

DECEMBER EDITION 2022

VOL. I ISSUE 10

Varthaman

MONTHLY CURRENT AFFAIRS MAGAZINE
BY RV TRAINING ACADEMY

STATUE OF PROSPERITY

PRIME MINISTER NARENDRA MODI HAS UNVEILED A BRONZE STATUE OF NADAPRABHU KEMPEGOWDA, CREDITED AS THE FOUNDER OF BENGALURU.

THE STATUE WAS RECORDED IN THE
"WORLD BOOK OF RECORDS"

AS THE TALLEST BRONZE STATUE
CONSTRUCTED FOR A FOUNDER

OF A CITY. THE OVERALL
HEIGHT OF THE STATUE IS
108 FEET, WEIGHING ABOUT
218 TONNES, SCULPTED
USING MAJORLY STEEL
AND BRONZE



CURRENT AFFAIRS
& PRACTICE QUESTIONS

INTEGRATED COURSES

Integrated Courses offers students an excellent opportunity to train and develop their interests in different domains. With intense competition becoming a way of life for students and profession likewise, integrated courses become quintessential in giving an impetus to learning and saving time.

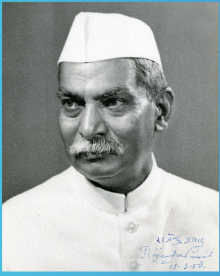
The RV Training Academy provides students who have passed their PUC, a prospect to integrate with the Academy through the integrated course it offers. The course is meticulously planned and devised laying emphasis on achieving a good balance on subject knowledge as well as activity based learning. The course covers a wide gamut of concepts and aims at making students competent to attempt any competitive examinations at the end of the course.

COURSE HIGHLIGHTS

- Skill And Personality Development
- Ethics And Values
- Health And Wellness
- Communication Skills
- Current Affairs And General Awareness
- Preparatory Modules For Competitive Examinations

EMINENT PERSONALITIES

RAJENDRA PRASAD



Date: 3rd December

The first president of the Republic of India

Did you know?

- As a child, Rajendra Prasad was taught by a Maulavi, Muslim scholar because his father wanted him to learn Persian, Hindi and arithmetic.
- Rajendra Prasad is the only president to serve two full terms and he stayed in office for the longest term of around 12 years.
- On completion of his tenure as president, he quit the National Congress and set new guidelines for parliamentarians that are followed even today.
- Rajendra Prasad was awarded the highest civilian award Bharat Ratna in the year 1962.
- Rajendra Prasad penned several books during his journey as a political leader. 'India Divided', 'Words of Freedom', 'Ideas of a Nation: Rajendra Prasad' and 'At the Feet of Mahatma Gandhi' are some books he wrote.

Date: 10th December

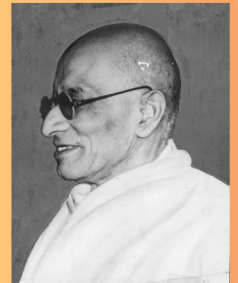
The last Governor-General of India

Chakravarti Rajagopalachari, also called as Rajaji

Did you know?

- Rajagopalachari formed the Tamil Scientific Terms Society, an organization that translated scientific terms of chemistry, physics, mathematics, astronomy and biology into simple Tamil words.
- Rajagopalachari joined Congress as a legal advisor and defended Indian Independence activist, P. Varadarajulu Naidu against charges of sedition.
- When Mahatma Gandhi led the Dandi March in 1930, Rajagopalachari did the same at Vedaranyam, near Nagapattinam in the then Madras Presidency and broke the salt law.
- In 1939, Rajagopalachari issued the Temple Entry Authorization and Indemnity Act, under which Dalits and Shanars were allowed to enter temples. This was a major boost to abolish untouchability and caste prejudice.
- After Independence, Rajagopalachari was chosen to be the last Governor General of India, in the absence of Lord Mountbatten. His tenure lasted from June 21 in 1948 to January 26 in 1950.

RAJAGOPALACHARI



SRINIVASA RAMANUJAN



Date: 22nd December

Indian mathematician

Did you know?

- Ramanujan was married to a 9 year old girl Janaki Ammal on March 21, 1899.
- When Ramanujan was 13, he could work out Loney's Trigonometry exercises without any help.
- As a young man, Ramanujan failed to get a degree, as he did not clear his fine arts courses, although he always performed exceptionally well in mathematics.
- Ramanujan contributed theorems and independently compiled 3900 results. His most famous discovery was The Infinite Series of Pi.
- After a funny incident, 1729 was coined the Hardy-Ramanujan number in his honor, and such numbers are called Taxicab numbers.
- Ramanujan is just the second Indian to be inducted as a Fellow of the Royal Society.
- December 22nd is commemorated as the National Mathematics Day in India.

Date: 25th December

One of the longest-serving parliamentarian

Did you know?

- Atal Bihari Vajpayee's father was his classmate. He and his father went to the same Law College (DAV College in Kanpur) together for their Law studies and they even shared the same room in the hostel.
- Jawaharlal Nehru (then Prime Minister of India) predicted that someday he would become the Prime Minister of India, when Atal Bihari Vajpayee delivered his maiden speech in the Indian Parliament.
- He is the only parliamentarian to win from 6 Lok Sabha constituencies from 4 states. Balrampur (UP), Lucknow (UP), New Delhi, Vidisha (MP), Gwalior (MP), Gandhi Nagar (Gujarat).
- He remained an M. P. (Member of Parliament) for 47 years (11 times from Lok Sabha and 2 times from Rajya Sabha).
- Vajpayee sat in opposition for four decades.
- He uplifted Hindi to the international platform by speaking in the language at the United Nations. He became the first person to speak in Hindi at the United Nations.

ATAL BIHARI VAJPAYEE



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
Wikipedia
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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- We believe that the information provided in this magazine has been written by our content developers. In case of copyright violation, the publisher, the editor or the printer would not be held responsible under any circumstance(s).

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.

Practice Questions

- Prelims Practice Questions
- Mains Practice Questions

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POLITY AND GOVERNANCE

GOVERNOR

In News: The Governor of Kerala said that the Finance Minister of the state has ceased to enjoy the Governor's pleasure in continuing in office as he had "stoked regionalism and challenged national unity".



More on the Topic:

- Part VI of the Constitution of India deals with the state executive. The state executive consists of the governor, the chief minister, the council of ministers and the advocate-general of the state
- Governor is the nominal head at the state level.
- The governor is appointed by the president under his hand and seal
- The SC in 1979 said that the office of governor is not an employment under the central government. It is an independent constitutional office and is not under the control of or subordinate to the central government

The Pleasure of the Governor.

- Article 164 of the Constitution says the Chief Minister shall be appointed by the Governor and other Ministers shall be appointed by the Governor on the Chief Minister's advice.
- It also adds that "the Ministers shall hold office during the pleasure of the Governor".
- There have been instances of Governors

dismissing Chief Ministers, but those were related to constitutional situations in which the legislative majority of the incumbent ministry was in doubt.

- It is also now judicially determined that the question of majority can be answered only on the floor of the legislature through a confidence vote.
- Nothing in the Article means that the Governor may independently dismiss a Minister.

Concerns Related to Governor's Office:

- **Misuse of discretionary powers:** States allege that the Governor acts on behalf of the Union government for political gains.
- **Appointment by Centre:** The post has become a retirement package for politicians.
- **Arbitrary removal before the expiration of their tenure:** Even after the Supreme Court Judgement in B.P. Singhal v/s Union of India, a fixed tenure for Governors to encourage neutrality and fairness in the discharge of their duties, is not being implemented on the ground.
- **Appointment of Governor:** Article 155 says that governor should be appointed (not elected) from amongst persons of high status with eminence in public. The elected government at the state is not even consulted while making appointment of the Governors. Further successive governments have reduced this important constitutional office to a sinecure and resting place for loyal and retired / about to retire / about to retire politicians apart from docile bureaucrats.

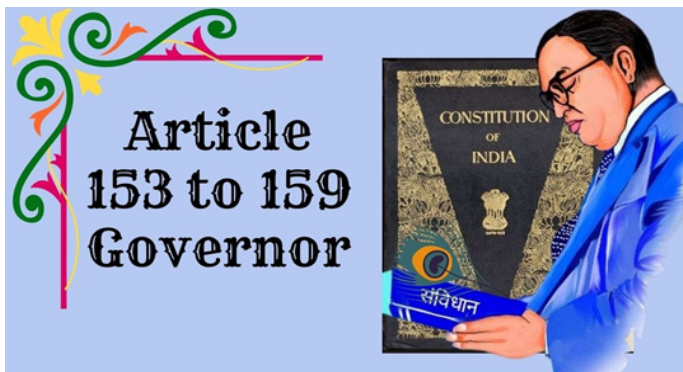
Recommendations to improve Governor's Office:

- **SR Bommai vs. Union of India, 1994:** The floor of the Assembly is the only forum that should test the majority of the government of the day, and not the subjective opinion of the Governor.
- **Rameshwar Prasad Case, 2006:** The SC held that the Governor could not decide based on his subjective assessments.
- **Sarkaria Commission Report (1988):** Governor should be a detached figure without intense political links or should not have taken part in politics in recent past, Governors must not be removed before completion of their five-year tenure, except in rare and compelling circumstances

- **Venkatachaliah Commission (2002):** Governor's appointment should be entrusted to a committee comprising the prime minister, the home minister, the speaker of the Lok Sabha and the chief minister of the concerned state, if governor to be removed before completion of term, the central government should do so only after consultation with the Chief Minister.
- **Punchhi Commission (2010):** The phrase "during the pleasure of the President" should be deleted from the Constitution; Governor should be removed only by a resolution of the state legislature.

REMOVAL OF GOVERNOR

In News: Tamil Nadu MLA has called for "all like-minded MPs" to support a proposal to remove Tamil Nadu Governor.



More on the Topic:

- Under Article 155 and 156 of the Constitution, a Governor is appointed by the President and holds office "during the pleasure of the President".
- If this pleasure is withdrawn before completion of the five-year term, the Governor has to step down.
- As the President works on the aid and advice of the Prime Minister and the council of ministers, in effect, the Governor can be appointed and removed by the central government.
- Thus, a Governor is a representative of the Union government in states.
- Article 163 of the Constitution says the Governor will normally be aided and advised by the Council of Ministers except in those functions which require his discretion.
- While the Governor's duties and responsibilities lie in a particular state, there is no provision for impeaching the Governor.

What happens in case of disagreements?

- There are no provisions laid down in the

Constitution for the manner in which the Governor and the state must engage publicly when there is a difference of opinion.

- The management of differences has traditionally been guided by respect for each other's boundaries.

Court judgements and Commission

Recommendations About Governor's Position:

- In **Surya Narain Choudhary vs Union of India (1981)**, the Rajasthan High Court held that the pleasure of the President was not justiciable, the Governor had no security of tenure and can be removed at any time by the President withdrawing pleasure.
- In **BP Singhal vs Union of India (2010)**, the Supreme Court elaborated on the pleasure doctrine. It upheld that "no limitations or restrictions are placed on the 'at pleasure' doctrine", but that "does not dispense with the need for a cause for withdrawal of the pleasure".
- **Sarkaria Commission, 1988** recommended that Governors are not sacked before completing their five-year tenure, except in rare and compelling circumstances, and made provision to impeach Governor by Assembly.
- **Punchhi Commission, 2010** has recommended that the Phrase "during pleasure of President" should be deleted from Constitution because Governor should be removed only by a resolution of state legislature.

PREVENTION OF CRUELTY TO ANIMAL ACT (PCAA) 1960

In News: A draft Prevention of Cruelty to Animals (Amendment) Bill, 2022, prepared by the Ministry of Fisheries, Animal Husbandry, and Dairying, has been opened for public comments.



More on the Topic:

- Essentially, the law is proposed to be made tighter, with more stringent punishments.
- Several offences have been made cognizable, which means offenders can be arrested without an arrest warrant.
- The draft Bill has proposed to include "Bestiality" as a crime under the new category of "Gruesome cruelty."
- The proposed subsection describes "gruesome cruelty" as any act involving animals which leads to "extreme pain and suffering" and is "likely to leave the animal in life-long disability".

Prevention of Cruelty to Animal Act (PCAA) 1960:

- The Prevention of Cruelty to Animals Act, 1960, authored by acclaimed dancer and animal lover, Rukmini Devi Arundale, is an Act of the Parliament of India enacted in 1960 to prevent the infliction of unnecessary pain or suffering on animals and to amend the laws relating to the prevention of cruelty to animals.
- PCAA, 1960 establishes Animal Welfare Board of India (AWBI) as a statutory advisory body on animal welfare laws and promotes animal welfare.

ELECTION COMMISSION

In News: Former bureaucrat Arun Goel was appointed as Election Commissioner recently.



More on the Topic:

- The Election Commission of India (ECI) is a constitutional body.
- It was established by the Constitution of India to conduct and regulate elections in the country.
- Article 324 of the Constitution provides that

the power of superintendence, direction, and control of elections to parliament, state legislatures, the office of the president of India, and the office of vice-president of India shall be vested in the election commission.

- Thus, the Election Commission is an **all-India body** in the sense that it is common to both the Central government and the state governments.
- Being a constitutional authority, Election Commission is amongst the few institutions which function with both autonomy and freedom, along with the country's higher judiciary, the Union Public Service Commission and the Comptroller and Auditor General of India.

Appointment and Removal of Election Commissioners:

- The **President of India** appoints the Chief Election Commissioner and Election Commissioners.
- They have tenure of **six years**, or up to the age of **65 years**, whichever is earlier.
- They enjoy the same status and receive salary and perks as available to **Judges of the Supreme Court of India**.
- The **Chief Election Commissioner (CEC)** can be removed from office **only through impeachment** by Parliament.
- The CEC can be removed from office only through a process of removal similar to that of a **Supreme Court Judge** by Parliament.
- The President of India can remove the other officers on the **Chief Commissioner's recommendation**.
- They can **resign anytime** or can also be removed before the expiry of their term.

STATE INSTITUTIONS FOR TRANSFORMATION

In News: Several states have approached the NITI Aayog, seeking its help to set up their own public policy institutions to boost development and drive inclusive growth.



More on the Topic:

- Health, education and infrastructure development are the responsibilities of state governments.
- There is a need for states to plan better to ensure meeting growing demand and ensure ease of doing business.
- SITs can play a crucial role in bringing various stakeholders, such as the private sector, and experts to address important state-specific issues. and work on strategies to carry out development work.
- Despite the replacement of Planning commission with NITI Aayog, states so far have done little to rejuvenate their planning departments/boards.
- Except for sectors like defence, railways and highways, the national GDP growth is an aggregation of states' rates of growth.

About NITI Aayog:

- The National Institution for Transforming India, also called NITI Aayog, was formed via a resolution of the Union Cabinet on January 1, 2015.
- NITI Aayog is the premier policy 'Think Tank' of the Government of India, providing both directional and policy inputs.
- While designing strategic and long term policies and programmes for the Government of India, NITI Aayog also provides relevant technical advice to the Centre and States.

NITI Aayog initiatives to build state's capacities:

- 'Development Support Services for States for Infrastructure Projects' to achieve sustained delivery of infrastructure projects.
- State Finances and Coordination Vertical was formed for maintaining a State-wise database on macroeconomic, financial, and social indicators.
- State Support Mission will act as a multidisciplinary ecosystem to initiate cutting edge projects to catalyse development strategies of states, etc.

PANCHAYATS EXTENSION TO SCHEDULED AREAS (PESA) ACT 1996

In News: Madhya Pradesh government has enacted Panchayats Extension to Scheduled Areas (PESA) Act 1996.

WHAT IS PESA ?

The Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 or PESA is a law enacted by the Government of India for ensuring self governance through traditional Gram Sabhas for people living in the Scheduled Areas of India.

More on the Topic:

- Madhya Pradesh became one of the eight states to enact the law.
- Accounting for 21% of the state's population, Madhya Pradesh has the highest tribal population in the country.

About PESA Act:

- PESA is an Act to provide for the extension of the provisions of Part IX of the Constitution relating to the Panchayats to the Scheduled Areas.
- In terms of section 2 of this Act, "Scheduled Areas" means the Scheduled Areas as referred to in clause (1) of article 244 of the Constitution.
- Out of the ten PESA States, eight States namely; Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Rajasthan and Telangana have framed and notified their State PESA Rules under their respective State Panchayati Raj Acts.
- It ensures self-governance through Gram Sabhas (village assemblies) for people living in the Scheduled Areas.
- The Ministry of Panchayati Raj is the nodal Ministry for implementation of the provisions of PESA in the States.

Powers provided to Gram Sabha under PESA:

- **Control Over Resources:** consultation before the land acquisition, prevent land alienation, power to enforce prohibition, prior approval of all developmental projects and control over tribal sub-plan, maintenance of cultural identity and tradition, control over schemes affecting the tribals etc.
- **Dispute resolution as per traditional laws and customs:** the collective resolution of disputes on the basis of customs, traditional laws and religious beliefs of tribal areas.
- **Ownership and management of natural resources:** E.g. water, forest, common lands ('Jal, Jangal, and Zameen'), minor forest produce, minor minerals, etc.

- **Minor Forest Produce:** It has been defined under FRA 2006, as those including all non timber forest produce of plant origin, including bamboo, brushwood, stumps, cane, tussar, etc

COMPETITION COMMISSION OF INDIA

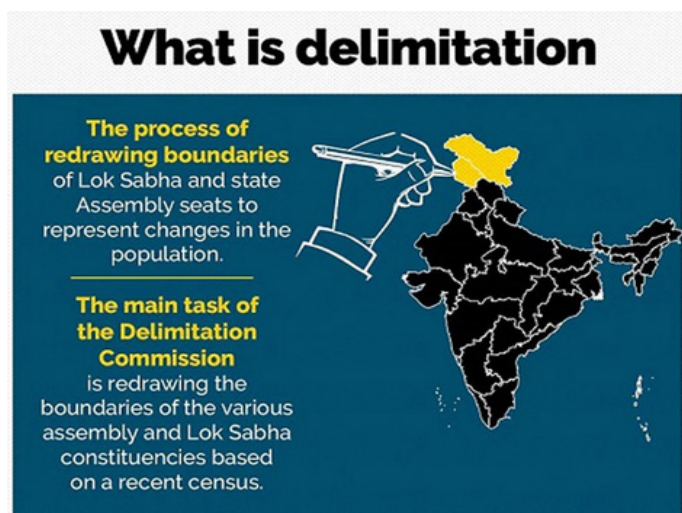
In News: The central government has given the mandate to check Goods and Services Tax (GST) related profiteering by businesses to anti-trust watchdog Competition Commission of India (CCI).

More on the Topic:

- The Competition Commission of India (CCI) is the chief national competition regulator in India.
- It is a statutory body within the Ministry of Corporate Affairs and is responsible for enforcing the Competition Act, 2002 to promote competition and prevent activities that have an appreciable adverse effect on competition in India.
- The CCI looks into cases and investigates them if the same has a negative impact on competition.
- CCI also approves combination under the act so that two merging entities do not overtake the market.

DELIMITATION COMMISSION

In News: The Supreme Court reserved its judgment on the plea challenging the delimitation exercise undertaken in the Union Territory of Jammu and Kashmir.



More on the Topic:

- The Delimitation commission or Boundary commission of India is a commission

established by the Government of India under the provisions of the **Delimitation Commission Act**.

- The main task of the commission is **redrawing the boundaries of the various assembly and Lok Sabha constituencies** based on a recent census.
- The Commission is an independent body whose orders cannot be challenged in any court of law.
- The orders are laid before the Lok Sabha and the respective State Legislative Assemblies. However, modifications are not permitted.

22ND LAW COMMISSION

In News: The 22nd Law Commission of India has been constituted with Justice (retd) Rituraj Awasthi as its head.



More on the Topic:

- The Law Ministry describes the Law Commission of India as a non-statutory body that is constituted by a notification of the Government of India, with definite terms of reference to carry out research in the field of law. The Commission makes recommendations to the Government (in the form of Reports) as per its terms of reference.
- The Law Commission was first constituted in 1955, and has so far submitted 277 reports.

About 22nd Law commission

- The Commission would have a tenure of three years from the date of publication of the Order of Constitution in the Official Gazette.
- The Commission shall, among other things, "identify laws which are no longer needed or relevant and can be immediately repealed;
- Examine the existing laws in the light of Directive Principles of State Policy and suggest ways of improvement and reform and also suggest such legislations as might

be necessary to implement the Directive Principles and to attain the objectives set out in the Preamble of the Constitution"; and "revise the Central Acts of general importance so as to simplify them and remove anomalies, ambiguities and inequities".

EWS QUOTA

In News: A five-judge Bench of the Supreme Court by a majority of 3:2 has upheld the validity of the 103rd Constitutional Amendment Act.

EWS QUOTA UPHOLD: CHRONOLOGY

Jan 8, 2019: Lok Sabha clears the 103rd Constitution amendment Bill
Jan 9: Rajya Sabha clears the 103rd Constitution amendment Bill
Jan 12: Ministry of Law and Justice issues notice saying President Ram Nath Kovind has given assent
February: New law challenged before SC
Feb 6: SC issues notice to govt on pleas challenging amendment
Feb 8: SC declines to stay 10 per cent EWS quota
Sep 8, 2022: SC bench headed by CJI U U Lalit constitutes bench to hear appeals
Sep 13: SC starts hearing arguments
Sep 27: SC reserves order
Nov 7: SC, by majority of 3:2, upholds validity of 103rd Constitution amendment providing 10 pc reservation to EWS in admissions, govt jobs

(PTI)

More on the Topic:

- The Central Government put forth the 10% reservation quota for candidates in the economically weaker sections (EWS) sections of the society for admissions and government jobs with the 103rd Constitution amendment.
- The amendment was passed in January 2019 and through it Articles 15(6) and 16(6) were inserted in the Constitution for the reservation.
- It was provided for among non-OBC and non-SC/ST sections of the population.

