikistan, Turkey, Ukraine).
- The project has a number of components such as Northern and Western Europe, the Russian Federation, Caucasus, Persian Gulf (Western route); Central Asia -- Persian Gulf (Eastern Route); Caspian Sea – Iran Persian Gulf (Central Route).

#### Significance of INSTC:

- INSTC is considered a **viable option for Indo-Russian trade** amid current geo-political challenges.
- INSTC, in the longer run, **would be an alternative to the Suez Canal and Mediterranean** dominated by some powers.
- This corridor is capable of **boosting India's economy**. Indian exports are expected to increase substantially during the next calendar year.
- This corridor is **expected to increase market access to the member nations** who can also benefit through various backward and forward linkages.

#### OPERATION SANKALP

**In News:** The Indian Navy's Operation Sankalp has provided safe passage to an average 16 Indian-flagged merchant vessels in the Gulf region every day.

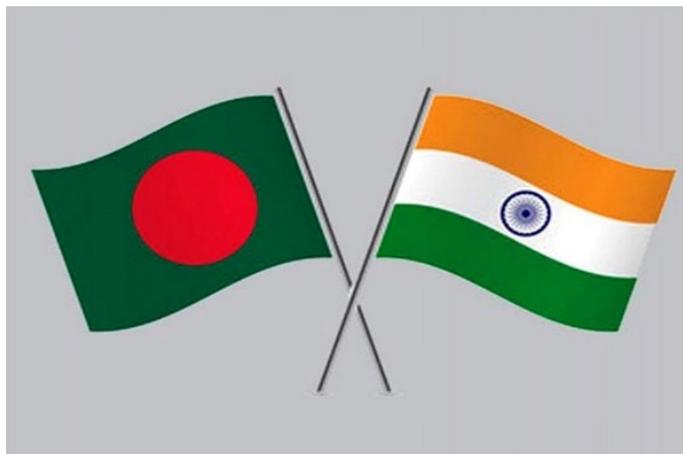


#### More on the Topic:

- Operation Sankalp was started in June 2019 after there were explosions on board two oil tanker ships in the Gulf of Oman amid increased tensions between Iran and the U.S.
- Since then, an Indian Navy ship with an integral helicopter embarked has been continuously deployed in the north-west Arabian Sea, Gulf of Oman and Persian Gulf from June 2019, to show presence, instil confidence in Indian maritime community and provide assistance to Indian-flagged merchant vessels.
- India is dependent for about 85% of its demand for oil on imports. In 2019-2020, around 62% of India's oil imports valued at approximately \$66 billion came from the Gulf region.

#### INDIA-BANGLADESH JOINT CONSULTATIVE COMMISSION

**In News:** The seventh round of the India-Bangladesh Joint Consultative Commission (JCC) was held in New Delhi recently.



#### More on the Topic:

- Following are the excerpts from the meeting,
- India is looking forward to working on new areas of cooperation with Bangladesh, which include artificial intelligence, cyber security, start-ups and fintech.
- Both the countries agreed to work closely together to further strengthen cooperation in the areas of **common rivers and water resources management**, IT and cyber-security, renewable energy, agriculture and food security, sustainable trade, climate change and disaster management.
- Both sides reiterated the **safe, speedy and sustainable return of the forcibly displaced persons from the Rakhine State to Myanmar**, currently being sheltered by Bangladesh.

#### India Bangladesh Relations:

- India was the first country to recognize Bangladesh as a separate and independent state and established diplomatic relations with the country immediately after its independence in December 1971.
- **Shared Rivers:** Both countries share 54 rivers, out of which, a treaty is already in existence for sharing of the Ganges water.
- **Sunderbans:** Both countries are also cooperating in the conservation of the entire Sunderbans ecosystem, which is a common biodiversity heritage.
- **Trading Partners:** Bangladesh is the biggest trading partner for India in South Asia.
- **Connectivity:** The raft of connectivity projects that India has undertaken with Bangladesh opens up the possibility of linking eastern India and boost the economy of eastern states, especially of West Bengal and the North-east.
- **Regional Cooperation Platforms:** India and Bangladesh are also engaged in regional cooperation through multilateral forum such as SAARC (South Asian Association for Regional Cooperation), BIMSTEC (Bay of Bengal Multi-Sectoral Technical and Economic Cooperation) and IORARC (Indian Ocean Rim Association for Regional Cooperation) etc.

## THE 14TH BRICS SUMMIT

**In News:** The 14th summit of the BRICS (Brazil-Russia-India-China-South Africa) countries was held at Beijing, China recently.



### More on the Topic:

- Excerpts from the Summit:
- **Global economic recovery:** BRICS grouping has an important role to play in the **post-COVID global economic recovery**. BRICS nations have a **common vision for global economic governance** and the mutual cooperation can make a useful contribution to the global economic recovery.
- **Russia -Ukraine Crisis:** BRICS nations have supported diplomacy and dialogue between Russia and Ukraine. Three of its members – China, India and South Africa – have abstained from voting on a United Nations resolution condemning Russia's invasion of Ukraine.
- **Global Security Initiative:** Chinese President asked BRICS countries to support each other and operationalise Global Security Initiative proposed by China.
- **BRICS initiative on Denial of Safe Haven to Corruption:** The summit welcomed the BRICS Initiative on Denial of Safe Haven to Corruption.
- BRICS nations have agreed to promote consumer protection in e-commerce by advancing the implementation of **BRICS Framework for Consumer Protection in E-commerce**.
- The summit welcomed the BRICS Initiative on Denial of Safe Haven to Corruption,
- **Proposed Treaty to combat all terror finance networks:** The treaty proposed is meant for launching multilateral negotiations on an international convention for the suppression of acts of chemical and biological terrorism, at the Conference of Disarmament.
- **BRICS Think Tank Network for Finance:** BRICS nations decided to establish the BRICS Think Tank Network for Finance to work independently and provide intellectual support, as and when tasked, for knowledge sharing, exchange of experiences and practices and cooperation on finance issues amongst BRICS countries.

### About BRICS:

- BRICS is the group composed of the five major emerging countries.

- Its headquarters is located at Shanghai China.
- It together represents about 42% of the population, 23% of GDP, 30% of the territory and 18% of the global trade.
- The acronym BRIC was coined by economist 'Jim O'Neill' of Goldman Sachs in 2001 to indicate the emerging powers that would be, alongside the United States, the five largest economies of the world in the 21st century.
- In 2006, BRIC countries started their dialogue, which since 2009 takes place at annual meetings of heads of state and government.
- In 2011, with South Africa joining the group, the BRICS reached its final composition, incorporating a country from the African continent.

## MAJOR ECONOMIES FORUM ON ENERGY AND CLIMATE (MEF)

**In News:** Union Minister for Environment, Forest and Climate Change has attended a virtual meeting of the Major Economies Forum on Energy and Climate (MEF) recently.



### More on the Topic:

- The minister called upon the members of MEF to launch a global movement on LIFE i.e. Lifestyle for Environment as espoused by Prime Minister Narendra Modi at the COP26 in Glasgow.
- The MEF meeting, hosted by US President Joseph Biden, was aimed at **galvanising actions that are to strengthen energy security and tackle the climate crisis thereby building momentum for COP27**.
- The meeting was attended by 23 major economies across the world and the Secretary General of United Nations.
- MEF was launched in 2009 by US President Barack Obama.

### Some of India's Climate Change Mitigation Per:

- India has installed **159 GW of non-fossil fuel-based electricity generation capacity** and during the last 7.5 years, India's installed solar energy capacity has increased over 18 times.
- **India's annual per capita emissions are only a third of the global average** and its cumulative GHG emissions are less than 4 per cent, but India's climate targets are ambitious and reflect its commitment to the global good.
- India is on track to meet its commitments, through the

adoption of low carbon policies across key sectors of our economy ranging from the green hydrogen mission to e-mobility.

## SPECIAL GATHERING OF FOREIGN MINISTERS FROM THE ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN)

In News: India has hosted a special gathering of foreign ministers from the Association of Southeast Asian Nations (ASEAN) recently.



### More on the Topic:

- This is the first time India is hosting such a special meeting with foreign ministers of the Asean to mark the 30th anniversary of relations with the 10-member grouping.
- The senior officials reviewed the Asean-India strategic partnership and its future direction.
- They also assessed progress in cooperation under the three pillars of the partnership – political-security, economic and socio-cultural.
- The two sides also exchanged views on regional and international issues of mutual interest, including the Covid-19 crisis and post-pandemic recovery.

### About ASEAN:

- ASEAN, in full Association of Southeast Asian Nations, international organization was established by the governments of Indonesia, Malaysia, the Philippines, Singapore, and Thailand in 1967.
- It is intended to accelerate economic growth, social progress, and cultural development and to promote peace and security in Southeast Asia.
- ASEAN's first summit meeting, held in Bali, Indonesia, in 1976, resulted in an agreement on several industrial projects and the signing of a Treaty of Amity and Cooperation and a Declaration of Concord.

### Asean and India:

- Asean-India dialogue relations began with the establishment of a sectoral partnership in 1992, which graduated to a full dialogue partnership in December 1995, summit-level partnership in 2002, and a strategic partnership in 2012.
- ASEAN is now clearly the central pillar of India's Act East Policy.
- ASEAN and India have about 30 platforms for engagement, including an annual leaders' summit and ministerial dialogues.
- Recently, the **Regional Comprehensive Economic Partnership (RCEP)** was signed into existence by 15 countries led by China, Japan, South Korea, Australia, New Zealand

and the **10-state ASEAN grouping**, creating one of the world's largest trading blocs.

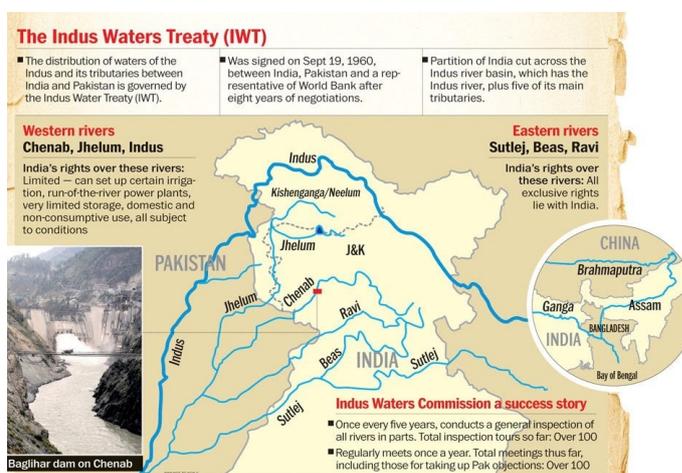
- India had been a part of negotiations for almost nine years till it pulled out in November 2019, stating that inadequate safeguards and lowering of customs duties will adversely impact its manufacturing, agriculture and dairy sectors.

### Significance of ASEAN to India:

- **Connectivity:** Robust connectivity with Association of Southeast Asian Nations will enable India to strengthen its position in the region.
- **North Eastern India's Economic Progress:** These connection initiatives maintain Northeast India in the centre, assuring the north-eastern states' economic progress.
- **Counter Balancing china:** Improved commercial connections and better relationship with ASEAN nations would provide a counterbalance to China's position in the area, as well as economic growth and development for India.
- **Indo-Pacific rules-based security architecture:** Association of Southeast Asian Nations holds a pivotal place in the Indo-Pacific rules-based security architecture, which is critical for India because the majority of its commerce is dependent on maritime stability.

## INDIA PAKISTAN PERMANENT INDUS COMMISSION

In News: The 118th meeting of the Permanent Indus Commission (PIC) comprising Indus Commissioners of India and Pakistan concluded recently.



### More on the Topic:

- A wide range of water-related issues between Pakistan and India were discussed which included the advance sharing of flood information.
- Both sides reiterated their commitment to implement the Indus Waters Treaty in its true spirit and expressed the hope that the next meeting of the Commission will be held at an early date in Pakistan.

### Indus Water Treaty:

- The Indus River basin has six rivers- Indus, Jhelum, Chenab, Ravi, Beas and Sutlej; originating from Tibet and flowing through the Himalayan ranges to enter Pakistan, ending in the south of Karachi.

- Indus Waters Treaty (IWT) was signed by former Prime Minister Jawaharlal Nehru and then President of Pakistan, Ayub Khan in 1960.
- It was mediated by the world Bank.
- The treaty prescribed how water from the six rivers of the Indus River System would be shared between India and Pakistan.
- It allocated the three western rivers—Indus, Chenab and Jhelum—to Pakistan for unrestricted use, barring certain non-consumptive, agricultural and domestic uses by India and the three Eastern rivers—Ravi, Beas and Sutlej—were allocated to India for unrestricted usage.
- This means that 80% of the share of water or about 135 Million Acre Feet (MAF) went to Pakistan, while leaving the rest 33 MAF or 20% of water for use by India.

#### About Permanent Indus Commission:

- The treaty required both the countries to establish a Permanent Indus Commission constituted by permanent commissioners on both sides.
- The Permanent Indus Commission is a **bilateral commission consisting of officials from India and Pakistan**, created to implement and manage the goals and objectives and outlines of the Indus Waters Treaty.

