

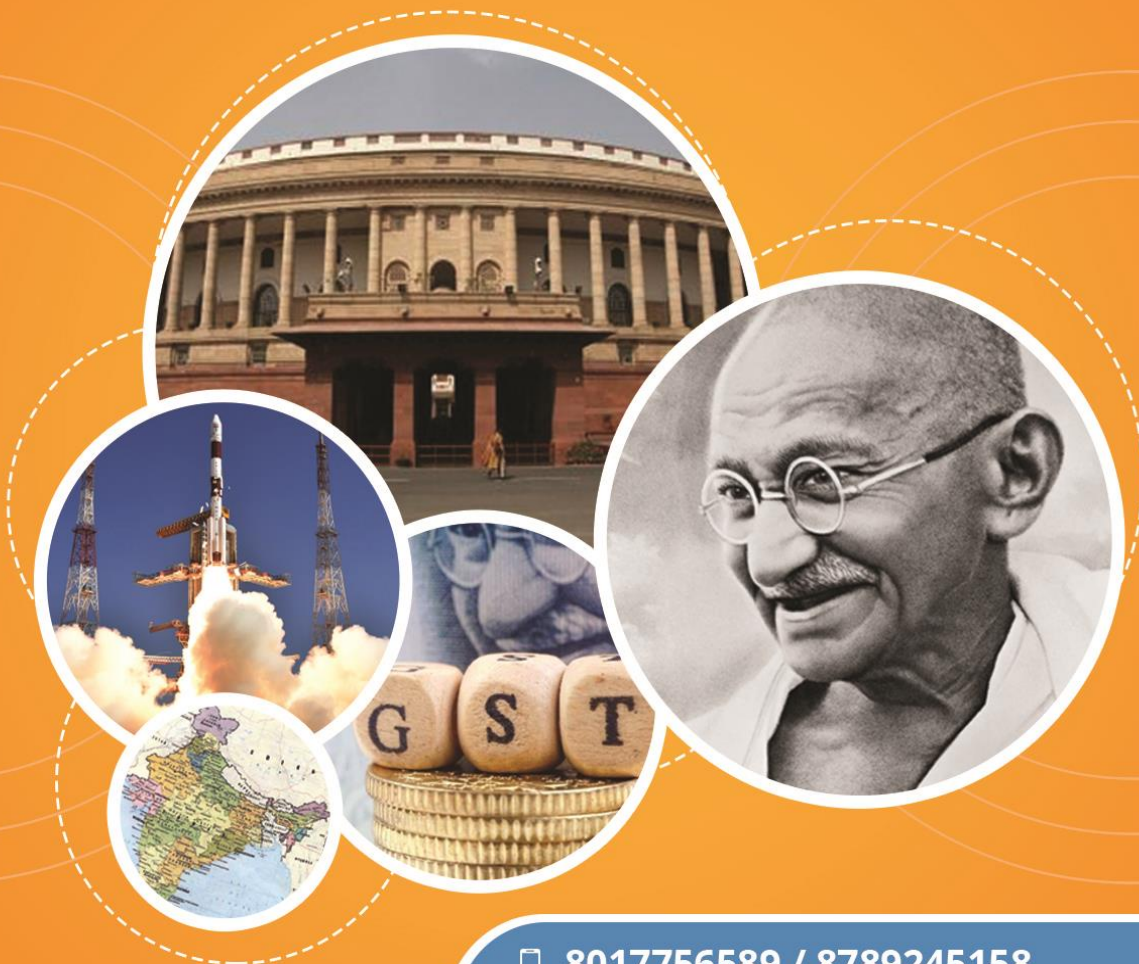


FEB
2021

CURRENT AFFAIRS

===== **S C A N** =====

Monthly Contemporary Issues for
IAS / IPS EXAM



📞 8017756589 / 8789245158
📍 Hazra Road (Kolkata)
🌐 Visit us on :- www.kavishias.in

INDEX

TOPICS	PAGES
1) Polity and Governance	03-24
2) International Relations	25-41
3) Security and Defence	41-46
4) Economy	47-66
5) Science and Technology	67-77
6) Ecology and Environment	78-87
7) Social Issues	88-92
8) Miscellaneous	93-95

POLITY AND GOVERNANCE

Paper II: This section is relevant to Polity and Governance Section of GS Paper II



1.1 POLITICAL PARTIES IN INDIA

Topic: Functions and Responsibilities of Various Constitutional Bodies

Why in News: The Association for Democratic Reforms (ADR) recently released a report on the status of various political parties in the country.

ADR's report on Political Parties in India

Highlights of the report

- There are a total of 2,360 political parties registered with the Election Commission of India. 2,301 or 50% of registered political parties are un-recognised parties.
- The number of registered un-recognised political parties has increased more than twice in the last 10 years. From 1112 parties in 2010, the number has increased to 2,301 in 2019.
- Of the total of 2,301 registered un-recognised parties, 653 parties or 28.38% belong to Uttar Pradesh, followed by 291 parties or 12.65% from Delhi and 184 or 8% from Tamil Nadu.
- The number of registered un-recognised political parties increases disproportionately during the year of Parliamentary elections.
- Between 2018 and 2019, it increased by over 9.8%, while between 2013 and 2014, it increased by 18 percent.

Financial contribution details

- Of the total 2,301, only 78 registered un-recognised political parties or 3.39 percent parties in 2018-19 and 82 or 3.56 percent in 2017-18 have submitted their financial contribution details to the Election Commission.
- These registered un-recognised parties received Rs 90.05 crore in 2017-18 and 2018-19 from 12,998 donors.
- Apna Desh Party of Uttar Pradesh declared the highest donations for both financial years combined of Rs 65.63 crore (4300 donations) or 88% of the total declared donations by unrecognized parties in their contribution reports of 2017-18 and 2018-19.

Registration of political parties

- Registration of political parties is governed by the provisions of Section 29A of the Representation of the People Act, 1951.
- A party seeking registration as a political party has to submit an application to the Election Commission of India.

Benefits of registration

- The candidates set up by a political party registered with the Election Commission of India get preference in the matter of allotment of free symbols compared to independent candidates.
- Further, registered political parties, in course of time, can get recognition as 'State Party' or National Party' subject to the fulfillment of various conditions.
- If a party is recognised as a 'State Party', it is entitled for exclusive allotment of its reserved symbol in the States in which it is recognised.
- If a party is recognised as a 'National Party' it is entitled for exclusive allotment of its reserved symbol throughout India.

Recognition of a political party

A political party shall be treated as a recognised political party in a State, if the conditions specified in Clause (A) or the condition specified in Clause (B) is fulfilled by that party.

Clause (A)

- The political party must have engaged in political activity for a continuous period of five years; and
- At the last general election in that State to the House of the People (Lok Sabha), or to the Legislative Assembly of the State, the party returned (won)
- At least one member to the House of the People for every twenty-five members of that House or any fraction of that number from that State; or
- At least one member to the Legislative Assembly of that State for every thirty members of that Assembly or any fraction of that number;

Clause (B)

The party should have won at least six per cent of the total number of valid votes in the last general election in the State to the House of the People or to the Legislative Assembly of the State.

Recognition as a State or National Party

- If a political party is treated as a recognised political party in four or more States, it shall be known as a 'National Party' throughout India.
- If a political party is treated as a recognised political party in less than four States, it should be known as a 'State Party' in the State or States in which it is recognised.

Types of election symbols of political parties

- As per the Election Symbols (Reservation and Allotment) (Amendment) Order, 2017, party symbols are either “reserved” or “free”. For this and other such issues, the EC classifies parties as recognised and unrecognised.
- A reserved symbol is a symbol reserved for a recognised political party and can be used exclusively by the candidates of that party. There are eight national parties and 64 state parties across the country, who have been allotted “reserved” symbols.
- The Election Commission (EC) also has a pool of nearly 200 “free” symbols that are allotted to the thousands of un-recognised regional parties that are formed before elections.

Symbol allotment process

- Through the Election Symbols (Reservation and Allotment) Order, 1968, the Election Commission provides for ‘specification, reservation, choice and allotment of symbols’ in the elections.
- A candidate contesting from a national party at any election is allotted the symbol reserved for the party. Similarly, a candidate of a party recognised as a state party in any particular state is allotted the symbol reserved for that party in all constituencies in that state.
- To get a free symbol, a party/candidate has to provide a list of three symbols from the EC’s free symbols list at the time of filing nomination papers. Among them, one symbol is allotted to the party/candidate on a first-come-first-serve basis.

Recognised state party contesting elections in another state

If a party recognised in a particular state, contests in elections in another state, it can “reserve” the symbol already being used by it. However, this is possible, only if that symbol is not reserved for any other recognised state party in that state.

Moreover, the symbol should also not be similar to the symbols in use by other parties. It is for this reason that Shiv Sena was not by the EC to use its ‘bow and arrow’ symbol for Lok Sabha elections in Bihar, due to its similarity to JD(U)’s symbol.

Status of party name and symbol in case of split in a political party

When a recognised political party splits, it is up to the EC to decide which faction represents the original party and allots the symbol accordingly. For example, when the Samajwadi Party in Uttar Pradesh split, the EC allotted the ‘bicycle’ symbol to the Akhilesh Yadav faction.

Similarly, following Jayalalithaa’s death, her party AIADMK split into two factions and both the factions had claimed the ‘two leaves’ election symbol. After hearing both sides, the EC allotted

the two leaves symbol to the Palaniswami-Panneerselvam faction, ruling that they enjoyed the support of the majority in the AIADMK's legislative and organisational wings.

1.2 POSTAL BALLOTS FOR NRI's

Topic: Government Policies and interventions for development in Various Sectors; Important Constitutional Amendments

Why in News: Recently, the Centre gave its response to a petition challenging the constitutionality of a Tamil Nadu law that provides 69% reservation in the State of Tamil Nadu.

The law being questioned is the Tamil Nadu Backward Classes, Scheduled Castes and Scheduled Tribes (Reservation of Seats in Educational Institutions and of Appointments or Posts in the Services under the State) Act of 1993.

Petition challenging Tamil Nadu Act

- The Supreme Court judgement in the Indira Sawhney case specified an upper limit of 50% in reservations. The petition claims that Tamil Nadu's Act of 1993 violates the Supreme Court judgement by providing 69% reservation in the State of Tamil Nadu.
- The 1993 Act provides 30% reservation to the Backward Classes, 20% for the Most Backward Classes and de-notified communities, 18% for the Scheduled Castes and 1% for the Scheduled Tribes.
- Tamil Nadu argued that the above mentioned law is protected from judicial review under the Ninth Schedule of the Constitution.

Centre's reply

The Centre told the Supreme Court that it has no role in the decisions taken by the Tamil Nadu government for reservations given to specific castes or communities in State government jobs and admissions.

The Centre said that the inclusion or exclusion of any caste/community in the State List of SEBCs is the subject matter of the State government, and the Government of India has no role in the matter.

The Centre's reply referred to the Constitution (One hundred and second Amendment) Act of 2018, which details the difference in the procedure for inclusion or exclusion of castes and communities in the State List for SEBCs and the Central List.

It noted that the power to identify and specify socially and Educationally Backward (SEBC) lies with Parliament only with reference to the Central List. The State governments may have separate State Lists of SEBCs for providing reservation for recruitment to State services or admissions in State government educational institutions.

Under the newly-inserted Article 342A, under 102nd Amendment, President notifies the SEBCs in a State after consultation with the Governor.

Future hearing of the case

The case has been adjourned to February 25 and the court agreed to hear arguments on whether the Tamil Nadu case should be referred to a five-judge Constitution Bench.

The five-judge Bench is scheduled to hear pleas questioning the validity of the Maratha reservation law of Maharashtra.

Provisions for SEBCs in the Constitution

Article 15

Article 15 of the Constitution prohibits discrimination on the grounds of religion, race, caste, sex or place of birth. However, the State can make provisions for advancement of any socially and educationally backward classes (or for the Scheduled Castes or the Scheduled Tribes) related to their admission to educational institutions.

Due to this, SEBCs get reservations or fee concessions in public and private educational institutes, except minority educational institutions.

Article 16

Further, Article 16 provides equality of opportunity in matters of public employment. It prohibits discrimination on grounds of religion, race, caste, sex, descent, and place of birth, residence in respect of, any employment or office under the State. However, the State can make provisions for the reservation of appointments or posts in favour of any backward class.

Article 340

Article 340 of the Constitution provides for the appointment of a Commission to investigate the conditions of and the difficulties faced by the socially and educationally backward classes and to make appropriate recommendations.

Evolution of the Commission for Backward Classes

Based on Article 340, two commissions for backward classes were appointed. **The first backward classes commission was appointed in 1953, with Kaka Kalelkar as its chairman.**

The second backward class commission was appointed in 1979, with B.P. Mandal as its chairman. Later in 1992, in the Indira Sawhney case the Supreme Court directed the government to constitute a permanent body to assist in issues related to inclusion of other backward classes in the Central List.

Following the Supreme Court judgement, **the Parliament passed The National Commission for Backward Classes Act, 1993 to constitute the National Commission for Backward Classes. This gave NCBC a statutory status.**

102nd Amendment to the Constitution

Later in 2018, the NCBC was made a constitutional body through the 102nd Constitutional Amendment Act. Apart from giving constitutional status to NCBC, the 102nd amendment added articles 338B and Article 342A in the constitution.

Structure of NCBC

Article 338B deals with the structure, duties and powers of the NCBC. The Commission has five members, which includes a Chairperson, Vice-Chairperson and three other members

The Chairperson, Vice-Chairperson and other members of the Commission are appointed by the President. The conditions of service and tenure of office of the Chairperson, Vice-Chairperson and other members, is determined by the President.

Article 342A

Article 342A, empowers the President to specify socially and Educationally Backward Classes (SEBC) in various States and Union Territories, after consultation with the Governor. However, Parliament has to enact a law to include or exclude a particular class in the Central List of socially and educationally backward classes.

Changes after 102nd Amendment

As article 342A has appointed Parliament as the authority to amend the central list of backward classes, it relieves the central government from the duty of inclusion or exclusion of communities in the central list.

Before the 102nd amendment, the NCBC had limited powers with regard to backward classes. The NCBC previously only had the following powers:

- Examine the requests made by castes for the inclusion in the central list of backward classes.
- Resolve any issues of over inclusion and under inclusion of backward classes.
- Provide advice to the Central government in such matters.
- It had no power regarding the welfare and development matters of backward classes or to address their grievances.
- The Constitutional status gave the NCBC more powers and autonomy in dealing with issues and complaints regarding other backward classes.

Powers and Functions of NCBC

- Investigate and monitor all matters relating to the safeguards provided for the socially and educationally backward classes and to evaluate the working of such safeguards.
- Inquire into specific complaints with respect to the deprivation of rights and safeguards of the socially and educationally backward classes.
- During the investigation, the Commission has the powers of a civil court.
- Participate and advise on the socio-economic development of the socially and educationally backward classes and to evaluate the progress of their development under the Union and any State.
- Present reports to the President regarding the working of the safeguards. The report should include measures for the protection, welfare and socio-economic development of the socially and educationally backward classes.

ADD- ON

The chairman of the National Commission for Backward Classes (NCBC) has said that NCBC is in favour of creating four sub-categories of Other Backward Classes (OBCs). The idea of sub-categorisation of OBCs is also being explored by Justice Rohini Commission.

Sub-Categorisation of OBCs

Reasons for Sub-Categorisation:

OBCs are granted 27 per cent reservation in jobs and education under the central government. However, there is a perception that only a few communities have taken the benefit of these 27 per cent reservations.