Criteria for availing EWS Reservation:

- Under EWS quota, "Persons belonging to the general category with an annual gross household income of up to Rs 8 lakh are eligible for the reservation, excluding families that own over 5 acres of agricultural land, a house over 1,000 square feet, a plot of over 100-yards in a notified municipal area or over a 200-yards plot in a non-notified municipal area."

Why the Amendment was challenged?

- They petitioners argued that the policy will hinder equality of opportunity and it violates the basic structure of the Constitution by breaching the 50% ceiling for reservation fixed by the Supreme Court ruling of the Mandal Commission case.
- **Government Arguments:** The government argued that under Article 46 of the Indian

Constitution, the state has a duty to protect the interests of economically weaker sections: "The state shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation."

Arguments by the judges in favour of EWS reservation:

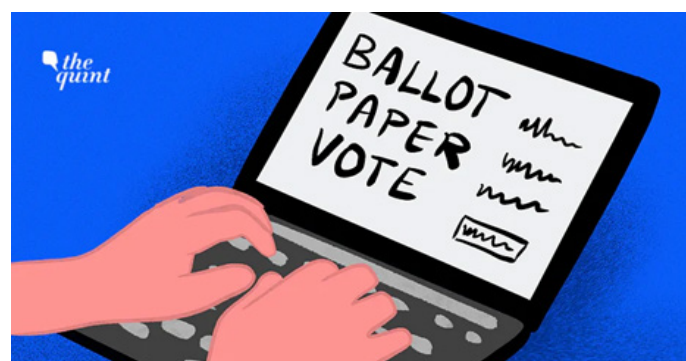
- Reservation based only on economic criteria does not damage the basic structure of the Constitution.
- Treating EWS as a separate class would be a reasonable classification, and treating unequals equally would violate the principle of equality under the Constitution.

Arguments by the judges in against EWS reservation:

- While reservation on economic criteria is not violative of the basic structure of the Constitution, excluding SC/ST/OBC from the purview of EWS is a clear violation of the basic structure.

WAYS TO FACILITATE NRIS TO CAST VOTE REMOTELY

In News: The Union government in the Supreme Court said it was considering ways to facilitate non-resident Indians (NRI), especially migrant labourers, to cast their votes remotely.



More on the Topic:

- Currently Election Commission of India (ECI) allows NRIs to register as overseas electors as long as they have not acquired the citizenship of another country.
- An NRI can vote in the constituency in which his/her place of residence, as mentioned in the passport, is located.
- He/she can only vote in person and will have to produce her passport in original at the polling station for establishing identity.

- Voting rights for NRIs were introduced only in 2011, through an amendment to the Representation of the People Act 1950.

Challenges with the present system:

- It is evident that the number of NRIs registered as voters is abysmally low and out of these registered NRIs, the number of voters who actually voted or turn up for voting in the elections may be even poorer.
- The main reason for low turnout for voting could be the provision of law requiring in person presence at polling station.
- NRIs have been demanding that NRI should be allowed to vote by alternative methods. Some NRIs have also approached courts.

Vinod Zutshi Panel Recommendations:

- The Committee favoured postal ballot, where blank postal ballot paper is transferred electronically to NRI and returned by post by NRI.
- The committee was not in favour of the e-postal ballot system, as it has almost no risk of manipulation, rigging or violation of secrecy. The committee recommends that the option of voting through proxy appointed by the overseas electors can be considered to be provided to the overseas electors.
- It had ruled out the possibility of allowing NRIs to vote through the Internet or at diplomatic missions abroad for the time being.

Voting Rights for Migrant Workers:

- An 11-member panel of ministers were mandated to examine NRI voting feasibility and also to examine the issue of extending similar voting rights to migrant workers, a move which is vehemently opposed by the Election Commission.
- Both migrant workers and NRIs are denied voting because the Representation of the People Act mandates that "a citizen, to avail voting rights, should be an ordinary resident in his constituency".
- The EC has, however, rejected another plea to allow inter-state migrants to also have options of postal, proxy or e-ballot to enable them vote for their native constituencies.

LILY THOMAS VS. UNION OF INDIA CASE

In News: Government The precedent of Lily Thomas vs. Union of India case was utilised to automatically disqualify UP MLA.

More on the Topic:

- Supreme Court in Lily Thomas vs. Union of India case (along with Lok Prahari vs. Union of India), had ruled that any MP/MLA who is convicted of a crime and given a minimum of two years' imprisonment, loses membership of House with immediate effect.
- Earlier, Representation of the People Act allowed convicted lawmakers a three-month period for filing appeal to higher court and to get a stay of conviction and sentence.
- This loop hole has allowed the convicts to hold their post till all the judicial remedies get exhausted.

DEEMED TO BE UNIVERSITY DRAFT REGULATIONS

In News: Forest UGC has issued "Deemed to be university" Draft Regulations.



More on the Topic:

- **Eligibility:** Multi-disciplinary institutions with minimum five departments (either UG/ PG/ integrated/ research or a combination of these) or a cluster of institutions offering a minimum of five departments located in the same city/town will be eligible to apply for Deemed University status.
- Additionally, the eligibility criteria will be NAAC 'A' grade with at least a 3.01 CGPA for three consecutive cycles or NBA accreditation for two-third of eligible programmes for three consecutive cycles or in top 50 of any specific category of NIRF for the last three years continuously or in top 100 of overall NIRF ranking for last three years continuously
- In the 'distinct institution' category, in which any of the institutes that are eligible as 'distinct' will not have to meet the NAAC criteria.

New Provisions:

- Deemed to be universities will be now eligible to establish their own off-shore

campus centre(s), provided they meet the UGC regulations.

- Draft regulations proposed to do away with the condition that an institute needs to be in existence for at least 20 years before it can apply for tag.
- A system of graded penalty has been introduced for any violations. These include a warning through public notice, barring from any expansion, closure of programmes/ departments/ off-campus(es).
- In case of repeated violations, the deemed university status will be withdrawn.

About Deemed to be University:

- Deemed University is a type of higher education institute, it has been recognized by the status of "deemed to be university" under Section 3 of the University Grants Commission (UGC) Act, 1956.
- In broad terms, it means that the institution has been granted permission to offer its own degree programs, which are equivalent to those provided by regular universities.

AMENDMENTS TO THE INFORMATION TECHNOLOGY (INTERMEDIARY GUIDELINES AND DIGITAL MEDIA ETHICS CODE) RULES 2021

In News: Government has notified Amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021 for an Open, Safe & Trusted and Accountable Internet.

Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021



More on the Topic:

- Across Key changes effected in the rules are as under:
- (a) Currently, intermediaries are only required to inform users about not uploading certain

categories of harmful/unlawful content.

- These amendments impose a legal obligation on intermediaries to take reasonable efforts to prevent users from uploading such content. The new provision will ensure that the intermediary's obligation is not a mere formality.
- (b) For effective communication of the rules and regulations of the intermediary, it is important that the communication is done in regional Indian languages as well.
- (c) The grounds in rule 3(1)(b)(ii) have been rationalized by removing the words 'defamatory' and 'libellous'. Whether any content is defamatory or libellous will be determined through judicial review.
- (d) Some of the content categories in rule 3(1)(b) have been rephrased to deal particularly with misinformation, and content that could incite violence between different religious/ caste groups.
- (e) The amendment requires intermediaries to respect the rights guaranteed to users under the Constitution, including a reasonable expectation of due diligence, privacy and transparency.
- (f) Grievance Appellate Committee(s) will be established to allow users to appeal against the inaction of, or decisions taken by intermediaries on user complaints. However, users will always have the right to approach courts for any remedy.
- Each GAC will consist of a chairperson and two whole time Malicious post members appointed by the Central government. The GAC will hear appeals by social media users against social media decisions of grievance officers appointed by the intermediary.
- (g) Obligations for intermediary. Intermediaries can develop and Increase in Need of IT self-regulation by implement "appropriate safeguards" to prevent misuse of the persistent rise rules, 2022 social media grievance redressal mechanism.

Concerns:

- The new rules have been criticised for being excessive control by the Government on freedom of speech and expression.
- It may hamper constructive criticism on gove

CHILD WELFARE POLICE OFFICER (CWPO)

In News: The Ministry of Home Affairs has asked the States/Union Territories to appoint a Child Welfare Police Officer (CWPO) in every police station to exclusively deal with children, either as victims or perpetrators.



More on the Topic:

- This new move is according to an advisory issued by the National Commission for Protection of Child Rights.
- The officer will be appointed according to provisions under the **Juvenile Justice (Care and Protection of Children) Act, 2015**, which calls for designating at least one officer, not below the rank of an Assistant Sub-Inspector, CWPO in every police station.
- The unit would comprise **CWPOs and two social workers** having experience of working in the field of child welfare, of whom one shall be a woman, to co-ordinate all functions of police in relation to children.
- The contact particulars of the CWPOs should be displayed in all police stations for the public to contact.

Statistics - raising crimes against children:

- There is an increasing number of crimes against children, including murders and offences under the Protection of Children from Sexual Offences (POCSO) Act.
- Going by the data published by the **National Crime Records Bureau**, the total number of crimes against children increased from 1,28,531 in 2020 to 1,49,404 in 2021.

FARMER PRODUCER ORGANISATIONS

In News: Agriculture Ministry will be setting up 100 fodder-centric FPOs in 2022-23.

More on the Topic:

- A group of farmers who are actually involved in agricultural production and have a common interest in pursuing agribusiness activities can

form a group in a village or a cluster of villages and apply for a registration of a Farmer Producer Company under the relevant Companies Act.



What Benefits farmers will get by forming FPOs?

- As a cohesive group, farmers as members of the FPO will have better bargaining power which can be leveraged to buy or sell commodities at competitive prices.
- Aggregation of agricultural produce for better marketing opportunities. Trading in bulk saves farmers on associated expenditures like processing, storage, transportation etc.
- FPOs may take up activities for value addition like sorting/grading, packaging, basic processing etc. which fetch a higher price for the farmers' produce.
- FPO formation facilitates utilization of pre and post harvest infrastructure like green houses, mechanized farming, cold storage, agri-processing etc.
- FPO can expand its business activities by opening of input stores, custom centres etc. through which its member farmers can get subsidised inputs and services.

The following three implementing Agencies will form and promote Farmer Producer Organizations

- Small Farmers Agri-business Consortium (SFAC)
- National Cooperative Development Corporation (NCDC)
- National Bank for Agriculture and Rural Development (NABARD)
- States may also if so desire, nominate their Implementing Agency in consultation with the Department of Agriculture.

Challenges Faced by FPOs

- Lack of technical skills,
- Inadequate professional management,
- Weak financials,

- Inadequate access to credit,
- Lack of risk mitigation mechanism and
- Inadequate access to market and infrastructure.

Way Ahead

- Country like India needs more than one lakh FPOs. Currently 10,000 FPO's. This mismatch should be corrected
- To address issues such as working capital, marketing and infrastructure, banks must be facilitated to come with structured products for lending to FPO's. Also, banks need to focus on capacity building to improve their professional management.
- FPO's have to be linked with input companies, technical service providers, marketing/processing companies, retailers etc. This will enable them to access data on markets and prices and other information and competency in information technology.
- FPOs need to look for land consolidation of their members where contiguous tracts of land are available. To some extent, Aggregation can overcome the constraint of small farm size. Women farmers also can be encouraged to group cultivate for getting better returns.

TREDS PLATFORM

In News: The Ministry of Finance has asked 92 Central Public Sector Enterprises (CPSEs) to register themselves on the Trade Receivables Discounting System (TReDS).

More on the Topic:

- Trade Receivables Discounting System or TReDS is a welcome step by RBI to secure finances for micro, small and medium enterprises.
- It has been set up under the regulatory framework set up by RBI under Payment and Settlement Systems Act 2007.
- It is an electronic platform for facilitating the financing / discounting of trade receivables of Micro, Small and Medium Enterprises (MSMEs) through multiple financiers.
- It is a platform for uploading, accepting, discounting, trading and settling invoices of MSMEs.

GOVERNMENT SCHEMES

MAARG PORTAL

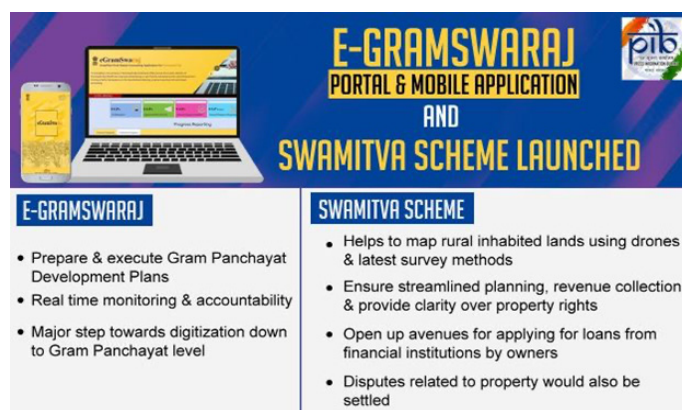
In News: DPIIT has launched startup applications for registration on MAARG portal.

More on the Topic:

- MAARG portal is the National Mentorship Platform by Startup India.
- The purpose of the application is to provide further boost the startup ecosystem by catalysing the startup culture and building a strong and inclusive ecosystem for innovation and entrepreneurship in India.
- MAARG portal, (Mentorship, Advisory, Assistance, Resilience and Growth) is a one stop platform to facilitate mentorship for startups across diverse sectors, functions, stages, geographies, and backgrounds.
- The MAARG is being operationalized in three phases which include, Mentor Onboarding, Startup Onboarding, and MAARG Portal Launch and Mentor Matchmaking.

SVAMITVA SCHEME

In News: The Report of Expert Committee on SVAMITVA Scheme was released recently.



E-GRAMSWARAJ	SVAMITVA SCHEME
<ul style="list-style-type: none"> • Prepare & execute Gram Panchayat Development Plans • Real time monitoring & accountability • Major step towards digitization down to Gram Panchayat level 	<ul style="list-style-type: none"> • Helps to map rural inhabited lands using drones & latest survey methods • Ensure streamlined planning, revenue collection & provide clarity over property rights • Open up avenues for applying for loans from financial institutions by owners • Disputes related to property would also be settled

More on the Topic:

- The report, released by Ministry of Panchayati Raj, provides the guiding principles that States may adopt in order to realize the objectives of the SVAMITVA Scheme holistically.
- Through the recommendations, it is envisaged to create systems that promote transparency in the implementation of the scheme,
- promote the adoption of record of rights for availing bank loan,
- develop linkages between different departments for informed decision-making related to

property tax assessment and collection, wider adoption of SVAMITVA data-sets by government and private agencies as per new geospatial guidelines,

- adoption of RADPFI (Rural Area Development Plan Formulation and Implementation) Guidelines and SVAMTIVA data for accurate village level-planning, and increasing capacity at State, District and Block level for GIS skillsets, among others.

About SVAMITVA Scheme?

- SVAMITVA (Survey of villages and mapping with improvised technology in village areas) scheme is a new initiative of the Ministry of Panchayati Raj.
- It aims to provide rural people with the right to document their residential properties so that they can use their property for economic purposes.
- The scheme is for surveying the land parcels in rural inhabited area using Drone technology. The survey shall be done across the country in a phase wise manner over the period 2020 -2025. The scheme is proposed as a Central Sector scheme.

NUTRIENT BASED SUBSIDY SCHEME

In News: Govt has approved nutrients based subsidy for the Rabi season.



More on the Topic:

- The subsidy on P&K fertilizers is being governed by Nutrient Based Subsidy (NBS) Scheme w.e.f 01.04.2010.
- In accordance with its farmer friendly approach, the Govt. is committed to ensure the availability of P&K fertilizers to the farmers at affordable prices.

- In view of steep increase in the international prices of fertilizers & inputs i.e. Urea, DAP, MOP and Sulphur, Government has decided to absorb the increased prices by increasing subsidy on P&K fertilizers including DAP.
- According to the Nutrient Based Scheme regime, farmers receive fertilizers at discounted rates based on the nutrients (N, P, K, and S) that these fertilizers contain.
- The subsidy would be released to fertilizer companies as per approved rates so that they can make available fertilizers to farmers at an affordable price than it would have been otherwise.
- The NBS does not include urea-based fertilizers and is available for imported complex fertilizers except Ammonium Sulphate.

Significance of the Scheme:

- As a result of the increased crop output brought about by this, the farmers would earn more money. This would improve the soil's health.
- The MRP of phosphoric and potassium (P&K) fertilizers can be fixed at appropriate levels by manufacturers, marketers, and importers thanks to the Nutrient Based Subsidy Scheme (NBS).

NATIONAL MISSION ON NATURAL FARMING

In News: Agriculture Minister Narendra Singh Tomar on Thursday launched a portal on National Mission on Natural Farming (NMNF) for the benefit of the farming community.

More on the Topic:

- The NMNF portal (<http://naturalfarming.dac.gov.in>) -- developed by the agriculture ministry was the world's largest contributor to deforestation in 2021.
- The portal contains all the information about the mission, implementation outline, resources, implementation progress, farmer registration, blog etc., which will be useful for the farmers. Also, this website will help in promoting natural farming in the country.

National Mission on Natural Farming:

- It aims at creating institutional capacities for documentation and dissemination of best practices and make practicing farmers as partners in promotion strategy.

Mission Objectives

- To promote alternative system of farming and thereby increasing income of farmers.
- To popularize integrated agriculture-animal husbandry models.
- To collect, validate and document Natural Farming practices and to encourage participatory research with farmers.
- To undertake activities for awareness creation, capacity building, promotion and demonstration of Natural Farming.
- To create standards, certification procedure and branding for Natural Farming products.

Natural farming:

- Natural Farming is a **chemical-free alias traditional farming method**. It is considered as agroecology based diversified farming system which integrates crops, trees and livestock with functional biodiversity.
- In India, Natural farming is promoted as **Bharatiya Prakritik Krishi Paddhati Programme (BPKP) under centrally sponsored scheme-Paramparagat Krishi Vikas Yojana (PKVY)**.
- BPKP is aimed at promoting traditional indigenous practices which reduces externally purchased inputs.
- It is largely based on on-farm biomass recycling with major stress on biomass mulching, use of on-farm cow dung-urine formulations; periodic soil aeration and exclusion of all synthetic chemical inputs.

NATIONAL SC-ST HUB SCHEME

In News: The Ministry of Micro, Small & Medium Enterprises (MSME), Government of India organized National SC-ST Hub (NSSH) Conclave recently.



More on the Topic:

- Ministry of MSME implements the National SC-ST Hub Scheme with an objective of **creating an ecosystem for SC/ST entrepreneurs and handholding them to participate in the public procurement to reach 4% mandate** as per the public procurement policy.
- It is being implemented by National Small Industries Corporation (NSIC), a public sector undertaking under the administrative control of Ministry of MSME.

Various components/interventions introduced like:

- Special Credit Linked Capital Subsidy for technology enablement,
- Capacity building of SC/ST entrepreneurs,
- Special Marketing Assistance Scheme (SMAS) etc.

DIGILOCKER

In News: Union health ministry has informed that DigiLocker users can now store health records and link them with their Ayushman Bharat Health Account (ABHA).



More on the Topic:

- DigiLocker initiative of MeitY is a flagship programme under Digital India program.
- DigiLocker offers a **dedicated personal storage space, linked to each resident's Aadhaar number**.
- DigiLocker can be used to **securely store e-documents** as well as store Uniform Resource Identifier (URI) link of e-documents issued by various issuer departments.
- The e-Sign facility provided as part of

DigiLocker system can be used to digitally sign e-documents.

- The DigiLocker can be accessible via web portal or mobile application.
- Documents in DigiLocker system are deemed to be at par with original physical documents as per Rule 9A of the Information Technology Rules, 2016.

SEEMA DARSHAN

In News: The Prime Minister, Shri Narendra Modi has urged the citizens to visit Nadabet and other border areas as part of Seema Darshana.



More on the Topic:

- Seema Darshan is a joint initiative between the Government of Gujarat and BSF Gujarat Frontier for developing border tourism in regions sharing the border with Pakistan and having a sparse population.
- The project is aimed to boost tourism and lessen migration from villages across the border to India.
- Nadabet is in the Rann of Kutch region. It is also known as the 'Wagah of Gujarat'.
- Civilians could watch the fenced international border with Pakistan at 'Zero Point'.
- This is guarded round the clock by the Border Security Force (BSF) in Banaskantha district of Gujarat.
- Pakistan is around 150 metres from the border pillar 960 at Nadabet.
- Nadabet played a key role in the 1971 Indo-Pakistan War.
- It was in this region that the BSF not only stalled the enemy trying to invade from the west, but also captured 15 enemy posts.

- The area was returned to Pakistan after the Shimla Agreement was signed.

GHAR - GO HOME AND RE-UNITE PORTAL

In News: The National Commission for Protection of Child Rights (NCPCR) has launched the GHAR – GO Home and Re-Unite (Portal for Restoration and Repatriation of Child) on the occasion of World Children's Day (20th November).