#### LEADERSHIP GROUP FOR INDUSTRY TRANSITION (LEADIT)

In News: Union environment minister participated in a high-level dialogue under the Leadership Group for Industry Transition (LeadIT).

#### More on the Topic:

- LeadIT gathers countries and companies committed to

action to achieve the Paris Agreement climate goal.

- It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019 and is supported by the World Economic Forum (WEF).
- It is intended as a **Voluntary initiative for promoting low-carbon transition** through active participation of private sector companies.
- Especially in the sectors like Iron & Steel, Aluminium, Cement and Concrete, petrochemicals, fertilisers, bricks, heavy-duty transport.
- Currently, the Group has a membership of 16 countries and 19 companies including Dalmia Cement, Mahindra Group and SpiceJet from India.
- Secretariat is hosted by Stockholm Environment Institute (SEI), Sweden.

#### Significance of the Group:

- Industry sectors together contribute about 30% of the total CO2 emissions, and thus, efforts to drive low carbon development pathways in industry sector are critical for achieving the goals of the Paris Agreement.

#### ELECTRONIC TRANSMISSION MORATORIUM

In News: India is set to firmly oppose any further extension of a moratorium on the imposition of customs duties on electronic transmission at WTO's 12th ministerial conference (MC12).



#### More on the Topic:

- The issue pertains to a 'moratorium' that was included in the 1998 'Declaration on Global E-commerce,' adopted by the WTO member nations in May 1998 at the global trade body's second Ministerial Conference (MC).
- According to the WTO, the 1998 declaration on the 'moratorium' stated that "member countries will continue their current practice of not imposing customs duties on electronic transmission". This 'moratorium' – which is 'temporary' in nature – gets extended at every MC, which is held once in two years.
- Several countries are seeking to make the moratorium permanent.

#### Why India is asking for Ending the Moratorium?

- Since digital trade at present is dominated by big tech and developed countries, the moratorium squarely favours the developed nations.

## SCIENCE AND TECHNOLOGY

- Meanwhile as per some estimated India loses about \$500 million annually by foregoing duty on e-transmission.
- India and South Africa (SA) have been making several joint submissions highlighting the adverse impact of the moratorium on developing nations and suggesting that a reconsideration of the moratorium is important for developing nations so as to preserve policy space for their digital advancements.

### NORTH ATLANTIC TREATY ORGANISATION

**In News:** Finland and Sweden will formally apply for membership of the North Atlantic Treaty Organisation (NATO).

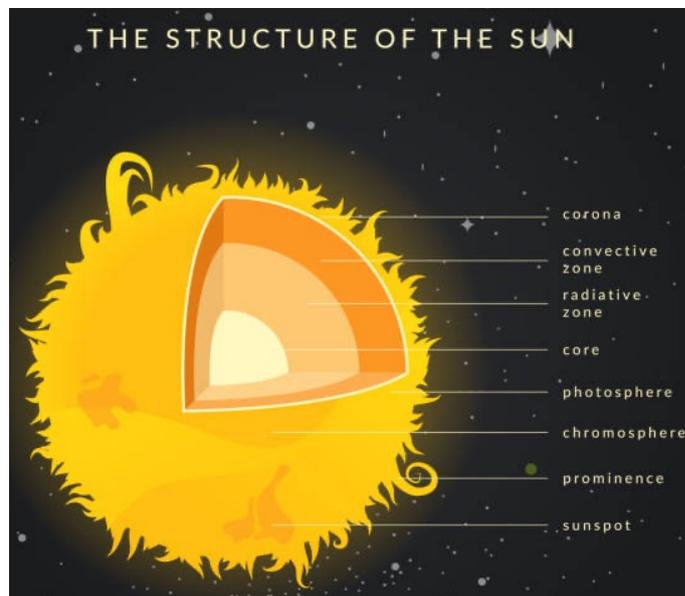


#### More on the Topic:

- When Russia launched a military invasion of Ukraine, one of the important reasons stated was the eastward expansion of the North Atlantic Treaty Organisation (NATO) by Ukraine joining NATO.
- North Atlantic Treaty Organization (NATO) is a military alliance established by the North Atlantic Treaty (also called the Washington Treaty) of April, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.
- There are currently 30 member states. North Macedonia is the latest member to join the alliance in 2020.

### GIANT SUNSPOT AR3038 HAS DOUBLED IN SIZE

**In News:** A Giant Sunspot AR3038 has Doubled in Size and is Pointed Right at Earth. Scientists have informed that people are in no danger from sunspots like AR3038.

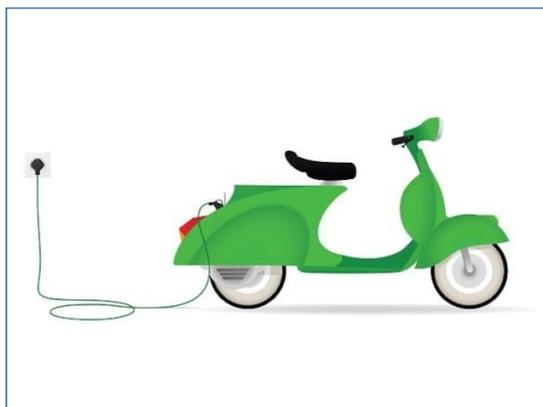


#### More on the Topic:

- Sunspots are dark, planet-size regions of strong magnetic fields on the surface of the sun.
- They can spawn eruptive disturbances such as solar flares and coronal mass ejections (CMEs).
- These regions of the sun appear darker because they are cooler than their surroundings.
- The central dark region, the umbra, is about 6,300 degrees Fahrenheit (3,500 degrees Celsius), whereas the surrounding photosphere is about 10,000 F (5,500 C).
- The frequency and intensity of sunspots visible on the surface indicate the level of solar activity during the 11-year solar cycle that is driven by the sun's magnetic field.
- Sunspots form when concentrations of magnetic field from deep within the sun well up to the surface.

### BIS FORMULATES STANDARD FOR EV BATTERIES

**In News:** India's trade with Gulf Cooperation Council is increasing at rapid pace.



### More on the Topic:

- The standard IS 17855:2022 for these battery packs and systems is harmonised with ISO 12405-4: 2018.
- The standards have been released for **Test Specifications for Lithium-ion Traction Battery Packs and Systems (Performance Testing)** for Electrically Propelled Road Vehicles.
- The standard involves dimensions such as: The basic characteristic of performance, reliability and electrical functionality for the battery packs and system for either high power or high energy application.
- Real-life scenarios for an EV such as a parked vehicle (battery is not used for an extended period of time), battery system shipped (stored), battery running at low and high temperatures, among others.

### Safety Issues of EV Vehicles:

- Even if few batteries malfunction and cause a short circuit, it can kickstart a chain reaction resulting in a fire, given that a battery pack is tightly packed with a number of Li-ion cells.
- Reliability of Battery Performance (range) as it varies with ambient conditions and age of battery.
- Disposal of EV batteries with concerns over its cost and toxic disposal of the batteries.

### About Bureau of Indian Standards:

- BIS came into existence as Indian Standards Institution (ISI) in 1947.
- The Bureau of Indian Standards (BIS) is the **National Standards Body of India** under Department of Consumer affairs, Ministry of Consumer Affairs, Food & Public Distribution
- It is established by the Bureau of Indian Standards Act, 2016.
- The Minister in charge of the Ministry or Department having administrative control of the BIS is the ex-officio President of the BIS.

### GIS MAPPING OF NATIONAL HIGHWAYS

**In News:**The government is going all out to complete GIS mapping of national highways for better planning, execution and monitoring of the road network and timely completion of projects.



### More on the Topic:

- Geographic Information System (GIS) technology is expected to come to the aid of road construction agencies as it would provide detailed information on alignments and any obstruction in the path of highways.
- GIS mapping makes use of satellite images but goes beyond it by analysing satellite data in order to provide authorities with an accurate picture of the project.
- GIS provides agencies with tools for building resilient infrastructure for the future and supporting strategic repairs and upgrades to existing networks.
- GIS maps contains a **very detailed visual representation of any infrastructure facility** including location, topography, facilities and structures, and images.
- As these maps can easily be assessed even through mobile phones and shared, it makes the process of road construction and finalisation of highway networks easier.

### HERMIT SPYWARE

**In News:**Google has warned about the spyware Hermit.



### More on the Topic:

- This sophisticated spyware tool allows attackers to steal data, private messages and make phone calls.
- Once fully situated on a target's phone, attackers can harvest sensitive information such as call logs, contacts, photos, precise location, and SMS messages.
- Attackers can access **both Android and iOS devices** through the use of clever tricks and drive-by attacks.

### LIQUID NANO UREA

**In News:** Prime Minister Narendra Modi officially inaugurated the country's first liquid nano urea plant at Kalol.

#IFFCONanoUrea

**IFFCO**  
विश्व जनसहकारी कृषि  
Wholly owned by Cooperatives

# IFFCO NANO UREA LIQUID

Introducing World's First Nano Urea for Farmers

**Reduces Input Cost**

**Increases Farmers' Income**

**Environment-friendly**

**Enhances Crop Productivity**

**Improves Nutritional Value**

**Cheaper than Conventional Urea**

### More on the Topic:

- This patented product is expected to not only substitute imported urea, but to also produce better results in farms.
- The liquid nano urea produced by Indian Farmers Fertiliser Cooperative (IFFCO) Limited comes in a half-litre bottle priced at Rs 240, and carries no burden of subsidy currently. By contrast, a farmer pays around Rs 300 for a 50-kg bag of heavily subsidised urea.

### What exactly is liquid nano urea?

- It is essentially urea in the form of a nanoparticle. Urea is a chemical nitrogen fertiliser, white in colour, which artificially provides nitrogen, a major nutrient required by plants.
- The product has been developed at IFFCO's Nano Biotechnology Research Centre (NBRC) at Kalol.

### Significance of Liquid Nano Urea:

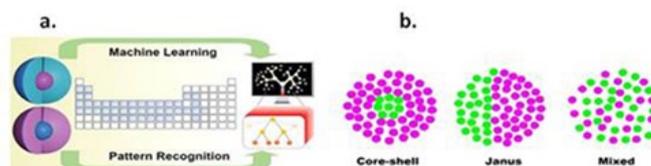
- Apart from reducing the country's subsidy bill, it is aimed at **reducing the unbalanced and indiscriminate use of conventional urea**, increase crop productivity, and reduce soil, water, and air pollution.
- While conventional urea has an efficiency of about 25 per cent, **the efficiency of liquid nano urea can be as high as 85-90 per cent.**
- Conventional urea fails to have the desired impact on crops as it is often applied incorrectly, and the nitrogen in it is vaporised or lost as gas. A lot of nitrogen is also washed away during irrigation.
- **Liquid nano urea is sprayed directly on the leaves and gets absorbed by the plant.** Fertilisers in nano form provide a targeted supply of nutrients to crops, as they are absorbed by the stomata, pores found on the epidermis of leaves, officials said.
- IFFCO advises that 2-4 ml of nano urea should be mixed a litre of water and sprayed on crop leaves at

active growth stages.

- Liquid nano urea has a shelf life of a year, and farmers need not be worried about "caking" when it comes in contact with moisture.

## NANO ALLOYS AND RARE EARTHS USING MACHINE LEARNING

In News: Scientists have used Machine Learning to Help Predict New Materials for Nano Alloys, Semiconductors and Rare Earths.



### More on the Topic:

- Nano alloys, also called core-shell nanocluster alloys, are alloys with one metal forming core and another stays on surface as a shell.
- Rare Earths are a group of 15 elements in the periodic table and a substantial part of these elements are less common and more expensive.
- Rare earth compounds with permanent magnetic properties are used in loudspeakers and computer hard drives.
- Of these, 17 elements of the periodic table like Neodymium, Lanthanum and so on are found sparsely on the earth's crust, and their supply is monopolized by the countries where their mines happen to be located.

### Machine Learning:

- Machine learning is a branch of artificial intelligence (AI) and computer science which **focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy.**

## MAGNETRON TECH

In News: Government is supporting indigenous development of high-powered Magnetron technology used mainly for cancer radiation therapy.



### More on the Topic:

- Magnetron is a type of vacuum tube device.
- It is compact and low-cost source of microwave power

as compared to other similar microwave tubes.

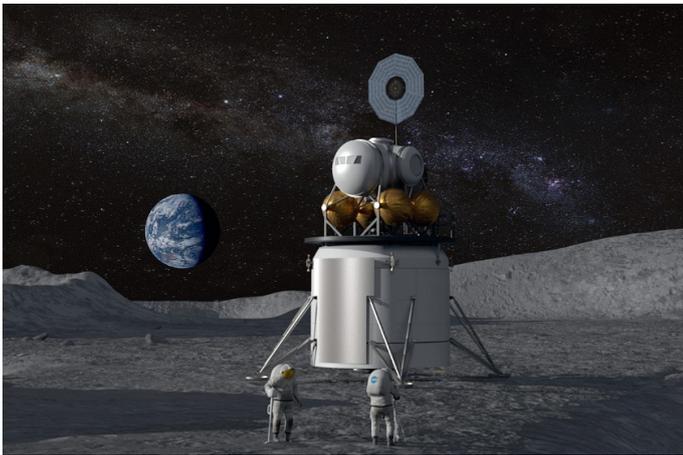
- It works on a principle of **crossed-field device**, which uses the motion of electrons in perpendicular electric and magnetic fields to generate microwave radiation, used for generating Radio frequency (RF) Power Source in Linear Accelerator for Medical, non-destructive technology (NDT) and other allied applications.
- NDT is a testing and analysis technique used by industry to evaluate the properties of a material, component, structure or system.