The argument for creating categories within OBCs for reservation is that it would ensure “equitable distribution” of benefits of reservation among all OBC communities.

Justice Rohini Commission

The Justice Rohini Commission has been studying sub-categorisation of OBCs and is expected to submit its report to the government in July, 2021. The Justice Rohini Commission was constituted in October, 2017 and was given 12 weeks to submit its report, but has been given several extensions.

Task of Rohini Commission

- Examine the unequal distribution of benefits of reservation among the castes or communities included in Central List of OBCs.
- Work out mechanism, criteria and parameters for sub-categorisation within such OBCs.
- Identify respective castes and communities or sub-castes to classify them in broad categories.

Sub-categories of OBCs

These sub-categories will be broadly based on OBC sections which have either benefited adequately or benefited less from reservation. The other two categories are about least benefited and those who have not at all benefited from the present reservation structure for OBCs.

Although the central government appears to be in favour of sub-categorisation of OBCs, it needs Cabinet approval and has to be passed by Parliament after the Justice Rohini Commission submits its report.

1.3 DELIMITATION COMMISSION

Topic: Structure, Organizations and Functioning of the Executive

Why in News: The Delimitation Commission recently held a meeting seeking suggestions on the process of delimitation in respect of Union Territory of Jammu and Kashmir.

Delimitation in India

Delimitation literally means the act or process of fixing limits or boundaries of territorial constituencies in a country or a province having a legislative body.

Delimitation is the act of redrawing boundaries of Lok Sabha and state Assembly seats to represent changes in population. It works for a fair division of geographical areas so that one political party doesn't have an advantage over others in an election.

The Delimitation Commission

Delimitation is carried out by an independent statutory Delimitation Commission. Under Article 82, the Parliament enacts a Delimitation Act after every Census. After the act comes in force, the Union government usually sets up a Delimitation Commission.

The last Delimitation Commission was setup in 2002 in India, under the Delimitation Act, 2002.

Composition: The Delimitation Commission is composed of a retired Supreme Court judge, with the Chief Election Commissioner and the respective state's State Election Commissioner as the ex-officio members.

Functions:

- The primary function of a Delimitation commission is to fix the limits/ boundaries of the various State assembly and Lok Sabha constituencies.
- On the basis of the latest Census, the Commission determines the number of constituencies and their boundaries in a way that the population of all seats is similar as far as possible.
- In this process, the number of seats allocated to different states in Lok Sabha and the total number seats in a Legislative Assembly may also change.
- The Commission is also tasked with identifying seats reserved for Scheduled Castes and Scheduled Tribes; these are where their population is relatively large.

Note: In case of difference of opinion among members of the Commission, the opinion of the majority prevails.

Process of delimitation

- The draft proposals of the Delimitation Commission are published for public feedback, objections and suggestions.
- The final order is published in the Gazette of India and the State Gazette.
- The Delimitation Commission's orders have the force of law and cannot be called in question before any court.
- These orders come into force on a date to be specified by the President of India.
- The copies of its orders are laid before the House of the People and the State Legislative Assembly concerned, but no modifications are permissible therein by them.

Delimitation in Jammu and Kashmir

The last delimitation exercise in J&K was done in 1992-95. In 2002, the then state legislature arbitrarily amended the state's constitution to prevent any delimitation exercise till 2026.

Note: J&K parliamentary seats remain as delimited on the basis of the 1971 Census as there was no census in the state in 1991.

After abrogation of Article 370 on August 5 2019, the Jammu and Kashmir state was carved into two separate UTs of J&K and Ladakh, the former with a legislature. The bifurcation of Jammu and Kashmir State into the Union Territories of J&K and Ladakh calls for delimitation of their electoral constituencies.

Delimitation Commission to take up the exercise

In March 2020, the Centre decided to complete the delimitation exercise in the newly created Union Territory of Jammu and Kashmir within a year. Former Supreme Court judge Ranjana Prakash Desai was appointed as chairperson of Delimitation Commission.

The Commission will delimit the constituencies of Jammu and Kashmir in accordance with the provisions of the Jammu and Kashmir Reorganisation Act. Section 60 of the J&K Reorganisation Act stipulates that the number of seats in its Legislative Assembly will be increased to 114, from the present 107.

The total assembly seats after delimitation will go up from 107 to 114. PoK with 24 allotted seats will remain untouched in the delimitation exercise.

The Delimitation Commission held a meeting with the 'Associate Members' from Union Territory of Jammu and Kashmir, for seeking their suggestion/views on the process of delimitation in respect of Union Territory of Jammu and Kashmir. At the meeting, an overview on the process of delimitation based on the Jammu and Kashmir Reorganization Act, 2019 and Delimitation Act, 2002 was presented.

As per the Delimitation Act, 2002, the Commission shall associate with ten persons ('Associate Members') to assist it in its duties in respect of each State. The Associate Members suggested that delimitation of Constituencies shall be done with regard shall be given to physical features; existing boundaries of administrative units; facilities of communication and public convenience, with special attention to the difficult terrains.

1.4 NITI AAYOG

Topic: Functions and Responsibilities of Various Constitutional Bodies

Why in News: The 6th meeting of the Governing Council of NITI Aayog was recently held under the chairmanship of Prime Minister Narendra Modi. The meeting provided an opportunity to address objectives of advancing economic, social and demographic welfare.

Governing Council of NITI Aayog

The Governing Council of NITI Aayog is the premier body with the responsibility of developing a shared vision of national development priorities and strategies with the active involvement of States.

NITI Aayog seeks to design and assist the implementation of strategic, long-term policy frameworks and program initiatives and monitor their progress. **Thus, the Governing Council presents a platform to discuss inter-sectoral, inter-departmental and federal issues to accelerate the implementation of the national development agenda.**

Reconstitution of the Governing Council of NITI Aayog

- Recently, the Centre has reconstituted the governing council of the NITI Aayog with the Prime Minister as its chairperson.
- According to a notification of the Cabinet Secretariat, chief ministers of all states and chief ministers of Union Territories of Jammu and Kashmir, Delhi and Puducherry are full time members of the council.
- The Lieutenant Governors of Andaman and Nicobar Islands, Ladakh, and the administrators of Chandigarh, Dadra and Nagar Haveli, Daman and Diu and Lakshadweep will be special invitees of the governing council.

6th meeting of the Niti Aayog Governing Council

The PM said that the meeting provided an opportunity to further strengthen Cooperative and Competitive Federalism, which are essential pillars for successful achievement of the national goals.

He said that Cooperative and Competitive Federalism should be made more effective and taken to the district level. He further underlined that the country succeeded in managing the challenges of Covid-19 pandemic only because the Centre and the States worked together in a spirit of partnership. Various Chief Ministers presented best practices from their respective States that can be used as templates (examples) for replication across the country.

Making India a manufacturing powerhouse

- The Council discussed steps for making India a manufacturing powerhouse. The discussion focused on reducing compliance burden, initiating reforms at the State level, improving logistics, promoting exports through district-level competition and creating jobs.
- The PM highlighted that the Central Government has introduced the Production Linked Incentive (PLI) scheme for various sectors, to increase manufacturing in the country. He urged the States to take full advantage of this scheme and attract maximum global investments and take benefits of reduced corporate tax rates.

Improving physical infrastructure

- For improving physical infrastructure, the Chief Ministers expressed the need to raise public capital investment and completing projects under the National Infrastructure Pipeline.
- They also stressed on the need to enhance investments in infrastructure through private and Public Private Partnerships, improving last-mile connectivity, reducing energy costs and developing an enhanced and efficient role of States in project implementation.

Reimagining agriculture

- The PM said reforms are necessary for the country's farmers to get the necessary economic resources, better infrastructure and technology.
- Even though India is an agricultural economy, it still imports many inputs. The PM stressed on becoming self-reliant in this area. He also urged the states to focus on storage and processing of agricultural products to reduce wastage.
- There are many agricultural products in India that can be supplied to the rest of the world in addition to fulfilling the country's needs. For this, he insisted that it is necessary for all States make an agro-climatic regional planning strategy.

Accelerating human resource development and improving service delivery

The PM pointed that the youth plays an important role in accelerating change in the country. Thus, innovation must be encouraged and more technology should be used to provide better opportunities for education and skill development. The Council members discussed measures to strengthen institutions for skilling, re-skilling, and up-skilling of workforce.

Improving service delivery at grassroots level

Focus was also laid on improving service delivery at the grassroots level, by ensuring digital infrastructure for the rural regions.

1.5 MIGRATION POLICY

Why in News: NITI Aayog has come up with the draft national policy on migrant labour, taking into account the Covid fallout on migrants. The 10 million migrant workers who had to return home have been the worst victims of the coronavirus pandemic.

Need of migrant policy

- **Political exclusion:** Migrants face hurdles in voting and thus unable to make political demands for entitlements or seek reforms.
- Fragmented labour market obscures supply chains and relationships between business owners and workers.
- Existing gap in the unionization of migrant workers due to precarious nature of their employment, leading to states have limited engagement with migrants
- **Government Programs:** MGNREGA and State Rural Livelihood Mission, meant to check out-migration by rural people and tribal's, hasn't been enough to prevent large scale migration. The presence of migrant workers also places additional demands on basic infrastructure in destination towns and cities.
- The pandemic also revealed the fact that the Indian State doesn't have adequate data and information about this large pool of citizens. Thus, it was felt that a policy on migrant labour was necessary to give migrant workers their due respect, protection and rights which they are entitled to as citizens.

Draft National Policy on Migrant Labour

Creating political incentives:

Migrants are spread out, and may not end up voting in either source or destination states. Thus, they have often been underestimated as a political constituency.

Enabling their political voice will be key to making them effective stakeholders and forcing the system to take their interests on board. It will also lead to enhanced accountability of political leadership towards welfare of migrant workers of their respective states.

Establishing special units for migration

- Ministry of Labour will need to set up a special unit on migration.
- Each state should establish a migrant workers section in their Labour department. Inter-state migration management bodies have to cover the nation's key migration corridors such as Uttar Pradesh and Mumbai; Bihar and Delhi; Western Odisha and Andhra Pradesh; Rajasthan and Gujarat, and Odisha and Gujarat.

Government officials to be designated for migrants

Source states should send nodal officers to destination states to work collectively with the labour officers. State's Tribal department to have one inspector at the block level and Labour one at the district level

Other features:

- Government policies should not hinder but seek to facilitate internal migration.
- Migrants should be the target of Disaster Risk Reduction (DDR) programmers in urban centers.
- Access to health and other social protection program should be portable across state borders.
- Skill mapping is to be done.
- The use of Aadhaar card to avail of social security schemes anywhere in the country.
- Psycho-social assistance through a national helpline needs to be facilitated.

The draft policy calls for a "rights-based" approach that taps the migrants' potential rather than hand-outs and cash-transfers. It has been put out for public comments. Based on the feedback, the policy will be finalized.

1.6 IT (Intermediary Guidelines and Digital Media Ethics Code) Rules

Why in News: The government recently released the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, that aim to regulate social media, digital news media, and over-the-top (OTT) content providers.

The Rules establish a self-regulatory architecture and a Code of Ethics for applicable entities including news publishers, digital media and OTT Platforms (like YouTube, Netflix, etc). Issues related to digital media and OTT and other creative programs on Internet shall be administered by the Ministry of Information and Broadcasting.

Reasons for new rules

There have been widespread concerns about issues relating to digital contents both on digital media and OTT platforms. Civil Society, film makers, trade organizations and associations have raised concerns and have highlighted the need for an appropriate institutional mechanism to address these concerns.

The Supreme Court and High Courts have also urged the government to take suitable measures.

Code of Ethics

The Code of Ethics prescribes guidelines to be followed by OTT platforms and online news and digital media entities.

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

Code of Ethics for Digital Media and Online news

Publishers of news on digital media will have to follow Norms of Journalistic Conduct of the Press Council of India and the Program Code under the Cable Television Networks Regulation Act.

The above mentioned norms and program code were already applicable to print and TV. The current change will create a level playing field (equality) between the offline (Print, TV) and digital media.

Code of Ethics for OTT platforms

OTT platforms, called as the publishers of online curated content in the rules cannot transmit/publish any content which is prohibited under law.

Self-Classification of content by OTT platforms

The OTT platforms will have to self-classify the content into five age based categories:

- Online curated content that is suitable for children and for people of all ages shall be classified as “U” (Universal).
- Online curate content which is restricted to adults shall be classified as “A” (Adult) rating.
- Content that is suitable for persons aged 7 years and older, and which can be viewed by a person under the age of 7 years with parental guidance, shall be classified as “U/A 7+” rating.
- Similarly, there are other two categories of U/A 13+, U/A 16+.

OTT platforms will have to prominently display the classification rating with a content descriptor informing the user about the nature of the content, at the beginning of every program. This will enable the user to make an informed decision.

Regulatory mechanism for applicable entities

A three-level grievance redressal mechanism has been established under the rules with different levels of self-regulation:

- Level-I: Self-regulation by the applicable entity

- Level-II: Self-regulation by the self-regulating bodies of the applicable entities
- Level-III: Oversight mechanism by the central government.

Self-regulation by the Publisher

The publisher will have to appoint a Grievance Redressal Officer based in India responsible for grievances received by it. The officer will have to resolve the grievances within 15 days.

Self-Regulatory Body

There may be one or more self-regulatory bodies of applicable entities. The body will have to register with the Ministry of Information and Broadcasting. The body will supervise whether the publishers are following the Code of Ethics. It will also address grievances that have not been resolved by the applicable entity within 15 days.

The body will have six members and will be headed by a retired judge of the Supreme Court, a High Court or independent eminent person.

Oversight Mechanism

The Ministry of Information and Broadcasting will formulate an oversight mechanism. The oversight mechanism will publish a charter for self-regulating bodies, including Codes of Practices.

The oversight mechanism will also establish an Inter-Departmental Committee for hearing grievances.

The government recently released the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, that aim to regulate social media, digital news media, and over-the-top (OTT) content providers. Guidelines related to social media will be administered by Ministry of Electronics and IT.

Issues on social media platforms

- Abuse of social media to share morphed images of women and contents related to revenge porn have threatened the dignity of women.
- Misuse of social media for to settle corporate rivalries in an unethical manner has become a major concern for businesses.
- Instances of use of abusive language, defamatory contents and disrespect to religious sentiments through social media platforms are growing.

- Misuse of social media by criminals and terrorists has increased the difficulties of law enforcement agencies.
- There is a lack of strong grievance redressal mechanism for users through which they can register their complaint and get it resolved within a defined timeline.
- Many users have no remedy if their profile is restricted or removed by the platform without giving any opportunity to be heard.

Reasons for introducing new guidelines

These concerns have been raised in various forums including in the Parliament and its committees, judicial orders etc.

In 2018, in the Prajjawala case the Supreme Court had observed that the government may frame guidelines to eliminate child pornography, rape images, videos and sites in content hosting platforms and other applications. Such concerns are also raised all over the world and it is becoming an international issue.

Guidelines related to Social Media

Due diligence for social media intermediaries

The guidelines have increased the liability of social media intermediaries for the content being shared on their platform.

- As per the guidelines the intermediaries will have to follow due diligence. Due diligence are various steps that have to be taken to avoid harm or to avoid committing an offence.
- In case, due diligence is not followed by the intermediary, safe harbour provisions will not apply to them.
- Safe harbour provisions defined under Section 79 of the IT Act protect social media intermediaries.
- Safe harbour provisions give intermediaries immunity from legal prosecution for any content posted on their platforms, if they follow government prescribed guidelines.