More on the Topic:

- The portal will provide information on children from every district to smoothen the process of their repatriation and restoration.
- NCPCR also released a detailed protocol for the "restoration and repatriation of children" and training modules for the child welfare committees (CWCs).
- **Child Welfare Committees are the guardian of children** who are vulnerable at the district level and they have the responsibility to ensure their care and protection.

INDIAN ECONOMY

ASSET MONETISATION

In News: The Centre has asked ministries and departments to identify fresh assets that could be monetised expeditiously to bring back on track the monetisation process, which currently stands way short of the budget target for this fiscal year.



More on the Topic:

- Asset monetisation is the process of creating new sources of revenue for the government and its entities by **unlocking the economic value of unutilised or underutilised public assets**.
- A public asset can be any property owned by a public body, roads, airports, railways, stations, pipelines, mobile towers, transmission lines, etc., or even land that remains unutilised.
- As a concept, asset monetisation **implies offering public infrastructure to the institutional investors or private sector through structured mechanisms**.
- Monetisation is different from 'privatisation', in fact, it **signifies 'structured partnerships' with the private sector under certain contractual frameworks**.

Motives Behind Asset Monetisation:

- Asset monetisation has two important motives:
- Firstly, it **unlocks value from the public investment in infrastructure**,
- and secondly, it **utilises productivity in the private sector**.
- Asset monetisation aims to **tap the private sector investment for new infrastructure creation**.
- "Asset monetisation does not involve the selling of land, but it is about monetising brownfield assets".

Vijay Kelkar Committee on Asset Monetisation:

- In India, the idea of asset monetisation was first suggested by a committee led by economist Vijay Kelkar in 2012 on the roadmap for fiscal consolidation.
- The committee had recommended that **the government should start monetisation to raise resources for further development and financing infrastructure needs**.

National Monetisation Pipeline:

- The government of India announced the National Monetisation Pipeline (NMP) worth Rs 6 trillion in 2021.
- This scheme aims to serve as a roadmap for the **asset monetisation of several brownfield infrastructure assets** across sectors including roads, railways, aviation, power, oil and gas, and warehousing.
- NMP is a **central portal that could act as a land bank housing information** about all assets that have been lined up for utilisation by strategic investors or private sector companies. It will also assess the potential value of unused and underutilised government assets.
- The NMP **targets to raise Rs 6 trillion through asset monetisation of the central government, over a four-year period, from FY22 to FY25**.
- However, the **ownership of the assets will be retained by the Centre**. NMP focuses on brownfield assets in which investments have already been made but are underutilised.
- The underutilised brownfield assets are in sectors such as **roads, railways, airports, mines, and power**.
- This initiative is necessary for bringing in private capital which will be used for infra creation.

GST COLLECTION

In News: GST collections for the month of October stood at Rs 1.52 lakh crore. This is the second highest collection since implementation of GST.

More on the Topic:

- Goods and Services Tax (GST) collection had touched a record high of nearly Rs 1.68 lakh crore in April. In September, it was Rs 1.48 lakh crore.
- The sharp sequential pickup in the headline GST collections in October 2022 reflects a combination of quarter-end flows relating to

the transactions in the previous month, as well as the surge in GST e-way bills ahead of a robust festive season.



Goods and Service Tax:

- Goods and Services Tax (GST) is a **comprehensive indirect tax** on the manufacture, sale, and consumption of goods and services throughout India.
- GST would replace respective taxes levied by the central and state governments.
- It is a **destination-based** taxation system.
- It has been established by the 101st Constitutional Amendment Act.
- It has subsumed indirect taxes like excise duty, Value Added Tax (VAT), service tax, luxury tax.
- It is levied at the final consumption point and is essentially a consumption tax.
- The GST avoids the cascading effect or tax on tax which increases the tax burden on the end consumer.
- The GST paid by a merchant to procure goods or services (i.e. on inputs) can be set off later against the tax applicable on supply of final goods and services.

Advantages of GST:

- Help to create a unified common national market for India, giving a boost to foreign investment and "Make in India" campaign;
- Mitigate cascading of taxes as Input Tax Credit will be available across goods and services at every stage of supply;
- Single tax system has subsumed multiple taxes.
- The one nation one tax system would facilitate companies to **generate savings in logistics and distribution** costs as there would be free movement and supply of goods in every part of the country without the need to depend on multiple sales depots across the country.
- The tax transparency and ease of doing business, as resulted from the implementation of GST, is expected to lead to increased tax

compliance and attract more foreign direct investments across sectors.

Concerns:

- **Petroleum products have not been defined** under the GST which means the states will continue levying their taxes and no input tax credit will be available in this industry and the related ones.
- For a business, GST requires to be registered in as many states in which the business is operating and that means multiple registration leading to compliance burden.
- In the **automobile sector**, the GST on electric cars, tractors, cycles, bikes, low end and luxury cars ranges anywhere from 5% to 50%. The Sale of automobiles is the barometer of an economy.
- There is distrust between the States and the Centre on revenue sharing. It is mainly due to the **delay in the compensation**.
- There is also anger at the Centre for riding roughshod over the States' autonomy and disregarding the federal structure of the Constitution.

FASAL BIMA YOJANA

In News: The Centre is open to taking "pro-farmer changes" in the Pradhan Mantri Fasal Bima Yojana (PMFBY) to meet the challenges of recent climate crisis and rapid technological advances.

More on the Topic:

- Pradhan Mantri Fasal Bima Yojana is the flagship scheme of the government for agricultural insurance in India in line with the **One Nation-One Scheme** theme.
- The government of India in 2016, launched the Pradhan Mantri Fasal Bima Yojana (PMFBY) replacing the earlier insurance schemes viz. Modified National Agricultural Insurance Scheme (MNAIS), Weather-based Crop Insurance scheme, and the National Agriculture Insurance Scheme (NAIS).
- Farmers including **sharecroppers and tenant farmers** growing notified crops in the notified areas are eligible for coverage.

Objectives of the Scheme:

- To provide **insurance coverage and financial support** to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases.

- To stabilise the income of farmers to ensure their continuance in farming.
- To encourage farmers to adopt innovative and modern agricultural practices.
- To ensure flow of credit to the agriculture sector.

Premium:

- There will be a uniform premium of only 2% to be paid by farmers for all Kharif crops and 1.5% for all Rabi crops.
- In the case of annual commercial and horticultural crops, the premium to be paid by farmers will be only 5%.
- The premium rates to be paid by farmers are very low and the balance premium will be paid by the Government to provide full insured amount to the farmers against crop loss on account of natural calamities.
- There is no upper limit on Government subsidies. Even if the balance premium is 90%, it will be borne by the Government.

Issues Related to the Scheme:

- Many farmers are dissatisfied with both the level of compensation and delays in settlement.
- Lack of awareness among farmers on the correct methodology for reporting claims.
- Failure to forecast rainfall etc. hinders assessment of crop loss and delays payment.
- The financial constraints of the state governments and low claim ratio during normal seasons are the major reasons for non-implementation of the Scheme by many States.
- Absence of Grievance Redressal Committees (GRCs) to the farmers is a grave concern.
- Insurance companies tend to charge high premiums in order to ensure that claims do not exceed premiums collected. This is more common in areas more prone to crop loss.

Way Ahead Suggested by Parliamentary Committee:

- The Parliamentary Standing Committee on Agriculture had given several recommendations on reforming the Scheme. These include:
- (a) Using technology and the coordination of all institutional mechanisms to ensure faster claim settlement;
- (b) Implementing timeline for settlement of claims by insurance companies;
- (c) Uploading the contact details of officials

insurance companies on the insurance portal so that they are accessible to farmers;

- (d) Penalising defaulting insurance companies in a time-bound manner;
- (e) Ensure the formulation of GRCs in all States. Nominate local public representatives (including Members of Parliament) in the Committees to ensure accountability.

UNNATI PROJECT

In News: Project Unnati is lagging to deliver the intended results.



PROJECT UNNATI

Skilling of Mahatma Gandhi NREGA Workers

Rural Skills Division, MoRD

More on the Topic:

- The 'Unnati' project was launched to provide skill training to existing workers of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), to reduce their dependency on the scheme.
- Since 2020, just a little over 25,000 persons have been trained under the 'Unnati' project, falling short of its target of 2 lakh.

Significance of the Scheme:

- A family member in the 18-35 age group from the household will be eligible for training under the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY).
- Candidates undergoing training are paid a stipend for a maximum period of 100 days and for one program per household as per the wage rate prevailing.
- The selected candidates are skilled through three established training programmes;
- The Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY): It is a placement-linked programme.
- The Rural Self Training Institute (RSETI): It is for entrepreneurial skills where persons in the age group of 18-45 get short-term residential training with long-term hand-holding support for up to two years.

- The Krishi Vigyan Kendra trains candidates in trades related to the agricultural sectors.

SCHEME FOR "SPECIAL ASSISTANCE TO STATES FOR CAPITAL INVESTMENT FOR 2022-23"

In News: The central government has sanctioned 60,000 crore of long-term capital expenditure funds to states this fiscal under Scheme for "Special Assistance to States for Capital Investment for 2022-23".

More on the Topic:

- The scheme intends to **build roads, ports, bridges, airports and highways across the country.**
- The scheme envisages giving **1 trillion of 50-year interest-free loans to states**, over and above the normal borrowing they are allowed, so that local administrations get more financial resources for building productive assets, which will also add jobs.
- The scheme entails 80,000 crore to be given based on the **Fifteenth Finance Commission (FFC) formula** and 20,000 crore, which is linked to reforms.
- The scheme will bring reforms at the state level, which would help improve ease of doing business.
- Funds provided are to be used for new and ongoing capital projects.
- Project with outlay of less than 5 crore (2 crore for North Eastern States) and repair and maintenance projects will not be considered.

Seven parts of the scheme:

- For capital works (PM Gati Shakti Master Plan will receive priority);
- PM Gati Shakti related expenditure;
- PM Gram Sadak Yojana;
- Incentives for digitisation;
- Optical Fibre Cable;
- Urban reforms;
- Disinvestment and monetisation.

INFLATION TARGETING

In News: The RBI's monetary policy committee met to discuss the bank's report to the government for having failed to meet its inflation targets.



More on the Topic:

- Retail inflation has remained above 6% since January and accelerated in September to a five-month high of 7.41% year-on-year as food prices surged.
- The central bank rate-setting panel in this report will explain reasons why it failed to keep inflation rate within the mandated 2-6% band for three straight quarters.

About Inflation Targeting:

- Inflation targeting is a central banking policy that revolves around adjusting monetary policy to achieve a specified annual rate of inflation. This is known as the target rate, which is normally set at around 2% to 3%.
- The principle of inflation targeting is based on the belief that long-term economic growth is best achieved by maintaining price stability, and price stability is achieved by controlling inflation.

Advantages of GST:

- The Flexible Inflation Target (FIT) was adopted in 2016. The Reserve Bank of India Act, 1934 was amended to provide a statutory basis for a FIT framework.
- The amended Act provides for the inflation target to be set by the Government, in consultation with the RBI, once every five years.
- The Centre in 2016 gave a mandate to the RBI to keep the retail inflation at 4% with a margin of 2% on either side for a five-year period ending 31st March, 2021.
- The Consumer Price Index (CPI) tracks the change in retail prices of goods and services which households purchase for their daily consumption.
- The inflation target for the period 1st April, 2021 to 31st March, 2026 under the Reserve Bank of India Act 1934 has been kept at the same level as was for previous 5 years.

Monetary Policy:

- Monetary policy refers to the policy of the central bank – i.e. Reserve Bank of India – in matters of interest rates, money supply and availability of credit.
- It is through the monetary policy, RBI controls inflation in the country.
- RBI uses various monetary instruments like REPO rate, Reverse REPO rate, SLR, CRR etc to achieve its purpose.
- Monetary policy refers to the use of monetary instruments under the control of the central bank to regulate magnitudes such as interest rates, money supply and availability of credit with a view to achieving the ultimate objective of economic policy.

RBI LIQUIDITY INFUSION

In News: The Reserve Bank of India (RBI) has injected Rs 72,860.7 crore of liquidity into the banking system.



More on the Topic:

- The reasons for reduction in the liquidity are,
- Improvement in demand for credit is one reason. The recent advance tax outflow has further aggravated the situation.
- Besides, there is the continuous intervention of the RBI to counter the fall in the rupee against the US dollar.
- The advance tax payments by corporates and also incremental deposit growth not keeping pace with credit demand has also led to the situation.

About Liquidity in the Banking System:

- Liquidity in the banking system refers to readily available cash that banks need to meet short-term business and financial needs.

- On a given day, if the banking system is a net borrower from the RBI under Liquidity Adjustment Facility (LAF), the system liquidity can be said to be in deficit and if the banking system is a net lender to the RBI, the system liquidity can be said to be in surplus.
- The LAF refers to the RBI's operations through which it injects or absorbs liquidity into or from the banking system.
- RBI also uses the **Marginal Standing Facility**, in which banks can borrow overnight money from RBI by offering government securities as collateral at the MSF rate. The RBI also uses the Standing Deposit Facility to absorb liquidity from banks without collateral.

Other ways to infuse Liquidity in the market:

- There are two other ways in which the RBI infuses liquidity into the system.
- The first method is called the **Open Market Operations (OMO)**. When the RBI wants to infuse liquidity, it will buy bonds to that extent and when it pays for these bonds, the liquidity gets infused in the system.
- OMOs work both ways. RBI buys bonds to infuse liquidity and sells bonds to suck out liquidity.
- The other method is through **dollar swap auctions**. RBI buys bonds to infuse liquidity and sells bonds to suck out liquidity. The second method is through dollar swap auctions.
- In this method, the RBI absorbs the dollar deposits with the banks and gives them rupee funds instead.

FOREIGN CONTRIBUTION REGULATION ACT (FCRA)

In News: The Rajiv Gandhi Foundation (RGF), a non-governmental organisation linked with the Gandhi family, had its Foreign Contribution Regulation Act (FCRA) licence revoked by the Centre for alleged violation of the foreign funding law.



More on the Topic:

- The FCRA law sought to regulate foreign donations to individuals and associations so that they functioned "in a manner consistent with the values of a sovereign democratic republic".
- Foreign funding in India is regulated under FCRA act. Individuals are permitted to accept foreign contributions without permission of MHA.
- However, the monetary limit for acceptance of such foreign contributions shall be less than Rs.25,000.
- The FCRA was enacted during the Emergency in 1976 amid apprehensions that foreign powers were interfering in India's affairs by pumping money into the country through independent organisations.

India and Palm Oil:

- India is the largest importer of palm oil in Asia, accounting for 15% of global imports, followed by China (9%), Pakistan (4%) and Bangladesh (2%).
- India's annual imports of edible oil is around 13-14 million tonne (MT). Around 8 MT of palm oil is imported from Indonesia and Malaysia, while other oils, such as soya and sunflower, come from Argentina, Brazil, Ukraine and Russia.
- Asia accounts for around 40% of the global palm oil consumption while Europe accounts for 12% of palm oil trade. Indonesia and Malaysia are the biggest palm oil exporters in the world.

Foreign Contribution (Regulation) Amendment Act, 2020:

- **Prohibition to accept foreign Contributions:** Certain persons are prohibited to accept any foreign contribution. These include:
- Election candidates, editors or publishers of a newspaper, judges, government servants, members of any legislature, and political parties, among others.
- **The Bill adds public servants (as defined under the Indian Penal Code) to this list.** A public servant includes any person who is in service or paid by the government or remunerated by the government for the performance of any public duty.
- **Transfer of foreign Contributions:** Foreign contributions cannot be transferred to any other person unless such person is also

registered to accept foreign contributions (or has obtained prior permission under the Act to obtain foreign contributions).

- The Act prohibited the transfer of foreign contributions to any other person. The term 'person' under the Act includes an individual, an association, or a registered company.
- **Aadhar for registration:** Any person seeking registration (or renewal of such registration) or prior permission for receiving a foreign contribution must make an application to the central government in the prescribed manner.
- The Act adds that any person seeking prior permission, registration or renewal of registration must provide the Aadhar number of all its office bearers, directors or key functionaries, as an identification document.
- In the case of a foreigner, they must provide a copy of their passport or the Overseas Citizen of India card for identification.
- **Specific Account:** Foreign contributions must be received only in an account designated by the bank as an "FCRA account" in such a branch of the State Bank of India, New Delhi, as notified by the central government.
- A person who receives a foreign contribution must use it only for the purpose for which the contribution is received.
- They must not use more than 20% of the contribution for meeting administrative expenses (earlier it was 50%).

SOVEREIGN GREEN BOND

In News: The government has given approval to the final sovereign green bonds framework in line with the Budget announcement.

More on the Topic:

- The Green bonds are financial instruments that generate proceeds for investment in environmentally sustainable and climate-suitable projects.
- By virtue of their indication towards environmental sustainability, green bonds command a relatively lower cost of capital vis-à-vis regular bonds and necessitates credibility and commitments associated with the process of raising bonds.
- In the above context, India's first Sovereign Green Bonds framework was formulated and as per the provisions of the framework,

Green Finance Working Committee (GFWC) was constituted to validate key decisions on issuance of Sovereign Green Bonds.

- A 'green project' classification is based on the principles like: Encourages energy efficiency, reduces carbon & GHG emissions etc.
- Eligible projects under the framework include: Renewable energy, clean transportation, water and waste management, green building etc.
- It excludes, nuclear power generation, landfill projects, direct waste incineration, hydropower plants larger than 25 MW etc.

About Sovereign Bond:

- A sovereign bond is a debt security issued by a national government to raise money for financing government programs, paying down old debt, paying interest on current debt, and any other government spending needs.
- Sovereign bonds can be denominated in a foreign currency or the government's domestic currency.
- Sovereign bonds are a source of government financing alongside tax revenue.

INFRASTRUCTURE RESILIENCE ACCELERATOR FUND (IRAF)

In News: The Coalition for Disaster Resilient Infrastructure (CDRI) on Wednesday announced Infrastructure Resilience Accelerator Fund (IRAF).



More on the Topic:

- IRAF, a multi-donor trust fund is established with the support of UNDP and UNDRR.

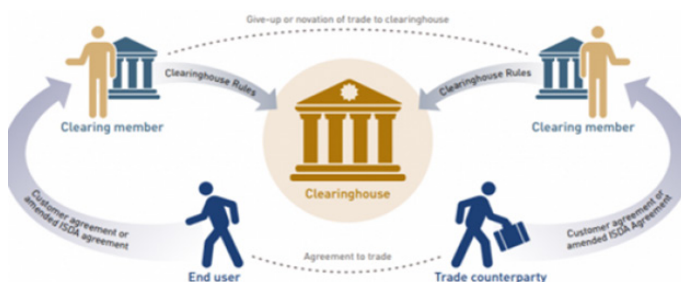
- It will be managed by the United Nation Multi- Partner Trust Fund Office (UN MPTFO), New York.
- The fund intends to support **global action on disaster resilience of infrastructure systems**, especially in developing countries and Small Island Developing States (SIDS).
- Supported by India, the UK, Australia and the European Union, IRAF's multi-pronged programme focus will offer customized technical assistance, capacity building, research, knowledge management, and advocacy across the infrastructure life cycle for countries at all stages of development.
- IRAF will play a crucial role in **equipping the coalition to deliver on improved infrastructure governance, inclusive infrastructure services, diversified knowledge, and financing for resilient infrastructure globally.**
- One of the first initiatives to be supported by IRAF is the Infrastructure for Resilient Island States (IRIS).

The Coalition for Disaster Resilient Infrastructure (CDRI):

- CDRI was launched by the Prime Minister of India, Narendra Modi at the UN Climate Action Summit in New York in 2019
- The Coalition for Disaster Resilient Infrastructure (CDRI) is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions.
- It aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development.

CENTRAL COUNTER PARTIES (CCPS)

In News: The European Union's financial markets regulator European Securities and Markets Authority (ESMA) said it will withdraw recognition of six Indian clearing bodies or central counter parties (CCPs).



More on the Topic

- These six CCPs are Clearing Corporation of India (CCIL), Indian Clearing Corporation Ltd (ICCL), NSE Clearing Ltd (NSCCL), Multi Commodity Exchange Clearing (MCXCCL), India International Clearing Corporation (IFSC) Ltd (IICC) and NSE IFSC Clearing Corporation Ltd (NICCL).
- As per the European Market Infrastructure Regulations (EMIR), a CCP in a third country can provide clearing services to European banks only if it is recognized by the ESMA.

What's the role of CCP?

- A central counterparty clearing house (CCP) is an entity that helps facilitate trading in various European derivatives and equities markets.
- Typically operated by the major banks in each country.
- It provides clearing and settlement services for trades in foreign exchange, securities, options, and derivative contracts.
- CCPs are highly regulated institutions that specialise in managing counter-party credit risk.
- CCPs perform two main functions as the intermediary in a market transaction—clearing and settlement—and guarantee the terms of a trade.
- The central Counter party clearing house or CCP hides the identities of the traders as a means of maintaining privacy and it also protects trading firms from buyers and sellers whose credit worth is unknown and who have been defaulters before.
- Central counterparty clearing houses mainly work towards establishing efficiency and stability in the financial markets.
- A CCP is authorised by the RBI to operate in India under Payment and Settlement Systems Act, 2007.

Why the Decision to Withdraw Recognition was take?

- The decision to derecognise Indian CCPs came due to 'no cooperation arrangements' between the ESMA and Indian regulators – the Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI) and the International Financial Services Centres Authority (IFSCA).
- The ESMA wants to supervise these CCPs, which the Indian regulators are not in favour of as they feel that these entities have robust

risk management and there is no need for a foreign regulator to inspect them.