**About Indian Medical Device Industry:**

- Currently, India is the **fourth largest medical devices market in Asia**, after Japan, China and South Korea and positioned 20th in the global market.
- **India imports about 86% of its requirement** of medical equipment and almost 100% of high-end medical equipment.

**ARTEMIS I MOON MISSION**

In News: After multiple failed attempts, NASA is scheduling the wet dress rehearsal for the Artemis I mission on June 20 at the Kennedy Space Center in Florida.



**More on the Topic:**

- Artemis is the program through which NASA seeks to land a woman and man on the Moon by no earlier than 2025.
- Both commercial and international partners will be involved, the latter of which will include the Canadian Space Agency, the European Space Agency, and Japan Aerospace Exploration Agency (JAXA).

**Artemis objectives include the following:**

- NASA plans to build a sustainable presence on and around the Moon, and to use the program as a stepping stone to the next giant leap: a crewed mission to Mars.
- Long-term goals include the **construction of the Lunar Gateway** (the first space station in orbit around the Moon) and the installation of Artemis Base Camp (a surface station).
- Artemis astronauts are set to explore the Moon's south polar regions in search of water ice—a key enabler of a sustainable human presence there.
- Artemis could also carve a path to the commercialization of the Moon, whether it be space tourism or the mining of resources such as rare-earth elements and helium-3.

**FAST RADIO BURST**

In News: Astronomers detected a signal from a galaxy believed to be nearly 3 billion light-years away called Fast Radio Burst (FRB).

**How Fast Radio Bursts Work**

Fast radio bursts are brief, energetic blips of radio waves that originate far across the universe. At least one repeats, which has added to the challenge of explaining what might be creating them. A new model accounts for past observations and predicts specific features that should be seen going forward.

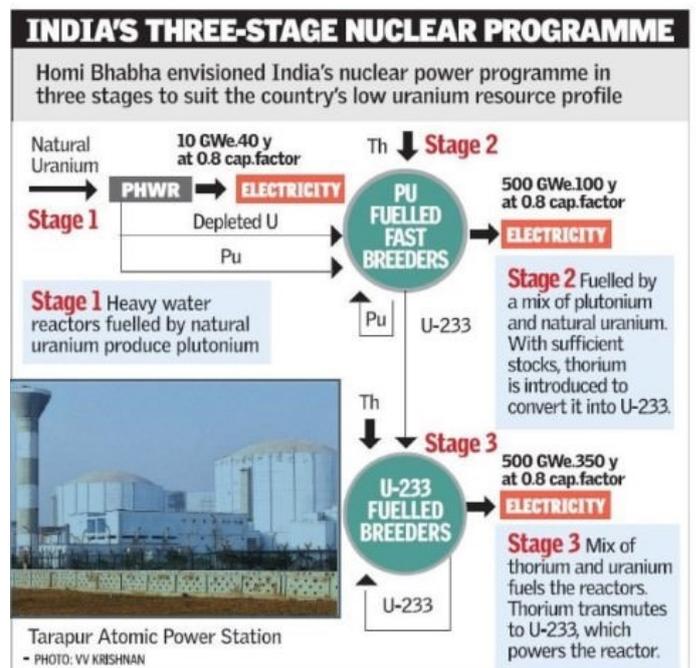
- 1 A magnetar releases a flare of electrons and other charged particles.
- 2 The flare collides with the remnants from an old flare, creating huge magnetic fields.
- 3 In the ensuing shock, gyrating electrons generate energetic radio waves. As the shock slows, the radio signal downshifts to lower frequencies.

**More on the Topic:**

- FRBs are **intense and brief flashes of radio frequency emissions** that typically last milliseconds.
- These usually repeat multiple times. Scientists are still yet to fully understand the phenomenon which was first detected in 2007.
- This is the second time it was ever detected. A leading candidate for what generates these FRBs is a **magnetar**, which is a neutron star with a really strong magnetic field emitting radio waves.

**KUDANKULAM NUCLEAR POWER PLANT**

In News: The Rosatom State Corporation of Russia has supplied the first batches of more reliable and cost-efficient nuclear fuel TVS-2M nuclear fuel, over the existing one to India for the Kudankulam Nuclear Power Plant (KNPP).



### More on the Topic:

- The TVS-2M fuel assemblies have a number of advantages making them more reliable and cost-efficient.
- Due to the rigidity of the fuel bundle, it is more efficient and more vibration-resistant.
- It contains 7.6% more fuel material as compared to the earlier fuel bundles.
- The new generation anti-debris filter protects bundles from debris damage.

### Russia's Assistance in building KNPP:

- Russia is building the KNPP under an **Inter-Governmental Agreement (IGA)** of 1988 and follows on agreements in 1998 and 2008.
- The first stage, consisting of two different power unit power units, was commissioned in 2013 and 2017, respectively.
- The second and third stages of KNPP, which are currently under construction.

### India's Three Stage Nuclear Programme:

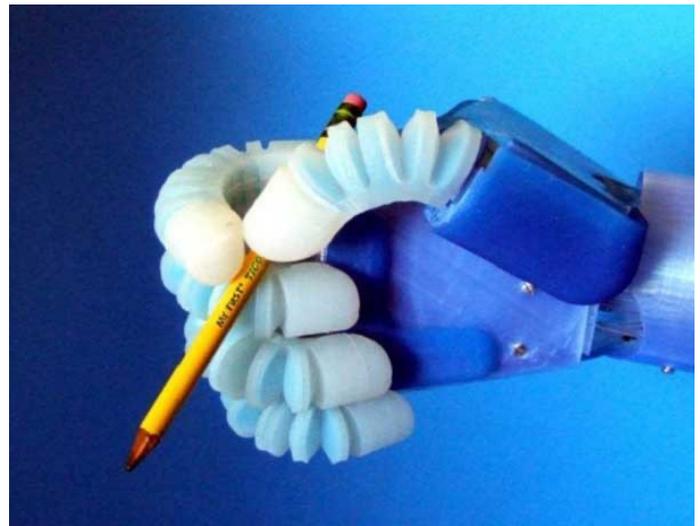
- The three-stage nuclear power production program in India had been conceived with the ultimate objective of **utilizing the country's vast reserves of thorium-232**.
- It is important to note that **India has the world's third largest reserves of thorium**.
- Thorium, however, **cannot be used as a fuel in its natural state**.
- It needs to be converted into its usable "fissile" form after a series of reactions.
- To aid this and to eventually produce nuclear power from its thorium reserves, Indian scientist Dr. Homi J. Bhabha drew the road map of the three-stage nuclear program.

### Stages in the Three Stage Nuclear Programme:

- In the first stage, **Pressurized Heavy Water Reactors (PHWRs)** will be used to produce energy from natural uranium. PHWRs do not just produce energy; they also produce fissile plutonium (Pu)-239.
- The second stage involves using the indigenous **Fast Breeder Reactor technology** fueled by Pu-239 to produce energy and more of Pu-239.
- By the end of the second stage of the cycle, the reactor would have produced more fissile material than it would have consumed, thus earning the name "Breeder."
- The final stage of the cycle would involve the use of **Pu-239 recovered from the second stage, in combination with thorium-232, to produce energy and U-233** – another fissile material – using Thermal Breeders.
- This production of U-233 from thorium-232 would complete the cycle. U-233 would then be used as fuel for the remaining part of the fuel cycle.
- While India has successfully completed the first stage of its nuclear fuel program, the second stage is still in the works and has taken much longer than expected.
- It is expected to be ready by 2022-23.

## SOFT ROBOTS

**In News:** Soft robot research is in high demand now.



### More on the Topic:

- Soft robots are robots that are flexible and unlike their hard-edged cousins can be used to perform more delicate manoeuvres, such as reaching into difficult crevices or holding onto delicate objects.
- **Structural design and smart materials** allow the soft robot to navigate various situations by **drawing energy from its environment**. This is called Physical intelligence.
- They are usually made of liquid crystal elastomers, which are polymers having viscosity and elasticity.
- The latest designs have them shaped like twisted ribbon, resembling translucent rotini.
- Many soft robots are **made to resemble living organisms, such as octopus**, and are manufactured using 3-D printers.
- Popular uses of these robots are in surgeries or making specialised exo-suits that can help in rehabilitating patients.
- The disadvantage of the soft robots is that the soft materials reduce their durability as well make them harder to control.

## 'DIRECT-TO-MOBILE' (D2M) BROADCASTING TECHNOLOGY

**In News:** The Department of Telecommunications (DoT) and India's public service broadcaster Prasar Bharati are exploring the feasibility of a technology that allows to broadcast video and other forms of multimedia content directly to mobile phones, without needing an active internet connection.



#### More on the Topic:

- The technology, called 'direct-to-mobile' (D2M) broadcasting, promises to improve consumption of broadband and utilisation of spectrum.
- The technology is based on the convergence of broadband and broadcast, using which mobile phones can receive terrestrial digital TV.
- It would be similar to how people listen to FM radio on their phones, where a receiver within the phone can tap into radio frequencies.
- Using D2M, multimedia content can also be beamed to phones directly.

#### Significance of D2M:

- The idea behind the technology is that it can possibly be used to directly broadcast **content related to citizen-centric information** and can be further used to **counter fake news, issue emergency alerts** and offer assistance in **disaster management**, among other things.
- For businesses, one of the key benefits of the technology is that it can **enable telecom service providers to offload video traffic** from their mobile network onto the broadcast network, thus helping them to decongest valuable mobile spectrum.

### INTERNATIONAL LIQUID-MIRROR TELESCOPE

**In News:** The International Liquid-Mirror Telescope (ILMT) is commissioned an altitude of 2450 m at the Devasthal Observatory of Aryabhata Research Institute of Observational Sciences (ARIES), Uttarakhand.



#### More on the Topic:

- Built by astronomers from India, Belgium and Canada, the novel instrument employs a 4-meter-diameter rotating mirror made up of a thin film of liquid mercury to collect and focus light.
- ILMT is the first liquid-mirror telescope designed exclusively for astronomical observations.
- It has been built by astronomers from India, Belgium and Canada.
- It is designed exclusively for astronomical observations in order to identify transient or variable objects such as supernovae, gravitational lenses, space debris, etc.

### AGNI 4 MISSILE

**In News:** India successfully carried out a night launch of the nuclear-capable Agni-4 ballistic missile.

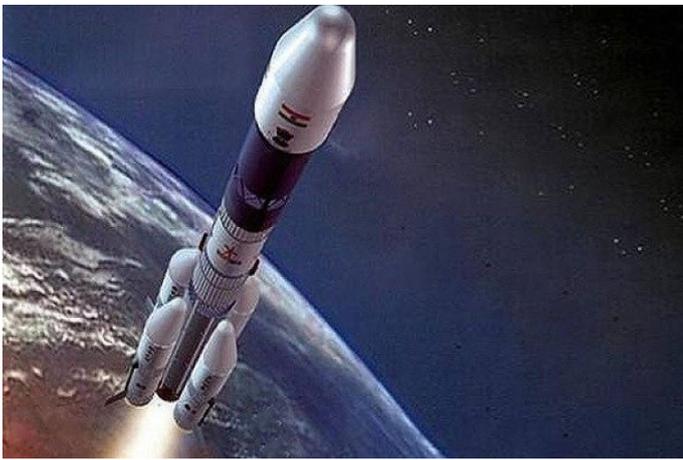


#### More on the Topic:

- It has been **developed by India's DRDO** and displayed a number of new technologies and significant improvement in missile technology.
- The missile is **light-weight and has two stages of solid propulsion** and a payload with re-entry heat shield.
- With 3,500 to 4,000 km range, it is capable of striking targets in nearly all of mainland China, if launched from north eastern part of India.
- Agni IV can carry a warhead of 1 tonne. It is designed to increase the kill efficiency along with a higher range performance.
- It can be fired from a road mobile launcher. Efforts are being made to fine-tune the Agni missiles to defeat anti-ballistic missile systems.

### INDIAN NATIONAL SPACE PROMOTION AND AUTHORITY CENTRE (IN-SPACE)

**In News:** PM Narendra Modi has inaugurated IN-SPACE centre in Ahmedabad.



space related activities and is also responsible for promotion and commercial exploitation of the products and services emanating from the space industry.

## PARAMPORUL

**In News:** PARAM PORUL, a state-of the art Supercomputer at NIT Tiruchirappalli dedicated to the nation under National Supercomputing Mission (NSM).

### FEATURES

- **Large storage capacity**
- **More than one CPU necessitated by physical limits of circuit technology**
- **Very fast input/output capability**
- **Fortran is the language most preferred for scientific programming**

### More on the Topic:

- The establishment of IN-SPACE was announced in June 2020.
- It is an autonomous and single window nodal agency in the Department of Space for the promotion, encouragement and regulation of space activities of both government and private entities.
- IN-SPACE will be parallel to ISRO with its own board with some members from the private sector and chairperson.
- The centre “will have its own directorates for technical, legal, safety and security, monitoring and activities promotion.”