Grievance Redressal Mechanism

SOCIAL MEDIA

- Identify 'first originator' of content that authorities consider anti-national
- Appoint grievance officer, resolve complaints in 15 days
- File monthly compliance report on complaints received, action taken

The intermediaries will have to establish a grievance redressal mechanism for receiving and resolving complaints from users or victims. The intermediaries will have to appoint a Grievance Officer to deal with such complaints.

The Grievance Officer must acknowledge the complaint within 24 hours, and resolve it within 15 days.

Dignity protection of users (especially women users)

Intermediaries will have to remove or disable access to content that show individuals in full or partial nudity or in sexual actor include morphed images etc. Such content should be removed or disabled within 24 hours after receiving a complaint.

Removal of Unlawful Information

The intermediaries should not host or publish any information which is prohibited under any law in relation to the interest of the sovereignty and integrity of India, public order, friendly relations with foreign countries

If an intermediary is informed about such content on its platform, from a court order or a government agency, it should remove such content within 36 hours.

Two categories of social media intermediaries

- The guidelines make a distinction between social media intermediaries and significant social media intermediaries. This distinction is based on the number of users on the social media platform.
- The guidelines require significant social media intermediaries to follow certain additional due diligence. The distinction has been made so that smaller intermediaries do not have to follow significant compliance requirements.
- This will encourage innovations and enable growth of new social media intermediaries.

Additional due diligence for significant social media intermediaries

- Appoint a Chief Compliance Officer (CCO) responsible for ensuring compliance with the IT Act and the recently released Rules. Appoint a Nodal Contact Person (NCP) for 24x7 coordination with law enforcement agencies.
- Appoint a Resident Grievance Officer (RGO) to perform the functions mentioned under Grievance Redressal Mechanism. The CCO, NCP and RGO will have to reside in India.
- A monthly compliance report on the complaints received, the action taken and the redressal for such complaints will also have to be published by the intermediaries

First originator identification

- Significant social media intermediaries will have to enable the identification of the first originator of the information. The intermediary will also have to share the details of the first originator of the mischievous tweet or message etc. after being asked to do so by the court or by a government authority.
- The platform will, however, be required to disclose the originator of the message only for prevention, investigation, prosecution or punishment of:
- An offence related to sovereignty and integrity of India, the security of the State, friendly relations with foreign States, or public order.
- An offence related with rape, sexually explicit material or child sexual abuse material punishable with imprisonment for a term of not less than five years.

Giving users an opportunity to be heard

If a significant social media intermediary removes or disables access to any information, then it should communicate it to the user who has shared the information, with a notice explaining the reasons for such action. Users must be given an opportunity to dispute the action taken by the intermediary.

Penalties for violating the guidelines

In case an intermediary fails to observe the rules, it would lose the safe harbour. The intermediary will also be liable for punishment under provisions of the IT Act and the Indian Penal Code. Offences under the IT Act range from tampering with documents, hacking into computer systems, online misrepresentation, and publication of content for fraudulent purposes etc.

The penalty under IT Act varies from imprisonment for three years to a maximum of seven years, with fines starting from Rs 2 lakh. For example, any person who hides, destroys, or alters any computer source intentionally, has to pay a penalty of up to Rs 2 lakh, along with simple imprisonment of three years, or both.

1.7 NATIONAL URBAN DIGITAL MISSION

Why in News: The Ministry of Housing and Urban Affairs (MoHUA) recently launched the National Urban Digital Mission (NUDM) along with the Ministry of Electronics and Information Technology.

- Several other digital initiatives of MoHUA: India Urban Data Exchange (IUDX), Smart Code, Smart Cities 2.0 website, and Geospatial Management Information System (GMIS) were also launched at the event.
- These initiatives are among the ongoing efforts of both Ministries to realise the vision of Digital India and Atma Nirbhar Bharat.
- They aim to make cities more self-reliant and capable to meet the needs of and provide services to their citizens.

National Urban Digital Mission (NUDM)

- The National Urban Digital Mission (NUDM) will create a shared digital infrastructure for cities in the country.
- It will institutionalize a citizen-centric and ecosystem-driven approach to urban governance and service delivery in 2022 cities by 2022 and across all cities and towns in India by 2024.
- It is based on a set of governing principles that enable standards, specifications, and certifications, across the three pillars of people, process, and platforms.
- It will create a shared digital infrastructure that can consolidate various digital initiatives of the Ministry of Housing and Urban Affairs.
- In doing so, it will enable cities and towns across India to benefit from holistic and diverse forms of support, for their needs and local challenges.

India Urban Data Exchange (IUDX)

- The India Urban Data Exchange (IUDX) is an open source software platform, which has been developed in partnership between the Smart Cities Mission and the Indian Institute of Science (IISc), Bangalore.
- IUDX will serve as an interface for data providers and data users, including Urban Local Bodies (ULBs), to share, request, and access datasets related to cities, urban governance, and urban service delivery.
- Thus, it will facilitate secure, authenticated and managed exchange of data amongst various platforms.

Reasons for developing IUDX

IUDX is designed to address the problem of data silos (data kept in isolation), both within and across cities. Cities generate large volumes of data, which are recorded by various entities, both within government and across industry, academia, and civil society.

The combination of these datasets can enable rapid innovation, as well as a better understanding of and planning for urban needs and challenges.

Smart Code Platform as repository of open-source code

- Smart Code is a platform that enables all ecosystem stakeholders to contribute to a repository (storehouse) of open-source code for various solutions and applications for urban governance.
- Open source code or Open source software is a code that is designed to be publicly accessible. Anyone can see, modify, and distribute the code as per their need.
- It is often cheaper, more flexible, and has a longer life than proprietary software (owned by companies) because it is developed by communities rather than a single author or company.
- It is designed to address the challenges that ULBs face in the development and deployment of digital applications to address urban challenges.
- It will enable cities to take advantage of existing codes and customize them to suit local needs, instead of developing new solutions.
- Moreover, the source code available on the platform will be free to use without any licensing or subscription fees, which will reduce costs in developing a locally-relevant solution.

Smart Cities 2.0 website and GMIS

The Smart Cities Mission website has been redesigned to serve as a single platform for Smart Cities Mission and initiatives launched under the Mission. This will make it easier for ULBs and citizens to access resources related to their work.

It has also been developed to be used as a highly effective communication and outreach tool. Additionally, the Geospatial Management Information System (GMIS) is also integrated with this website. GMIS is a tool to capture, store and analyze geographical information.

Smart Cities Mission

The Smart Cities Mission was launched in 2015 as a centrally sponsored scheme. The objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' solutions.

The Mission aims to drive economic growth and improve quality of life through comprehensive work on social, economic, physical and institutional pillars of the city.

INTERNATIONAL RELATIONS

Paper II (GS): All the Articles of this section are relevant to the following topics:

- **India and its Neighbourhood – Relations**
- **Bilateral, Regional and Global Groupings and Agreements involving India and / or affecting India's Interests**
- **Prelims Oriented Questions and Places in News for Maps/ Matching**



2.1 FINANCIAL ACTION TASK FORCE (FATF)

Why in News: The Financial Action Task Force (FATF), after the latest meeting, said that Pakistan will continue to remain on 'increased monitoring' list or 'Grey List'.

Financial Action Task Force (FATF)

- The Financial Action Task Force is an intergovernmental organization founded in 1989 on the initiative of the G7 to develop policies to combat money laundering.
- In 2001 its mandate expanded to include terrorism financing.
- It is also termed as "international terror financing watchdog".
- The FATF Secretariat is housed at the OECD headquarters in Paris.

Members

- Currently, FATF consists of 39 members, including 37 member jurisdictions with voting powers **Two regional organizations: the European Commission and the Gulf Co-operation Council**. India is a member, as well as important countries like China, US, UK, France, Germany, Russia and Saudi Arabia.
- Hong Kong is also a separate member jurisdiction. Pakistan is not a member. Indonesia is an FATF Observer.
- Asia/Pacific Group on Money Laundering (APG), Eurasian Group (EAG), Caribbean Financial Action Task Force (CFATF), and Financial Action Task Force of Latin America (GAFILAT) etc. are FATF Associate Members.

Functions

- Sets international standards to combat money laundering and terrorist financing, and promotes effective implementation of legal, regulatory and operational measures.
- Assesses and monitors compliance with the FATF standards
- Conducts typologies studies of money laundering and terrorist financing methods, trends and techniques.
- Responds to new and emerging threats, such as proliferation financing
- The FATF has developed a series of recommendations that are recognised as the international standard for combating of money laundering and terror financing.

Lists maintained by FATF: FATF maintains two different lists of countries:

Grey List:

This refers to countries under “increased monitoring” by the FATF. These are countries that have deficiencies in their Anti Money Laundering /Counter Terrorist Financing (AML/CTF) regimes but they commit to an action plan to address these loopholes. For example, Pakistan was made to commit to a 27 point action plan.

There are eight countries in Grey list: Pakistan, Ethiopia, Serbia, Sri Lanka, Syria, Trinidad and Tobago, Tunisia and Yemen. As per the FATF charter, fifteen members need to support a country’s move off of the Grey list.

Impact

Though 'grey-listing' a country doesn't amount to international sanctions, countries will be wary of investing in grey-listed knowing that it is not a jurisdiction seen as compliant with FATF rules.

Black List

- The FATF black list means the country concerned is a "high risk jurisdiction" and "non-cooperative" in the global fight against money laundering and terrorist financing. There are two countries in the blacklist: Iran and North Korea.
- As per the FATF charter, to stay off of the FATF blacklist, the support of at least three of a total of 36 (excluding two regional organizations) FATF members is required. For example, Pakistan has often managed to stay off the blacklist with the support of China, Malaysia and Turkey.

Impact

- Once a country is blacklisted, FATF calls on other countries to apply enhanced due diligence and counter measures, increasing the cost of doing business with the country and in some cases severing it altogether.
- Companies planning to invest in blacklisted countries will find it difficult to raise money or will have to pay higher rates of interest while borrowing to invest.
- Note: Following grey listing, three reviews are conducted, followed by a round at which it will be decided whether a country is to be blacklisted.

Background

In June 2018, FATF placed Pakistan on 'enhanced monitoring' process or the 'grey list', because of its deficiencies in the anti-money laundering and counter terrorist financing (AML/CTF) regime.

Grey-listed countries are those whose domestic laws are considered weak to tackle the challenges of money laundering and terrorism financing. Pakistan was given a 27-point action

plan that was to be implemented by September 2019, with its progress on these 27 points to be monitored by the FATF Asia-Pacific sub-group (APG).

After review meetings in February 2019, October 2019, February 2020 and October 2020, FATF continued the 'Grey' listing of Pakistan. This was because Pakistan's failed to compile with its 27-point action plan to check terror-financing.

India has consistently highlighted that Pakistan continued to provide a safe haven to terrorists and that it had not acted against the UNSC proscribed terrorists. If Pakistan does not act based on the action plan of FATF, it could be placed in the Blacklist that comes with stringent restrictions on its financial system.

News Update

The Financial Action Task Force (FATF), after the latest meeting, said that Pakistan will continue to remain on 'increased monitoring' list or 'Grey List'.

The FATF noted that Pakistan has failed to address all the items in the 27-point action plan though the deadlines have expired. Overall, the FATF noted that Pakistan has made progress across all action plan items and has now largely addressed 24 of the 27-point action plan given to it. But, it noted that some remain to be addressed though the action plan

The review found "serious deficiencies" in Pakistan in checking terror financing and noted that the country lacks an effective system to deal with it. The FATF specifically noted that Pakistan is yet to demonstrate taking action against the UN designated terrorists and their associates.

The FATF President said that the Pakistan courts must give effective, decisive and proportionate punishment to those involved in terrorism. Just recently, the Pakistan Supreme Court acquitted terrorist Omar Saeed Sheikh, the main accused in the 2002 murder of American journalist Daniel Pearl.

2.2 LEAST DEVELOPED COUNTRY

Why in News: The United Nations Committee for Development Policy (CDP) has recommended graduation of Bangladesh from the category of Least Developed Country (LDC).

This is the second consecutive time since 2018 that the CDP has made recommendation for Bangladesh's graduation from LDC category.

Least Developed Countries (LDC)

- The "Least Developed Countries" represent the poorest and weakest segment of the international community. They comprise more than 880 million people (about 12 per cent of world population), but account for less than 2 percent of world GDP and about 1 percent of global trade in goods.
- They have a low level of socio-economic development, weak institutional capacities, low and unequally distributed income and scarce domestic financial resources. Their largely agrarian economies are affected by a cycle of low productivity and low investment.
- They rely on the export of few primary commodities as major source of export and fiscal earnings, which makes them highly vulnerable to external trade shocks. They often suffer from governance crisis, political instability and, in some cases, internal and external conflicts.

Category of LDC

The category of LDCs was officially established in 1971 by the UN General Assembly to attract special international support for the most vulnerable and disadvantaged members of the United Nations. As of December 2020, 46 countries are classified as LDC, while six have been upgraded between 1994 and 2020.

Criteria for LDCs

The identification of LDCs is based on three criteria:

Gross national income (GNI) per capita

As of 2018, a country was required to have a GNI per capita below \$1,025 to be included in the LDC category.

Human assets index (HAI)

Indicators of Health

- Percentage of population undernourished
- Under-five mortality rate
- Maternal mortality rate

Indicators of Education

- Gross secondary school enrolment ratio
- Adult literacy rate

Economic vulnerability index (EVI)

- Population size

- Share of agriculture, hunting, forestry and fishing in GDP
- Share of population in low elevated coastal zones
- Instability of exports of goods and services
- Victims of natural disasters
- Instability of agricultural production

Graduation from LDC (move out of LDC)

The CDP makes a recommendation for graduation of a country from LDC based on three criteria- GNI per capita income, human assets index and an economic vulnerability index.

As of 2018, a country was required to have a GNI per capita above \$1,230 to graduate from the LDC category. A country must achieve at least two of the three criteria at two consecutive triennial reviews to be considered for graduation from LDC.

After CDP's recommendation for graduation of country, the recommendation must be approved by the ECOSOC and the United Nations General Assembly (UNGA).

Bangladesh's graduation process

- Bangladesh has met all the three eligibility criteria for the second time, for graduating from the LDC category to the category of developing nations. The proposal will now be sent to the United Nations Economic and Social Council (ECOSOC) for approval in June 2021.
- The graduation will be finally approved by the UNGA in September this year. Bangladesh will get time up to 2026 to prepare for the transition to the status of a developing country.
- Usually countries are given three years for transition but this year due to the Covid-19 pandemic, Bangladesh has been given five years for the process.

Impact of graduation from LDC

Graduation from LDC has its pros and cons for the countries.

LDC countries get certain preferential provisions in export, subsidy to agriculture and infant industries and access to climate finance. After a country graduates from the LDC category, it may lose access to these benefits.

However, a country that graduates from the LDC, can get improved credit rating, higher FDI and various benefits from international financial bodies.

Committee for Development Policy (CDP)

The CDP is a subsidiary advisory body of United Nations Economic and Social Council (ECOSOC). It advises ECOSOC on a wide range of emerging economic, social and environmental issues. Every three years, the CDP has to undertake a review of the list of LDCs, on the basis of which it advises ECOSOC, which countries should be added to or graduated from the LDC list.