INDIA INFRASTRUCTURE PROJECT DEVELOPMENT FUND SCHEME

In News: The Department of Economic Affairs (DEA), Ministry of Finance has notified Scheme for Financial Support for Project Development Expenses of PPP Projects – India Infrastructure Project Development Fund Scheme (IIPDF Scheme).



More on the Topic:

- As a Central Sector Scheme, the India Infrastructure Project Development Fund Scheme (IIPDF Scheme) will aid development of quality PPP projects by providing necessary funding support to the project sponsoring authorities, both in the Central and State Governments.
- It is intended for creating a shelf of bankable viable PPP projects for achieving the vision of modern infrastructure for the country.
- Funding under IIPDF Scheme is in addition to the already operational Scheme for Financial Support to PPPs in Infrastructure (VGF Scheme)
- VGF scheme supports infrastructure projects undertaken through PPP mode that are economically justified but commercially unviable.

Significance of the Scheme:

- As a result of the increased crop output brought about by this, the farmers would earn more money. This would improve the soil's health.
- The MRP of phosphoric and potassium (P&K) fertilizers can be fixed at appropriate levels by manufacturers, marketers, and importers thanks to the Nutrient Based Subsidy Scheme (NBS).

NATIONAL BIO ENERGY PROGRAMME

In News: The Ministry of New and Renewable Energy (MNRE), Government of India has notified the National Bioenergy Programme.



More on the Topic:

- MNRE has continued the National Bioenergy Programme for the period from FY 2021-22 to 2025-26. The Programme has been recommended for implementation in two Phases.
- The National Bioenergy Programme will comprises of the following sub-schemes:
- **Waste to Energy Programme** (Programme on Energy from Urban, Industrial and Agricultural Wastes /Residues) to support setting up of large Biogas, BioCNG and Power plants (excluding MSW to Power projects).
- **Biomass Programme** (Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries) to support setting up of pellets and briquettes for use in power generation and non-bagasse based power generation projects.
- **Biogas Programme** to support setting up of family and medium size Biogas in rural areas.

About Bio Energy:

- Any hydrocarbon fuel that is **produced from an organic matter** (living or once living material) in a short period of time (days, weeks, or even months) is considered a biofuel.
- Biofuels may be solid, liquid or gaseous in nature.
- Reasons for shifting to biofuels include the rising prices of oil, emission of greenhouse gases from fossil fuels and the interest in obtaining fuel from agricultural crops for the benefit of farmers.

- **Disadvantages of Biofuels** include Low Efficiency compared to fossil fuels, Loss of biodiversity, Less availability of space for production, Food shortage due to The first generation biofuels make use of food sources, and requirement of Massive quantities of water.

THE INVESTOR EDUCATION AND PROTECTION FUND AUTHORITY (IEPFA)

In News: The Investor Education and Protection Fund Authority (IEPFA) under the aegis of Ministry of Corporate Affairs (MCA) organised an Investor Education, Awareness and Protection Conference.



More on the Topic:

- IEPF Authority has been established under sub-section (5) of section 125 of Companies Act, 2013 with the objective of promoting Investor Education, Awareness and Protection and for administration of the IEPF fund.
- It has undertaken a wide gamut of activities to accelerate the pace of investor education among the masses at large.

DOUBLING CRUDE STEEL PRODUCTION

In News: Prime Minister Narendra Modi has said that the Indian steel industry ranks second in the world and the government aims to double the production of crude steel in the country in the next decade.



More on the Topic:

- The government had set a target of increasing crude steel production capacity from 154 million tonnes to 300 million tonnes.
- Steel is an alloy made up of iron with typically a few tenths of a percent of carbon to improve its strength and fracture resistance compared to other forms of iron.
- Many other elements may be present or added. Stainless steels that are corrosion- and oxidation-resistant typically need an additional 11% chromium.
- Because of its high tensile strength and low cost, steel is used in buildings, infrastructure, tools, ships, trains, cars, machines, electrical appliances, weapons, and rockets.
- Because of strong forward and backward linkages in India, It leads to an output multiplier effect of nearly 1.4X on GDP and creation of multiple employment opportunities.

Government Initiatives for the Promotion of Steel Industry:

- Notification of Domestically Manufactured Iron & Steel Products (DMI&SP) Policy for promoting procurement of Made in India steel.
- Notification of Steel Scrap Recycling Policy to enhance the availability of domestically generated scrap.
- Issuance of Steel Quality Control Orders to stop manufacturing and import of non-standardized steel.
- Steel Import Monitoring System (SIMS) for advanced registration of steel imports.
- Production-Linked Incentive (PLI) Scheme for Specialty Steel.
- Establishment of Project Development Cell in the Ministry to attract and facilitate investment in the steel sector.

ENVIRONMENT AND ECOLOGY

GOVERNMENT REMOVES EXPORT DUTY ON STEEL

In News: The recent government's decision to cut the export duty on steel products and iron ore to nil will help improve the financial and operational performance of steel players.



More on the Topic:

- Earlier, the import duty on anthracite/PCI, coking coal and ferronickel used as raw materials in the steel industry was hiked to 2.5%, while for coke and semi-coke it has been raised to 5%, from 'nil' earlier.
- Though iron ore is domestically available, for coking coal, India is dependent on imports.
- The country meets 85% of its coking coal requirement through imports, mainly from Australia.

Indian steel Industry:

- India is currently the world's 2nd largest producer of crude steel.
- The iron and steel industry in India is among the most important industries within the country.
- Policy for the sector is governed by the Indian Ministry of Steel.
- In India, the steel industry has strong forward and backward linkages leading to an output multiplier effect of nearly 1.4X on GDP and employment multiplier effect of 6.8X.

Government Initiatives for Steel Industry:

- National Steel Policy (NSP) 2017: It seeks to create a technologically advanced and globally competitive steel industry that promotes economic growth.
- Steel Scrap Recycling Policy: It was launched

to utilise steel scrap emanating from vehicles and white goods (that have reached their end of life) for quality steel production.

- **Steel Research and Technology Mission of India:** It provides for the grant of financial assistance to various institutions including Council of Scientific and Industrial Research (CSIR) laboratories and academic institutions for carrying out research in the iron and steel sector.

INTERNATIONAL YEAR OF MILLETS (IYOM) – 2023

In News: Pre-launch celebration of the IYOM23 was organised by Department of Agriculture and Farmers Welfare and Ministry of External Affairs.



More on the Topic:

- Millets are a highly varied group of small-seeded grasses, widely grown around the world as cereal crops or grains for fodder and human food.
- International Year of Millets will raise awareness about the contribution of millets for Food Security and Nutrition, motivate stakeholders for continuous production and quality improvement of millets and attract attention to increase investment in research and development services.
- Asia and Africa are the major production and consumption centres of millet crops. India, Niger, Sudan and Nigeria are the major producer of millet.
- Jowar and Proso Millets (Common Millet) are the most cultivated millets in the 112 and 35 countries respectively. Sorghum and pearl millets covers more than 90% area and production. Remaining production comes from Ragi (Finger Millets), Cheena (Proso Millets), Foxtail Millets (Kangni) and other non-segregated millets.

- Climate friendly crop millet can be grown with less water consumption, less carbon emission and even in drought.

India and Millet:

- India is the major production country of Millet in which Kangni, Kutki or small millet, Kodon, Gangora or Barnyard, china and Brown top are included with Jowar, Bajra, Ragi and small millets.
- Most of the states in India grow one or more millet crop species.
- During the last 5 years, our country produced more than 13.71 to 18 million tonnes of millets with the highest production in 2020-21.
- For the year 2021-22, about 16 million tonnes millets have been produced in India, which is about 5% of the national food grain basket.
- National Year of Millets celebrated in 2018.
- Millets notified as nutri-cereals and included under POSHAN Mission Abhiyan.

BIODIVERSITY HERITAGE SITE

In News: Tamil Nadu Government declared Arittapatti village in Madurai district as first BHS in State.



More on the Topic:

- The declaration has been done based on Section 37 of the Biological Diversity Act, 2002.
- The Arittapatti village is surrounded by a chain of seven barren granite hillocks that act as a watershed and support close to 72 lakes, 200 natural spring pools and three check dams.
- The Anaikondan lake built during the reign of the Pandiyas in the 16th century is one among them.
- The village has a rich biological and historical significance with the presence of around 250

bird species, including three flagship raptor species – Laggar Falcon (*Falco jugger*), Shaheen Falcon (*Falco peregrinus*) and Bonelli's Eagle (*Aquila fasciata*) and wildlife such as Indian Pangolin (*Manis crassicaudata*), Python (*Python molurus*) and Slender Loris (*Loris spp.*).

- The site also features various megalithic structures, Tamil Brahmi Inscriptions, Jain Beds and 2200-year-old rock-cut temples adding to its historical value.

Significance:

- The notification will strengthen the biodiversity and conservation efforts with the participation of local communities.
- It was added that the initiatives will also help preserve the rich biological and historical repository of the area.

LOSS AND DAMAGES FUND FOR CLIMATE REPARATIONS

In News: COP27 has established 'Loss and Damages' fund for climate reparations.

What is "loss and damage"?

The phrase refers to costs already being incurred from climate-fuelled weather extremes or impacts, like rising sea levels

■ Climate funding so far has focused on cutting CO2 emissions, while a third of it went towards helping communities adapt to future impacts

■ Loss and damage funding is expected to cover the cost of damage that countries cannot avoid or adapt to

■ A report by 55 vulnerable countries estimated that their combined climate-linked losses in the last two decades totalled



\$525 billion, or 20% of their collective GDP. This could go up to \$580 billion per year by 2030

■ Vulnerable countries and campaigners argue that rich countries that caused the bulk of climate change with their historical greenhouse gas emissions should pay

More on the Topic:

- The fund is intended to compensate the most vulnerable countries for damages from climate-linked disasters.
- Crucial questions such as who will manage this fund, whether contributions are expected from large developing countries and what the fair share of contributors will be have been left to a "transitional committee".
- The committee will make recommendations to enable the actual adoption of the fund at the next Conference of the Parties (COP) of the U.N.'s Framework Convention for Climate Change, to be held in the United Arab Emirates next year.

The About Loss and Damage fund:

- Its aim is to unlock a greater ambition to mitigate and adapt to climate change.
- "Loss and Damage" is the term that is used to refer to the cost being incurred from climate-induced weather extremes or impacts like rising sea levels.
- Till date, climate funding mostly focused on reducing carbon dioxide emissions and addressing global warming. A third of this funding supported communities to adapt to climate change consequences.
- The "Loss and Damage" funding is different since it covers the cost of damages caused by climate crisis that the countries cannot escape from or adapt to.
- According to reports by 55 vulnerable countries, their combined climate-linked losses over the past 20 years is 525 billion USD or 20% of their collective GDP. According to several studies, these losses are expected to reach 580 billion per annum by 2030.

SHISHAM EXPORT

In News: CITES rules for export of shisham (*Dalbergia sissoo*) based products eased on India's initiative.



More on the Topic:

- It was agreed upon that any number of *Dalbergia sissoo* timber-based items can be exported as a single consignment in a shipment without CITES permits if the weight of each individual item of this consignment is less than 10 kg.
- This is a great relief for the Indian artisans and furniture industry.
- As earlier, due to the restriction, exports saw a continuous fall from an estimated Rs. 1000 crore per annum before the listing to Rs. 500-600 crore per annum after the CITES listing.

- It led to a decrease in exports of Shisham products and affected the livelihoods of around 50,000 artisans who work with the species.

Dalbergia sissoo Tree:

- **Dalbergia sissoo** is commonly known as **North Indian Rosewood** or **Shisham**. It is a fast-growing, hardy, deciduous rosewood tree native to the Indian subcontinent and southern Iran.
- It is native to the foothills of the Himalayas. It is primarily found growing along river banks.
- It is used as **firewood, timber, poles, posts, tool handles, fodder, erosion control and as a windbreak**. Oil is extracted from the seed and tannin from the bark.

CITES Listing:

- CITES ensures that international trade in specimens of wild animals and plants does not threaten their survival.
- CITES is a multilateral treaty to protect endangered plants and animals from the threats of international trade.
- It was drafted as a result of a resolution adopted in 1963 at a meeting of members of the **International Union for Conservation of Nature**.
- For the effective protection of biodiversity, countries have agreed upon the categorization of species as per their level of extinction. There are 3 appendices categorising different species.
- **Appendix I** lists species that are the most endangered among CITES-listed animals and plants. Examples include gorillas, sea turtles, most lady slipper orchids and giant pandas. Around 1082 species are listed in it.
- **Appendix II** lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled.
- **Appendix III:** It is a list of species included at the request of a Party that already regulates trade in the species and that needs the cooperation of other countries to prevent unsustainable or illegal exploitation.

RED CROWNED ROOFED TURTLE

In News: India has put forward a proposal to better protect a species of freshwater reptile called the red-crowned roofed turtle (*Batagur kachuga*) under the Convention on International Trade in Endangered Species (CITES).



More on the Topic:

- The turtle, native to India and Bangladesh, is at a high risk of extinction.
- The red-crowned roofed turtle is already classified as **critically endangered** under the **International Union for Conservation of Nature Red List**.
- Threats to the specie include habitat loss due to pollution and hydrological projects specific in the Ganga lowlands of northern India and Bangladesh.
- **Overharvesting the animal for illegal consumption and illegal international trade are other reasons for its extinction threat.**
- Over 11,000 tortoises and freshwater turtles have been seized in India from 2009-2019, found a study by TRAFFIC, a global NGO working on trade in wild animals and plants and their conservation.

KORONIVIA JOINT WORK ON AGRICULTURE (KJWA)

In News: India has opposed KJWA which sought to minimize greenhouse gas emissions from the agriculture sector.



More on the Topic:

- The **Koronivia Joint Work on Agriculture (KJWA)** is a special decision under the **United Nations Framework Convention on Climate Change (UNFCCC)** that aims to recognize the unique potential of the agriculture sector in addressing the climate change.
- The agriculture sector is responsible for 7% of global GHG emissions

- India opposed it saying emissions from the agricultural sectors are not “luxury” emissions but “survival emissions” of the poor.

PANGOLINS

In News: CITES COP19 urges parties to remove references to pangolins from ‘official pharmacopoeia’.



More on the Topic:

- The pangolin is ‘the most trafficked animal in the world’.
- Pangolins are listed in **Appendix I** of CITES in accordance with the International Union for the Conservation of Nature’s Red List.
- This means that the species is threatened with extinction.
- There are eight species of pangolins in the world of which the Indian Pangolin (*Manis crassicaudata*) and the Chinese Pangolin (*Manis pentadactyla*) are found in India.
- **IUCN Red List Status:** Indian pangolin (Endangered) & Chinese Pangolin (Critically Endangered).
- Threats include over usage in traditional medicine and apparels, meat for consumption

ZERO TOLERANCE FOR GREEN WASHING

In News: In the first official acknowledgement, UN Secretary General Antonio Guterres warned companies and other non-state entities pursuing net-zero goals to not indulge in “greenwashing”.



More on the Topic:

- Greenwashing refers to the act of misleading the public to believe that a company or entity is doing more to protect the environment than it is—and weak net-zero pledges and provides a roadmap to bring integrity to net-zero commitments by industry, financial institutions, cities and regions and to support a global, equitable transition to a sustainable future.
- An expert group of the UN Secretary General published its first report on the matter, slamming greenwashing activities by corporate entities.

Details from the report:

- Actors cannot claim to be ‘net zero’ while continuing to build or invest in new fossil fuel supply or any kind of environmentally destructive activities.
- Further, they can also not participate in lobbying activities against climate change.
- The report also points out guidelines and has suggested that the non-state entities with net-zero targets must not allow any fresh investment in fossil fuels.
- It further added that they must present verifiable short-term emission reduction goals on the path to achieving net-zero, and, by 2025, must bring to an end all their activities that directly or indirectly lead to deforestation.

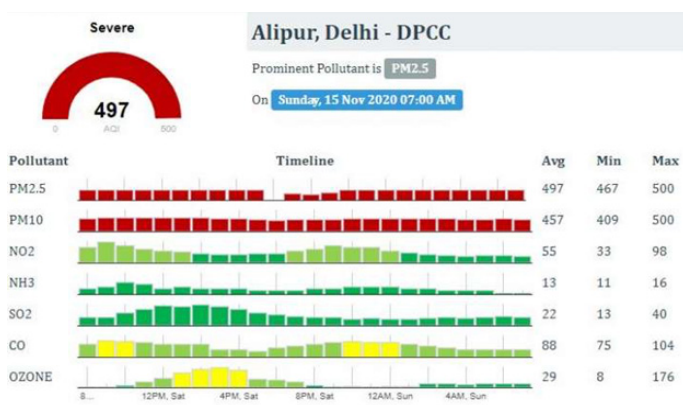
The Report's Recommendations:

- The net-zero pledges must in line with the UN Intergovernmental Panel on Climate Change (IPCC) scenarios limiting warming to 1.5 degrees.

- Furthermore, the net-zero pledges should be accompanied by a plan for how the transition is being made.
- Management must be accountable for delivering on these pledges.
- This means publicly advocating for decisive climate action and disclosing all lobbying activity.
- The UN Secretary General also urged all government leaders to provide **non-State entities with a level playing field to transition to a just, net-zero future**, advocating for strong political leadership for solving the climate crisis.

DELHI AIR POLLUTION

In News: Delhi pollution has reached to dangerous pollution levels.



More on the Topic:

- **Reasons for the Elevated Pollution Levels:**
- The burning of agricultural waste in Punjab and Haryana is indeed the dominant reason for the smoke and haze over Delhi.
- The particulate matter from the burning contributes **30-40% of the PM2.5 concentrations** in Delhi's air during this time. It is the single largest source of PM2.5 levels on most days during this period.
- **The weather plays a critical role as well** — a 30-40% rise in pollutants at any other time of the year would not cause the same impact.
- During October-November the air is not that hot. **The pollutants are trapped and tend to get concentrated at lower levels of the atmosphere**, instead of rising during summer. It results in the smoke and haze situation.
- **Location of Delhi:** It lies to the northeast of the Thar Desert, to the northwest of the central plains and to the southwest of the Himalayas.

- As winds arrive from the coasts, bringing with them pollutants picked up along the way, they get 'trapped' right before the Himalayas.

Why the Stubble is Burnt in Haryana and Punjab:

- The burning is necessitated by the need to prepare the fields for the next crop in a very short window of time.
- Due to a slight shift in the cropping pattern in these states, there is now very little time between the harvesting of one crop and the planting of the next crop.
- The traditional method of manually uprooting, or cutting, the stumps of the previous crop is time-consuming, and can delay the sowing of the next crop. So farmers resort to the easier option of burning these remains

Alternatives to Stubble Burning:

- Several solutions have been suggested, and are being tried. These include **suggestions to change the crop cycle, deployment of mechanised equipment for harvesting** that would render burning unnecessary, and conversion of this waste into something more useful, like a source of energy, which can become an incentive for not burning.

About the Solutions?

- The Indian Agricultural Research Institute has proposed a **low-cost way to deal with the problem of stubble burning by spraying a chemical solution to decompose the crop residue and turn it into manure**. Better coordination is needed.
- Monitor local sources year-round. **Having dedicated teams to keep track of local dispersed sources all year** will help avoid the last-moment fire-fighting that happens during winter.
- **Focus on solutions that cut emissions from sources.** Rather than relying on smog guns and smog towers to reduce air pollution, the focus should be on reducing emissions from known sources such as vehicles, industries and diesel generator sets.
- **Fix accountability across departments.** We keep comparing Delhi's response to China's on air pollution. In 2014, China issued rules to evaluate the performance of government officials carrying out local-level air pollution control plans. **Environmental targets were incorporated in the annual performance review of officials.** Similar accountability

regime can be incorporated in Delhi NCR.

- There are lack of ex-situ implements for stubble removal like balers to storage infrastructure, the high delivery cost of biomass and lack of adequate biomass end-user base.
- These should be addressed by crowding in private investments through the PPP model to augment the biomass supply chain and end-use infrastructure.
- Air pollution cannot be isolated from urban service and livability indicators. Having a clear set of multi-sectoral indicators to track action across sectors is necessary.

DYNAMIC GROUND WATER RESOURCE ASSESSMENT FOR THE COUNTRY

In News: The Union Minister of Jal Shakti has released the Dynamic Ground Water Resource Assessment Report for the entire country for the year 2022.



More on the Topic:

- As per the 2022 assessment report, the total annual ground water recharge for the entire country is 437.60 billion cubic meters (BCM) and annual ground water extraction for the entire country is 239.16 BCM.
- India is largest user of GW with a fourth of total global withdrawal.
- Further, out of the total 7089 assessment units in the country, 1006 units have been categorized as 'Over-exploited'.
- Assessment indicates increase in ground water recharge.
- Increase in ground water recharge which may mainly be attributed to increase in recharge from canal seepage, return flow of irrigation water and recharges from water bodies/tanks & water conservation structures.
- Analysis indicates improvement in ground water conditions in 909 assessment units in

the country compared with 2017 assessment data.

- In addition, overall decrease in number of over-exploited units and decrease in stage of groundwater extraction level have also been observed.

Terminologies:

- **Overexploited:** Ground water extraction exceeding the annually replenishable ground GW extraction.
- **Critical:** Ground water extraction is between 90 to 100% of annual extractable resources available.
- **Safe:** Ground water extraction is less than 70%.

30X30 TARGET

In News: Asia is likely to miss 30X30 goal.