### Objectives of IN-SPACE:

- IN-SPACE will act as a link between the Indian Space Research Organisation (ISRO) and private sector companies, assessing “how best to utilise India’s space resources and increase space-based activities.”
- The centre will evaluate demands of private sector companies— assessing “how best to utilise India’s space resources and increase space-based activities.”
- The centre will evaluate demands of private sector companies—including educational institutes—and will find ways to attune their demands, in consultation with ISRO.
- It also facilitates the usage of ISRO facilities by private entities.

### Recent Changes in the Indian Space Sector:

- The Indian Space Research Organisation (ISRO) intends to offload most of its space- related activities to industry and enhance focus on advanced research.
- ISRO’s commercial arm **New Space India Limited (NSIL)**, incorporated in 2019, is also proactively working to improve the potential of Indian industries by way of technology transfer from ISRO in several identified areas.
- NSIL is a Central Public Sector Enterprise of the Government of India.
- It was established in 2019 under the administrative control of the Department of Space.
- Headquarter: Bengaluru
- NSIL is the commercial arm of Indian Space Research Organisation (ISRO) with the primary responsibility of enabling Indian industries to take up high technology

### More on the Topic:

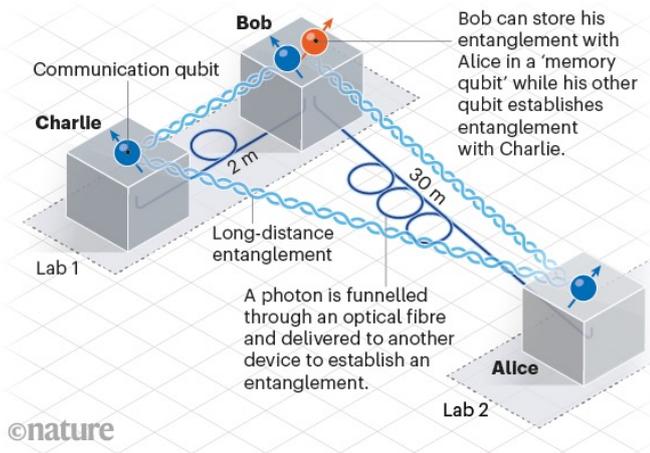
- It is a joint initiative of Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST).
- PARAM PORUL supercomputing facility is established under **Phase 2 of the NSM**, where in majority of the components used to build this system have been manufactured and assembled within the country, along with an indigenous software stack developed by C-DAC, in line with the Make in India initiative.
- PARAM PORUL system is based on **Direct Contact Liquid Cooling technology** to obtain a high power usage effectiveness and thereby reducing the operational cost.
- Multiple applications from various scientific domains such as **Weather and Climate, Bioinformatics, Computational Chemistry, Molecular Dynamics, Material Sciences, Computational Fluid Dynamics etc.** has been installed on the system for the benefit of researchers.
- This high end computing system will be a great value addition for the research community.

## ‘QUANTUM INTERNET’

**In News:** Scientists have taken a major step towards the creation of a quantum internet.

## QUANTUM NETWORK

Physicists have created a network that links three quantum devices using the phenomenon of entanglement. Each device holds one qubit of quantum information and can be entangled with the other two. Such a network could be the basis of a future quantum internet.



©nature

### More on the Topic:

- In the quantum world, data can be encoded in the state of qubits, which can be created in quantum devices like a quantum computer or a quantum processor.
- And the quantum internet, in simple terms, will involve sending qubits across a network of multiple quantum devices that are physically separated.

### About Qubits:

- Central to quantum communication is the fact that qubits, which harness the fundamental laws of quantum mechanics, behave very differently to classical bits.
- As it encodes data, a classical bit can effectively only be one of two states. Just like a light switch has to be either on or off, and just like a cat has to be either dead or alive, so does a bit have to be either 0 or 1.
- Not so much with qubits. **Instead, qubits are superposed: they can be 0 and 1 simultaneously**, in a special quantum state that doesn't exist in the classical world.
- It's a little bit as if you could be both on the left-hand side and the right-hand side of your sofa, in the same moment.
- The whole phenomenon is called superposition, and lies at the core of quantum mechanics.

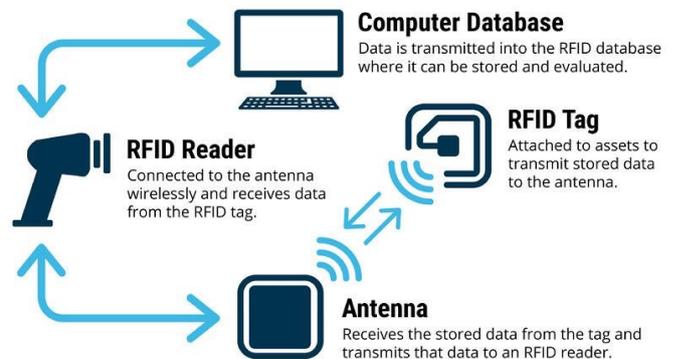
### Application:

- Unsurprisingly, qubits cannot be used to send the kind of data we are familiar with, like emails and WhatsApp messages.
- It can be used for cyber security.
- **The concept is at the core of an emerging field of cyber-security called quantum key distribution (QKD).**
- QKD works by having one of the two parties encrypt a piece of classical data by encoding the cryptography key onto qubits.
- If a hacker looked at the qubits at any point while they were being sent, this would automatically change the state of the qubits.
- A spy would inevitably leave behind a sign of eavesdropping – which is why cryptographers maintain that QKD is “provably” secure.

## RADIO-FREQUENCY IDENTIFICATION (RFID) TECHNOLOGY

In News: Baggage tags equipped with radio-frequency identification (RFID) will soon be available at Delhi's Indira Gandhi International Airport, marking a first of its kind for the country.

### Basic RFID System



### More on the Topic:

- Radio-frequency identification (RFID) is a technology that uses radio waves to automatically identify various tagged objects.
- Radio Frequency Identification (RFID) is a wireless tracking method that uses tags and readers to track objects.
- Transponder, receiver, and transmitter are the three components of an RFID system.
- The RFID reader continually sends radio waves of a specific frequency in RFID system.
- If the object to which the RFID tag is attached is within the range of the radio waves, it provides feedback to the RFID reader, which then identifies the object based on the feedback.

### About the different kinds of RFID?

- Passive tags, semi-passive tags, and active tags are the three types of RFID tags that are commercially available.
- There is no power supply for passive tags. They acquire their power from the readers' incoming radio waves.
- Semi-passive tags comprise an internal circuit with a power source, but rely on the radio waves received from the reader to transmit the response.
- The Low Frequency, High Frequency, and Ultra-High Frequency bands are used by RFID systems.

### What is a barcode?

- A barcode is a printed **series of parallel bars or lines of varying width** used for entering data into a computer system.
- The bars are black on a white background and vary in width and quantity depending on the application.
- The bars represent the **binary digits zero and one**, which represent the digits zero to nine processed by a digital computer.
- These barcodes are scanned using special optical

scanners known as barcode readers.

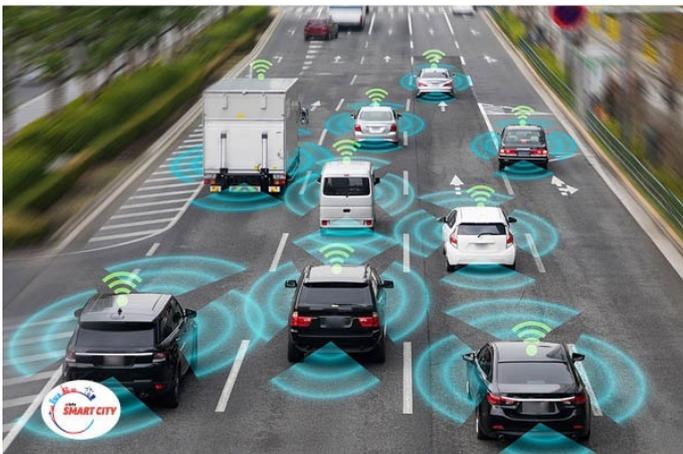
- The numbers that make up a barcode are also printed at the bottom. One of the most well-known examples of a barcode is the QR code.

### Radio-frequency identification (RFID) technology Vs barcodes

- RFID uses radio waves to communicate data from RFID chips to readers that do not require line of sight in order to obtain the data, whereas barcodes use light to read the black-and-white pattern printed on the sticky tag.
- An RFID tag can communicate with a powered reader even when the tag is not powered.

### 'INTELLIGENT SOLUTIONS FOR ROAD SAFETY THROUGH TECHNOLOGY AND ENGINEERING' (IRASTE)

**In News:** A project called 'Intelligent Solutions for Road Safety through Technology and Engineering' (iRASTE) is being implemented in Nagpur to tackle the problem of road accidents.



#### More on the Topic:

- The project is based on artificial intelligence (AI) and will help identify potential accident-causing scenarios while driving a vehicle.
- iRASTE will alert drivers about the potential accident with the help of the Advance Driver Assistance System (ADAS).
- The iRASTE project is being undertaken by the I-Hub Foundation, IIIT Hyderabad, supported by the Department of Science and Technology (DST) under its National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS).
- At present, iRASTE is being rolled-out in Nagpur but will be replicated in other cities too.

#### How iRASTE Works?

- The unique AI approach that iRASTE uses could predict and identify risks on the road, and a collision alert system to communicate timely alerts to drivers, to make several improvements related to road safety.
- The project (iRASTE) will also identify 'greyspots', by data analysis and mobility analysis by continuously monitoring dynamic risks on the entire road network.
- The need to identify 'greyspots' is of immense importance because if they remain unaddressed, they can become

blackspots (locations with fatal accidents).

- Moreover, the system also performs continuous monitoring of roads and designs engineering fixes to correct existing road blackspots for preventive maintenance and improved road infrastructure.

#### Significance of the Project:

- It will help India achieve following targets.
- Reduce road accident deaths by 50% by year 2024.
- By 2030, all countries have national laws to restrict or prohibit use of mobile phones while driving.
- By 2030, all countries accede to one or more of core road safety-related UN legal instruments.
- India is signatory to United Nation's Brasilia Declaration to reduce road fatalities.
- The AI project will also help in preparing a critical resource for future use by researchers, startups, and industry, mainly in the areas of smart mobility, healthcare along with smart buildings.
- Further, not only will it help in reducing road accidents, but also create practical solutions, as a blueprint, suitable for Indian conditions.:

### ASTRA MK-1 AIR-TO-AIR MISSILE

**In News:**The Ministry of Defence has signed a contract with the Hyderabad-based public-sector Bharat Dynamics Ltd (BDL) for supply of the Astra Mark-1.



#### More on the Topic:

- The missile has been designed and developed by the Defence Research and Development Organisation (DRDO) for deployment on fighter jets like Sukhoi-30 MKI and Tejas of the IAF and the Mig-29K of the Navy.
- BVM missiles are capable of engaging beyond the range of 20 nautical miles or 37 kilometers. AAMs are fired from an airborne asset to destroy an airborne target.
- BVM missiles are capable of engaging beyond the range of 20 nautical miles or 37 kilometers. AAMs are fired from an airborne asset to destroy an airborne target.

#### Strategic significance:

- The missile has been designed based on requirements specified by the IAF for BVR as well as close-combat engagement, reducing the dependency on foreign sources.
- AAMs with BVR capability provides large stand-off ranges to own fighter aircraft which can neutralise

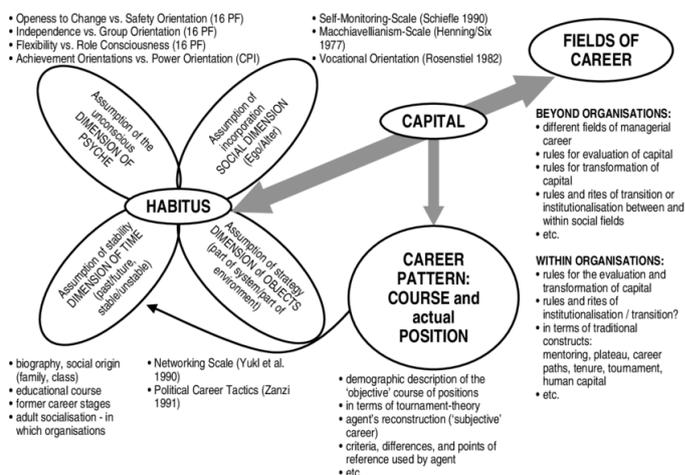
adversary airborne assets without exposing themselves to adversary air defence measures.

- Stand-off range means the missile is launched at a distance sufficient to allow the attacking side to evade defensive fire from the target.
- The missile can travel at speeds more than four times that of sound and can reach a maximum altitude of 20 km, making it extremely flexible for air combat.

## INDIAN SOCIETY/SOCIAL ISSUES/ SOCIAL JUSTICE

### THE CONCEPT OF HABITUS

In News: The Habitus which explains the link of inequality with social construct is under discussion.