The CDP also develops the criteria for identifying LDCs and has to review the criteria. Additionally, the CDP monitors the development progress of countries that have graduated or are graduating from the LDC list.

2.3 START NUCLEAR TREATY

Why in News: U.S. President Joe Biden's administration has extended the New START nuclear treaty with Russia by five years. The Treaty limits the number of US and Russian nuclear warheads.

START Treaties

START I

- START I (Strategic Arms Reduction Treaty) was a bilateral treaty between the US and the USSR (Union of Soviet Socialist Republics or Soviet, in short) on the reduction and limitation of strategic offensive arms.
- The treaty barred its signatories from deploying more than 6,000 nuclear warheads atop a total of 1,600 inter-continental ballistic missiles (ICBMs) and bombers.
- It had duration of 15 years. Reductions mandated by the treaty were to be completed no later than 7 years after its entry into force, and parties were then obligated to maintain those limits during the next 8 years.
- START includes an intrusive verification regime consisting of a detailed data exchange, extensive notifications, 12 types of on-site inspection, and continuous monitoring activities designed to help verify that signatories are complying with their treaty obligations.
- It was signed in 1991, and entered into force in 1994 (delay in enforcement was due to break up of the Soviet Union).

Significance

- Start-I played an indispensable role in ensuring the predictability and stability of the strategic balance and serving as a framework for even deeper reductions.
- By the time of the treaty's expiration, the US and Russian strategic nuclear arsenals were significantly below those stipulated in the treaty.

START I proved to be excessively complicated, cumbersome and expensive to continue, which eventually led the United States and Russia to replace it with a new treaty in 2010.

New START

- The New Strategic Arms Reduction Treaty (New START) was signed in 2010 in Prague and entered into force in 2011. The treaty capped deployed strategic nuclear warheads and bombs at 1,550 while the deployed missiles and heavy bombers assigned to nuclear missions were limited to 700.
- Both Russia and the United States announced that they met New START limitations by 2018, meeting the due date set by the treaty.
- New START does not limit the number of non-deployed ICBMs and SLBMs, but it does monitor them and provide for continuous information on their locations and on-site inspections to confirm that they are not added to the deployed force.
- Non-deployed missiles must be located at specified facilities away from deployment sites and labeled with “unique identifiers” to reduce concerns about hidden missile stocks.
- New START’s verification regime includes relevant parts of START I as well as new provisions to cover items not previously monitored.
- The treaty’s duration is ten years from entry into force (2021) unless it is superseded by a subsequent agreement and can be extended for an additional five years. The treaty was set to run until February, 2021.

News Update

One day before the treaty was set to expire; the US government has extended the New START nuclear treaty with Russia by 5 years, until February 5, 2026. It signals the US' intention to prevent an arms race despite rising tensions with Moscow.

New President Joe Biden's administration said that it is a move towards keeping American people safe from nuclear threats by restoring U.S. leadership on arms control and nonproliferation.

It said that the US committed to effective arms control that enhances stability, transparency and predictability while reducing the risks of costly, dangerous arms races.

2.4 INTERNATIONAL CRIMINAL COURT (ICC)

Why in News: The International Criminal Court (ICC) has convicted Ugandan militant group's commander Dominic Ongwen of war crimes and crimes against humanity. He was also convicted of forced pregnancy - a legal first in an international court.

International Criminal Court (ICC)

- The International Criminal Court (ICC) is an intergovernmental organisation and international permanent tribunal. It seeks to hold to account those guilty of some of the world's worst crimes.
- It is the world's first permanent international criminal court. It is headquartered in The Hague, Netherlands.
- The ICC was created by the 1998 Rome Statute of the International Criminal Court (its founding and governing document), which was adopted by the UN General Assembly at a conference in Rome.
- It began functioning in 2002 when the Statute came into force, after ratification by 60 countries. The vast majority of its funding comes from member states, which roughly corresponds to the size of each member's economy.

Members of ICC

123 nations are States Parties to the Rome Statute and recognise the ICC's authority. Out of them 33 are African States. Important State Parties include Afghanistan, Australia, Brazil, France, Germany, UK, Afghanistan, Uganda, Congo, Central African Republic etc.

Important countries that are not members

Some 40 countries never signed the treaty, including India, China, Turkey and Saudi Arabia. Some others like US, Russia and Israel signed the statute, but their legislatures never ratified it. As a result, some major countries like US, India, China, Russia, and Israel are major countries which are not a State Party to the Rome Statute.

Judges

The court has eighteen judges, each from a different member country. They are elected by the ICC's Assembly of States Parties for their qualifications, impartiality and integrity, and the judiciary must include representatives of each of the United Nations' five regions.

The judges serve 9-year, non-renewable terms. They ensure fair trials and render decisions, but also issue arrest warrants or summonses to appear, authorize victims to participate, order witness protection measures etc. They also elect, from among themselves, the ICC President, who heads the Court.

Functions of the ICC

The ICC aims to end impunity and hold those individuals responsible for heinous crimes against humanity to face justice. It also aims to prevent crimes from happening through the proper dispensation of justice.

The ICC intends to complement national courts and not replace them. The forum was established as a court of last resort to prosecute offences that would otherwise go unpunished.

Jurisdiction

It has jurisdiction over four main crimes

- Genocide
- Crimes against humanity
- War crimes
- The crime of aggression (added in 2010)

The jurisdiction of the court is complementary to jurisdictions of domestic courts of the State Parties. It can only act when national courts have been found unable or unwilling to try a case.

News Summary

The International Criminal Court (ICC) has convicted Ugandan militant group's commander Dominic Ongwen of war crimes and crimes against humanity. The charges relate to attacks on four camps for internally displaced people in Uganda in 2004 on the orders of Ongwen.

Civilians were shot, burned and beaten to death, including children and babies. More than 4,000 victims provided testimony in the ICC case. Ongwen was convicted of war crimes, crimes against humanity as well as murder, rape, torture, sexual enslavement etc.

He was convicted on 61 of the 70 counts of crimes against humanity and war crimes he faced. In a legal first for an international criminal court, Ongwen was also convicted of the crime of forced pregnancy committed against seven women.

Lord's Resistance Army (LRA)

Lord's Resistance Army (LRA), militant group led by Joseph Kony that has waged a war against the government and peoples of Uganda and nearby countries since the late 1980s. It seeks to depose the Ugandan President, and establish a new government based on the Christian Ten Commandments.

It became notorious for abducting thousands of children to use as soldiers or sex slaves, and for hacking off their civilians' limbs or parts of their faces.



In 2005, the LRA was forced out of Uganda by the army and the rebels went into what was is now South Sudan and eventually set up camp in the border area with the Democratic Republic of Congo. They later moved to CAR where they acted more like a criminal outfit engaging in poaching and illegal mining.

2.5 INDIA- EU

Why in News: India and the European Union (EU) recently held the first high level dialogue (HLD) and discussed ways to promote bilateral trade and investments.

The meeting was co-chaired by India's Minister of Commerce and Industry and the European Union Executive Vice-President and Trade Commissioner. During the discussion, the ministers agreed for further deepening of bilateral trade and investment relationship through a series of regular engagements.

The ministers also agreed to meet within the next three months, with an objective of reaching consensus on various bilateral trade and investment cooperation issues including a bilateral Regulatory Dialogue.

India-EU Relations

- India-EU relations go back to the early 1960s, with India being amongst the first countries to establish diplomatic relations with the European Economic Community.
- A cooperation agreement signed in 1994 took the bilateral relationship beyond trade and economic cooperation. At the 5th India-EU Summit at The Hague in 2004, the relationship was upgraded to 'Strategic Partnership'.
- The two sides adopted a Joint Action Plan in 2005 (which was reviewed in 2008) that provided for strengthening dialogue and consultation mechanisms in the political and economic spheres.
- With the new EU-India Strategy (2018) coming into place, strong emphasis is made on the importance of common responses to global and regional challenges which can broaden the EU-India cooperation.
- The EU and India have regular foreign policy and security consultations and pursue cooperation on security issues such as counter-terrorism, cyber-security, counter-piracy/maritime security, non-proliferation and disarmament.
- Further, there are close contacts in multilateral forums and interactions during regional or international events.

Trade relations

- The EU is India's largest trading partner, accounting for €80 billion worth of trade in goods in 2019 or 11.1% of total Indian trade, on par with the USA and ahead of China (10.7%).
- India is the EU's 10th largest trading partner, accounting for 1.9% of EU total trade in goods in 2019, well behind the USA (15.2%), China (13.8%) and the UK (12.6%).
- The EU is the second-largest destination for Indian exports (over 14% of the total) after the USA.
- Trade in goods between the EU and India increased by 72% in the last decade. Trade in services between the EU and India increased rapidly from €22.3 billion in 2015 to €29.6 billion in 2018.
- Telecommunications, computer and information services, travel, transport and other business services account for ~86% of the EU's services exports to India.

FDI and company Presence

- The EU is also a leading investor in India accounting for 22% (about €10 billion) of the total FDI inflows in 2019-20. On the other hand, EU was the third largest recipient of Indian FDI in 2019-20, with EU accounting for 14% (€2.5 billion).

- Around 6,000 European companies are present in India, providing 7 million jobs directly and 5 million jobs indirectly in a broad range of sectors.

Development cooperation

- The EU's development cooperation in India, currently focuses on supporting India's transition to an upper middle-income status.
- In doing so, it aims to address India's development priorities, such as sustainable and inclusive growth, job creation and building sustainable infrastructure and human capital. EU development assistance to India, which amounted to more than €940 million during 2005-2017, was utilised to deliver sustainable growth and address global challenges.
- Most of the work focuses on areas identified by the EU and India as strategic, such as greening of the economy, renewable energy and energy security, sustainable urbanisation and disaster resilience.

Humanitarian aid

- Through its humanitarian aid department, present in India since 1995, the EU has responded to all major emergencies including Tsunami in 2004, Kashmir earthquake in 2005, Bihar floods in 2007, Kerala floods in 2018, and floods in Assam and Bihar in 2019.
- The EU has implemented various disaster preparedness programs in 12 disaster-prone states between 2001-2013
- Through initiatives such as early warning systems and adaptation of physical infrastructure, the program have helped to reduce the impact of natural disasters, including floods, cyclones, earthquakes among vulnerable communities.

2.6 INDIA- MAURITIUS

Why in News: India's External Affairs Minister recently visited Mauritius.

Highlights of the visit

During the visit, discussions were held for ensuring peace and respect for rule of law in the Indo Pacific region.

FTA between India and Mauritius (called CECPA)

During the visit, India signed a Free Trade Agreement (FTA) with Mauritius that will allow trade in select goods and services between the two countries on preferential terms.

The FTA or Comprehensive Economic Cooperation Partnership Agreement (CECPA) is India's first such pact with any African country and is being considered a milestone in commercial ties.

Benefits of CECPA

Mauritius will benefit from preferential market access into India for its 615 products, including frozen fish, speciality sugar, alcoholic drinks, medical and surgical equipment, and apparel.

The CECPA covers 310 export items for India, including foodstuff and beverages, agricultural products, textile and textile articles, base metals and articles, electrical and electronic items, plastics and chemicals, wood etc.

India has offered access in 95 sub-sectors from the 11 broad services sectors, including telecommunication, finance, higher education, environmental, health, tourism and travel related services etc.

Indian service providers will have access to around 115 sub-sectors from the 11 broad service sectors such as computer related services, research & development, telecommunication, construction, education, transport services etc.

This can increase Indian investment in the services sector in Mauritius, especially in the Information and Communication Technology (ICT) sector. The service sector forms 76% of Mauritius GDP.

CECPA will provide a timely boost for the revival of post-Covid economies and could act as a gateway for Indian investments and exports to other African countries.

Defence cooperation

Other than FTA, both countries increased defence engagement with India extending a defence line of credit (LOC) of \$100 million to Mauritius.

An agreement has also been signed to provide a Dornier aircraft and an Advanced Light Helicopter Dhruv on lease to Mauritius on a gratis basis (without any charge) for two years. This will help Mauritius to patrol and monitor its vast maritime domain more effectively.

MoUs Signed

A Memorandum of Understanding (MoU) on Consumer Protection and a contract for 8 MW solar plants was also signed during the visit.

Covid-19 support

India also handed over 1, 00,000 doses of Covid vaccines to Mauritius. This is the second such consignment of 100,000 doses being given by India to Mauritius. Mauritius has also requested further 200,000 doses of vaccines.

India Mauritius relations

Diplomatic relations between India and Mauritius were established in 1948.



Bilateral Agreements

India and Mauritius have signed a wide range of bilateral agreements and MoUs. Some of them are:

- Double Taxation Avoidance Convention (DTAC-1982);
- Bilateral Investment Promotion and Protection Agreement (BIPA-1998);
- Agreement on Cooperation in Information Technology (2000);
- MoU on Cooperation against Terrorism (2005);
- MoU on Cooperation in the field of Environment (2005);
- Mutual Legal Assistance Treaty in Criminal Matters (2005).

Development support

Over the past forty years, India has extended several Lines of Credit to Mauritius to assist in the development of its infrastructure, human resource, skills development, capacity building, etc.

The Pan African e-Network Project inaugurated in 2009 in Mauritius connected it with other African countries and India through a satellite and fiber-optic network. This benefited Mauritius by sharing India's expertise in education and health care.

Commercial relations

- India is one of Mauritius' largest trading partners since 2007. India has been among the top 2-3 exporters to Mauritius in the last few years. The volume of exports from India to Mauritius was USD 1,027 million in 2018 and USD 776 million in 2019.
- In the recent years, main items of exports of India to Mauritius have been fuels & petroleum products, followed by, pharmaceuticals, food grains, cotton and textiles.
- India is not a big importer of Mauritian products and the value of Mauritian exports to India in 2019 was USD 24 million.
- The main constituents of India's imports from Mauritius were optical, photographic, cinematographic, medical or surgical instruments and apparatus; mechanical appliances, nuclear reactors, boilers; electrical machinery and equipment, amongst others.
- Many prominent Indian Public Sector Enterprises (PSUs) are currently functioning in Mauritius. Besides their core activities, the PSUs have also contributed to various activities in Mauritius under the Corporate Social Responsibility (CSR) schemes.

FDI inflow

Cumulative FDI inflows from Mauritius to India during the period April 2000-March 2020 amounted to USD 142.71 billion (30% of total FDI inflows over this period). Mauritius was the single largest source of FDI into India during the financial year 2019-20, with FDI inflows amounting to USD 8.24 billion.

Cultural relations

The Indira Gandhi Centre for Indian Culture (IGCIC) in Mauritius has emerged as an important venue for promotion of Indian cultural activities in Mauritius. The IGCIC holds classes in disciplines of Hindustani music, Kathak, Tabla and Yoga for Mauritian students.

Yoga and traditional Indian systems of health (AYUSH) are extremely popular among the general public in Mauritius. India ranks fourth in terms of Mauritian students studying in overseas tertiary education institutions.

Indian community in Mauritius: There are nearly 10,000 Indian nationals in Mauritius. Mauritius introduced a visa-free regime for Indian tourists in 2004, under which Indian tourists visiting Mauritius for a period up to 30 days do not require a visa.

SECURITY AND DEFENCE

❖ Paper III: This section is relevant to the following topics:

- Linkages between development and spread of extremism.
- Role of external state and non-state actors in creating challenges to internal security.
- Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention
- Security challenges and their management in border areas; linkages of organized crime with terrorism
- Various Security forces and agencies and their mandate

❖ Prelims Oriented Questions

3.1 INDIAN COAST GUARD

Topics: Various Security forces and agencies and their mandate

Why in News: The Indian Coast Guard (ICG) is celebrating its 45th Raising Day on 1st February, 2021.