More on the Topic:

- This target calls for 30% of the earth's land and sea to be conserved through the establishment of protected areas and other area-based conservation measures.
- The 30x30 target is more ambitious than its predecessor, Aichi Target 11, which aimed for the protection of 17% of land and 10% of coastal and marine areas.
- Aichi Target 11 was partially successful in numbers, but less so in quality, due to concerns that many protected areas lack connectivity, do not always safeguard the most important areas for biodiversity, and are not equitably and effectively managed.
- It was first floated in 2019 and presently more than 100 countries (including India) are part of it.
- 30x30 target aims to halt the accelerating loss of species, and protect vital ecosystems that are source of economic security.

ILLEGAL, UNREGULATED FISHING AND UNDERREPORTED FISHING (IUU FISHING)

In News: As many as 392 reported incidents of illegal, unreported and unregulated fishing were monitored in 2021 compared to 379 in 2020 in the Indian Ocean by Indian Navy.



More on the Topic:

- **Illegal Fishing** refers to fishing activities conducted by foreign vessels without permission in waters under the jurisdiction of another state.
- **Unregulated Fishing** on the other hand refers to fishing activities in areas where there are no applicable management measures to regulate the catch; this is the case in the South Atlantic, for example.
- **Unreported fishing:** It means Fishing which has not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or is undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.
- **IUU fishing** is a global problem, occurring in the South China Sea, off the west coast of Africa (where estimates put illegal catch at 40 %), off both coasts of South America, in the eastern Indian Ocean, throughout Oceania, and around Antarctica.

THE MANGROVE ALLIANCE FOR CLIMATE

In News: India has joined the Mangrove Alliance for Climate (MAC) at the 27th Summit of the Conference of Parties (COP27) at Sharm el-Sheikh in Egypt.



More on the Topic:

- Spearheaded by the United Arab Emirates (UAE) in partnership with Indonesia, MAC was launched at the COP27 Summit in Egypt to scale up and accelerate the conservation and restoration of the mangrove forests.
- The alliance will raise awareness about the role of mangroves as a "nature-based solution to climate change".
- The MAC seeks to scale up, accelerate conservation, restoration and growing plantation efforts of mangrove ecosystems for the benefit of communities globally, and recognize the importance of these ecosystems for climate change mitigation and adaptation.

What are mangrove forests?

- A mangrove is a shrub or a small tree that grows along the coastlines and has roots in salty sediments, often underwater. They also grow in swamps. Mangrove forests can survive extreme weather conditions and require low oxygen levels to survive.
- The mangroves cannot survive freezing temperatures and thus are found mainly in tropical and subtropical latitudes. Sundarbans in West Bengal in India is the largest mangrove forest in the world.
- UNESCO celebrates July 26 as the International Day for the Conservation of the Mangrove Ecosystem to raise awareness about mangrove ecosystems and to promote their conservation.

How are the Mangroves beneficial?

- Mangrove forests can store ten times more carbon per hectare than terrestrial forests. Also, they can store carbon up to 400% faster than land-based tropical rainforests.
- When the mangroves are cut, the carbon stored in these plants gets released into the air. So, preserving them to keep the carbon emissions levels low is necessary.
- Once the plants die, they take the stored carbon into the soil. This is called "Blue Carbon".
- Mangrove forests act as natural barriers against rising tides and storms.
- Each year, they prevent property damages of over \$65 billion.

SENNA SPECTABILIS - INVASIVE SPECIES

In News: An invasive species, *Senna spectabilis*, an exotic tree, has taken over buffer zones of the Mudumalai Tiger Reserve (MTR) in the Nilgiris hill district.



More on the Topic:

- It was Introduced as an ornamental species and for use as firewood from South and Central America.
- The species has become highly invasive in the Sigur plateau in both the core and buffer zones of the MTR.

Invasive Species:

- Invasive Alien Species (IAS), which can be plants, animals or pathogens, are introduced species (intentionally or unintentionally) that become established in a new environment, then spread in ways that are destructive to human interests and natural systems.
- In their new ecosystems, invasive alien species become predators, competitors, parasites, hybridizers, and diseases of our native and domesticated plants and animals.

SAFFRON FESTIVAL

In News: Directorate of Tourism, Kashmir organised a saffron festival in the karewa of Pampore.



More on the Topic:

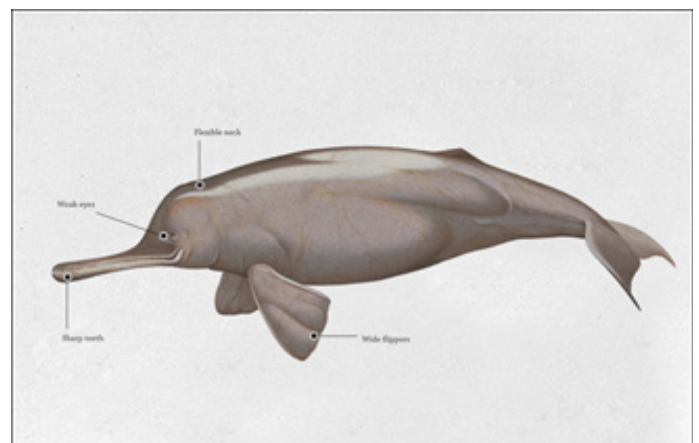
- Saffron is a plant whose dried stigmas (thread-like parts of the flower) are used to make saffron spice.
- Saffron cultivation is believed to have been introduced in Kashmir by Central Asian immigrants around the 1st Century BCE.
- It has been associated with traditional Kashmiri cuisine and represents the rich cultural heritage of the region.
- It is cultivated and harvested in the Karewa (highlands) of Jammu and Kashmir.
- It grows in many different soil types but thrives best in calcareous (soil that has calcium carbonate in abundance), humus-rich and well-drained soil with a pH between 6 and 8.

Conditions For the Growth of Saffron:

- For saffron cultivation, we need an explicit climatological summer and winter with temperatures ranging from no more than 35 or 40 degree Celsius in summer to about -15 or -20 degree Celsius in winter.
- It also requires adequate rainfall that is 1000-1500 mm per annum.
- Saffron grows well at an altitude of 2000 meters above sea level. It needs a photoperiod (sunlight) of 12 hours.

GANGETIC DOLPHIN

In News: Carcass of endangered dolphin found at UP's Katarnia wildlife sanctuary.



More on the Topic:

- Dolphins are one of the oldest creatures in the world along with some species of turtles, crocodiles and sharks.
- The Ganges river dolphin was officially discovered in 1801. Ganges river dolphins once

lived in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh.

- But the species is extinct from most of its early distribution ranges.

Gangetic Dolphin:

- The Ganges river dolphin can only live in fresh-water and is essentially blind.
- **They hunt by emitting ultrasonic sounds**, which bounces off of fish and other prey, enabling them to “see” an image in their mind.
- They are frequently found alone or in small groups, and generally a mother and calf travel together.
- Calves are chocolate brown at birth and then have grey-brown smooth, hairless skin as adults. Females are larger than males and give birth once every two to three years to only one calf.
- Being a mammal, the Ganges River dolphin cannot breathe in the water and must surface every 30-120 seconds. Because of the sound it produces when breathing, the animal is popularly referred to as the ‘Susu’.

Conservation Status:

- IUCN Status: Endangered
- It is placed in Schedule-I of the Wildlife (Protection) Act
- It is listed on CITES Appendix I, which lists species that are the most endangered among CITES-listed animals and plants

INDIAN BLACK BEE

In News: Researchers have discovered a new species of honey bee that is endemic to the Western Ghats.



More on the Topic:

- The species, discovered after a gap of over 200 years, has been named *Apis karinjodian*, with the common name, ‘Indian black honey bee’.
- What is notable is the ability of the Indian black honey bee to produce higher quantities of honey which is thicker and consistent.
- The distribution of *Apis karinjodian* ranges from the central Western Ghats and Nilgiris to the southern Western Ghats, covering the states of Goa, Karnataka, Kerala and parts of Tamil Nadu.
- The species has been classified as **Near Threatened (NT)** in Kerala based on the IUCN Red List Categories and Criteria, an easily and widely understood system for classifying species at high-risk of global extinction.
- The honey bee last discovered from India was *Apis indica* which was identified in 1798.
- The discovery has increased the species of honey bees in the world to 11.

INDIAN SKIMMER

In News: Indian skimmer is seen in huge flocks during winter in Coringa wildlife sanctuary.



More on the Topic:

- Indian Skimmer is a **thick, orange-yellow bill with a slightly longer lower mandible (jaw)** is one of the most striking features of the Indian skimmer (*Rynchops albicollis*).
- The Indian skimmer grows to a length of 40-43 cm.
- More widespread in winter, the Indian skimmer is found in the coastal estuaries of western and eastern India.
- It occurs primarily on larger, sandy, lowland rivers, around lakes and adjacent marshes and, in the non-breeding season, in estuaries and coasts.

- Its population is declining primarily because of the degradation of wetland and riverine habitats.
- The damming of the Chambal River, in upstream Rajasthan, has adversely affected its population at National Chambal Sanctuary, Uttar Pradesh, due to the dropping water levels allowing predators
- IUCN Conservation Status: Endangered



More on the Topic:

- Kashmir Pashmina is a fine type of wool which is obtained from breeds of mountain goats found in Tibet and parts of Ladakh and the trade of Pashmina shawls is completely legal.
- Shahtoosh shawls are made from the fine undercoat fibre obtained from the **Tibetan Antelope** (known locally as Chiru), an antelope species living mainly in the northern parts of the Changthang Plateau in Tibet.
- Due to their high smoothness and warmth, Shahtoosh shawls are a highly expensive and tradable commodity.

The Grievance:

- Due to concern about the survival of the species, the CITES (Convention on International Trade in Endangered Species of Wild Fauna & Flora), established in 1973, included the Tibetan Antelope in 1979.
- Sale, purchase, and possession of Tibetan Antelope parts and products, including Shahtoosh, are strictly prohibited.
- The petition submits that many genuine consignments carrying Pashmina wool are erroneously identified as Shahtoosh, possession and sale of which is banned under the Wild Life Protection Act and CITES.
- The petition states that some forms of Pashmina may appear similar to Shahtoosh but in reality are different materials emanating from different species of animal.
- Owing to the two materials having similar physical properties and tangibility, the differentiation thereof is near impossible without proper and advanced scientific forensic analysis methods.

Conservation Status:

- Tibetan Antelopes are an endangered species with high protection.

ARAPAIMA

In News: Due to the conservation efforts Pirarucu, also known as arapaima has returned to the lakes of the Medio Jurua in Brazil.



More on the Topic:

- It can weigh up to 200 kilos (440 pounds), by far the largest of 2,300 known fish species in the Amazon.
- It is found primarily in floodplain lakes across the Amazon basin, including the region of Medio Jurua.
- It is one of the few fish species in the world that surfaces to breathe. It does that with a big splash, flashing its red tail out of the water.
- The recovery of the fish happened due to the efforts of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

TIBETAN ANTILOPE

In News: Pashmina shawl traders have moved Delhi High Court complaining of being subjected to Customs and criminal prosecutions on the ground that their export consignments carry articles suspected to be Shahtoosh.

- Wild Life (Protection) Act, 1972 - Schedule I
- CITES - Appendix I
- IUCN - Near Threatened

TOKHÜ EMONG BIRD COUNT (TEBC)

In News: A recent birding drive — Tokhü Emong Bird Count (TEBC), organised in Nagaland during Tokhü Emong post-harvest festival of the Lotha Nagas, has documented a total of 178 bird species in the state.



More on the Topic:

- Birders uploaded 84 checklists to eBird, an online platform to record their observations.
- This birding event was organised in collaboration with the Wokha Forest Division and the Divisional Management Unit, Nagaland Forest Management Project (NFMP), Wokha, Nagaland and Bird Count of India.
- This initiative involves local communities to identify different species that are found in the state.
- An essential part of bird watching is finding and documenting unusual and rare birds in any given area.
- Birding is a rather unique enterprise in which birdwatchers contribute crucial information on the behavior, distribution, and occurrence of bird species to ornithological knowledge.

FOREST DECLARATION ASSESSMENT

In News: Forest Declaration Assessment has indicated that Global forest loss has decreased in 2021, but the crucial climate goal of stopping deforestation by 2030 would still be missed.

More on the Topic:

- Brazil was the world's largest contributor to deforestation in 2021. The country marked a 3% rise in the rate of deforestation in 2022.



- Bolivia and the Democratic Republic of the Congo underwent deforestation at 6% and 3%, respectively.
- Global tree cover increased by 130.9 million hectares over the past two decades.
- Three-quarters of the global gain was concentrated in 13 countries.
- China showed the largest net gain in tree cover — 2.1 million hectares (Mha). India also marked a gain of 0.87 Mha in tree cover.

Relationship Between Forest Gain and Forest Loss:

- It is essential to note that tree cover gain does not cancel out tree loss, the report cautioned. Forest cover gains don't negate the impacts of forest loss in terms of carbon storage, biodiversity, or ecosystem services.
- The highest priority efforts should be directed towards safeguarding primary forests from losses in the first place.

Recommendations:

- Forest finance needs to be on track to meet global goals to halt and reverse deforestation by 2030.
- Currently, domestic and international mitigation finance for forests averages \$2.3 billion per year less than 1% of the required. Forest funding must increase by up to 200 times to meet 2030 goals.

Good Practices Around the World:

- Indonesia reduced deforestation after implementing the forest moratorium and improved enforcement measures.
- Recent years have seen legal interventions in the European Union, Ecuador and India to protect forests.
- In 2021, a constitutional court in Ecuador upheld the rights of nature enshrined in the country's constitution.

- In April 2022, the Madras High Court declared nature as a living being with all rights and duties of a living being.

AEROSOL STUDY

In News: According to a new study, there were differences in the aerosol concentrations in the atmosphere as measured by ground observations and climate models. The variation in the findings may have a bearing on climate policymaking.



More on the Topic:

- Aerosols are extremely small solid particles, or very small liquid droplets, suspended in the atmosphere.
- Aerosols consisting of solid particles can be placed in the atmosphere primarily by large dust storms, volcanic eruptions, or the soot particles from large fires.
- The sources of aerosols are erupting volcanoes, sea salt and wildfires. Humans, too, add aerosols to the atmosphere by burning fossil fuels such as coal, oil and gas.
- Aerosols such as black carbon, organic carbon, carbon monoxide, nitrogen oxides, volatile organic compounds and sulfur dioxide are known to hurt the climate and human health. They stick around in the atmosphere for weeks.

Significance of Studying About the Aerosol:

- Aerosols can damage lung tissue and lead to lung diseases. They also influence the climate by changing how much solar energy is absorbed or reflected away from Earth.
- Aerosols influence the Earth's climate by acting as seeds on which clouds form.
- Increased aerosol particles can lead to more but smaller cloud droplets, which may likely reduce rains that fall from the cloud.

- Excess infant deaths due to aerosols in India were estimated to be three million—the highest among eight regions evaluated in the study.
- Crop output declined 12.5 tonnes due to aerosol pollution, the study published in Science Advances.
- They impact crop productivity as well.

FUNGAL PRIORITY PATHOGEN LIST

In News: The World Health Organisation (WHO) has released the first-ever priority pathogen list which includes 19 fungi to identify fungi which pose the greatest threat to public health.



More on the Topic:

- It has been divided into three categories – **critical, high and medium priority**. The critical group includes *Candida auris*, which is highly drug resistant and has caused a number of outbreaks in hospitals worldwide, as well as *Cryptococcus neoformans*, *Aspergillus fumigatus*, and *Candida albicans*.
- The **high group** includes a number of **other fungi from the Candida family** as well as others such as **Mucorales**, a group containing the fungi that causes **mucormycosis** or “**black fungus**”, an infection which rose rapidly in seriously ill people - particularly in India - during COVID-19.
- The **medium group** lists a number of other fungi, including *Coccidioides spp* and *Cryptococcus gattii*.
- This classification is based on the pathogen's public health impact or emerging anti fungal resistance risk.

Significance of the List:

- The WHO urges a **geography-wise close reading of these lists is key for assessing and tackling the threat**. The list's publication is opportune as fungi are becoming an increasingly common threat to public health.
- Global warming and increasing international travel and trade are fuelling this rise.
- The COVID-19 pandemic saw an increase in mucormycosis or black fungus infections among those hospitalised.
- Currently, only a few treatment candidates are being tested and just four classes of antifungal medicines are available. Poor diagnostic systems further compound the situation.
- The fungal infections are growing and are ever more resistant to treatments, becoming a public health concern worldwide.
- A three-layered approach emerged in the strategies suggested by policymakers, governments and public health professionals.

The strategy includes:

- Strengthening laboratory capacity and surveillance.
- Sustaining investments in research, development and innovation
- Enhancing public health interventions for prevention and control.

BLUE FLAG BEACHES

In News: Two more Indian beaches Minicoy Thundi beach and Kadmat beach, both in Lakshadweep, have been accorded the coveted International eco-label 'Blue Flag'.



More on the Topic:

- Other Indian beaches which have received the 'Blue Flag' tag are—Shivrajpur-Gujarat, Ghoghla-Diu, Kasarkod and Padubidri-Karnataka, Kappad-Kerala, Rushikonda- Andhra Pradesh, Golden-Odisha, Radhanagar-Andaman and Nicobar, Kovalam in Tamil Nadu and Eden in Puducherry beaches.

About Blue Flag Recognition:

- The 'Blue Flag' award is an eco-label awarded by Denmark-based non-profit Foundation for Environmental Education (FEE) to beaches, tourism boats, and marinas. A marina is a small harbour where mainly pleasure boats and yachts dock.
- In order to qualify for the Blue Flag, "a series of stringent environmental, educational, safety, and accessibility criteria must be met and maintained."
- The certification is given by an international jury comprising members of the United Nations Environment Programme (UNEP), United Nations World Tourism Organisation (UNWTO), and International Union for the Conservation of Nature (IUCN), besides FEE.
- The mission of the certification is to promote sustainability in the tourism sector, through environmental education, environmental protection and other sustainable development practices.

Award is based on compliance to four main categories:

- Environmental Education and Information;
- Water Quality;
- Environmental Management;
- Safety and Services.

GLOBAL METHANE PLEDGE

In News: Australia has joined Global Methane Pledge.



More on the Topic:

- The pledge was first announced by the US and EU, and is essentially an agreement to **reduce global methane emissions**.
- One of the central aims of this agreement is to **cut down methane emissions by up to 30% from 2020 levels by the year 2030**.
- The Global Methane Pledge was launched at the UN COP26 climate conference in Glasgow.
- **Methane is the second-most abundant greenhouse gas in the atmosphere**, after carbon dioxide, and, therefore, pledges related to cutting down its emissions are significant.

Methane and its Effects:

- **Methane is a powerful pollutant** and has a global warming potential that is 80 times greater than carbon dioxide.
- According to the latest Intergovernmental Panel on Climate Change report, **Methane accounts for about half of the 1.0 degrees' Celsius net rise in global average temperature since the pre-industrial era**.
- According to the UN, **25% of the warming that the world is experiencing today is because of methane, a greenhouse gas, which is also a component of natural gas**.
- Because it is a greenhouse gas, its presence in the atmosphere increases Earth's temperature.

Sources of Methane Gas:

- There are various sources of methane including **human and natural sources**.
- Human sources of methane include landfills, oil and natural gas systems, agricultural activities, coal mining, wastewater treatment, and certain industrial processes.
- The oil and gas sectors are among the largest contributors to human sources of methane.
- NASA notes that human sources (also referred to as anthropogenic sources) of methane are responsible for 60% of global methane emissions.
- These emissions come primarily from the burning of fossil fuels, decomposition in landfills and the agriculture sector.

THE NATIONALLY DETERMINED CONTRIBUTIONS (NDC)

In News: United Nations Framework Convention on Climate Change (UNFCCC) has published NDC Synthesis Report.



More on the Topic:

- The UNFCCC's synthesis report is an annual summary of climate commitments made by countries and their impact on global greenhouse gas (GHG) emissions.
- The report analysed NDCs of 193 Parties to the Paris Agreement, including 24 updated or new NDCs submitted after COP 26 (Glasgow).
- Updated NDCs are manifestations of the Paris Agreement's 'ratcheting mechanism'—wherein countries must revise their pledges to be more ambitious every five years.

Highlights of the Report:

- Countries are bending the curve of global greenhouse gas emissions downward but these efforts remain insufficient to limit global temperature rise to 1.5 degrees Celsius by the end of the century.
- Cumulative CO2 emissions in 2020-2030 would likely use up 86% of the remaining carbon budget.
- Combined climate pledges could put the world on track for about 2.5°C of temperature rise by 2100, from a possible range of 2.1°C to 2.9°C.
- According to the NDC Synthesis report, currently, we are on track for about 2.5°C of temperature rise by 2100, from a possible range of 2.1°C to 2.9°C.
- Most worrying is the impact on the carbon budget — a biophysical threshold of CO2 that can be emitted to prevent global average temperatures from rising above a certain level.

- Carbon budgets are constructed on the premise that there is a near-linear relationship between rising global temperatures and the level of cumulative atmospheric CO₂.

Nationally Determined Contribution:

- It is second such report which is an annual summary of climate commitments made by countries and their impact on global greenhouse gas (GHG) emissions.
- These commitments, known as NDCs, were made by countries who signed the Paris Agreement to address climate change.
- They contain information on targets, and policies and measures for reducing national emissions and on adapting to climate change impacts.