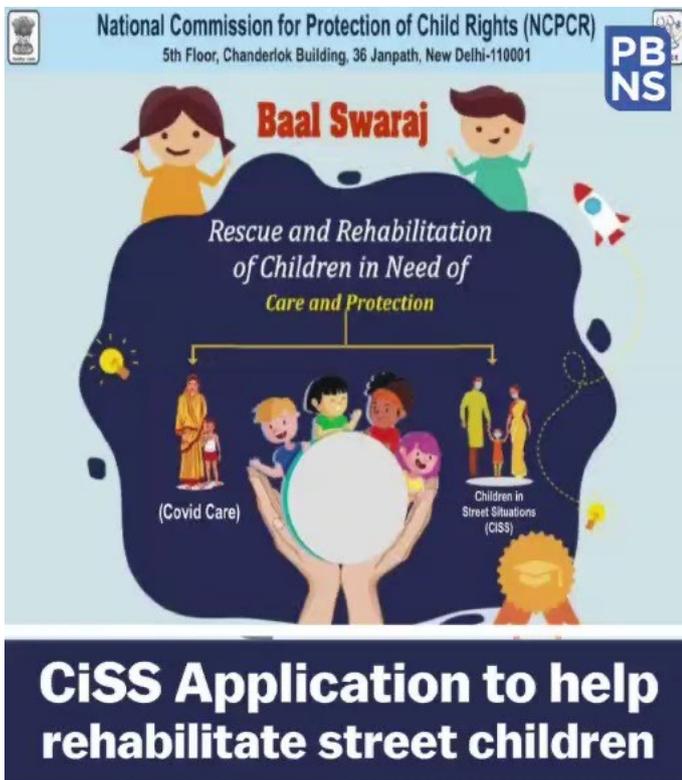


### More on the Topic:

- Habitus comprises socially ingrained habits, skills and dispositions. It is the way that individuals perceive the social world around them and react to it.
- These dispositions are usually shared by people with similar backgrounds and opportunities.
- It helps instill a sense of the world in individuals by attributing cultural value to material or immaterial objects.
- The concept also explains how inequality is reproduced through the dominant social and cultural conditions that an individual is accustomed to, which then determines their position in society.
- What one considers, 'natural', 'taboo', 'neutral' and 'good' or 'bad' is constructed by one's habitus.
- It was popularised by French sociologist Pierre Bourdieu in his book Outline of a Theory of Practice (1977).

### 'CISS APP' TO HELP REHABILITATION OF CHILDREN IN STREET SITUATIONS

In News: In order to help in the rehabilitation process of Children in Street Situations (CiSS), the National Commission for the Protection of Child Rights has launched a 'CiSS application' under the Baal Swaraj portal.



## CiSS Application to help rehabilitate street children

प्रसार भारती  
India's Public Service Broadcaster

### More on the Topic:

- Baal Swaraj is a portal launched by NCPCR for online tracking and digital real-time monitoring mechanism of children in need of care and protection. The portal has two functions - COVID care and CiSS.
- COVID Care link caters to the children who have lost either or both parents due to COVID-19 or otherwise post March 2020. It follows six stages framework for the rehabilitation of children.
- The standard operating procedure for care and protection of children in street situations 2.0 categorises any child under 'Children in Street Situation' if the child is living on the streets alone, living on the streets during the day, or living on the streets with the family.
- The root cause of this phenomenon is the migration of families from rural to urban areas in search of a better standard of living,
- This portal, developed by, NCPCR is a first-of-its-kind initiative in India to help children in street situations.

### About the CiSS Application:

- The CiSS application is used for receiving data of children in street situations from all the states and union territories, tracking their rescue and rehabilitation process.
- The initiative is taken under the direction of the Supreme Court.
- The program embodies Article 51 (A) of the Constitution of India, as it provides a platform to the public and organizations catering to the welfare of the children to report any child in need of assistance.
- The platform serves to collect data and report to the District Child Protection Officer for them to take necessary action.

### How the CiSS application works?

- To report a child under 'Children in Street Situations', visit <https://ncpcr.gov.in/baalswaraj/login>, click on 'Citizen Portal', then go to 'Report a CiSS to help a child'.
- It will lead to a form that will ask for the child's and the informant's details.
- Once registered, a registration ID is generated along with the contact information of the concerned DCPO for further follow up.
- The DCPO will get information of the child on the dashboard for further action that is, rescue and rehabilitation.

### NEW RULES UNDER SURROGACY ACT

In News: The government has issued fresh surrogacy rules under the umbrella Surrogacy Act.

#### More on the Topic:

- The Act has made it mandatory for couples who wish to become parents through surrogacy to buy health insurance plans for surrogate mothers.
- The insurance should be recognised by the Insurance Regulatory Authority of India.
- It should cover all expenses for all complications arising out of pregnancy and postpartum delivery complications.
- The government has also ensured that the number of attempts of any surrogacy procedure on the surrogate mother shall not be more than three times.
- A surrogate mother may be allowed for abortion during the process of surrogacy in accordance with the Medical Termination of Pregnancy Act, 1971 in case of any complication as advised by the doctors.
- Every private surrogacy clinic has to file an application for registration with a fee of 2 lakh which is non-refundable. However, facilities under government-run institutes are exempt from such fees.
- Surrogacy clinics shall have at least one gynaecologist, one anaesthetist, one embryologist and one counsellor.

#### About the Surrogacy Act:

- The act defines surrogacy as a practise where a woman gives birth to a child for an intending couple to hand over the child after the birth to the intending couple.
- The Act will be constituting the National Assisted Reproductive Technology and Surrogacy Board, State Assisted Reproductive Technology and Surrogacy Boards, and the appointment of appropriate authorities for regulation of the practice and process of surrogacy.
- The Act prohibits commercial surrogacy but allows altruistic surrogacy.
- Altruistic surrogacy involves no monetary compensation to the surrogate mother other than the medical expenses and insurance coverage during the pregnancy.

- Commercial surrogacy includes surrogacy or its related procedures undertaken for a monetary benefit or reward (in cash or kind) exceeding the basic medical expenses and insurance coverage.

**Conditions for permitting surrogacy:**

- For intending couples who suffer from proven infertility.
- Altruistic
- Not for commercial purposes
- Not for producing children for sale, prostitution, or other forms of exploitation
- For any condition or disease specified through regulations.

**UN ACTION AGENDA ON INTERNAL DISPLACEMENT**

In News: United Nation (UN) secretary-general launched action agenda on Internal Displacement.

**THE UNITED NATIONS SECRETARY-GENERAL'S ACTION AGENDA ON INTERNAL DISPLACEMENT**

Follow-Up to the Report of the UN Secretary-General's High-Level Panel on Internal Displacement



**More on the Topic:**

- The Action Agenda sets out 31 commitments by the UN system to better resolve, prevent and address internal displacement crises.
- It also includes calls to member states, international financial institutions, the private sector and other actors.
- UN secretary-general had appointed a time-bound Special Adviser on Solutions to Internal Displacement.
- The Special Adviser will work in concert with a Steering Group on Solutions to Internal Displacement, which will engage at the global and country levels to drive stepped-up action and one-UN approaches to solutions.

**The Action Agenda on Internal Displacement has three overarching goals:**

- To help internally displaced persons find durable solutions
- To better prevent future displacement crises
- To ensure stronger protection and assistance for those currently facing displacement.
- These three goals are interlinked. No solution is sustainable if another crisis is looming.

- No assistance will be sufficient if underlying drivers remain unresolved. And prevention cannot succeed if past crises have not been addressed.

**India Internal Displacement - Statistics**

- India saw 4.9 million internal displacements last year, according to a June 2022 UN report based on data provided by the Switzerland-based non-profit Internal Displacement Monitoring Centre.
- The country ranked third in terms of most internal displacements due to disasters after China (6 million) and the Philippines (5.7 million).

**Three instances of IDPs in India:**

- Adivasis, who bore the brunt of major developmental projects such as big dams
- Coastline dwellers such as those in Satabhaya in Odisha, where seven villages were being swallowed by the sea
- Thousands of tribals in Chhattisgarh who had been forced to migrate to Khammam in Telangana due to the conflict between Maoists and the Salwa Judum

**India's IDP:**

- India has a policy in place for dam-displaced people.
- But it does not have one for those displaced by political conflict or environmental reasons.
- The right to Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 address development related Internal Displacement.
- Disaster Management Act, 2005 address Disasters related internal displacement.
- India could make a policy on internal displacement in line with the UN Action Agenda to efficiently tackle Internal Displacement issues.

**SUPREME COURT RECOGNISES SEX WORK AS A PROFESSION**

In News: In a socially and historically path breaking order, the Supreme Court has recognised prostitution as a profession. This order has been issued based on Invoking SC's special powers under Article 142 of the Constitution.



### More on the Topic:

- The important directions given by the court are:
- All those engaged in prostitution and their children are entitled to the same human “decency and dignity” as is available to others.
- They are also entitled with the “opportunities” to grow and advance in their lives guaranteed under **Article 21 of the Constitution -- right to life.**
- The police across the country should refrain from being “brutal” and “violent” towards the sex workers and “not to abuse them, both verbally and physically, subject them to violence or coerce them into any sexual activity”.
- The government should sensitise the police and other law enforcement agencies about the rights of sex workers, who also enjoy all basic human rights and other rights guaranteed in the Constitution to all citizens.
- Any sex worker who is a “victim of sexual assault” should be provided with all facilities available to a survivor of sexual assault, including immediate medical assistance, in accordance with Section 357C of the Code of Criminal Procedure 1973.
- “No child of a sex worker should be separated from the mother merely on the ground that she is in the sex trade”.
- Press Council of India should issue appropriate guidelines for the media to “take utmost care not to reveal the identities of sex workers, during arrest, raid and rescue operations for protecting the identities of sex workers from media exposure.

### About Article 142:

- Article 142 provides discretionary power to the Supreme Court as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it.

### About Article 21:

- Article 21 of Indian Constitution provides for “Protection of Life and Personal Liberty” and reads as “No person shall be deprived of his life or personal liberty except according to procedure established by law.”
- The fundamental right under Article 21 is one of the most important rights provided under the Constitution which has been described as **the heart of fundamental rights by the Apex Court in Unni Krishnans case.**
- The objective of the fundamental right under Article 21 is to prevent encroachment upon personal liberty and deprivation of life except according to procedure established by law.

## COMMUNITY FOREST RIGHTS

In News: Chhattisgarh has become the second state to have recognised CFR rights inside a national park.

### Forest Rights Act

- Livelihood and occupancy rights.
- Rights to water bodies and flora and fauna.
- Settlement and conversion rights.
- Right to conservation.
- Intellectual property rights and traditional knowledge related to biodiversity.
- Rehabilitation and settlements rights

### More on the Topic:

- The CFR rights of Gudiapadar hamlet, which consists of four reserved forest compartments inside the **Kanger Ghati National Park**, was recognised recently.
- CFR rights under **section 3(1)(i) of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006** ; commonly known as Forest Rights Act or FRA provides for the recognition of the rights to “protect, regenerate or conserve or manage” the community forest resource.
- This right allows the community to formulate rules for forest use by itself and others. CFR rights, along with Community Rights (CRs) under sections 3(1)(b) and 3(1)(c) are aimed at ensuring sustainable livelihoods of the community.
- The FRA provides for CR and CFR rights recognition in all forest lands, including wildlife sanctuaries, tiger reserves and national parks.
- These rights give the authority to the Gram Sabha to adopt local traditional practices of forest conservation and management within the community forest resource boundary.

### What is a community forest resource?

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

### Why is the recognition of CFR rights important?

- Aimed at undoing the “historic injustice” meted out to forest-dependent communities due to curtailment of their customary rights over forests, the FRA came

into force in 2008.

- It is important as it recognises the community's right to use, manage and conserve forest resources, and to legally hold forest land that these communities have used for cultivation and residence.
- It also underlines the **integral role that forest dwellers play in sustainability of forests and in conservation of biodiversity.**
- It is of greater significance inside protected forests like national parks, sanctuaries and tiger reserves as traditional dwellers then become a part of management of the protected forests using their **traditional wisdom.**

## INTERNAL SECURITY

### OVERGROUND WORKERS

**In News:** Nearly 250 'overground workers' arrested in Jammu & Kashmir under the Public Safety Act and Unlawful Activities (Prevention) Act. Most of them have been lodged in prisons outside the Union Territory.

#### More on the Topic:

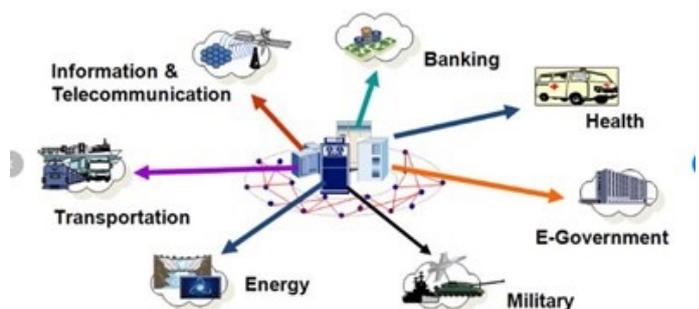
- An OGW helps militants/terrorists in movement, ammunition supplies and accommodation.
- Over ground workers (OGWs) are people who help militants, or terrorists, with logistical support, cash, shelter, and other infrastructure with which armed groups and insurgency movements such as Hizbul Mujaheddin and Jaish-e-Muhammad in Jammu and Kashmir can operate.
- OGWs **play a vital role in militant attacks, providing real-time information and support to the tactical elements.**
- Over ground workers have diversified into other roles such as stone-pelting, mob-rioting, ideological support, radicalisation, and recruitment of militants.