Indian Coast Guard

- The Indian Coast Guard (ICG) is a Maritime Law Enforcement and Search and Rescue agency that protects India's maritime interests and enforces its maritime law.
- The ICG was formally established on 1 February 1977 by the Coast Guard Act, 1978. It operates under the Ministry of Defence. The ICG has jurisdiction over the territorial waters of India, including its contiguous zone and exclusive economic zone.
- It works in close cooperation with the Indian Navy, the Department of Fisheries, the Department of Revenue (Customs) and the Central and State police forces.
- The Indian Coast Guard's motto is Vayam Rakshamah, which means "We Protect".

Need for Indian Coast Guard

India has a 7517 km long coast line and a huge Exclusive Economic Zone of 2.01 million square kilometers. This makes it a major maritime nation with vital economic and security interests linked to the seas.

Thus, ICG was established to enforce national laws in the waters under national jurisdiction and ensure safety of life and property at sea.

Organizational setup

The Indian Coast Guard is headed by the Director - General (DG ICG) who is located at Coast Guard Headquarters (CGHQ), New Delhi.

For effective command and control, the maritime zones of India are divided into five Coast Guard Regions, namely, North-West, West, East, North-East and Andaman & Nicobar. The respective Regional Headquarters of the above mentioned zones are located at Gandhi Nagar, Mumbai, Chennai, Kolkata and Port Blair.

Each of the regions is further divided into multiple districts, typically covering a coastal state or a union territory.

Responsibilities of ICG

- Safety and protection of artificial islands, offshore terminals and other installations.
- Protection and assistance to fishermen and mariners at sea.
- Preservation and protection of marine ecology and environment including pollution control.
- Assistance to the Department of Customs and other authorities in anti-smuggling operations.
- Maritime law enforcement.
- Scientific data collection and support.
- National Defence during hostilities (under the operational control of the Indian Navy).

Achievements of ICG

With just seven surface platforms in the beginning, the ICG has grown into the fourth largest coast guard with 156 ships and 62 aircraft in its inventory. The target is to increase this to 200 surface platforms and 80 aircrafts by 2025. Since its establishment in 1977, the ICG has saved over 10,000 lives and caught around 14,000 criminals.

In 2020, ICG seized contraband (smuggled goods) valued at Rs 1,500 Crore and caught over 10 foreign fishing boats illegally operating in the Indian EEZ.

Under its 'preventive and measured response' operations introduced over a year ago, the ICG has helped over 6,000 fishing boats with about 40,000 fishermen to safety during the passage of 11 cyclones last year.

Some Important Terms

Territorial Waters

The term territorial waters are used informally to refer to any area of water over which a state has jurisdiction, including the territorial sea, the contiguous zone and the exclusive economic zone.

Territorial Sea

Territorial sea is a belt of coastal waters extending to 12 nautical miles from the baseline (usually the mean low-water mark) of a coastal state.

The territorial sea is regarded as the sovereign territory of the state. This sovereignty also extends to the airspace over and seabed below.

Contiguous Zone

The Contiguous Zone extends up to 24 nautical miles from the baseline of a coastal state.

Within the contiguous zone, a State has the right to both prevent and punish violations of fiscal, immigration and customs laws. Unlike the territorial sea, the contiguous zone only gives jurisdiction to a state on the ocean's surface and floor. It does not provide air and space rights.

Exclusive Economic Zone (EEZ)

The Exclusive Economic Zone extends up to 200 nautical miles from the baseline of a coastal state. In this zone, a coastal State has the exclusive right to exploit or conserve any resources found within the water, on the sea floor, or under the sea floor's subsoil.

These resources include both living resources, such as fish, and non-living resources, such as oil and natural gas. Unlike the territorial sea and the contiguous zone, the EEZ only allows resource rights and the law enforcement capacity to protect those rights.

It does not give a coastal State the right to prohibit or limit freedom of navigation or over flight.

3.2 ARJUN MAIN BATTLE TANK (MK-1A)

Why in News: Prime Minister Narendra Modi handed over the indigenously developed Arjun Main Battle Tank (MK-1A) to the Indian Army at a ceremony in Chennai.

News Update

- Arjun MBT is indigenously designed, developed and manufactured by CVRDE and DRDO as the major agencies. The Ministry of Defence had earlier ordered 118 units of the Arjun Mk-1A main battle tank (MBT).
- A main battle tank (MBT), also known as a battle tank or universal tank, is a tank is armor-protected and fills the 'direct fire and maneuver' role of many modern armies.
- These units being inducted now with the PM handing over the first Mk-1A version of Arjun MBT to the Army.

Arjun Main Battle Tank (MBT)

Arjun MBT initial version

- The Arjun MBT project was initiated by DRDO in 1972 with the Combat Vehicles Research and Development Establishment (CVRDE) as its lead laboratory. The objective was to create a state-of-the-art tank with superior fire power, high mobility, and excellent protection.
- Mass production began in 1996 at the Indian Ordnance Factory's production facility in Avadi, Tamil Nadu.

Features

- The Arjun tanks stand out for their armour-piercing ammunition and 120-mm caliber rifled gun.
- It also has a computer-controlled integrated fire control system with stabilised sighting that works in all lighting conditions.
- The secondary weapons include a co-axial 7.62-mm machine gun for anti-personnel and a 12.7-mm machine gun for anti-aircraft and ground targets.

Induction in the Army

The Indian Army received the first batch of 16 tanks in 2004 and they were inducted as a squadron of the 43 Armored Regiment. In 2009, the first Arjun regiment of the Indian Army had 45 tanks.

Arjun MBT MK-1A

- The Mk-1A version has 14 major upgrades on the earlier version of Arjun MBT. It has 54.3 per cent indigenous content against the 41 per cent in the earlier model. It is also supposed to have missile firing capability as per the design, but this feature will be added later.
- The Arjun MBT is equipped with an indigenously developed 120mm main rifled gun with Fin Stabilised Armour-Piercing Discarding Sabot (FSAPDS) ammunition.
- FSAPDS is capable of destroying all known tank armour up to direct shooting range.
- It also has a computer-controlled integrated fire control system with stabilised sighting that works in all lighting conditions.
- The secondary weapons include a coaxial 7.62-mm machine gun for anti-personnel and a 12.7-mm machine gun for anti-aircraft and ground targets.

Mk1A and MkII

The development of Arjun Mk1 was followed by improved variants - Mk1A and MkII. Arjun Mk1A, which features improved firepower and transmission systems, completed the final integration tests in 2019 and was cleared for production.

The Arjun MkII variant is a light-weight Futuristic Main Battle Tank (FMBT) with electro-optical sensors and high-power lasers.



ON THE ROAD TO TOTAL INDIGENISATION

1 Currently, the engine and automatic transmission, together called a power pack, is imported

2 59 per cent of Arjun Mk-1A components are imported. It was 63 per cent for Mk-1




3 Gradually under Make in India initiative, efforts are on to indigenise a majority of imported systems

4 Several public & private industries are being roped-in to produce indigenous systems of Arjun Mk 1A

5 Commander's Panoramic Sight, Advanced Gunners Main Sight, All Electric Gun Control System, Track System, Compact Diesel Engine and Automatic Transmission are all under development in CVRDE and sister DRDO establishments.

6 Officials said it may take another 3-4 years to indigenise these technologies and put them to use

ARJUN MK-1A SPECIFICATIONS

 Max. speed on road 58 kmph	 Max. speed on cross country 40 kmph	 Combat weight 68 tonnes (fully loaded)	Gun 120 mm rifled	Rate of fire 6-8 rounds per minute
■ Ammunition: 39 rounds (FSAPDS/HESH/TB/PCB)	■ Anti-aircraft machine gun: 12.7 mm	■ Fire control system: Day & night stabilised sight	■ Night vision: Thermal imager and driver's night sight	■ Crew: 4 (commander, gunner, loader and driver)

Q A key feature of most of the upgrades carried out in Arjun Mk-1A is they are compatible, which means that when Arjun Mk-1 vehicles come for overhauling the new features of Mk-1A can be retrofitted depending on the army's need — CVRDE director V Balamurugan

ECONOMY

❖ Paper III: The articles in this section are relevant to the following topics:

- Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.
- Inclusive growth and issues arising from it.
- Government Budgeting.
- Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.
- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
- Investment models.
- Agriculture

4.1 GST COLLECTION

Why in News: GST revenue collected in January, 2021 stood at nearly Rs 1.2 lakh crore: the highest recorded in a month since the introduction of GST.

Goods and Services Tax (GST)

- Goods and Services Tax (GST) is an indirect tax (or consumption tax) imposed in India on the supply of goods and services.
- **It is a comprehensive, multistage, destination based tax.** Comprehensive because it has subsumed almost all the indirect taxes except a few. Multi-staged as it is imposed at every step in the production process, but is meant to be refunded to all parties in the various stages of production other than the final consumer. A destination based tax, as it is collected from point of consumption and not point of origin like previous taxes
- **Tax slabs:** Goods and services are divided into five different tax slabs for collection of tax - 0%, 5%, 12%, 18% and 28%. These slabs, as well as goods and services under these slabs, are subject to change by the GST Council.
- **Exemptions:** Petroleum products, alcoholic drinks, and electricity are not under the purview of GST and instead are taxed separately by the individual state governments, as per the previous tax regime.

GST Council

GST Council, a constitutional body, is the governing body of GST. It is an apex member committee to modify, reconcile or to procure any law or regulation based on the context of goods and services tax in India.

It is also responsible for revision of rates of the goods and services in India. **It is headed by the Union finance minister, who is assisted by the finance ministers of all the states of India.**

Decision making by GST Council

Every decision of the Council shall be taken at a meeting, by a majority of not less than three-fourths of the weighted votes of the members present and voting, in accordance with the following principles:

- The vote of the Central Government shall have a weight age of one third of the total votes cast

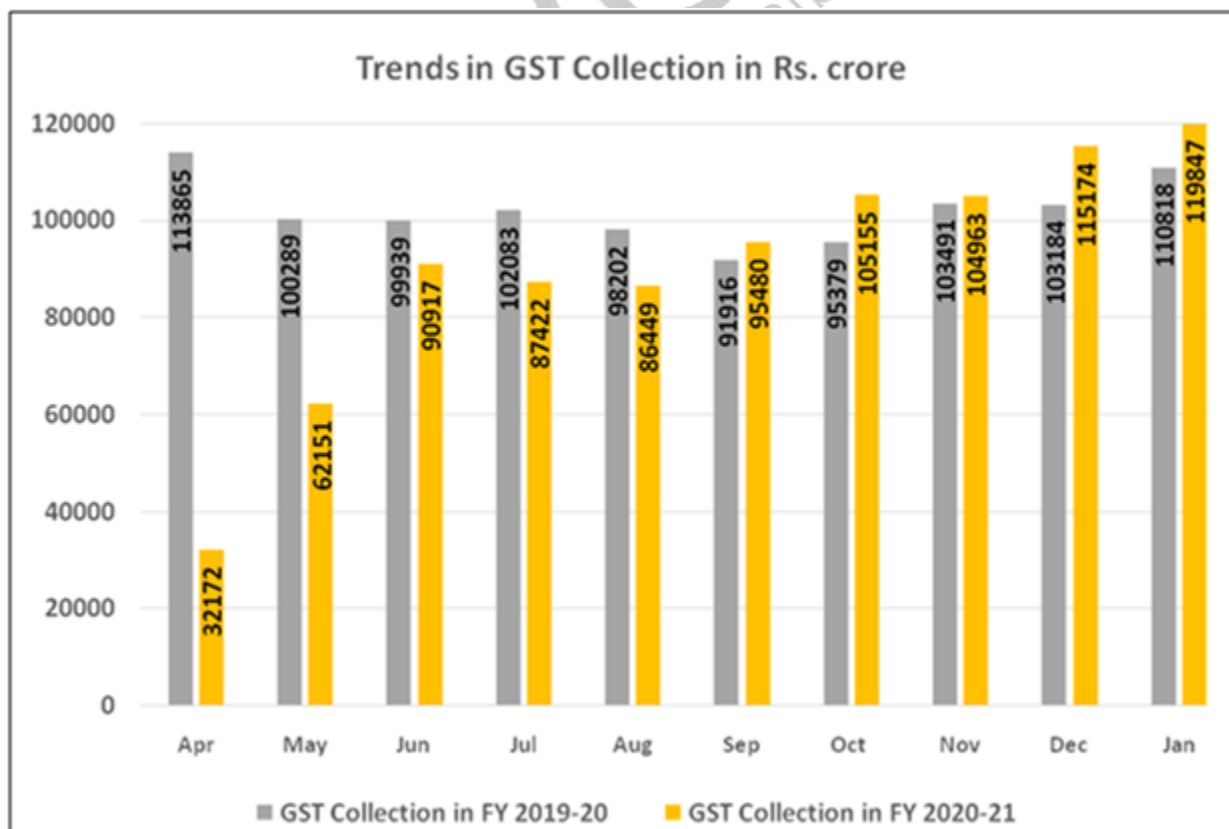
- The votes of all the State Governments taken together shall have a weight age of two-thirds of the total votes cast, in that meeting.
- Usually, the GST Council tries to make decisions by consensus among centre and all the states. However, a decision/proposal is voted upon when there is no consensus.

News Update

As per the union finance ministry, the gross GST revenue collected in January, 2021 stood at nearly Rs 1.2 lakh crore. This is the highest GST revenue recorded in a month since the introduction of GST.

- Of the 1.2 lakh crore
- Central GST (CGST) was about Rs 22,000 crore
- State GST (SGST) was about Rs 29,000 crore
- Inter-state GST (IGST) was Rs 60,288 crore (incl Rs 27,424 crore collected on import of goods)
- Cess was Rs 8,622 crore (incl Rs 883 crore collected on import of goods)

The revenues for the month of January 2021 are 8% higher than the GST revenues in the same month last year.



Signs of strong economic recovery

GST revenues above Rs 1 lakh crore now run for a stretch of four consecutive months, starting October 2020. Further, the increasing trend of revenue over the last 3 months clearly indicates rapid economic recovery post pandemic.

Administrative measures helped in improved collections

Besides economic recovery, certain administrative measures have also contributed to the steady increase in tax revenue over last few months, including

- Closer monitoring against fake-billing
- Deep data analytics using data from multiple sources including GST, Income-tax and Customs IT systems
- Effective tax administration

4.2 UNION BUDGET 2021-22

Why in News: The Union Finance Minister (FM) Nirmala Sitharaman has presented Budget 2021-22 in the Lok Sabha.

Budget/ Annual Financial Statement

Under Article 112 of the Constitution, the Annual Financial Statement (AFS) of estimated revenue and expenditure of the Government of India has to be laid before Parliament in respect of every financial year (1st April to 31st March).

The AFS is the main Budget document and is commonly referred to as the Budget Statement. The Union Budget is prepared by the Department of Economic affairs of the Ministry of Finance.