India's Targets:

- India's INDC, to be achieved primarily, by 2030
- A total of 40% of the installed capacity for electricity will be from non-fossil fuel sources.
- To reduce the emissions intensity of the GDP by about a third.
- India also promised an additional carbon sink (a means to absorb carbon dioxide from the atmosphere) of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by the year 2030.

BASMATI RICE

In News: Five new varieties of seeds of Basmati rice was developed by a group of scientists led by the Indian Agriculture Research Institute (IARI).



More on the Topic:

- Three of the five varieties can resist two common diseases of paddy (one bacterial and one fungal).

- The other two varieties can save 35% of water as the method of Direct Sowing of Rice (DSR) can be used to raise them.
- Researchers developed genetically resistant varieties- Pusa Basmati 1885; Pusa Basmati 1847; Pusa Basmati 1886. All these varieties have two genes to resist BLB and two genes to resist blast disease.
- In the next three years, all of the five seeds will have the combined qualities of disease and herbicide resistance.
- This will help in increasing farmers' income by reducing the cost of cultivation, by improving production and by realising price of their labour and input cost. It will reduce the use of pesticides and water.
- If the production is free from residue, it will get better prices.
- This is set to bring revolutionary changes in the way Basmati rice is cultivated in the country.

About Basmati Rice:

- It is long grain rice which has its origin from India and some parts of Pakistan.
- Basmati rice has a unique fragrance and flavour caused due to the presence of a chemical called 2-acetyl-1-pyrroline.
- This chemical is found in basmati rice at about 90 parts per million (ppm) which is 12 times more than non-basmati rice varieties.
- Basmati rice needs specific climatic conditions to grow which is why it is cultivated in selected regions of India.
- India is the largest producer of Basmati rice with about 70% share in global production.

GM MUSTARD

In News: Genetic Engineering Appraisal Committee (GEAC) under the Union Ministry of Environment, Forest and Climate Change recommended the "environmental release" of the transgenic hybrid mustard DMH-11 for seed production and conduct of field demonstration studies with respect to its effects, on honey bees and other pollinating insects.

More on the Topic:

- Hybridisation involves crossing two genetically dissimilar plant varieties that can even be from the same species.



- The first-generation (F1) offspring from such crosses tend to have higher yields than what either parent can individually give.
- Such hybridisation isn't easy in mustard, as its flowers have both female (pistil) and male (stamen) reproductive organs, making the plants largely self-pollinating.
- Since the eggs of one plant cannot be fertilised by the pollen grains from another, it limits the scope for developing hybrids – unlike in cotton, maize or tomato, where this can be done through simple emasculation or physical removal of anthers.

How has hybridisation been achieved in mustard?

- By genetic modification scientists have developed the hybrid mustard DMH-11 containing two alien genes isolated from a soil bacterium called *Bacillus amyloliquefaciens*.
- The first gene ('barnase') codes for a protein that impairs pollen production and renders the plant into which it is incorporated male-sterile.
- This plant is then crossed with a fertile parental line containing, in turn, the second 'barstar' gene that blocks the action of the barnase gene.
- The resultant F1 progeny is both high-yielding and also capable of producing seed/grain, thanks to the barstar gene in the second fertile line.

ELECTRIC VEHICLE (EV) BATTERY TECHNOLOGIES SUITED FOR INDIA

In News: Non-profit Centre for Science and Environment has collaborated with the central government's Department of Science and Technology (DST) to create a platform for supporting the development of new electric vehicle (EV) batteries to suit Indian requirements.

More on the Topic:

Major Themes to be covered:

- Build volumes for EV battery manufacturing and ensure supply chain to further develop the pathways.
- Assess the needs of Indian vehicles and the climatic stress to develop pathways for battery management and thermal management systems.
- Need appropriate cost-effective solutions for small format two-wheelers.
- EV battery chemistries in India need to be application-specific.
- Need innovation in Li ion batteries that will dominate for a considerable time, especially in small vehicles.
- Recycling of end of life batteries will be important for material recovery though it will take time to mature.

About EV Batteries:

- An electric vehicle battery (EVB, also known as a traction battery) is a rechargeable battery used to power the electric motors of a battery electric vehicle (BEV) or hybrid electric vehicle (HEV).
- Typically lithium-ion batteries, they are specifically designed for high electric charge (or energy) capacity.
- While some EVs used lead acid or nickel metal hydride batteries, the standard for modern battery electric vehicles is now considered to be lithium ion batteries.

LITHIUM

In News: India has sent a team of three geologists to Argentina "to assess potential lithium deposits" and possible acquisition opportunities in the Latin American nation.

More on the Topic:

- Lithium is the key component of batteries and other electronics including rechargeable batteries (used in EVs) and energy storage solutions. While Australia is among the top six producers on the mineral globally.
- The other five are Bolivia, Argentina, Chile, the USA and China.



About Lithium:

- It is a soft, silvery-white metal. Under standard conditions, it is the lightest metal and the lightest solid element.
- It is highly reactive and flammable, and must be stored in mineral oil. It is an alkali metal and a rare metal.
- Lithium's single valence electron allows it to be a good conductor of electricity.
- Lithium is a key element for new technologies and finds its use in ceramics, glass, telecommunication and aerospace industries.
- The well-known uses of Lithium are in Lithium ion batteries, lubricating grease, high energy additive to rocket propellants, optical modulators for mobile phones and as a precursor to tritium used as a raw material for thermonuclear reactions i.e. fusion.

About the Lithium Triangle:

- Lithium is found in pegmatite rock formation and in brine form which is called salar in Argentina, Bolivia and Chile.
- The other alternative is liquid form. Last year, Argentina and Chile produced about 30% of the world's lithium.
- The three nations, considered as the 'lithium trinity', together account for over 50% of the world's resource.
- Argentina is already witnessing substantial investment in the sector from international players, including China-backed firms.

How Lithium is processed in South America:

- In South America, lithium is typically extracted from the salt flats by pumping brine into ponds and processing the lithium salts that crystallise once the water has evaporated.
- It requires time and investment to set up, but thereafter production is cheaper than the hard-rock mining practiced in Australia.



GLYPHOSATE

In News: Government has banned Glyphosate.



More on the Topic:

- Glyphosate is a broad-spectrum systemic herbicide and crop desiccant.
- It is an organophosphorus compound, specifically a phosphonate, which acts by inhibiting the plant enzyme 5-enolpyruvylshikimate-3-phosphate synthase.
- It is used to kill weeds, especially annual broadleaf weeds and grasses that compete with crops.

GEOGRAPHY

BARREN ISLAND VOLCANO

In News: The volcano on the Barren Island of the Andaman & Nicobar Islands is being closely watched to check for signs of an eruption.

More on the Topic:

- The monitoring is being carried out by the Indian National Centre for Ocean Information Services (INCOIS), which houses the Indian Tsunami Early Warning Centre (ITEWC) .
- Barren Island is an island located in the Andaman Sea.
- The volcano about 140 km northeast of Port Blair.
- It is the **only confirmed active volcano in the Indian subcontinent**, and the only active volcano along a chain of volcanoes from Sumatra to Myanmar.

UTAH SALT FLATS

In News: The glistening white salt of the world famous Bonneville Salt Flats is shrinking near the Utah-Nevada line (USA).

More on the Topic:

- The Utah desert is a treeless expanse of pristine white salt crystals. The salt surface contains potassium, magnesium lithium and sodium chloride (common table salt).
- Ponds and marshy areas can be found in spots near the edges of the flats and **they provide critical habitat for plants and animals.**
- Research has time and again shown that **the briny water in the aquifer below the flats is depleting faster than nature can replenish it.**
- As nearby groundwater replaces the mineral-rich brine, evaporation yields less salt than historic cycles of flooding and evaporation left on the landscape.
- It's thinned by roughly one-third in the last 60 years.

INTERNATIONAL RELATIONS

INDIA-ASEAN DEFENCE MINISTERS' MEETING

In News: Maiden India-ASEAN Defence Ministers' Meeting was held recently.

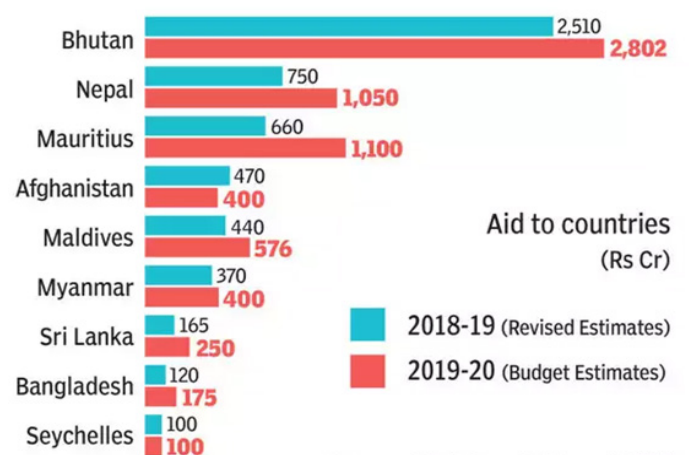


More on the Topic:

- The meeting was convened to commemorate the 30th Anniversary of India-ASEAN relations in 2022.
- This year has been designated as ASEAN-India Friendship Year.
- India shares historic, robust, and Comprehensive Strategic Partnership with ASEAN.
- During the meeting, India has proposed two major initiatives for further expanding the scope and the depth of the India-ASEAN defence relations.
- One of the initiatives proposed by Rajnath Singh was the **India-ASEAN Initiative for Women in UN Peace Keeping Operations.**
- The second initiative was **India-ASEAN Initiative on Marine Plastic Pollution** which includes channelising of the energy of the youth towards addressing the critical issue of marine pollution.
- India also proposed **establishment of an India-ASEAN Marine Pollution Response Centre** at Chennai to address and supplement regional efforts to deal with marine pollution incidents.

INDIA'S SOFT LOANS TO NEIGHBOURING COUNTRIES

In News: The volume of India's soft loans to neighbouring countries has increased from about \$3 billion to almost \$15 billion in the last eight years.



Source: Ministry of External Affairs

More on the Topic:

- We are providing soft loans to our neighbours to develop infrastructure for improved connectivity with us.
- By connecting the region India intends to bring in development and benefits to our own country in general, and the northeast in particular.

About Soft loan:

- A soft loan is basically a loan on comparatively lenient terms and conditions as compared to other loans available in the market.
- These easier conditions might be in the form of lower interest rates, prolonged repayment duration, etc.
- The repayment of these soft loans might also include interest holidays.

Soft Loan Diplomacy:

- Soft loans have been an important diplomatic tool to sustain political influence in the neighbourhood and beyond as well as counter the growing Chinese presence, especially in Africa.
- Money that seeks to fill a demand raised by the recipient country is also in contrast to the Chinese Belt and Road model, which has been criticised for putting countries in a debt trap.
- It also **strengthens India's global image as an emerging global leader.**

MIDDLE EAST GREEN INITIATIVE

In News: Saudi Arabia's would contribute \$2.5 billion Middle east green initiative and host its headquarters.

More on the Topic:

- It is a Saudi Arabia led regional dialogue on climate launched in 2021 to bring together leaders from across the MENA region (Middle East/North Africa) and beyond.
- The Middle East Green Initiative aims to reduce carbon emissions from regional hydrocarbon production by more than 60%.
- It also plans to plant 50 billion trees across the Middle East and restore an area equivalent to 200 million hectares of degraded land. The initiative will help reduce global carbon levels by 2.5%.

MULTIDIMENSIONAL INTEGRATED STABILISATION MISSION IN MALI

In News: A utility helicopter unit from India will be deployed with the UN mission in Mali, providing "much-needed support" to the peacekeeping forces, amid recent announcements by multiple nations that they will withdraw troops from the mission.



More on the Topic:

- This mission was set up to assist in the political processes of Mali and undertake numerous security-related tasks within the conflict-hit country.
- It is tasked with supporting the transitional authorities of Mali in achieving the political stabilization and implementing the transitional roadmap.

- In 2014, the UNSC expanded the scope of the mission to **ensure security for the citizens**, supporting national political dialogue and reconciliation, assisting in the re-establishment of state authority, and protecting human rights in the country. portal will provide information on children from every district to smoothen the process of their repatriation and restoration.

SHADANI DARBAR

In News: Pakistan has issued 100 visas to Indian pilgrims to allow them to participate in the 314th birth anniversary celebrations of Shiv Avtari Satguru Sant Shadaram Sahib, in Sindh province.



More on the Topic:

- Under the Pakistan-India Protocol on Visits to Religious Shrines of 1974, pilgrims from both countries are allowed to travel to some shrines across the border every year.
- Located in Hayat Pitafi, Ghotki district, Shadani Darbar is believed to be the **biggest Hindu temple** in Pakistan's Sindh province.
- It was founded in 1786 by Sant Shadaram Sahib, whose anniversary the pilgrims have travelled to celebrate.
- Sant Shadaram was born in a Lohana khatri family in Lahore in October 1708.
- He is believed to be the **descendent of Lord Ram's son, Lav**, and also an avatar of Lord Shiva.

AUSTRALIA-INDIA ECONOMIC COOPERATION AND TRADE AGREEMENT (AI-ECTA)

In News: The Australian Parliament ratified the Australia-India Economic Cooperation and Trade Agreement (AI-ECTA), adding another pillar in the already growing strategic relationship.

More on the Topic:

- The AI-ECTA is an initial trade agreement which will finally culminate into a much bigger pact – Comprehensive Economic Cooperation Agreement (CECA), which is under negotiations.
- Under the AI-ECTA, which will come into effect by December, India intends to tap into **Australia's vast and rich mineral resources** enabling it to reduce dependence on China.
- India will be able to now import coking coal and uranium from Australia for zero duty.
- The agreement, once implemented, will provide **duty-free access to the Australian market for over 6,000 broad sectors of India**, including textiles, leather, furniture, jewellery and machinery.
- The Agreement inter-alia covers areas like Trade in Goods, Rules of Origin, Trade in Services, Technical Barriers to Trade (TBT), Sanitary and Phytosanitary (SPS) measures.

India Australia Relations:

- Australia and India established diplomatic relations in the pre-Independence period, when the Consulate General of India was first opened as a Trade Office in Sydney in 1941.

Political Relations:

- India and Australia co-operate in various multilateral fora. **Australia supports India's candidature in an expanded UN Security Council.**
- Both India and Australia are members of the G-20, Commonwealth, IOR-ARC, ASEAN Regional Forum, Asia Pacific Partnership on Climate and Clean Development, and have participated in the East Asia Summits.
- Both countries have also been cooperating as members of the Five Interested Parties (FIP) in the WTO context.
- Australia is an important player in APEC and **supports India's membership of the organisation.** In 2008, it became an Observer in SAARC.

Defence Relations:

- The first-ever Bilateral Maritime Exercise, **AUSINDEX 15**, was conducted in Visakhapatnam in 2015.
- 4th edition of **AUSTRAHIND** (Special Forces of Army Exercise) was held in 2019.

Economic And Trade Relationship:

- India is the 5th largest trade partner of

Australia with trade in goods and services.

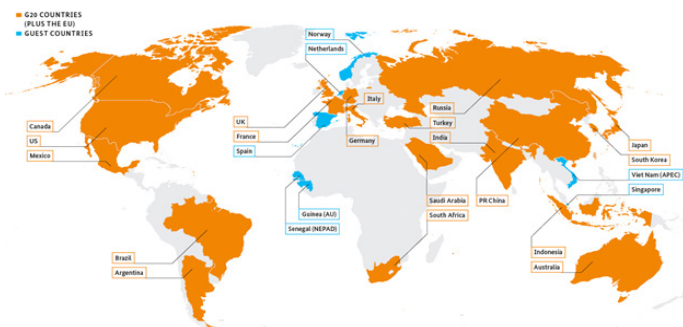
- The two countries are also discussing a Comprehensive Economic Cooperation Agreement (CECA).
- Indian investment in Australia is growing.

Indian Diaspora:

- The Indian community in Australia continues to grow in size and importance, with the population of nearly half seven lakhs.
- India is one of the top sources of skilled immigrants to Australia.
- India is now the third largest source of immigrants to Australia, after UK and New Zealand and the largest source of skilled professionals for Australia.

G 20

In News: India will assume presidency of the grouping of the world's 20 largest economies on December 1, following the G20 Summit hosted by Indonesia in Bali.



More on the Topic:

- India has unveiled India's logo, theme and website for its presidency of the G20, which reflects the country's message and overarching priorities to the world.
- The G20 logo, created with the four colours of India's national flag, comprises of earth sitting atop a lotus. The seven petals in the logo signify the seven seas and the coming together of seven continents at G20 India 2023.
- The earth reflects India's pro-planet approach to life and from this, it derives the theme of G20 India 2023 – Vasudhaiva Kutumbakam: One Earth, One Family, One Future.

About G20:

- The G20 or Group of Twenty is an intergovernmental forum comprising 19 countries and the European Union (EU).

- It works to address major issues related to the global economy, such as international financial stability, climate change mitigation, and sustainable development.
- The G20 is composed of most of the world's largest economies, including both industrialized and developing nations; it accounts for around 80% of gross world product (GWP), 59–77% of international trade, two-thirds of the global population, and 60% of the world's land area.
- The G20 was founded in 1999 in response to several world economic crises.

BLACK SEA GRAIN DEAL

In News: Recently Russia re-joined the Black Sea Grain deal.



More on the Topic:

- The grain initiative has been a rare example of cooperation between Ukraine and Russia since Russia's invasion in February.
- Brokered by the United Nations and Turkey, it has allowed more than 9 million tons of grain in 397 ships to safely leave Ukrainian ports.
- The grain agreement has brought down global food prices by about 15% from their peak in March.

About the components of the Deal:

- Ukraine is one of the world's largest exporters of wheat, corn and sunflower oil, but Russia's invasion of the country and naval blockade of its ports has halted shipments.
- The deal makes provisions for the safe passage of ships.
- It foresees the establishment of a control centre in Istanbul, to be staffed by U.N., Turkish, Russian and Ukrainian officials, to

run and coordinate the process.

- Ships would undergo inspections to ensure they are not carrying weapons.
- No Russian ship would escort vessels and there would be no Russian representative present at Ukrainian ports.
- Ukraine was expected to export 22 million tons of grain and other agricultural products that have been stuck in Black Sea ports due to the war.

OPERATION BARKHANE IN AFRICA

In News: French President Emmanuel Macron announced the end of the decade-long Operation Barkhane in Africa.



More on the Topic:

- France began its military operations in Sahel in January 2013.
- Titled Operation Serval, it was limited to targeting Islamic extremists linked to al-Qaeda who took control of northern Mali.
- However, in 2014, the mission was scaled up, renamed Operation Barkhane and was aimed at counter-terrorism.
- The objective was to assist local armed forces to prevent the resurgence of non-state armed groups across the Sahel region.
- Around 4,500 French personnel were deployed with the local joint counter-terrorism force.

DOCTORS WITHOUT BORDERS

In News: Doctors Without Borders (Médecins Sans Frontières or MSF) has warned that the proposals on intellectual property (IP) rights in the draft India-United Kingdom Free Trade Agreement (FTA) will hurt the global supply of generic medicines.

More on the Topic:

- A generic drug is a medication created to be the same as an already marketed brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use.
- A generic drug that contains the same chemical substance as a drug that was originally protected by patents.

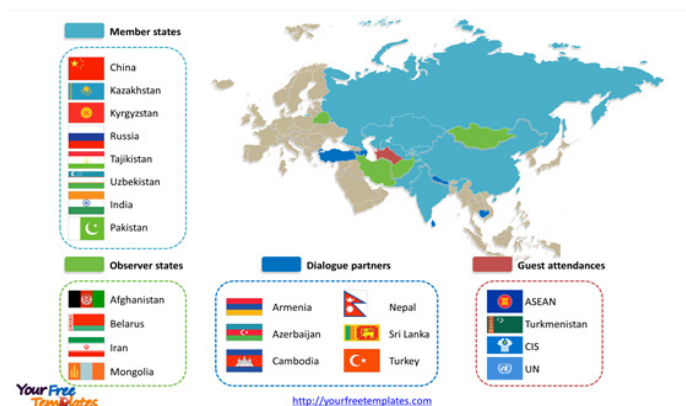
Doctors Without Borders:

- Doctors Without Borders also known as Medecins Sans Frontieres (MSF) in French.
- It is an international humanitarian medical non-governmental organisation (NGO) of French origin best known for its projects in conflict zones and in countries affected by endemic diseases.
- Private donors provide about 90% of the organisation's funding, while corporate donations provide the rest.
- It deliver emergency medical assistance to people affected by armed conflict, epidemic, malnutrition, natural disaster or exclusion from health care.
- It received the 1999 Nobel Peace Prize in recognition of its members' continued efforts to provide medical care in acute crises, as well as raising international awareness of potential humanitarian disasters.

SHANGHAI COOPERATION ORGANISATION

In News: India has refused to endorse China's ambitious Belt and Road Initiative (BRI), becoming the only country in the eight-nation Shanghai Cooperation Organisation (SCO) not to support the project.

Member states



More on the Topic:

- India has informed that India intends to foster greater cooperation with the SCO member states in countering the global food crisis.
- Stressing on better connectivity, India said central better Asian connectivity will unlock the economic potential of the SCO region, in which Chabahar port and the International North South Transport Corridor could become enablers.

About SCO:

- The Shanghai Cooperation Organisation (SCO) is a Eurasian political, economic and security organization.
- It is the world's largest regional organization in terms of geographic scope and population, covering approximately 60% of the area of Eurasia, 40% of the world population, and more than 30% of global GDP.
- The creation of the Shanghai Cooperation Organisation was announced in June 2001 in Shanghai (China) by the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Republic of Uzbekistan, The Russian Federation, and the Republic of Tajikistan.
- In the historical meeting of the Heads of State Council of the SCO held in June 2017 in Astana, the status of a full member of the Organization was granted to the Republic of India and the Islamic Republic of Pakistan in this meeting.