#### Public Safety Act and Unlawful Activities (Prevention) Act:

- Passed in 1967, the law aims at effective prevention of unlawful activities associations in India.
- The Act assigns **absolute power to the central government**, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- It has death penalty and life imprisonment as highest punishments.
- Under UAPA, **both Indian and foreign nationals can be charged.**
- It will be applicable to the offenders in the same manner, even if crime is committed on a foreign land, outside India.

### 'CRITICAL INFORMATION INFRASTRUCTURE'

**In News:** The Union Ministry of Electronics and IT (MeitY) has declared IT resources of ICICI Bank, HDFC Bank and UPI managing entity NPCI as 'critical information infrastructure'.



#### More on the Topic:

- The Information Technology Act of 2000 defines "Critical Information Infrastructure" as a "computer resource, the incapacitation or destruction of which

shall have debilitating impact on national security, economy, public health or safety”.

- The government, under the Act, has the power to declare any data, database, IT network or communications infrastructure as CII to protect that digital asset.
- Any person who secures access or attempts to secure access to a protected system in violation of the law can be punished with a jail term of up to 10 years.

#### Why is CII classification and protection necessary?

- IT resources form the backbone of countless critical operations in a country’s infrastructure, and given their interconnectedness, disruptions can have a cascading effect across sectors.
- An information technology failure at a power grid can lead to prolonged outages crippling other sectors like healthcare, banking services.

#### How are CIIs protected in India?

- Created in January 2014, the **National Critical Information Infrastructure Protection Centre (NCIIPC)** is the nodal agency for taking all measures to protect the nation’s critical information infrastructure.
- It is mandated to guard CIIs from “unauthorized access, modification, use, disclosure, disruption, incapacitation or distraction”.
- NCIIPC will monitor and forecast national-level threats to CII for policy guidance, expertise sharing and situational awareness for early warning or alerts.

## REPORTS AND INDICES

### THE ENERGY PROGRESS REPORT 2022

**In News:** Tracking SDG 7 – The Energy Progress Report 2022 was published recently by the collaboration of the World Bank, WHO, UNSD, IEA (International Energy Agency) and IRENA (International Renewable Energy Agency).



#### More on the Topic:

- Important findings by the report are as follows:
- At today’s rate of progress, **the world is still not on track to achieve the SDG 7 goals of ensuring access to affordable, reliable, sustainable and modern energy by 2030.**
- Globally, **733 million people still have no access to electricity**, and 2.4 billion people still cook using fuels detrimental to their health and the environment.
- **The COVID-19 pandemic has been a key factor in slowing progress toward universal energy access.**
- At the current rate of progress, **670 million people will remain without electricity by 2030.**
- **The access gap has widened across regions.** The 20 countries with the least access to electricity are home to 76 percent of the global population left in the dark.
- Nearly 90 million people in Asia and Africa who had previously gained access to electricity, can no longer afford to pay for their basic energy needs.

### NATIONAL E-GOVERNANCE SERVICE DELIVERY ASSESSMENT (NESDA) REPORT

**In News:** National e-Governance Service Delivery Assessment (NeSDA) report was released recently.



### More on the Topic:

- Kerala had the highest overall compliance score among all states and UTs.
- Jammu and Kashmir, assessed for the first time, ranked the highest among Union Territories with an overall compliance of nearly 90 percent for national e-governance service delivery assessment (NeSDA).
- Among the Services Portals for North-East and Hill States, the highest-ranking states of Meghalaya and Tripura showed improvement across all six sectors compared to NeSDA 2019.
- 28 central government ministries/departments have already adopted e-office version 7.0 along with digitisation of the central registration units, enabling creation of paperless secretariats 'where receipts move online, files move online and correspondence moves online'.
- The migration schedule of the remaining ministries/departments has been drawn up and by February 2023, all ministries will have e-Office version 7.0.

### About e-Governance Service Delivery Assessment (NeSDA) report:

- The report has been prepared covering the assessment of states, UTs, and focuses on central ministries on their effectiveness in delivering online services to citizens.
- It also provides suggestions for governments to further enhance their e-governance service delivery systems.
- The Department of Administrative Reforms and Public Grievances (DARPG) had constituted the NeSDA in 2019 as part of its mandate to boost the e-government endeavours and drive digital government excellence.
- NeSDA 2021 covers services across seven sectors – Finance, Labour & Employment, Education, Local Governance & Utility Services, Social Welfare, Environment and Tourism sectors.
- The assessment covered 56 mandatory services for each States & UTs and 27 services for the focus Central Ministries.

### Significance of e Governance:

- The limited file movement with four levels of submission and adoption of the desk officer system has ensured that non-performing officials can no longer hide files.
- The uninterrupted functioning of the central secretariat in the coronavirus pandemic and lockdown was possible because of e-office.

### SUSTAINABLE DEVELOPMENT GOAL PREPAREDNESS RANKING

In News: India's rank in the global Sustainable Development Report, 2022 has slipped for the third consecutive year.



### More on the Topic:

- In the 2022 Global Index of SDGs, the country ranked 121 out of the 163 countries. It had ranked 117 in 2020 and 120 in 2021.
- The country continues to face major challenges in achieving 11 of the 17 SDGs, which has pushed down its global ranking on SDG preparedness.
- The progress in around 10 of these goals is similar to those in 2021. These include SDG 2 on ending hunger, SDG 3 on good health and wellbeing and SDG 6 on clean water and sanitation.
- But ensuring decent work (SDG 8) has become more challenging.
- SDGs are not mentioned in the latest central or federal budget documents of India as well.
- India's performance on climate action – (SDG) 13 – has slipped from 2019-2020.
- This decline in India's overall performance is primarily due to eight states – Bihar, Telangana, Rajasthan, Uttar Pradesh, Karnataka, Andhra Pradesh, Punjab and Jharkhand – whose scores have dipped under SDG 13 in the two years.

### About Sustainable Development Goal Preparedness Index:

- Since 2015, the report has been tracking and ranking the performance of 163 UN member states on SDGs.
- It is published by a group of independent experts at the Sustainable Development Solutions Network (SDSN).

### About Sustainable Development Goals:

- First discussed in United Nations Conference on Sustainable Development in Rio de Janeiro in 2012, the Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015.
- Sustainable development goals of UN were adopted as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030.
- In 2015, 3-landmark agreement was signed. Sustainable development goals by UN, COP 15 or Paris Climate Conference and Sendai Framework for Disaster Risk Reduction.
- There are 17 sustainable development goals, 169 targets and 247 indicators.

## STATE FOOD SAFETY INDEX

**In News:** State Food Safety Index awards were announced on World Food Safety day.

### More on the Topic:

- Tamil Nadu topped the list among larger states followed by Gujarat and Maharashtra.
- Among smaller states, Goa was the winner, followed by Manipur and Sikkim, while Jammu and Kashmir emerged top among Union Territories, followed by Delhi and Chandigarh.
- State Food Safety Index award was started in 2018-19 with the aim of creating a competitive and positive change in India's food safety ecosystem.
- The report has been prepared by the Food Safety and Standards Authority of India (FSSAI) to measure the performance of States across five parameters of food safety.

### World Food Safety Day:

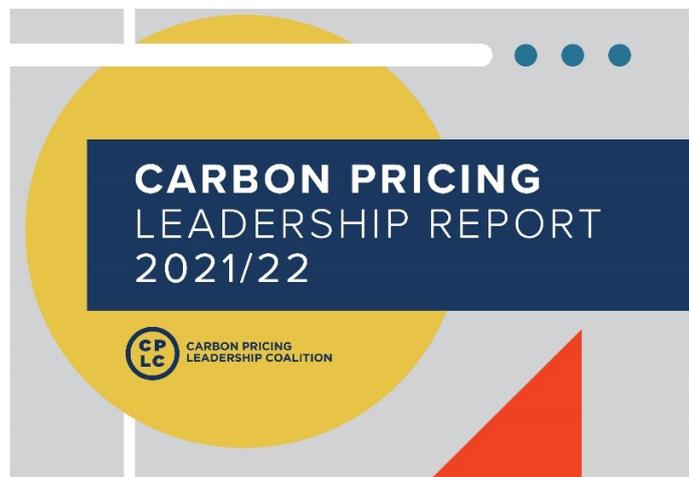
- In 2018, the United Nations General Assembly proclaimed that every June 7 would be celebrated as World Food Safety Day.
- It is observed annually on 7 June to help prevent, detect and manage foodborne risks.
- This year's World Food Safety Day theme – 'Safe Food for a healthy tomorrow'
- It highlights that the production and consumption of safe food has immediate and long-term benefits for people, the planet and the economy.

### Indian Governments Food Safety Initiatives:

- **Eat Right India**, aligned to the National Health Policy 2017 with its focus on preventive and promotive health-care and flagship programmes like Ayushman Bharat, POSHAN Abhiyaan, Anemia Mukta Bharat and Swachh Bharat Mission.
- **The Eat Right Research Awards and Grants** to encourage and recognize high-quality research in the area of food safety and nutrition in India;
- **A logo for Vegan Foods** for easy identification and distinction from non-vegan foods for empowering consumers to make informed food choices.
- **PAN-India survey** for identifying the presence of industrially produced trans fatty acid content in the selected foods.

## CARBON PRICING LEADERSHIP COALITION REPORT 2021-2022

**In News:** Carbon pricing leadership coalition report prepared by the Secretariat of Carbon Pricing Leadership Coalition (CPLC) was published recently.



### More on the Topic:

- The report intends to review global developments in carbon pricing, implications for carbon market growth and broader limitations to carbon pricing potential.
- Carbon tax is the price that **governments impose on polluters for each metric ton of carbon dioxide emissions generated**. Emission Trading System (cap and trade) is a tradable-permit system for GHG emissions.

### Excerpts from the report:

- Less than 4% of global emissions are currently covered by a carbon price within the range needed by 2030 to meet the Paris Agreement temperature goals.
- **Emissions trading systems (ETs) were largely resilient to reduced economic activity as a result of COVID-19.**
- **Several countries increased their carbon tax rates and adopted more ambitious trajectories**, and pilot ETs are being considered in a number of countries, including national and regional programs.
- After six years of negotiations, COP26 in Glasgow finalized the long-awaited Article 6 of the Paris Agreement rulebook for international cooperation through carbon markets.
- It gives countries the tools they need for environmental integrity to avoid double counting and paves the way to get private capital flowing to developing countries.

### The Carbon Pricing Leadership Coalition:

- The Carbon Pricing Leadership Coalition is the main vehicle for countries, private sector, and stakeholders to collectively share their best practices on carbon pricing policies, disseminate essential research, amplify leadership, and inspire others to follow suit.

## THE ANNUAL GLOBAL TRENDS REPORT

**In News:** The annual Global Trends Report by the UN Refugee Agency (UNHCR) was released recently.

## Nearly 50 lakhs displaced in India due to climate change: UN Report



### More on the Topic:

- The report highlighted that globally **100 million people were forced to flee their homes last year** due to violence, human rights abuses, food insecurity, the climate crisis, war in Ukraine and other emergencies from Africa to Afghanistan.
- There were **23.7 million new internal displacements globally due to disasters** (these are in addition to those internally displaced due to conflict and violence). This represented a decrease of seven million, or 23 per cent, compared to the previous year.
- The largest displacements in the context of disasters in 2021 occurred in China (6.0 million), the Philippines (5.7 million) and India (4.9 million).
- At the end of 2021, **89.3 million people were forcibly displaced worldwide**, including 27.1 million refugees.
- **Nearly five million people in India were internally displaced due to climate change and disasters in 2021.**
- Food scarcity, inflation and the climate crisis are adding to people's hardship.

### Displacement Within their Countries:

- Last year also saw the **15th straight annual rise in people displaced within their countries** by conflict, to 53.2 million. The increase was driven by mounting violence or conflict in some places, for example Myanmar.
- The conflict in **Ethiopia's Tigray** and other regions has spurred the flight of millions within the country. **Insurgencies in the Sahel** drove fresh internal displacement, particularly in Burkina Faso and Chad.

## ANCIENT AND MODERN INDIA, ART AND CULTURE

### SANTHAL TRIBE

**In News:** Santhal community is in the spotlight after the National Democratic Alliance (NDA) named Draupadi Murmu who belongs to Santhal tribe as their Presidential candidate for the upcoming election.