Budget documents presented to the Parliament, besides the FM's Budget Speech:

- Annual Financial Statement (Art 112)
- Receipts Budget
- Expenditure Budget
- Finance Bill
- Demands for Grants (Art 113 & 114)

Documents under FRBM Section 3(1)

- Macroeconomic Framework Statement
- Medium Term Fiscal Policy Statement

- Fiscal Policy Strategy Statement

The Annual financial statement presents information under four broad heads

- Actual for the previous financial year (2019-2020)
- Original Budget estimates for the current financial year (2020-2021)
- Revised estimates for the current financial year (2020-2021)
- Budget estimates for the upcoming financial year (2021-2022)

Key Terms explained

Revenue and Capital Accounts

Revenue account	Current accounts (Income and outgoing of current year)
Capital account	Long term accounts (Income and outgoing beyond one year)
Capital receipts	Market borrowing/Proceeds from disinvestment/Recoveries of past loans/Proceeds from asset sale
Capital expenditure	Expenditure on infrastructure/loans to state/repayment of past loans
Revenue expenditure	subsidy/defence/salaries and pensions/law and order/interest payments
Revenue Income	Tax receipts (Direct and Indirect tax) & Non-tax receipts which do not add up to liabilities (PSU profits/Interest or loans received/Fees, fines and penalty/User charges)

Types of Expenditure

	Revenue Expenditure	Capital Expenditure
1.	Revenue Expenditure is that part of government expenditure that does not result in the creation of assets.	This refers to the expenditure incurred by the government which results in creation or acquisition of assets.
2.	Examples: Payment of salaries, wages, pensions, subsidies and interest.	Examples: Creation of assets like colleges, hospitals, roads, airports etc. and Acquisition of assets like land, buildings, machinery etc.
3.	All government's operations expenses fall under this.	Capital expenditure also includes investment by the government that yields profits or dividend in future.

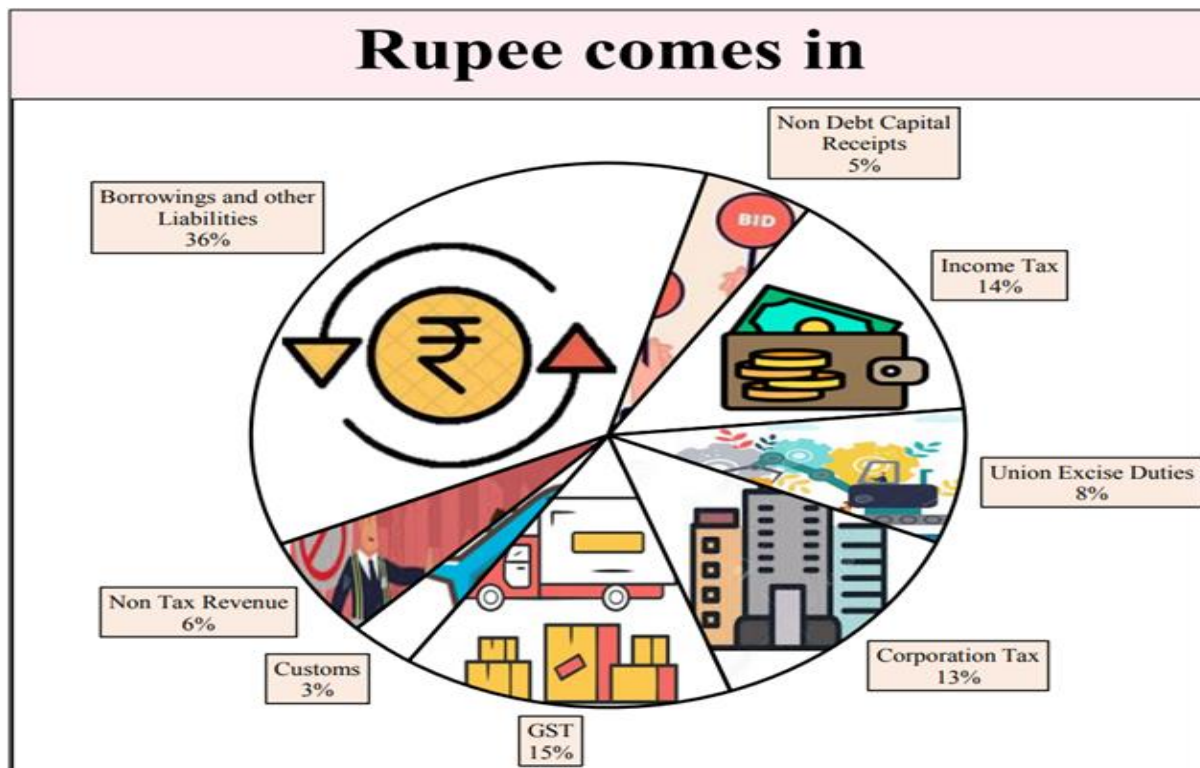
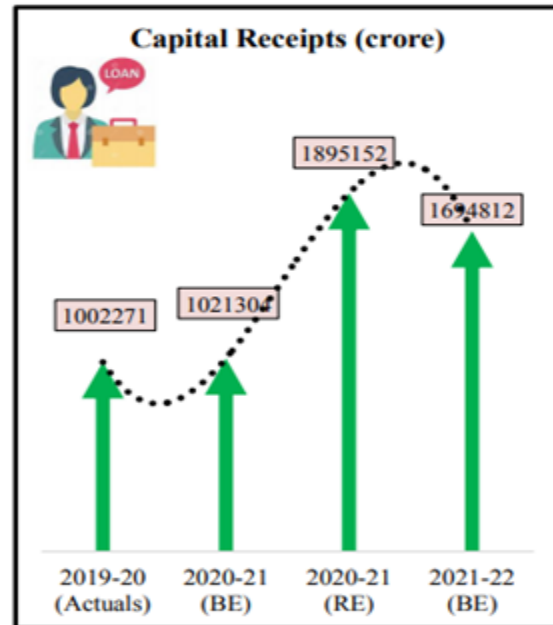
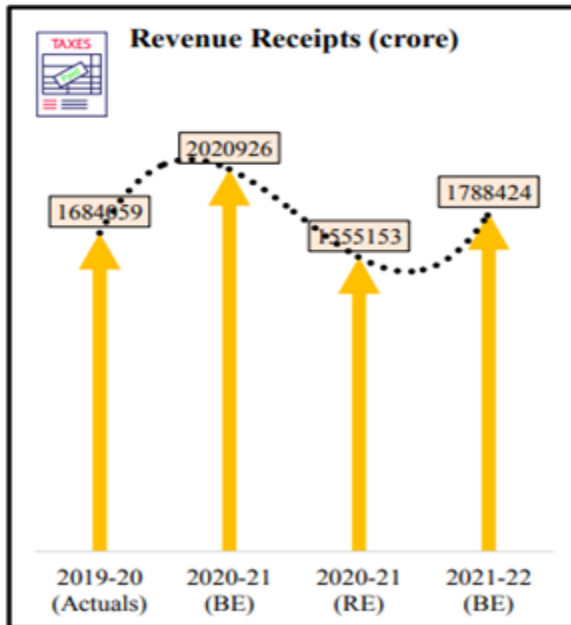
Various Deficits

Term	Description
Budget Deficit	Total Expenditure – Total Receipts
Monetized Deficit	Government borrowing from RBI and RBI printing fresh notes
Fiscal Deficit	Total expenditure – (revenue receipts + Non-debt creating capital receipts)
Primary Deficit	Fiscal Deficit - the interest payments
Revenue Deficit	Revenue expenses- Revenue receipts
Effective Revenue Deficit	Revenue Deficit - Grants for creation of capital assets

		(₹ करोड़) (In ₹ crore)			
		2019-2020 वास्तविक Actuals	2020-2021 बजट अनुमान Budget Estimates	2020-2021 संशोधित अनुमान Revised Estimates	2021-2022 बजट अनुमान Budget Estimates
1. राजस्व प्राप्तियां	1. Revenue Receipts	1684059	2020926	1555153	1788424
2. कर राजस्व (केंद्र को निवल)	2. Tax Revenue (Net to Centre)	1356902	1635909	1344501	1545396
3. कर-भिन्न राजस्व	3. Non Tax Revenue	327157	385017	210652	243028
4. पूंजी प्राप्तियां	4. Capital Receipts	1002271	1021304	1895152	1694812
5. ऋणों की वसूली	5. Recovery of Loans	18316	14967	14497	13000
6. अन्य प्राप्तियां	6. Other Receipts	50304	210000	32000	175000
7. उधार और अन्य देयताएं ¹	7. Borrowings and Other Liabilities ¹	933651	796337	1848655	1506812
8. कुल प्राप्तियां (1+4)	8. Total Receipts (1+4)	2686330	3042230	3450305	3483236
9. कुल व्यय (10+13)	9. Total Expenditure (10+13)	2686330	3042230	3450305	3483236
10. राजस्व खाते पर जिसमें से	10. On Revenue Account of which	2350604	2630145	3011142	2929000
11. व्याज भुगतान	11. Interest Payments	612070	708203	692900	809701
12. पूंजी परिसंपत्तियों के सृजन हेतु सहायता अनुदान	12. Grants in Aid for creation of capital assests	185641	206500	230376	219112
13. पूंजी खाते पर	13. On Capital Account	335726	412085	439163	554236

Receipts of the government

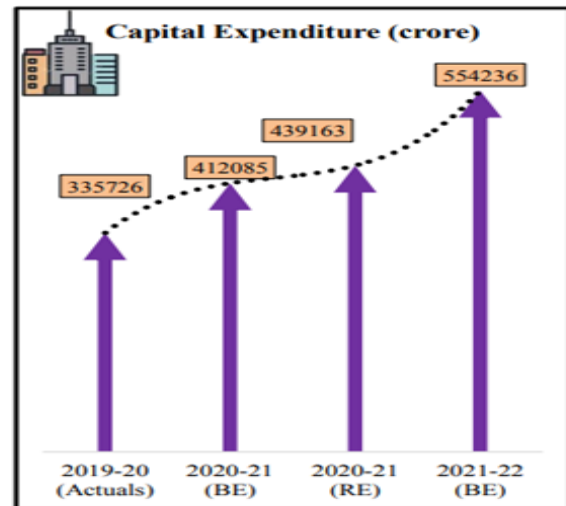
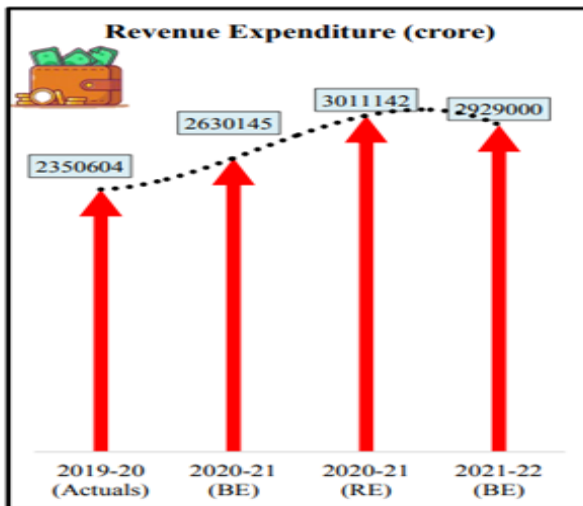
The receipts of the government include Revenue receipts and Capital receipts.



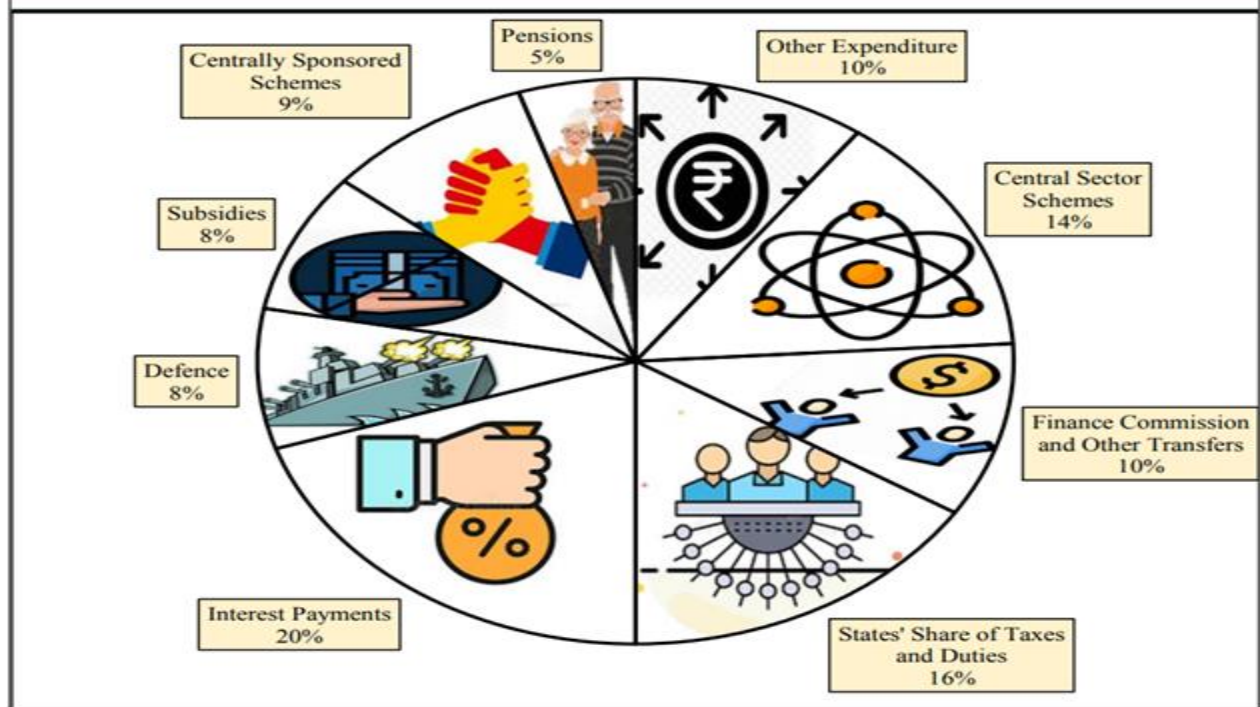
Expenditure of the government

The expenditure of the government includes Revenue expenditure (on general running of government and subsidies) and Capital expenditure (on productive assets like roads, buildings

etc.).

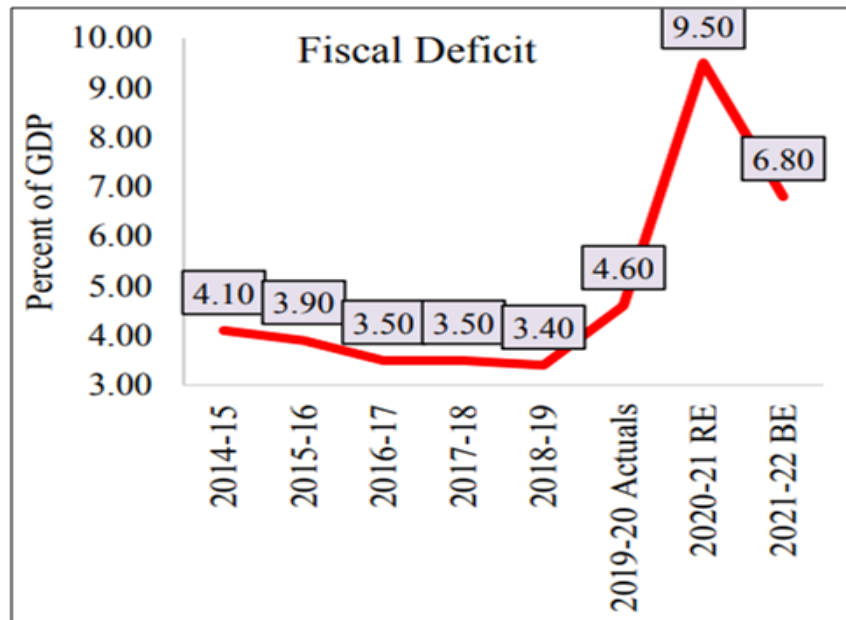


Rupee goes out



Fiscal Deficit:

Fiscal Deficit is the most watched number. In simple terms, the Fiscal Deficit gives the amount needed by the government to meet its expenses. Thus a large Fiscal Deficit means a large amount of borrowings.