Member States and Permanent Bodies:

- There are 9 Member States: China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan, Uzbekistan and Iran.
- Headquarters: Beijing, China
- It has two permanent bodies,
- SCO Secretariat – Beijing
- Executive Committee of the Regional Anti-Terrorist Structure (RATS) – Tashkent

DELHI DECLARATION - 'ZERO TOLERANCE' TOWARDS TERRORISM

In News: Through Delhi Declaration, UN Security Council called for 'zero tolerance' towards terrorism.



More on the Topic:

- Declaration was adopted during The UN Security Council's Counter-Terrorism Committee meeting.
- In the declaration, the global body expressed concerns over the increasing use of Internet and other information and communications technologies, including social media platforms, for terrorist purposes.
- "Delhi Declaration" has listed the council's priorities in combating the challenge of terrorism and terror-financing.

Important Observations in the Declaration:

- Innovations in financial technologies such as crowd funding platforms present a risk of being misused for terrorist-financing.
- The increasing global misuse of unmanned aerial systems by terrorists to conduct attacks against on critical infrastructure is a grave concern.
- Declaration called for solution for these two challenges.
- The declaration has also called for deepening engagement with civil society to counter terrorism.

About Counter Terrorism Committee:

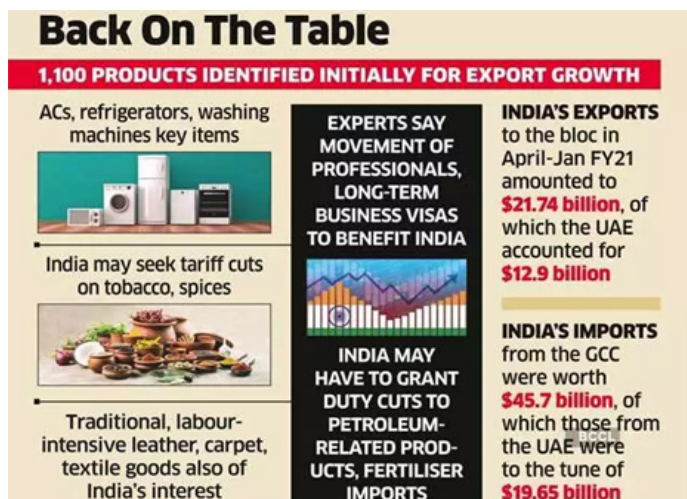
- It was established by Security Council resolution 1373 which was adopted unanimously on 28th September 2001 in the wake of the 9/11 terror attacks in the US.
- The Committee comprises all 15 Security Council member.
- Five permanent members China, France, Russian Federation, the United Kingdom, and the United States, and ten non-permanent members elected for two-year terms by the General Assembly.
- The Committee was tasked with monitoring implementation of resolution 1373 which requested countries to implement a number of measures aimed at enhancing their legal

and institutional ability to counter terrorist activities at home and around the world.

SCIENCE AND TECHNOLOGY

INDIA GCC FREE TRADE AGREEMENT

In News: India and Gulf Cooperation Council (GCC) member-countries are expected to start talks on a free trade pact with an aim to boost economic ties.



More on the Topic:

- GCC is a major import dependent region. India can increase exports of food items, clothing and several other goods.
- Duty concessions under a trade agreement will help in tapping that market.
- There is higher potential for increasing investment in the region as well.
- Sectors like chemicals, textiles, gems and jewellery and leather will get a major impetus by this agreement.
- India's exports to the GCC increased by 58.26% to about \$44 billion in 2021-22 from \$27.8 billion in 2020-21.
- Besides trade, Gulf nations are host to a sizeable Indian population.
- The GCC's substantial oil and gas reserves are of utmost importance for India's energy needs.

About GCC:

- The Gulf Cooperation Council (GCC) was established by an agreement concluded on 25 May 1981 in Riyadh, Saudi Arabia.
- The agreement was among Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and UAE in view of their special relations, geographic proximity, similar political systems based on Islamic beliefs, joint destiny, and common objectives.

BEIDOU SATELLITE NAVIGATION SYSTEM (BDS)

In News: China will expand global reach of its home-grown BeiDou satellite navigation system (BDS).

More on the Topic:

- BeiDou or BDS is a global navigation network alongside the US' GPS, (Global Positioning System) Russia's GLONASS and the European Union's Galileo.
- BeiDou is a global GNSS owned and operated by the People's Republic of China.
- BDS was formally commissioned in 2020.
- Beijing has, since 2020, also made an outreach to South Asia and is already working, or in discussion with, a number of countries in the region, including Pakistan, Nepal, Bangladesh and Sri Lanka, over adopting the BeiDou satellite (BDS) navigation system.
- The operational system of BeiDou consists of 35 satellites.
- It is in use in more than half of the countries in the world.

BLOOD MOON

In News: The Blood moon was witnessed at many parts of Indian subcontinent.



More on the Topic:

- A total lunar eclipse occurs when the Earth casts its shadow completely over a full moon, blocking reflection of all direct sunlight from the lunar orb and dimming the color of the moon to a reddish hue, hence the term "blood moon."
- This is only possible when the orbits of the Earth, moon and sun align so that the moon is

directly behind Earth relative to the sun.

- Otherwise, the moon passes above or below Earth's shadow because its orbit around Earth is usually tilted relative to Earth's orbit about the sun.

MISSION 'PRARAMBH'

In News: In a historic space mission, India's first-ever private sector rocket launch mission 'Prarambh' has been scheduled for later this month.



More on the Topic:

- The company names Skyroot Aerospace is all set to launch its first mission with a privately-developed rocket named Vikram-S.
- Skyroot Aeronautics has dubbed its maiden mission as 'Prarambh', where the Vikram-S launch vehicle will travel to space in a demonstration flight.
- What makes this mission historic is that space missions in India have only been launched by the Indian Space Research Organisation (ISRO) till now, making Prarambh the first-ever space launch by a private company in the country. Vikram-S is set to be launched from ISRO's space launchpad at Sriharikota.

More about Prarambh Mission:

- The Prarambh mission is aimed at carrying three payloads into space, including a 2.5-kilogram payload that has been developed by students from several countries.
- Skyroot's launch vehicles are named 'Vikram' as a tribute to the founder of the Indian space program and renowned scientist Vikram Sarabhai.
- The Prarambh mission and the Vikram-S rocket were developed by the Hyderabad-based startup with extensive support from ISRO and IN-SPACe (Indian National Space Promotion and Authorisation Centre).

IN-SPACe:

- 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.
- It also facilitates the usage of ISRO facilities by private entities.
- It comprises technical experts for space activities along with safety expert, academic experts and legal and strategic experts from other departments.
- Its members include members of PMO and MEA of Government of India.

LAB-GROWN BLOOD

In News: Blood that has been grown in a laboratory has been put into people in a world-first clinical trial in UK.



More on the Topic:

- The process of growing blood in lab start with a normal donation of a pint of blood (around 470ml)
- Magnetic beads are used to fish out flexible stem cells that are capable of becoming a red blood cell
- These stem cells are encouraged to grow in large numbers in the labs
- And are then guided to become red blood cells
- The process takes about three weeks and an initial pool of around half a million stem cells results in 50 billion red blood cells.
- These are filtered down to get around 15 billion red blood cells that are at the right stage of development to transplant.

Significance:

- Red blood cells normally last for around 120

days before they need to be replaced. A typical blood donation contains a mix of young and old red blood cells, whereas the lab-grown blood is all freshly made so should last the full 120 days.

CE20 CRYOGENIC ENGINE

In News: The Indian Space Research Organisation (ISRO) successfully conducted the hot test of CE20 cryogenic engine.

More on the Topic:

- CE20 cryogenic engine is indigenously developed for LVM3.
- LVM3 is a three-stage vehicle with two solid motor strap-ons, a liquid propellant core stage and a cryogenic upper stage.
- The major modifications carried out on this test article compared to previous engines was introduction of Thrust Control Valve (TCV) for thrust control.
- In addition to this 3D printed LOX and LH2 turbine exhaust casings were inducted in the engine for the first time.
- LVM-3 can carry up to 4 tonnes to a geostationary orbit and up to 6 tonnes to a Low Earth Orbit.
- The uprated thrust level will enhance the LVM3 payload capability up to 450 kg with additional propellant loading.

BIOLOGICAL DATA BANK

In News: The government has for the first time set up a digitised repository called the 'Indian Biological Data Bank'.

INTRODUCTION

• BIOLOGICAL DATABASES

- Collection of files containing records of biological data in machine readable form
- Can be accessed, added, retrieved, manipulated and modified
- Store, manage, connect and distribute data
- Data are arranged by sets of rules which are programmed into software that manages the data called Database Management System or DBMS.

More on the Topic:

- In this, Indian researchers will store biological data from publicly funded research.

- The digitised data will be stored on a four-petabyte supercomputer called 'Brahm'. A petabyte equals 10,00,000 gigabytes (gb).
- The government has mandated that data from all publicly funded research should be stored in this central repository.
- So, it will not only provide a platform for researchers to securely store their data within the country, it will also provide access to a large database of indigenous sequences for analyses.
- At present, most Indian researchers depend on the European Molecular Biology Laboratory (EMBL) and National Center for Biotechnology Information databases for storing biological data. 'Indian Biological Data Bank' will reduce our dependency on them.
- With genomes of humans, animals, and microbes present in the same database, it will also help researchers in studying zoonotic diseases, that is, diseases that jump from animals to humans.

DATA CENTRE

In News: UP Chief minister has unveiled North India's first hyperscale data centre, Yotta D1, at its Greater Noida Data Centre Park.



More on the Topic:

- The data centre will increase the data storage capacity of the country.
- It is until now stood at two percent only despite the fact that 1.5 billion mobile phones and 650 million internet users in the world are from India using 20% of data.
- For storage of data India is utilising service from centres abroad.

About Data Centre:

- At its simplest, a data center is a physical facility that organizations use to house their critical applications and data.

- A data center's design is based on a network of computing and storage resources that enable the delivery of shared applications and data.
- It is a dedicated secure space within a centralized location where computing and networking equipment is concentrated for purpose of collecting, storing, processing, distributing or allowing access to large amounts of data.

Significance of Data Centres:

- They ensure digital sovereignty of the nation.
- They are essential to meet the data localisation norms of the government.

Government Policies:

- Infrastructure status to Data Centres.
- Draft Data centre policy 2020 which aims to make India a digital hub of data centres.

GLOBAL CLIMATE OBSERVING SYSTEM(GCOS)

In News: Global Climate Observing System has commented that the Climate observing system remains fragile and needs financing for strengthening and sustaining it.



More on the Topic:

- The declaration was released by the Global Climate Observing System (GCOS) conference which was held recently.
- The conference has announced its commitment to a "comprehensive and sustainable global climate observing system" in light of the rapid pace of climate change.

About GCOS Conference:

- GCOS conference was hosted by Exploitation of Meteorological Satellites (EUMETSAT).
- Operational monitoring of the climate and detection of global climatic changes are the fundamental objectives of EUMETSAT.

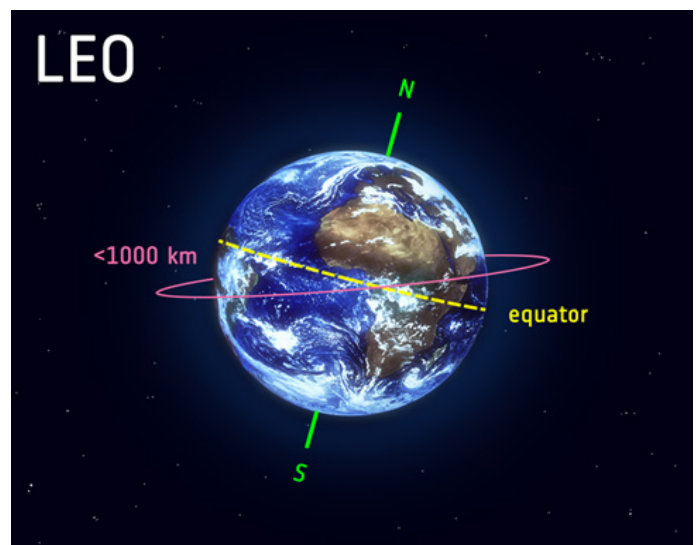
- GCOS is co-sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission of UNESCO, the United Nations Environment Programme and the International Science Council.

Important Observations by the Conference:

- The status of climate observation systems has not improved much in Africa, South America and Southeast Asia since 2015.
- Africa, South America and South-East Asia urged prioritising advancements in climate observation systems. Prioritisation must also be given to polar and deep ocean observing systems.
- There is a need to focus on improving data quality, availability, accessibility and utility.
- The climate observations are underexploited as the processing of the available data has been inconsistent, the declaration underlined.
- The conference called for access to climate data through global data repositories. In addition, access to climate data must be made free and open.
- They called for advancements in local climate change information networks.

LOWER EARTH ORBIT SATELLITES

In News: A private enterprise OneWeb drew successfully deployed 36 low earth orbit (LEO) satellites from the Indian Space Research Organisation's launch facility in Sriharikota.



More on the Topic:

- A low Earth orbit (LEO) is an orbit that is relatively close to Earth's surface. It is normally at an altitude of less than 1000 km but could

be as low as 160 km above Earth which is low compared to other orbits, but still very far above Earth's surface.

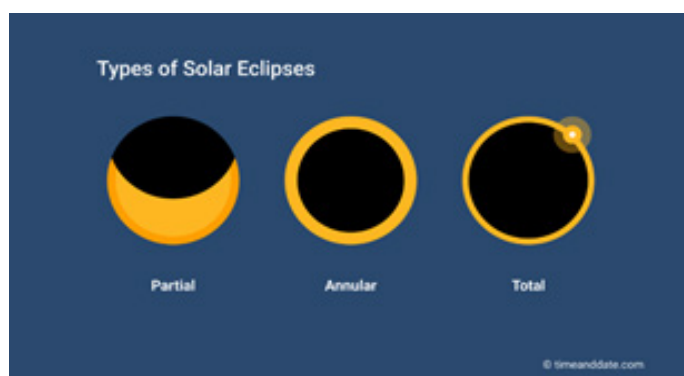
- Unlike satellites in GEO that must always orbit along Earth's equator, LEO satellites do not always have to follow a particular path around Earth in the same way, their plane can be tilted.
- This means there are more available routes for satellites in LEO, which is one of the reasons why LEO is a very commonly used orbit.

Application of LEO:

- It is the orbit most commonly used for satellite imaging, as being near the surface allows it to take images of higher resolution.
- It is also the orbit used for the International Space Station (ISS), as it is viable for astronauts to travel to and from it at a shorter distance.
- Satellites in this orbit travel at a speed of around 7.8 km per second; at this speed, a satellite takes approximately 90 minutes to circle Earth, meaning the ISS travels around Earth about 16 times a day
- Individual LEO satellites are less useful for tasks such as telecommunication, because they move so fast across the sky and therefore require a lot of effort to track from ground stations.
- Instead, communications satellites in LEO often work as part of a large combination or constellation, of multiple satellites to give constant coverage.

SOLAR ECLIPSE

In News: Partial solar eclipse was witnessed at many parts of the country.



More on the Topic:

- A solar eclipse occurs when the Moon passes between Earth and the Sun, thereby obscuring Earth's view of the Sun, totally or partially.

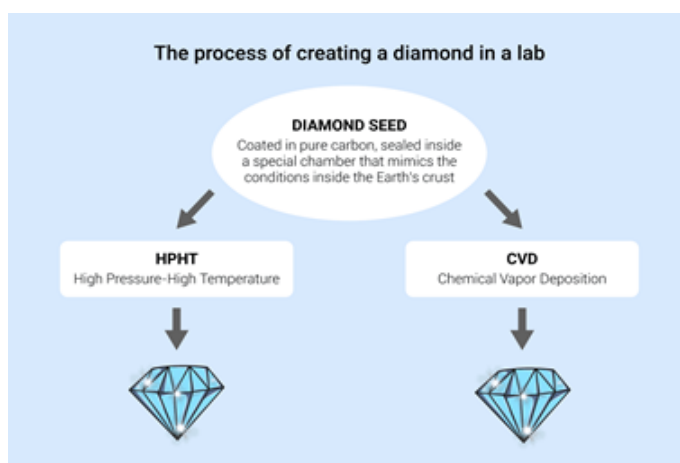
- Such an alignment coincides with a new moon, indicating the Moon is closest to the plane of the Earth's orbit.
- In a total eclipse, the disk of the Sun is fully obscured by the Moon. In partial and annular eclipses, only part of the Sun is obscured.

Why there is no Solar Eclipse on Every New moon:

- If the Moon were in a perfectly circular orbit and in the same orbital plane as Earth, there would be total solar eclipses every new moon.
- Instead, because the Moon's orbit is tilted at about 5 degrees to Earth's orbit, its shadow usually misses Earth.
- Solar (and lunar) eclipses therefore happen only during eclipse seasons, resulting in at least two, and up to five, solar eclipses each year.

LAB GROWN DIAMOND

In News: India is perceived to become the largest market for lab-grown diamonds in the future.



More on the Topic:

- Lab Grown Diamond is made by a carbon seed placement in a microwave chamber and superheated into a glowing plasma ball.
- The process creates particles that crystallize into diamonds in weeks.
- India contributes about 15% to global production of LGD.
- There are two types of Lab Grown Diamond -CVD (chemical vapour decomposition) and HPHT (High Pressure High Temperature).

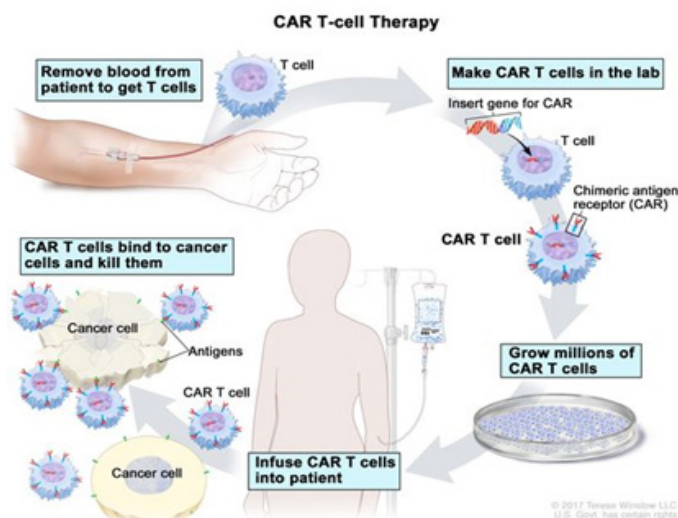
Government Incentives to Promote the Industry:

- One of the incentives that the government had brought in is that it has permitted 100% foreign direct investment (FDI) in the sector under the automatic route.

- Further, according to Budget 2019-20, the GST rate has been reduced from 18% to 5%.

CHIMERIC ANTIGEN RECEPTOR-T (CAR-T) CELL THERAPY

In News: homegrown Chimeric Antigen Receptor-T (car-t) cell therapy has cured 8-year Old's leukemia.



More on the Topic:

- The eight-year-old got the treatment as part of the safety trials for India's first indigenously made CAR-T cells, a joint effort between IIT-Bombay and Tata Memorial Centre, Mumbai.
- CAR-T cells are a patient's own immune cells that are genetically engineered in the laboratory to fight cancer.
- CAR-T cell is a prospective therapy that has ushered in a new era of curing refractory and stubborn cancers.
- It is used as third or second-line treatment for patients of specific types of cancers of blood and lymph nodes.
- As part of the treatment, a specific type of white blood cells called T cells are changed in the lab so they can find and destroy cancer cells.
- It is also sometimes referred to as a type of cell-based gene therapy because it involves altering genes inside T cells to help them attack cancerous cells.
- It uses lentiviral technology.
- In gene therapy, this is a method of inserting, modifying, or deleting genes in organisms using lentivirus, a family of viruses responsible for diseases such as AIDS (acquired immunodeficiency syndrome).

LAUNCH VEHICLE MARK-III

In News: The Indian Space Research Organisation (ISRO) has renamed the Geosynchronous Satellite Launch Vehicle (GSLV) Mark -III as Launch Vehicle Mark-III, mainly to identify its task of placing satellites into a variety of orbits.

More on the Topic:

- The Launch Vehicle Mark 3 (LVM3) is ISRO's newest medium-heavy lift launch vehicle, the heaviest rocket currently in use by the space agency.
- Formerly called the Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk III), the rocket is designed to mainly launch satellites into geostationary orbit at 35,000km.
- The LVM3 is capable of lifting much heavier satellites than the GSLV Mk II with a bigger cryogenic upper stage and a larger first stage.
- Both GSLV Mk II and LVM3 are three-stage vehicles, while the PSLV, which launches to low earth polar orbits, is a four-stage vehicle.
- The GSLV Mk-II can place up to 2,500kg in geosynchronous orbits and up to 5,000kg to low earth orbit.
- By comparison, the LVM3 can lift 4,000kg to GTO and up to 8,000 kg to LEO. Currently, America's SpaceX's non-human rated Falcon Heavy, a super-heavy lift vehicle, is the heaviest rocket that is operational.
- The LVM3 also has the human-rated variant which will be used for Gaganyaan missions.