#### Story of Santhals



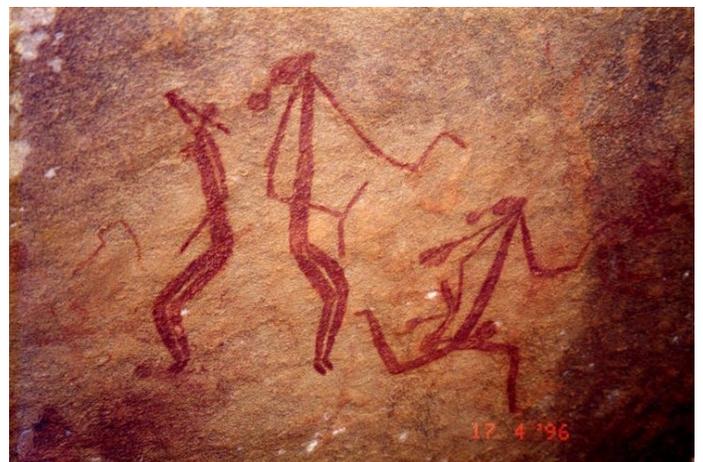
- \*Santhals are among the largest tribal groups in South East Asia.
- \*Their population in India is around 70 lakh, of which 4.06 lakh are in Bihar.
- \*Originally Santhals were hunter-gatherers & are mostly farmers now.
- \*Santhals in Bangladesh, Nepal and Bhutan follow the same traditions & language .
- \*Santhali is India's 22nd official language but isn't taught in schools or used in government work.

### More on the Topic:

- The Santhali population is distributed in **Odisha, Jharkand, West Bengal, Bihar, Jharkhand and Assam.**
- Draupadi Murmu's home district Mayurbhanj, is one of the districts having the largest concentrations of the tribe.
- **They are the third largest schedule tribe community in the country after Gond and Bhil.**
- **They Speak Santhali and follows Script called Olchiki.**
- Their festivals include Karam festival, Maghe, Baba Bonga, Sahrai, Ero, Asaria and Namah and Disum sendra.

### ANCIENT ROCK PAINTINGS - BARGUR

**In News:** Over 200 prehistoric paintings were recently identified at a cave in the forest area of Bargur Hills.



### More on the Topic:

- Paintings are in **red ochre and white**. A hunting scene in red displays human figures and a herd of deer standing

opposite each other, while in some images, deer of various sizes are presented.

- Draupadi Murmu's home district Mayurbhanj, is one of the districts having the largest concentrations of the tribe.
- They are the third largest schedule tribe community in the country after Gond and Bhil.
- sizes are presented.
- About 30 feet above the ground, an anthropomorphic painting, four feet high, was seen.
- It looks similar to the Mother Goddess megalithic structures identified at T. Mottur village in Tiruvannamalai district.
- Two deer and a few animals can be seen beneath the leg of the painting, which depicts the deity blessing humans with resources for hunting.



### 'RUKMINI-KRISHNA YATRA'

**In News:** National Monumental Authority (NMA) decided to strengthen the northeastern state's age-old cultural ties with Gujarat through Rukmini and Bhagwan Krishna tales.



#### More on the Topic:

- It aims to promote concept of national unity and generate awareness on the initiative – 'Ek Bharat Shrestha Bharat'.
- NMA is aiming for monument preservation and organizing a Rukmini Krishna Yatra between Arunachal Pradesh and Gujarat on a large scale and to promote it at the national level.
- Rukmini's marriage to Lord Krishna is an important folklore among Idu Mishmi tribal community.
- In Porbandar, Krishna's marriage with Arunachal's Rukmini is also celebrated.

### INTERNATIONAL DAY OF YOGA

**In News:** Each year on 21 June, the world comes together to observe the International Day of Yoga, a day designated by the United Nations to celebrate the power of yoga in promoting holistic health practices worldwide.

#### More on the Topic:

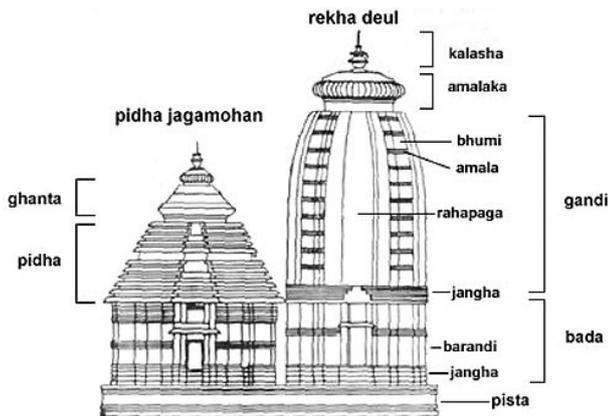
- Yoga derives its name from the Sanskrit root 'yuj' which means to join or to unite reflecting a union of the individual to the universal.
- It symbolises the unity of one's mind, body, and spirit with the world outside, through a set of exercises that include breathing techniques, physical postures, and relaxation methods.
- Yoga helps in elevating the levels of a chemical called gamma-aminobutyric acid (GABA) which is associated with better mood and decreased anxiety.
- Researchers around the world agree that yoga therapies play a key role in improving the quality of life by significantly reducing symptoms linked to depression, boosting immunity, improving cardiovascular functioning, and enhancing sleep patterns.
- Apart from healing the mind, yoga also heals the body. It helps in relieving back pain and easing the symptoms of arthritis. Yoga also helps in improving strength, balance, and flexibility.

#### Yoga Philosophy:

- Many Hindu intellectual traditions were classified during the medieval period of Brahmanic-Sanskritic scholasticism into a standard list of six orthodox (Astika) schools (Darshanas).
- Yoga is one of the six above mentioned philosophies.
- Founder of Yoga philosophy is Patanjali.
- It is closely related to the Samkhya school of Hinduism.
- Core Philosophy: Yogic techniques control body, mind & sense organs, thus considered as a means of achieving freedom or mukti.
- According to Yoga, success in the practice of yoga led to a full realization of the gulf between purusha and prakriti, and therefore liberation from suffering.

## PURI JAGANNATH TEMPLE

**In News:** The Supreme Court has dismissed a batch of petitions against excavation and construction work by the Odisha government along the Puri Jagannath temple as part of the Puri Heritage Corridor Project.



### More on the Topic:

- The temple is believed to be constructed in the 12th century by King Anantavarman Chodaganga Deva of the Eastern Ganga Dynasty.
- The temple is dedicated to Jagannath, a form of Krishna, **in Puri in the state of Odisha on the eastern coast of India.**
- This temple was called the "White Pagoda" and is a part of Char Dham pilgrimages (Badrinath, Dwaraka, Puri, Rameswaram).
- Konark Sun Temple is called 'Black Pagoda' due to its dark color.

### Architecture Style:

- With its Oriya style of temple architecture, it is one of the most magnificent monuments of India.
- Main temple is a curvilinear structure. Divided into 4 sections, namely –
- Deula, Vimana, or Garba griha (Sanctum sanctorum) in the style of Rekha Deula
- Mukhashala (Porch in front)
- Nata mandir/Natamandapa/ Jagamohan
- Bhoga Mandapa (Offerings Hall)

## SANJHI ART

**In News:** PM Modi has Gifted Mathura's Famous Sanjhi Art to Joe Biden at Tokyo Meet.

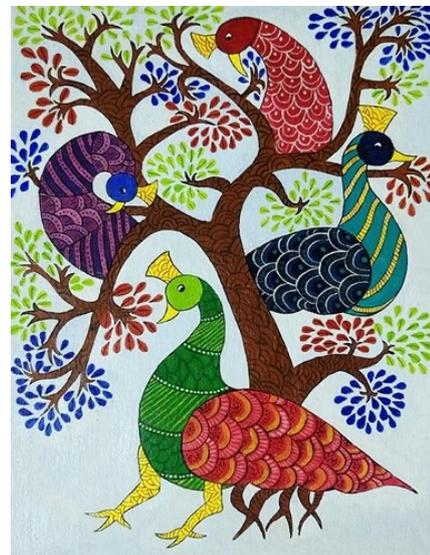


### More on the Topic:

- Sanjhi Painting is a tradition of art that originated out of the cult of Krishna and flourished in the north Indian state of Uttar Pradesh.
- It is in Vraja, or Vrindavan, the homeland of Lord Sri Krishna, that this art of Sanjhi painting reached its pinnacle.
- Sanjhi is the art of hand-cutting designs on paper.
- Traditionally motifs from Lord Krishna's stories are created in stencils. These stencils are cut freehand using a scissor or a blade.
- The delicate Sanjhi is often held together by thin sheets of paper.
- This art painting is rooted in the folk culture of the region. It was taken to its glory by the Vaishnava temples in the 15th and 16th centuries.

## GOND ART

**In News:** PM Modi has Gifted Gond Art To Australia's New Prime Minister.



### More on the Topic:

- Gond painting is one of the most famous artworks of the Gond tribal community who have their natural habitat in central India.
- Gond paintings are one of the most admired tribal art forms. The word 'Gond' comes from the expression 'Kond' which means 'green mountain'.
- These paintings, created by dots and lines, have been a part of pictorial art on walls and floors of Gonds and it is done with the construction and re-construction of each and every house, with locally available natural colours and materials like charcoal, coloured soil, plant sap, leaves, cow dung, limestone powder, etc.

## ROGAN PAINTING

**In News:** PM Modi has gifted hand-carved box with Rogan painting to Japan's Prime Minister.

# DISASTER MANAGEMENT

## MUMBAI IS SINKING EACH YEAR

In News: A new research has revealed that Mumbai is sinking by an average of 2 mm annually because of a geographical phenomenon known as land subsidence - downward, vertical movement of the earth's surface.



### More on the Topic:

- Though global warming is one of the main reasons for the phenomenon, it is not the only reason.
- Groundwater extraction, mining, reclamation of natural wetlands, infrastructure projects and ecological disturbances is leading to land subsidence in Mumbai.
- The study also analyzed the land subsidence in 99 countries globally and found that Tianjin in China is the fastest sinking coastal city in the world at a rate of 5.2 cm per year.

### Implication of the phenomenon:

- With sea levels projected to rise by around 1 to 1.2 metres in a high emissions scenario, It is found that **nearly 38 percent Mumbai's land may be inundated during normal rainfall**. This is a severe issue that has to be addressed immediately.
- Researchers have found that the combined effect of declining groundwater and high-rise buildings have made Mumbai vulnerable to **"subsidence, leading to increased inundation"**.
- Additionally, the areas prone to subsidence witness the **"worst impacts of flooding and property damage"**.

### Land Subsidence:

- Land subsidence is a **gradual settling or sudden sinking of the Earth's surface** owing to subsurface movement of earth materials.
- Subsidence is a **general term for downward vertical movement of the Earth's surface**, which can be caused by both natural processes and human activities. Subsidence involves little or no horizontal movement, which distinguishes it from slope movement.



### More on the Topic:

- Rogan painting is an art of cloth printing practised in Kutch district of Gujarat.
- In the craft, paint made from boiled oil and vegetable dyes is laid down on fabric using either a metal block (printing) or a stylus (painting).
- The craft nearly died out in the late 20th century, with Rogan painting being practised by only one family.
- The word 'Rogan' comes from Persian, meaning varnish or oil.

# PERSONALITIES/PLACES IN NEWS

## KHERSON REGION

In News: Russia is planning to set up army base in Ukraine's Kherson region.

### Areas of Russian military control in Ukraine



### More on the Topic:

- Russia invaded Ukraine in February, seizing in particular the Kherson region which is adjacent to Crimea, the peninsula which Moscow has controlled since an earlier conflict in 2014.
- It has installed a new administration there and started introducing the Russian rouble as a currency.

## PAMBAN BRIDGE

In News: India's first vertical lift Railway Sea Bridge – Pamban Bridge will be ready soon.

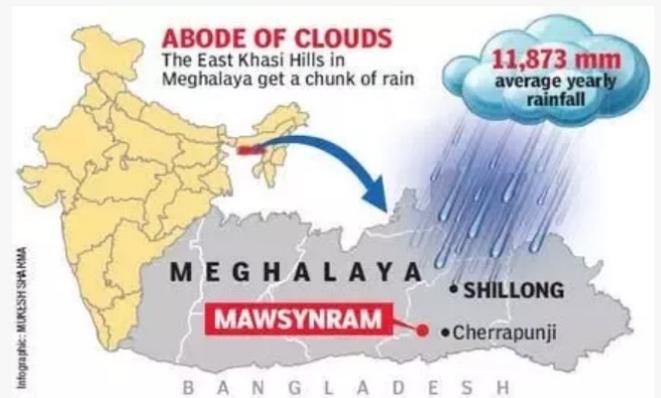


### More on the Topic:

- Pamban Bridge attracts tourists from all over the world. It connects Mandapam in TN to Rameswaram at Pamban island.
- Old Pamban Bridge was commissioned on February 24, 1914.
- It was India's first sea bridge, and was the longest sea bridge in India until the opening of the Bandra-Worli Sea Link in 2010.

## MEGHALAYA'S MAWSYNRAM

In News: Mawsynram and Cherrapunji together got more rainfall in a day than entire country's average in June.



### More on the Topic:

- Mawsynram is a town in the East Khasi Hills district of Meghalaya state in northeastern India, 60.9 kilometres from Shillong.
- Mawsynram receives the highest rainfall in India.
- It is reportedly the wettest place on Earth, with an average annual rainfall of 11,872mm.
- Cherrapunji or Sohra is a subdivisional town in Meghalaya.
- It sits on a plateau in the southern part of the Khasi Hills.

## WEST BANK

In News: Military clashes are happening in the West Bank.