Highlights

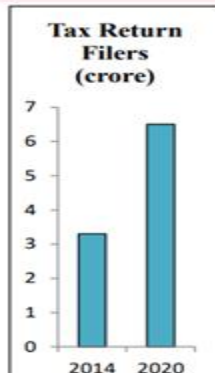
- **The Finance Minister presented the Budget in the Parliament in two parts - Part A and Part B.** In Part A, she laid a vision for AtmaNirbhar Bharat, and highlighted government's expenditure proposals.
- In Part B, she made taxation proposals, noting that our tax system has to be transparent, efficient, and should promote investments and employment in our country.
- **Here she quote poet Thirukkural: "A King/Ruler is the one who creates and acquires wealth, protects and distributes it for common good".**

Part-A: Budget proposals for 2021-2022 rested on 6 pillars:

- Health and Well-being
- Physical & Financial Capital, and Infrastructure
- Inclusive Development for Aspirational India
- Reinvigorating Human Capital
- Innovation and R&D
- Minimum Government and Maximum Governance

Part-B: Tax proposals

Tax proposals



Exemption from filing income tax returns for senior citizens (75 years and above) who only have pension and interest income. The paying bank will deduct the necessary tax on their income.

Reducing time limit for reopening of income tax assessment

Constitution of a Dispute Resolution Committee for small tax payers

Income Tax Appellate Tribunal to be made faceless

Taxpayers opted for Direct Tax Vivad se Vishwas Scheme



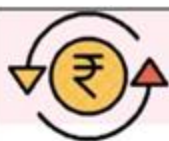
Increase in limit for tax audit for persons who carry out 95% of their transactions digitally

Dividend payment to REIT/InvIT to be exempted from TDS

Additional deduction of ₹1.5 lakh shall be available for loans taken up till 31 March 2022 for purchase of affordable house

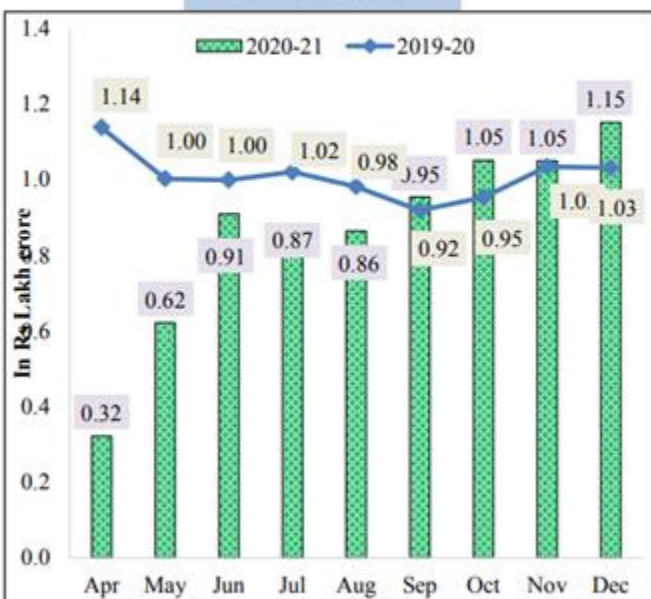
Pre filling of returns will also cover capital gains from listed securities, dividend income, etc.

Eligibility for claiming tax holiday for start ups proposed to be extended by one more year



Indirect Tax

GST Collection

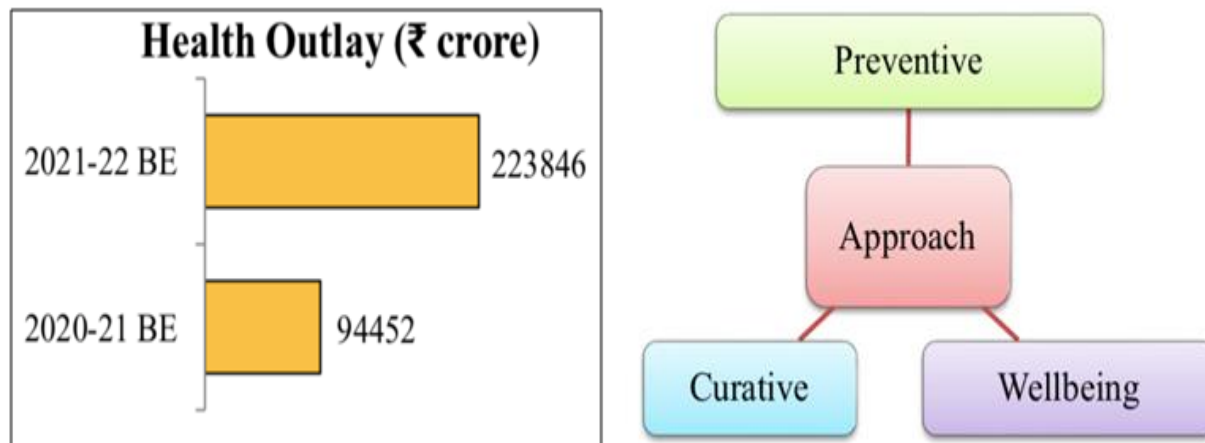


- ❖ Rationalisation of customs duty structure by eliminating outdated exemptions
- ❖ Support to MSMEs hit by recent sharp rise in iron and steel prices and relief to metal recyclers
- ❖ Rationalisation of duties on raw material inputs to man made textiles
- ❖ Rationalisation of custom duty on gold and silver
- ❖ Increase in duty on solar invertors and lanterns to promote domestic production
- ❖ Agriculture Infrastructure and Development Cess on small number of items

Proposals on Health and Well Being

The FM noted that Health & Well-being formed the topmost priority of the government during the ongoing COVID health crisis. Thus, it is the foremost of the six crucial pillars that form foundation of the Union Budget.

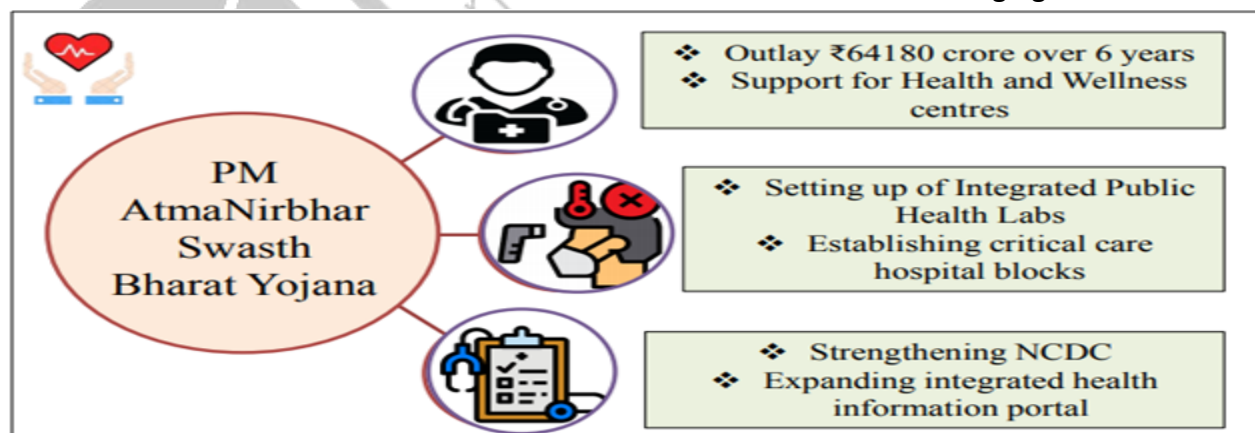
The overall Budget allocation for Health and Wellbeing has been increased to about Rs 2.24 lakh crore for 2021-22, a sharp increase of 137% from 2020-21.



Additionally, the Budget has brought a holistic approach to health as it has focused on strengthening three areas: Preventive, Curative, and Wellbeing.

PM Aatma Nirbhar Swasth Bharat Yojana (PMASBY) to be launched

A new centrally sponsored scheme, PM Aatma Nirbhar Swasth Bharat Yojana, will be launched with an outlay (expenditure) of about Rs 64,180 crore over 6 years. This will be in addition to the National Health Mission (NHM). PMASBY will develop capacities of primary, secondary, and tertiary care health systems, strengthen existing national institutions, and create new institutions to deal with new and emerging diseases.



Main interventions under PMASBY

- Support for 17,788 rural and 11,024 urban Health and Wellness Centers.
- Setting up integrated public health labs in all districts and 3382 block public health units in 11 states.
- Establishing critical care hospital blocks in 602 districts and 12 central institutions.
- Strengthening of the National Centre for Disease Control (NCDC), its 5 regional branches and 20 metropolitan health surveillance units.
- Expansion of the Integrated Health Information Portal to all States/UTs to connect all public health labs.
- Operationalisation of 17 new Public Health Units and strengthening of 33 existing Public Health Units at points of entry, that is at 32 airports, 11 seaports and 7 land crossings.
- Setting up of 15 Health Emergency Operation Centers and 2 mobile hospitals.
- Setting up of a national institution for One Health, a Regional Research Platform for WHO South East Asia Region, 9 Bio-Safety Level III laboratories and 4 regional National Institutes for Virology.

PM AatmaNirbhar Swasth Bharat Yojana

A new Centrally Sponsored Scheme with an outlay of about ₹ 64,180 crore, over 6 years

Main Interventions :

- Support for 17,788 rural and 11,024 urban Health and Wellness Centers

Setting up of :

- Integrated public health labs in all districts and 3382 block public health units in 11 states
- Critical care hospital blocks in 602 districts and 12 central institutions
- 15 Health Emergency Operation Centers and 2 mobile hospitals
- A national institution for One Health, a Regional Research Platform for WHO South East Asia Region, 9 Bio-Safety Level III laboratories and 4 regional National Institutes for Virology

1/2

PM AatmaNirbhar Swasth Bharat Yojana

- Strengthening of the National Centre for Disease Control (NCDC), its 5 regional branches and 20 metropolitan health surveillance units
- Expansion of the Integrated Health Information Portal to all States/UTs to connect all public health labs
- Operationalisation of 17 new Public Health Units and strengthening of 33 existing Public Health Units at Points of Entry, that is at 32 Airports, 11 Seaports and 7 land crossings

2/2

Allocation for Vaccines

35,000 crore have been allocated for COVID-19 vaccine in BE 2021-22. In addition, the Pneumococcal Vaccine, which is made in India, will be delivered across the country, to avoid more than 50,000 deaths annually. At present, the Pneumococcal Vaccine is available only in 5 states.

Pneumococcal disease is a name for any infection caused by bacteria called *Streptococcus pneumoniae* or pneumococcal. *Streptococcus pneumoniae* bacteria can cause many types of

illnesses and is the most common cause of pneumonia (lung infection), ear infections, sinus infections and meningitis.

Enhanced transparency in healthcare

The Finance Minister shared that the National Commission for Allied Healthcare Professionals Bill has been introduced in Parliament for transparent and efficient regulation of the 56 allied healthcare professions.

It was also announced that The National Nursing and Midwifery Commission Bill will be introduced in the Parliament to bring about transparency, efficiency and governance reforms in the nursing profession.

Proposals to improve nutrition levels in the country

- Nutrition has been highlighted as an integral component of the country's health and wellbeing.
- To strengthen nutritional content, delivery, outreach, and outcome, the Union Budget has proposed merger of the Supplementary Nutrition Program and the Poshan Abhiyan. These will form the umbrella of Mission Poshan 2.0.
- Poshan Abhiyaan, is the government's flagship program to improve nutritional outcomes for children, pregnant women and lactating mothers, with specific targets to be achieved by 2022.
- Supplementary Nutrition Program (SNP) is the main component of Integrated Child Development Services (ICDS).
- Under the program supplementary nutrition is given to the children (6 months – 6 years) and pregnant and lactating mothers to improve their health and nutritional status.
- Further, an intensified strategy to improve nutritional outcomes across 112 Aspirational Districts has been proposed in the budget.

Jal Jeevan Mission (Urban)

The Budget has announced the launch of the Jal Jeevan Mission (Urban). The Mission aims at universal water supply in all 4,378 Urban Local Bodies with 2.86 crore household tap connections. The Mission will also focus on liquid waste management in 500 AMRUT cities. It will be implemented over 5 years, with an outlay of Rs 2,87,000 crore.

Urban Swachh Bharat Mission 2.0 : To further improve the cleanliness of urban areas, the Urban Swachh Bharat Mission 2.0 will be implemented with a total financial allocation of Rs 1,41,678 crore over a period of 5 years from 2021-2026.

Main interventions under the Mission are:

- Complete faecal sludge management and waste water treatment.
- Separation of garbage at source.
- Reduction in single-use plastic.
- Reduction in air pollution by effectively managing waste from construction-and-demolition activities.
- Bio-remediation of all legacy dump sites.
- Bio-remediation is a process that uses microorganisms or their enzymes to remove contaminants or pollutants.

4.3 MONETARY POLICY COMMITTEE

Why in News: In its bimonthly monetary policy statement in February, the Reserve Bank of India (RBI) has kept the key policy rates unchanged.

Monetary Policy and Monetary Policy Committee (MPC)

Monetary Policy:

- Monetary policy is the macroeconomic policy laid down by the central bank (RBI in India's case).
- The policy impacts the size and growth rate of the money supply in an economy and regulates macroeconomic variables such as inflation, growth and unemployment.
- The primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth.
- Monetary policies are implemented through different tools, including the adjustment of the interest rates, purchase or sale of government securities, and changing the amount of cash circulating in the economy.
- There are several direct and indirect instruments that are used for implementing monetary policy, with one the main instruments being the Liquidity Adjustment Facility (LAF).

Liquidity Adjustment Facility (LAF)

- Reserve Bank of India's liquidity adjustment facility of LAF helps banks to adjust their daily liquidity mismatches. LAF has two components: repo (repurchase agreement) and reverse repo.

- **Repo Rate:** It is the interest rate at which the RBI provides overnight liquidity to banks against the collateral of government and other approved securities under the LAF.
- **Reverse Repo Rate:** The interest rate at which the RBI absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under the LAF. Basically, banks can park their money with RBI while receiving interest on it.

Inflation targeting monetary policy framework

- In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.
- The amended RBI Act also provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once in every five years.
- Accordingly, the Central Government has notified 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent. For example: Let's say the RBI has a target inflation rate of 4%. So, every time the retail inflation rate rises above the 4% mark, the RBI raises the cost of money i.e. the interest rate. When that happens, some people find it more advisable to take the cash out of the market and put it into banks. This way, demand reduces and inflation falls.
- The reverse process applies when the inflation is below the 4% mark. The Monetary Policy Committee (MPC) constituted by the Central Government determines the policy interest rate required to achieve the inflation target.

Monetary Policy Committee (MPC)

On the recommendation of Urjit Patel Committee, Monetary Policy Committee was created in 2016 to bring transparency and accountability in fixing India's Monetary Policy.

The Monetary Policy Committee of India is responsible for fixing the policy interest rate, to achieve the objectives of monetary policy.