RISAT-2 SATELLITE

In News: ISRO's RISAT-2 satellite, launched in 2009, has made an uncontrolled re-entry into the Earth's atmosphere.

More on the Topic:

- It RISAT 2 is a radar-imaging satellite which was part of RISAT programme of ISRO.
- The RISAT satellites are equipped with a synthetic aperture radar (SAR) that can take pictures of the earth during day and night, and also under cloudy conditions.
- It ensures round-the-clock border surveillance along with checking infiltration and keeping an eye on terror or anti-national activities across the borders.
- RISAT-2 was launched by the PSLV-C12.

- The principal sensor of RISAT-2 was an X-band synthetic-aperture radar (SAR) from Israel Aerospace Industries (IAI).

KALANAMAK RICE

In News: Indian Agriculture Research Institute has successfully tested two new dwarf varieties on of Kalanamak rice.



More on the Topic:

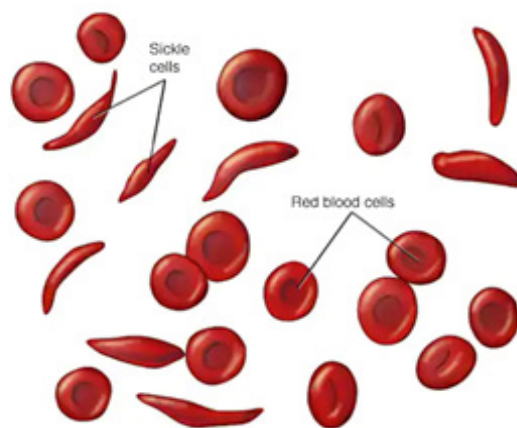
- Two varieties are Pusa Narendra Kalanamak 1638 and Pusa Narendra Kalanamak 1652 in Uttar Pradesh.
- The varieties will give double the yield.
- Kalanamak is a traditional variety of paddy with a black husk and a strong fragrance, which is considered a gift from Lord Buddha to the people of the Sravasti.
- The variety is rich in micronutrients such as iron and zinc and can help prevent Alzheimer's. awarded Geographical Indication (GI) tag in 2013.

SICKLE CELL ANAEMIA

In News: IISc has Developed Low-Cost Diagnostic Test For Sickle Cell Disease.

More on the Topic:

- The diagnostic test developed by the researchers is a low-cost alternative to the high performance liquid chromatography (HPLC).
- The HPLC test is time-consuming and costs between Rs 400 and Rs 700.



- Sickle Cell Disease (SCD) is an inherited genetic disorder of the red blood cells, which is characterised by repeated episodes of debilitating pain.
- Other symptoms include chronic anaemia, acute chest syndrome, stroke, splenic and renal dysfunction, pain crises, and susceptibility to bacterial infections,

BIOSYNTHESISED NANOGOLD PARTICLES

In News: Cordy gold nanoparticles (Cor-AuNPs), the outcome of a collaborative experiment by scientists from four Indian institutions, has earned an international patent from Germany.



More on the Topic:

- These nanoparticles are derived from the synthesis of the extracts of Cordyceps militaris (called super mushroom) – a high-value parasitic fungus, and gold salts – ionic chemical compounds of gold generally used in medicine.
- The nanoparticles could make drug delivery in the human body faster and more surer as the penetration in the cells is more when the drug particles are smaller.

REPORTS AND INDICES

RULE OF LAW INDEX

In News: The World Justice Project released the Rule of Law Index 2022.



More on the Topic:

- India has ranked 77 out of 140 countries. Denmark has topped the index.
- It measures countries' rule of law performance across eight factors:
- (1) Constraints on Government Powers,
- (2) Absence of Corruption,
- (3) Open Government,
- (4) Fundamental Rights,
- (5) Order and Security,
- (6) Regulatory Enforcement,
- (7) Civil Justice, and
- (8) Criminal Justice

GLOBAL ENERGY MONITOR (GEM)

In News: Global energy monitor has published a new report recently.



More on the Topic:

- India is developing 99 new coal mines despite the Union government's international pledge to achieve net zero emissions by 2070.
- India, in its nationally determined contributions, announced a target to cut 1 billion tonne carbon emissions by 2030 and reduce carbon intensity of the economy to less than 45%.
- A temporary coal shortage due to high electricity demand prompted the government to start developing these coal projects. These projects have the capacity to produce 427 million tonnes of coal annually (mtpa).
- Just 30 fossil fuel companies account for nearly half of the planet-warming methane emitted by the world's energy sector.
- Methane emission has more than 80 times the warming power of carbon dioxide during its first two decades in the atmosphere.
- GEM is a non-profit organization which aims to develop and share information in support of the worldwide movement for clean energy.

CITIES ALIVE: DESIGNING CITIES THAT WORK FOR WOMEN - UNDP REPORT

In News: UNDP has published Cities Alive: Designing Cities that work for women report.

More on the Topic:

- Observations:
- The publication, "Designing Cities that work for Women", focuses on four themes: safety and security, justice and equity, health and wellbeing and enrichment and fulfilment.
- Unsafe streets and public spaces, reduced mobility due to safety concerns, disproportionate exposure to climate hazard.
- 32% of women respondents were not feeling safe at cities during night.

- The study shows that women are **not well represented in key decisions** that affect the future environment for all. They are excluded from urban governance as well.
- In the health and well being aspect inadequate access to clean and hygiene toilets and public spaces has been reported.
- Under enrichment and fulfilment , 17% of world population still think women family member having a job is not desirable.

Solutions Suggested:

- A **gender-inclusive and responsive approach** to urban planning and design is essential to the future of our cities, creating places where everyone can live, work and thrive.
- **Designing urban areas that are responsive to the needs of all women.**
- Increasing the participation of women in urban governance, planning, and design
- Through these means our cities will become safer, healthier, fairer and more enriching spaces for all.
- **Reversing the historic gender bias** that is built into the fabric of our urban spaces also should be an important aim.

WORLD ENERGY OUTLOOK

In News: World Energy Outlook was published by International Energy Agency.



More on the Topic:

- **Important Findings:**
- Coal generation is projected to expand in absolute terms in the stated policies scenario, peaking around 2030, though its share of electricity generation will fall from below 75% to 55% over this period.
- Talking specifically about India, the report stated that **the primary challenge for the country is going to be about meeting its rising electricity demand.**
- India will have to find out ways to meet this increasing demand with renewables and nuclear on a scale that is large enough to reduce the use of "unabated coalfired generation", which provides nearly threequarters of electricity supply currently.
- **India became the world's second largest coal producer in 2021** (in energy terms), overtaking Australia and Indonesia, and that it plans to increase domestic production by more than 100 million tonnes of coal equivalent (Mtce) by 2025 from the current levels.
- At present, **India accounts for just over 10% of global coal consumption, after China which accounts for 55%.**
- Coal demand in India rose rapidly between 2010 and 2019, mainly as increases in electricity demand were largely met through coal fired power.
- Coal use in India dropped by 7% in 2020 due to the pandemic, but increased by 13% in 2021, therefore already surpassing the 2019 levels.

NASSCOM REPORT ON GIG WORKERS

In News: The National Association of Software and Services Companies (NASSCOM) releases report on gig workers.



More on the Topic:

- Nearly two-thirds (65%) of IT companies in India are employing gig workers this year, a higher share compared to 57% of the organisations in 2020.
- While the share of tech organisations in India employing gig workers has increased, their share remains less than 5% of the total workforce. This is especially true for companies with more than 2000 full-time employees.
- However, for smaller organizations, with less than 2000 full-time employees, gig worker share is more than 5%.
- Focus on specialised skills requirement, employee demand elasticity and cost optimization are enabling organizations to embed gig for technology roles which traditionally were restricted to HR and support functions.
- Software development, UI/UX design, and data analytics have emerged as the top three in-demand giggable skills within the technology sector.

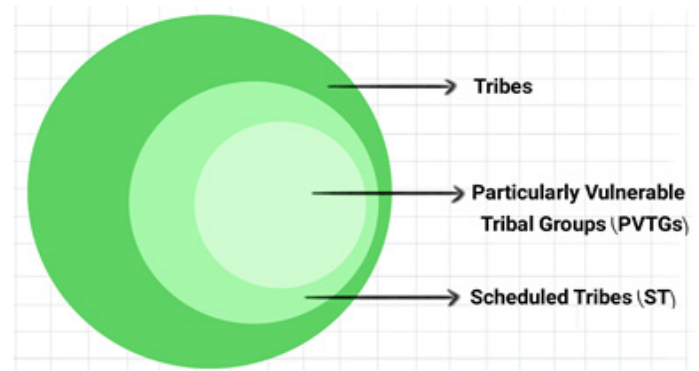
About Gig Economy:

- Gig Economy is the evolving economic model wherein the firms hire workers on a part-time flexible basis rather than as full time employees.
- The Code on Social Security, 2020 defines gig workers as those engaged in livelihoods outside traditional employer-employee relationship.
- The workers work as freelancers or independent contractors. They generally have flexible and adaptable working hours based on individual preferences.
- It minimises costs and expenses as businesses are able to hire off-site workers which reduces the need to maintain expensive workspaces.
- It has low entry barriers thus offers enormous potential for job creation in India.

INDIAN SOCIETY / SOCIAL ISSUES / SOCIAL JUSTICE

PARTICULARLY VULNERABLE TRIBAL GROUPS

In News: Anthropological Survey of India (AnSI) has recreated the huts of several Particularly Vulnerable Tribal Groups.



More on the Topic:

- The huts are not only authentic in design, and built using the same materials used by the tribal people, but also contains artefacts which they use, thus offering a rare glimpse into the lives of these communities who reside in locations which are not easily accessible to others.
- For instance, the traditional Jarawa hut, called a chadda, has traditional baskets, bows and arrows, and other artefacts used by the community.
- The Shompen hut contains a store of a paste made using the pandamus fruit which members of the tribe eat when there is shortage of food.
- Both the Jarawa and Shompen communities are PVTGs living in the Andaman and Nicobar Islands.
- While the population of Shompen people is said to be less than 300, there are about 500 members of the Jarawa tribe.

About PVTGs:

- PVTGs are more vulnerable among the tribal groups.
- Due to this factor, more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development.
- In this context, in 1975, the Government of India initiated to identify the most vulnerable

tribal groups as a separate category called PVTGs and declared 52 such groups.

- Right now a total of 75 PVTGs out of 705 Scheduled Tribes, spread over 17 states and one Union Territory (UT), in the country (2011 census) are identified as PVTGs.

How they are identified:

- Government of India follows the following criteria for identification of PVTGs.
- Pre-agricultural level of technology
- Low level of literacy
- Economic backwardness
- A declining or stagnant population.
- Accordingly 75 PTVGs have been identified in the country.

BCCI ANNOUNCES PAY PARITY

In News: BCCI announced that India's women cricketers will be paid the same international match fee as their male counterparts.



More on the Topic:

- The step is significant since the world's richest cricket body will finally walk the talk on pay parity.
- Also, the BCCI will become the second cricket body after New Zealand Cricket, which announced in July that it would award both its men and women players equal match pay.
- This will certainly lift the morale of women who represent the national squad.

About Gender pay Gap:

- Recently, the World Economic Forum (WEF) ranked India at 135 out of 146 countries in its Global Gender Gap (GGG) Index for 2022.

- According to the estimates of the World Inequality Report 2022, in India, men earn 82% of the labor income whereas women earn 18% of it.

Reasons for Gender Pay Gap:

- The pandemic affected women workers most in terms of job and income losses. They were not able to regain their lost jobs.
- Discrimination and stereo types do exist in the society which favours gender pay gap.

Initiatives to Address Gender pay Gap:

- The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) provides an international legal framework for realising gender equality.
- Equal Pay International Coalition (EPIC) was launched in 2017 as a multi-stakeholder initiative led by the ILO, UN Women and the Organisation for Economic Co-operation and Development (OECD) seeks to achieve equal pay for women and men everywhere.
- India has taken required reforms in the Minimum Wages Act in 1948 and adopted the Equal Remuneration Act in 1976. India has also enacted the Code on Wages.
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in 2005 has also benefited rural women workers and helped reduce the gender pay gap directly and indirectly.

ANCIENT, MODERN INDIA AND ART & CULTURE

100 YEARS OF DISCOVERY OF MOHENJO-DARO

In News: 100 Years of discovery of Mohenjo-Daro has been completed recently.



Mohenjo Daro

More on the Topic:

- Mohenjo-daro meaning 'Mound of the Dead Men' is an archaeological site in the province of Sindh, Pakistan.
- Built around 2500 BCE, it was the largest settlement of the ancient Indus Valley Civilisation, and one of the world's earliest major cities, contemporaneous with the civilizations of ancient Egypt, Mesopotamia, Minoan Crete, and Norte Chico.
- With an estimated population of at least 40,000 people, Mohenjo-daro prospered until around 1700 BCE.
- Mohenjo-daro was abandoned in the 19th century BCE as the Indus Valley Civilization declined, and the site was not rediscovered until the 1920s.
- Significant excavation has since been conducted at the site of the city, which was designated a UNESCO World Heritage Site in 1980, the first site in South Asia to be so designated.
- The site is currently threatened by erosion and improper restoration.

KASHI TAMIL SANGAMAM

In News: Union Education Ministry will organise 'Kashi Tamil Sangamam', a month-long programme to rediscover the centuries-old bond of knowledge and ancient civilisational linkage between Varanasi and Tamilnadu.



More on the Topic:

- Over 2400 Tamil people in 12 groups from diverse sections of society, including academics, spiritualism, philosophy, trade and commerce, agriculture, entrepreneurship, arts and artisanship will visit Kashi for eight days to get familiarised with the ancient knowledge shared by these two ancient cities.
- The programme will be organised under the framework of 'Ek Bharat Shreshtha Bharat'. IIT-Madras and Banaras Hindu University will be the knowledge partners.

HEMKUND SAHIB

In News: Prime Minister Narendra Modi has laid foundation stone of two new ropeway projects connecting Govindghat to Hemkund Sahib and Gaurikund to Kedarnath in Uttarakhand.



More on the Topic:

- Hemkund Sahib formally known as Gurudwara Shri Hemkund Sahib Ji, is a Sikh place of worship and pilgrimage site in Chamoli district, Uttarakhand.
- It is devoted to Guru Gobind Singh (1666–1708), the tenth Sikh Guru, and finds mention in Dasam Granth.
- With its setting of a glacial lake surrounded by seven mountain peaks, each adorned by a Nishan Sahib on its cliff.

BUDDHIST NYINGMA SECT

In News: Buddhist Nyingma sect finds 'reincarnation' of famous Rinpoche.



More on the Topic:

- The Nyingma sect is also known as the Red Hat sect because its Lamas wear red robes and hats. Its teachings are mainly based on those of Padmasambhava, called Guru Rinpoche and Shantarakshita.
- Nyingma traditional histories consider their teachings to trace back to the first Buddha Samantabhadra (Güntu Sangpo) and Indian mahasiddhas such as Garab Dorjé, Śrī Siha and Jñānasūtra.
- Traditional sources trace the origin of the Nyingma order in Tibet to figures associated with the initial introduction of Buddhism in the 8th century, such as Padmasambhava, Yeshe Tsogyal, Vimalamitra, Vairotsana, Buddhaguhya and Shantaraksita.

- The most important teacher of Nyinga sect is padmasambhava.

NICOBARI HODI CRAFT

In News: Andaman & Nicobar's first application for the Geographical Indication tag is for the Nicobari hodi craft.



More on the Topic:

- The hodi is the Nicobari tribe's traditional craft. It is an outrigger canoe, very commonly operated in the Nicobar group of islands.
- The technical skills for building a hodi are based on indigenous knowledge inherited by the Nicobarese from their forefathers.
- The hodi is built using trees that are locally available or from nearby islands, and its design varies slightly from island to island.
- It is used for transporting people and goods from one island to another and racing activities.

PERSONALITIES IN NEWS

KEMPEGOWDA

In News: Prime Minister Narendra Modi has unveiled a 108-foot tall bronze statue of 'Nadaprabhu' Kempegowda, credited to be the city's founder.



More on the Topic:

- Kempegowda, a 16th century chieftain of the Vijayanagara empire, is credited as the founder of Bengaluru.
- Kempegowda is also known to have developed around 1,000 lakes in the city to cater to drinking and agricultural needs.
- He was from the dominant agricultural Vokkaliga community in south Karnataka.
- Kempegowda is an iconic figure among Karnataka's second most dominant Vokkaliga community after Lingayats.

GURU NANAK JAYANTI

In News: On the occasion of Gurupurab, the Ministry of Home Affairs (MHA) facilitated the visit of 2,420 Indian Sikh pilgrims to Nankana Sahib in Pakistan.

More on the Topic:

- Guru Nanak Dev Ji Gurpurab also known as Guru Nanak's Prakash Utsav, celebrates the birth of the first Sikh guru, Guru Nanak. One of the most celebrated and important Sikh gurus and the founder of Sikhism.
- Guru Nanak Dev is highly revered by the Sikh community.

- This is one of the most sacred festivals in Sikhism.
- First of the 10 Sikh Gurus and the founder of Sikhism, Guru Nanak was born in a village, Talwandi, near Lahore (it was renamed later as Nankana Sahib).
- He rejected sacrifices, rituals, image worship, austerities and the scriptures of both Hindus and Muslim.
- He advocated the 'Nirguna' (devotion to and worship of formless divine) form of bhakti.
- Guru Nanak's hymns known as "Gurbani" were included in the Adi Granth compiled by Guru Arjan (1563-1606).

UDA DEVI

In News: Events to commemorate the martyrdom of Uda Devi, a freedom fighter was held at various places in Uttar Pradesh.



More on the Topic:

- Uda Devi Pasi was an Indian women freedom fighter who participated in the war on behalf of Indian soldiers against the British East India Company, during the Indian Rebellion of 1857.
- She was part of the royal guard of Begum Hazrat Mahal of Awadh.
- She was known for her courageous battle in Lucknow termed as Battle in Sikandar Bagh.

QATAR

In News: The Qatar will be hosting World Cup Football 2022.

More on the Topic:

- This was the first World Cup in an Arab nation and the second in Asia, after South Korea in 2002.
- It shares a land border with Saudi Arabia, Bahrain, and United Arab Emirates.
- Due to the presence of massive offshore natural gas fields, the nation has one of the world's highest per capita incomes.
- The majority of its 2.9 million people live around its capital, Doha, on its eastern coast.
- Qatar is an autocratic nation overseen by its ruling emir, Sheikh Tamim bin Hamad Al Thani.
- Political parties are banned.

INDIRA GANDHI PRIZE FOR PEACE, DISARMAMENT AND DEVELOPMENT

In News: Former Vice-President Hamid Ansari presented the Indira Gandhi Prize for Peace, Disarmament and Development of 2021 to Pratham, an NGO functioning in the field of education.



More on the Topic:

- The award is in recognition of Pratham's work in ensuring quality education for children of the country, particularly during the COVID-19 pandemic.
- Pratham also used digital technology to deliver education so that the children could learn during the school closure amid the pandemic.
- The award is Instituted in memory of former prime minister, it consists of a monetary award of 25 lakh along with a citation.

Practice Questions



1) Equuleus spacecraft is launched by which country?

- (a) ISRO
- (b) NASA
- (c) JAXA
- (d) ESA

2) Which of the following statement/s is/are true?

- 1. Bamboo has been removed from the category of trees.
 - 2. Minimum support price is not available to bamboo.
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2



3) Which of the following statement/s is/are true?

- 1. Bioremediation is a process that uses mainly microorganisms, plants or microbial or plant enzymes to detoxify contaminants in the soil and other environments.
 - 2. Bioremediation is costlier compared to conventional treatment methods.
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2

4) Which of the following statement/s is/are true?

- 1. Gamma Ray Bursts (GRB) are powerful astronomical cosmic bursts of high-energy gamma-ray.
 - 2. GRB emits more energy in a few seconds than our Sun will emit in its lifetime.
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2



5) What is Senna spectabilis is?

- (a) Invasive Species
- (b) Ancient Primate
- (c) Endangered bird
- (d) None of the above

6) Which of the following statement/s is/are true?

- 1. 'Group of Friends' Initiative is a platform to promote accountability for all acts of violence against Khurdhish community.
 - 2. India has launched 'Group of Friends' grouping.
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2





7) 'Coalition for Nature' is associated with?

- (a) Small Island Nations
- (b) Scandinavia Countries
- (c) South Asian Countries
- (d) G20 Nations

8) GI tagged Joynagar Moa belongs to?

- (a) Assam
- (b) Bihar
- (c) West Bengal
- (d) All of the above



9) Which of the following regarding Biomass-cofiring are true?

- 1. Substituting coal with biomass in coal-based power plants can save carbon dioxide emissions.
 - 2. India has not adopted Biomass co-firing in its coal based powerplants.
 - 3. Unavailability of biomass pellets of agricultural residues acts as a dampener in implementing it in thermal power plants.
- (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2 and 3



10) The Tiber, Rhone and Ebro rivers drain into which one of the following sea?

- (a) The Mediterranean Sea
- (b) White Sea
- (c) Baltic Sea
- (d) Adriatic Sea



Mains Questions

1. The Right to Freedom of Speech and Expression does not extend to the freedom to offend. Discuss the ethical issues involved in this statement.
2. Temporary / flexi jobs through Gig Economy is both a boon and a bane for a country like India. Summarize the alternate viewpoints. Also discuss various policy challenges thrown open by the gig economy.

- 1. c 2. a 3. a 4. c 5. a
- 6. b 7. a 8. c 9. c 10. a



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