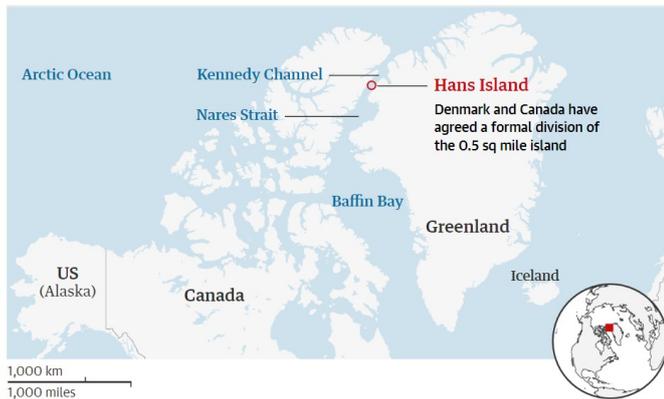


### More on the Topic:

- The West Bank is located on the west bank of the Jordan River and is bounded by Israel on the north, west and south.
- On the east of this river lies Jordan. Since the Six-Day War in 1967, also known as the Third Arab-Israeli War, the West Bank has been occupied by Israel.
- Both Israelis and Palestinians assert their rights to the territory of the West Bank and its disputed status and the conflict has not been resolved as yet.

## HANS ISLAND

**In News:** Canada and Denmark has ended decades-long dispute over Hans Island.



### More on the Topic:

- It is located in the **Kennedy Channel of Nares Strait** between the north-western coast of the semi-autonomous Danish territory of Greenland and Canada's Ellesmere Island.
- Canada and Denmark agreed in **1973 to create a border through Nares Strait**, halfway between Greenland and Canada.
- But they were unable to agree which country would have sovereignty over Hans Island, which lies about 680 miles (1,100km) south of the north pole.
- In the end they decided to work out the question of ownership later.
- Nares Strait is a cold channel connecting **Baffin Bay in the Atlantic Ocean with Lincoln Sea in the Arctic Ocean**.

## KATCHATHEEVU ISLAND

**In News:** Tamil Nadu chief minister demanded to restore rights over Katchatheevu island.



### More on the Topic:

- Katchatheevu is a small uninhabited island in Palk Strait, that connects the Bay of Bengal to the Arabian Sea.
- Katchatheevu island is now a part of Sri Lanka according to India-Sri Lanka Maritime Boundary Agreements between 1974-76.
- Despite the signing of maritime boundary agreements, fishermen communities of both the countries continued

their fishing in the Palk Bay area peacefully until the Eelam war broke out in 1983.

- Nonetheless, after the end of War in 2009, the Sri Lankan fishermen have been raising their objection to Indian fishermen fishing in their waters.
- The small islet of Katchatheevu, hitherto used by the fishermen for sorting their catch and drying their nets, fell on the other side of the IMBL.
- Fishermen often risk their lives and cross the IMBL rather than return empty-handed, but the Sri Lankan Navy is on alert, and have either arrested or destroyed fishing nets and vessels of those who have crossed the line.

## GILGIT BALTISTAN

**In News:** A recent report indicated that Pakistan may cede Gilgit Baltistan (GB), a Pakistan-occupied Kashmir region (PoK) to China on lease to pay off its mounting debt.



### More on the Topic:

- Gilgit Baltistan is a region administered by Pakistan as an autonomous territory, and constituting the northern portion of the larger Kashmir region.
- It borders PoK to the south, the province of Khyber Pakhtunkhwa to the west, the Wakhan Corridor of Afghanistan to the north, the Xinjiang region of China, to the east and northeast, and the Indian-administered union territories of Jammu and Kashmir and Ladakh to the southeast.
- Three of the world's longest glaciers outside the polar regions are found in Gilgit-Baltistan. They are Biafo Glacier, Baltoro Glacier, and Batura Glacier.

### Gilgit Baltistan and India:

- India's stand is that UTs of Jammu & Kashmir and Ladakh, including 'Gilgit-Baltistan', are an integral part of India by virtue of the legal, complete and irrevocable accession of Jammu & Kashmir to Union of the India (1947)
- The area is strategically importance for India as Pakistan ceding GB that it illegally occupies would be a boon for China's South Asian expansion.
- It has made use of territory in the region that Pakistan

ceded earlier and would like GB since the Karakorum is right on the trail of the China Pakistan Economic Corridor (CPEC).

#### Background:

- Gilgit was part of the princely state of Jammu & Kashmir and ruled directly by the British, as it was taken on lease from Hari Singh, the Hindu ruler of the Muslim-majority state.
- When Hari Singh acceded to India on October 26, 1947, the Gilgit Scouts rose in rebellion. The Gilgit Scouts also moved to take over Baltistan, which was then part of Ladakh, and captured Skardu, Kargil and Dras. In battles thereafter, Indian forces retook Kargil and Dras in August 1948.
- Following the India-Pakistan ceasefire of January 1, 1949, Pakistan in the same year has entered into an agreement with the "provisional government" of "Azad Jammu & Kashmir" (parts that had been occupied by Pakistani troops and irregulars) to take over its defence and foreign affairs.
- The Government of Azad Kashmir is the state government which administers the Pakistani-occupied territory of Kashmir.
- Under this agreement, the "AJK" government also ceded administration of Gilgit-Baltistan to Pakistan.

#### INTERNATIONAL BOOKER PRIZE

In News: Indian writer Geetanjali Shree and American Translator Daisy Rockwell won the International Booker Prize for "Tomb of Sand,".

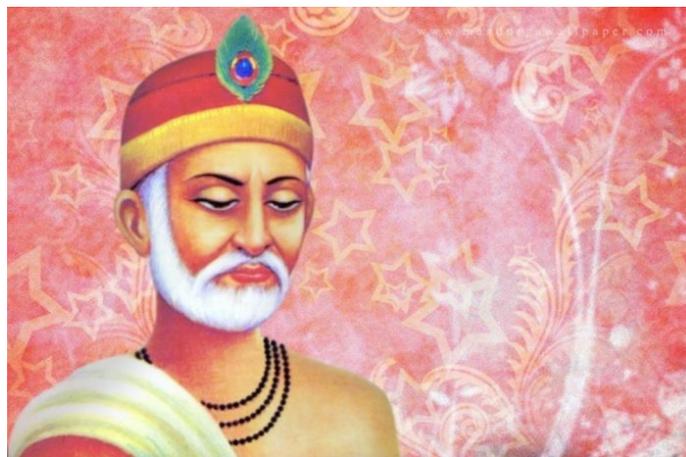


#### More on the Topic:

- The Booker Prize is a leading literary award in the English speaking world, which has brought recognition, reward and readership to outstanding fiction for over 50 years.
- It is awarded annually to the best novel of the year written in English and published in the UK or Ireland.

#### SANT KABIR

In News: President Ram Nath Kovind has inaugurated the Sant Kabir Academy and Research Centre Swadesh Darshan Yojana.



#### More on the Topic:

- One school within the Bhakti movement was the Nirguni tradition and Sant Kabir was a prominent member of it. In this tradition, God was understood to be a universal and formless being.
- Many of the saints of the Bhakti movement came from the ranks of the lower to middle artisanal classes. Kabir was a 'low caste' weaver (Julaha), Raidas was a leather worker and Dadu a cotton carder.
- Their radical dissent against orthodoxy and rejection of caste made these poet-saints extremely popular among the masses and their ideology of egalitarianism spread across India.
- Kabir's compositions can be classified into three literary forms – dohas (short two liners), ramanas (rhymed 4 liners), sung compositions of varying length, known as padas (verses) and sabdas (words).
- He did not only target the rituals and practices of both Hinduism and Islam, but also dismissed the sacred authority of their religious books, the Vedas and the Quran.

# ESSAYS OF THE MONTH

## THE MIND IS NOT A VESSEL TO BE FILLED BUT A FIRE TO BE KINDLED

"The mind is its own place and in itself, can make a heaven of hell, a hell of heaven".

-John Milton

The mind is a complex network of thoughts, responses, feelings and behaviours that decide the human nature and characteristics. The mind can be defined as a **person's set of intellectual or mental faculties** and classified into three types viz., the conscious, sub-conscious and unconscious mind. The mind involves how we think, remember, learn and apply individual psyche in making decisions.

### The mind is not a vessel to be filled;

A guard standing at the entry of a temple was asked not to allow devotees with shoes inside the temple. One day, a man came barefooted and tried to enter the temple but the guard denied him entry. The man told the guard that he was following the rules, to which the guard replied that he would allow him entry inside the temple, only if he had worn the shoes from his house and removed it at the entry of the temple.

This reveals that following a set of rules without a rational mind proves to be useless. When one's mind is a vessel filled by the norms of social institutions like educational institutions, family, community and religious institutions, the human mind becomes prejudiced and is unable to think logically and apply it in the day-to-day life. Men cannot be fed with values externally without him being able to implement from within.

### The mind is a fire to be kindled;

The mind works like miracles. One whose mind gets triggered with a positive and creative instinct adhere to it and apply it as the situation demands, without actually thinking about it. The "Florida Effect Experiment" conducted by John Bargh proved to us that our mind is primed to think about situations and act according to our instincts. These instincts take birth in human mind as and when it gets triggered with a stream of creativity.

A woman asked help from two monks to cross a river. One of the monks denied helping her, while the other accepted to help her. He carried her on his shoulders and dropped her on the other side of the bank. The monk who denied the woman help asked the other monk the reason for helping her in spite of the rule they had to follow of avoiding contact with women. The other monk who carried her replied that "I carried her to safety as a moral responsibility but you are still carrying her". This shows the mind of a person who is filled externally vis-à-vis to the mind of a person who is filled with empathy for others internally.

Thus our mind should not be fed with values, morals and ethical consciousnesses externally rather; our mind must be inherently tuned to think creatively, develop a holistic personality. Values like honesty, integrity, compassion, accountability among others once kindled within will stay as a guiding light throughout one's life.

This kindled mind helps to solve critical problems involving

conflict of interests and such a mind is not bound by religions, laws, science, and socially accepted norms but, is capable of justifying and addressing all equally. Along with IQ one must possess emotional intelligence blended with a concern towards society.

As Mahatma Gandhi has duly said, "Changes must come from within and such changes are long lasting". One has to ignite his own intellect rather than seeking help from others for a rational mind.

Ramesh Bodhaswami  
Student, RVTA

## ANY SOCIETY THAT FAILS TO HARNESS THE ENERGY AND CREATIVITY OF ITS WOMEN IS AT A HUGE DISADVANTAGE IN THE MODERN WORLD.

We are living in a competitive world where knowledge and intelligence are essential. The society is upgrading at a greater pace through innovations and new technologies. The process of liberalization and globalization has interconnected the whole world in such a way that people belonging to faraway places get information on incidents/events that has transpired in any part of the world. Men and women have equal importance and equal role to play in this modern era where knowledge, education and intelligence rule the world.

'It is not possible for a bird to fly with a wing', likewise both men and women are the two wings of society. Both are required for sustainable development of a society. In India, the female sex ratio and literacy rate of women have improved as compared to the past. But, the mind set of people has not changed. Discrimination and exploitation on the basis of gender still exists in our society.

There are many examples of women who have shown exemplary capabilities since ancient time to the modern era. Jhansi Rani Laxmi Bai, who fought against the British in the battlefield, was appreciated for her valor by General Rose himself, who fought against her. She will always remain an inspiration for women to overcome their fear and inferiority. According to Subhash Chandra Bose, it is not possible for a society to be independent and grow without the participation of women who comprise half the population of society. He recruited women in INA. Mahatma Gandhi supported the participation of women in India's freedom struggle. Indira Gandhi, Sarojini Naidu, Prathiba Patil, Kiran Bedi are examples of women who have proved their strength and mettle in politics and administration. Likewise, women like P T Usha, P V Sindhu have demonstrated their strength in sports. The role of women is evident everywhere from a housewife to a President, from a teacher to a scientist; women are adept at performing multiple tasks from running a family to a nation.

Though girls have remained toppers in various examinations, their representation in the top levels of management has been limited. Their journey to the topmost levels has not been easy as men, due to reasons like the narrow mindset of society, early marriage etc., and balancing both family and work life negatively impacts their physical and mental health. Lack of security in workplace, discrimination on the basis of gender, sexual abuses, acid attacks, harassment, etc., further restricts the growth of women, as well as society. The government has provided women ample opportunities to work through various policies like reservations, economic help, and equal wage for both men and women, but there are still loopholes in the system.

Moreover, even though women have political reservations, her work and activities gets controlled by her spouse. The government also helps women through economic aid that can be misused by her family. The Constitution guarantees women fundamental rights, but time and again, she is denied her right to live a life of her choice by the family and society.

“If you teach a man, then you educate an individual; if you teach a woman then you educate an entire family”. The government provides women with many opportunities for their empowerment, but without changing the mindset of society, empowerment is not possible. It is imperative to educate children that men and women are born equal, live equal and should be treated in the same manner. In the modern era, creativity and intelligence are most important, and development is possible only with the active involvement of the entire society. Any society that fails to harness the energy and creativity of its women is at a huge disadvantage in the modern world.

Anusha H N  
Student, RVTA

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