Composition

- Three officials of the Reserve Bank of India, with Governor of RBI as Chairperson, ex officio
- Three external members appointed by the Government of India
- The external members hold office for a period of four years.
- Decisions of the MPC are taken on the basis of majority, with Governor having the casting vote in case of a tie.
- The MPC meets least 4 times a year and it publishes its decisions after each such meeting.

News Update

- RBI's monetary policy committee (MPC) has come out with the latest Monetary Policy Report (MPR). The MPC has decided to keep the key policy rates (repo rate and reverse repo rate) unchanged.
- All the six members of the MPC voted unanimously to keep key policy rates unchanged and kept repo rate, at 4%. The reverse repo rate, or the rate RBI offers banks for their surplus funds, stayed at 3.35%.
- The six-member MPC headed by RBI Governor meets every two months to analyze the state of the Indian economy and inflation and come up with the Monetary Policy Report.

4.4 NGO FUNDING IN INDIA

Why in News: Due to violation of different provisions of the Foreign Contribution Regulation Act (FCRA), 2010, and rules, the Indian government has cancelled the foreign funding licences of more than 20,600 NGOs and associations since 2011.

NGOs in India:

NGOs play an important role in the up-liftment of the weaker sections of the society and their overall development.

This is especially true in the case of India, where a vast majority of its population continues to remain under the poverty line and have little or no access to even basic facilities provided by the government.

NGOs Funding

Being non-profit organisations, operations of NGOs are entirely reliant on donations, both domestic and foreign. However, many bogus NGOs are also set up to collect money, which is then spent on unrelated expenses. Thus, they have to follow regulations, including filing annual returns. Those NGOs which receive foreign funding are subject to additional regulations to prevent misuse of foreign money in the name of NGOs to destabilize India.

Foreign Contributions

Foreign contributions include currency, article other than gift for personal use (not exceeding the value of INR 25,000) and securities received from foreign source.

Foreign Hospitality

Any offer from a foreign source to provide foreign travel, boarding, lodging, transportation or medical treatment cost.

Sources

- Foreign citizens
- Foreign companies, corporations and MNCs
- Foreign government and their agencies
- International agencies other than specified and government notified agencies
- Foreign trusts, foundations, trade unions, societies, clubs or any other associations of individuals formed outside India

Foreign Contribution (Regulation) Act (FCRA), 2010

The FCRA aims to regulate the acceptance and utilisation of foreign contribution or foreign hospitality, and prohibit acceptance and utilisation of foreign contribution or foreign hospitality for any activities detrimental to the national interest.

The act is implemented by the Ministry of Home Affairs, Government of India.

Scope of the Act: The act is applicable to a natural person, body corporate, all other types of Indian entities (whether incorporated or not) as well as NRIs and overseas branches/subsidiaries of Indian companies and other entities formed or registered in India.

Conditions for an NGO to be registered under the FCRA

The FCRA governs the grant of foreign donations to the NGOs and all such voluntary organizations are required to get themselves registered under this law.

As per the Foreign Contribution (Regulation) Act, 2010, registered NGOs can receive foreign contribution for five purposes - social, educational, religious, economic and cultural. The NGO must be in existence for at least three years and must have undertaken reasonable activity in its field for which the foreign contribution is proposed to be utilised.

The NGO must have spent at least Rs 1,000,000 over three years preceding the date of its application on its activities.

Validity of registration certificate: The registration certificate is valid for a period of five years and must be thereafter renewed in the prescribed manner. Separate account: An NGO must have a separate bank account exclusively for the deposit of foreign contribution. No other fund can be credited to this account.

Filing returns: Every FCRA-NGO has to submit an Annual Return to the Ministry of Home Affairs (MHA) for its foreign fund receipts for the previous financial year.

Shouldn't indulge in religious conversion activities: Section 12(4) empowers FCRA authorities to suspend license of an NGO/association that has indulged in activities aimed at conversion through inducement or force, either directly or indirectly, from one religious faith to another.

Foreign funding for NGOs not registered under FCRA

NGOs not eligible for registration can seek prior approval from FCRA for receiving foreign funding. This permission is granted only for a specific amount of foreign funding from a specified foreign source for a specific purpose, which remains valid till receipt and full utilisation of such amount.

News Update

The Union Home Ministry has informed the Parliament that it has cancelled the foreign funding licenses of more than 20,600 NGOs and associations since 2011. This was on account of these NGOs and associations violating different provisions of the Foreign Contribution Regulation Act (FCRA), 2010, and rules made there under.

Most cancellations were on account of failure to file annual returns. FCRA registration of 1,810 NGOs were cancelled in the last three years from 2018 to 2020. Also, FCRA certificates were not renewed for 8,353 NGOs since 2016, including 463 in 2020.

4.6 PRODUCTION LINKED INCENTIVE (PLI) SCHEME

Why in News: The government has approved Production Linked Incentive (PLI) Scheme for IT Hardware. The scheme proposes production linked incentive to boost domestic manufacturing of IT hardware.

The Target Segments under the proposed Scheme include Laptops, Tablets, All-in-One PCs and Servers.

Production-Linked Incentive Scheme

- Production-Linked Incentive or PLI aims to give companies incentives on incremental sales from products manufactured in domestic units. The scheme invites foreign companies to set up units in India.

- It also aims to encourage local companies to set up or expand existing manufacturing units. It aims to generate more employment and cut down the country's reliance on imports from other countries.

Provisions of the PLI Scheme for IT Hardware

- The government on Wednesday extended the production-linked to IT hardware to boost domestic manufacturing and create jobs.
- The Scheme shall extend incentives to eligible companies for goods manufactured in India and covered under the target segment for 4 years. The Target Segments under the proposed Scheme include Laptops, Tablets, All-in-One PCs and Servers.
- The vision of National Policy on Electronics 2019 is to position India as a global hub for Electronics System Design and Manufacturing (ESDM).

Benefits

The scheme is likely to benefit major global players and domestic champions in the field of IT Hardware manufacturing. This is an important segment to promote manufacturing under Atma Nirbhar Bharat as there is huge import reliance for these items at present.

It will attract large investments in the value chain of IT Hardware. The scheme will enhance the development of electronics ecosystem in the country. India will be well positioned as a global hub for Electronics System Design and Manufacturing (ESDM) on account of integration with global value chains.

India is eyeing to be a hub for IT Hardware exports. The scheme has an employment generation potential of over 1, 80,000 (direct and indirect) over 4 years. The Scheme will provide impetus to Domestic Value Addition for IT Hardware which is expected to rise to 20% - 25% by 2025.

Currently, the laptop and tablet demand in India is largely met through imports. The market for IT Hardware is dominated by 6-7 companies globally which account for about 70% of the world's market share.

These companies are able to exploit large economies of scale to compete in global markets. It is imperative that these companies expand their operations in India and make it a major destination for manufacturing of IT Hardware.

Given the current global scenario, the world of manufacturing is undergoing a paradigm shift. Manufacturing companies across the globe are looking to diversify their manufacturing locations to mitigate the risk involved in depending on a single market.

National Policy on Electronics 2019 (NPE 2019)

It is proposed by the Ministry of Electronics and Information Technology (MeitY). The National Policy of Electronics 2019 (NPE 2019) replaces the National Policy of Electronics 2012 (NPE 2012).

The Policy envisions positioning India as a global hub for Electronics System Design and Manufacturing (ESDM). It will be done by encouraging and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally



SCIENCE AND TECHNOLOGY

❖ Paper III: The articles in this section are relevant to the following topics:

- Science and Technology- developments and their applications and effects in everyday life
- Achievements of Indians in science & technology; indigenization of technology and developing new technology.
- Awareness in the fields of IT, Space, Computers, robotics, Nano-technology, bio-technology and issues relating to intellectual property rights.
- Prelims

5.1 SOLAR CYCLE AND SOLAR SUNSPOTS

Why in News: Scientists have estimated how the Sun has rotated over a century from data extracted from old films and photographs that have been digitized.

Solar Cycle

The Sun's magnetic field goes through a cycle approximately every 11 years, called the solar cycle. After about every 11 years, at the end of a solar cycle, the Sun's magnetic field completely flips. This means that the Sun's north and south poles switch places.

The amount of solar activity changes with the stages in the solar cycle, and this means the number of Sunspots increases and decreases. The beginning of a solar cycle is a solar minimum, or when the Sun has the least sunspots. Over time, solar activity and the number of sunspots increase.

The middle of the solar cycle is the solar maximum, or when the Sun has the most sunspots. As the cycle ends, it fades back to the solar minimum and then a new cycle begins. Solar activity can have effects here on Earth, so scientists closely monitor solar activity every day. One way to track the solar cycle is by counting the number of sunspots.

Sunspots and Solar flares

Sun's surface

The surface of the Sun is a very busy place. It has electrically charged gases that generate areas of powerful magnetic forces called magnetic fields.

The Sun rotates more quickly at its equator than at its poles. Over time, the Sun's differential rotation rates cause its magnetic field to become twisted and tangled. This motion creates a lot of activity on the Sun's surface, called solar activity.

A solar wind composed of charged particles carries the magnetic field away from the sun's surface and through the solar system. The sun's magnetic influence extends well past the planets and into interstellar space. This region, called the heliosphere, acts as a magnetic shield against charged particles from deep space called cosmic rays.

Sunspots

Sunspots are areas that appear dark on the surface of the Sun. Some of these spots are as large as 50,000 km in diameter. These spots are the visible markers of the Sun's magnetic field, which forms a blanket that protects the solar system from harmful cosmic radiation.

On the photosphere, Sunspots are the areas where the star's magnetic field is the strongest; around 2,500 times more than the Earth's magnetic field. Photosphere is the outer surface of the Sun which radiates heat and light.

Sunspots are associated with solar activity, often as the origins for giant explosions – such as solar flares or coronal mass ejections – which can spew light, energy, and solar material into space.

Why Sunspots appear dark

They appear dark because they are cooler than other parts of the Sun's surface.

It's because they form at areas where magnetic fields are particularly strong. These magnetic fields are so strong that they keep some of the heat within the Sun from reaching the surface. Due to this, the temperatures of Sunspots are thousands of degrees lower than the surrounding photosphere (which has a temperature of 5,800 degrees Kelvin). Sunspots temperatures are around 3,800 degrees Kelvin.

They typically consist of a dark region called the 'umbra', which is surrounded by a lighter region called the 'penumbra'.

Solar flares

The magnetic field lines near Sunspots often tangle, cross, and reorganize. This can cause a sudden explosion of energy called a solar flare. Solar flares release a lot of radiation into space. In August 2020, a massive Sunspot group, AR2770, which emitted a few minor solar flares, was observed.

Coronal Mass Ejections

At times, solar flares are accompanied by Coronal Mass Ejections (CME). CMEs are huge bubbles of radiation and particles from the Sun. They explode into space at very high speed when the Sun's magnetic field lines suddenly reorganize.

News Update

Scientists from India, USA and Germany have studied the solar rotation by tracing sun spots from century-old digitalized films and photographs. These old films and photographs were taken at the Kodaikanal Solar Observatory (KoSO) of Indian Institute of Astrophysics (IIA), an autonomous institute under Department of Science and Technology (DST), Government of India.

Scientists said that they have been able to differentiate the behaviors of the bigger and smaller solar spots for the first time. Such digitized data and differentiation of bigger and smaller sun spots can improve understanding of solar magnetism and sun spots, paving the path towards predicting solar cycles in the future.

Importance of studying solar activity:

If a solar flare is very intense, the radiation it releases can interfere with our radio communications here on Earth, and impact satellites. When charged particles from a Coronal Mass Ejection (CME) reach areas near Earth, they can trigger intense lights in the sky, called auroras.

When particularly strong, a CME can also interfere in power utility grids, which at their worst can cause electricity shortages and power outages. Forecasting of the solar cycle can help scientists protect our radio communications on Earth, and help keep satellites and astronauts safe, too. Surveying the space environment is the first step to understanding and mitigating astronaut exposure to space radiation.

5.2 UAE SPACECRAFT: AMAL

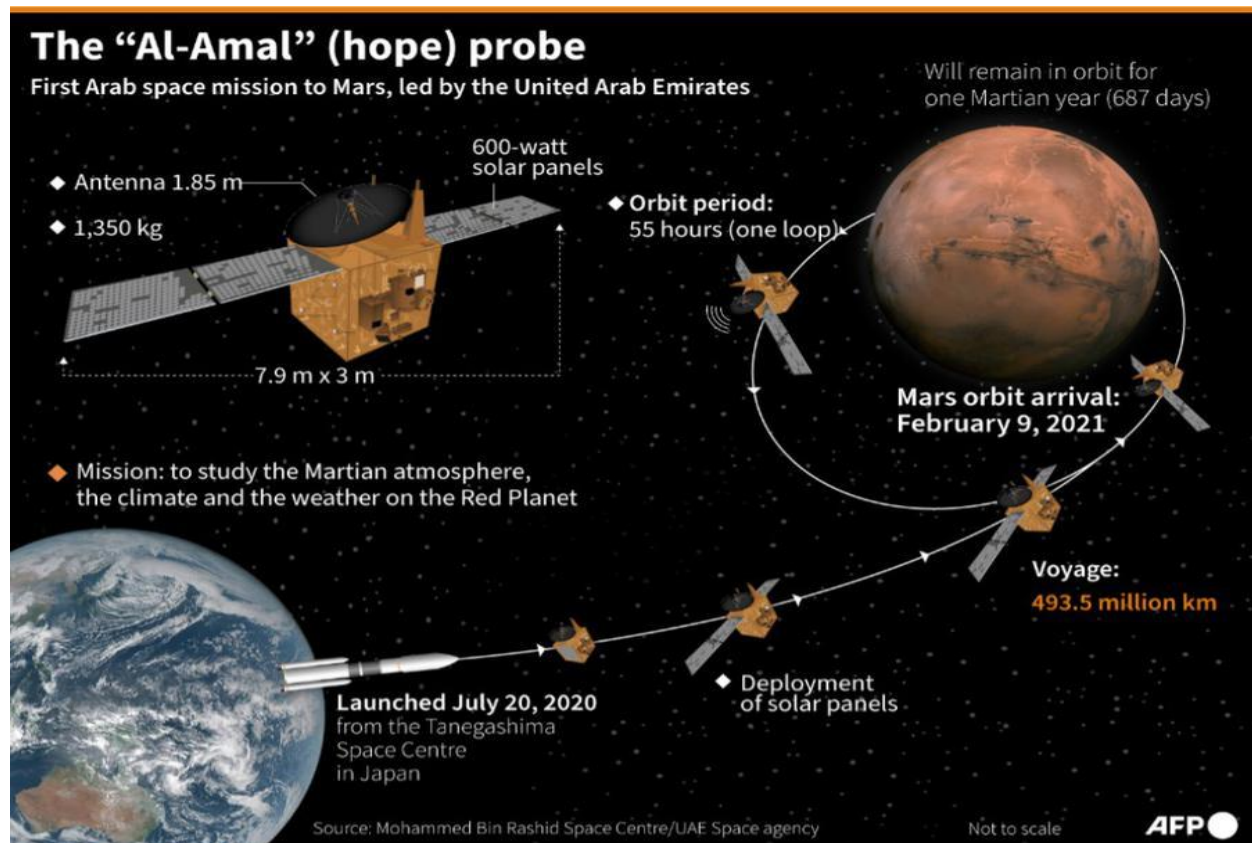
Why in News: United Arab Emirates' spacecraft called 'Amal' has reached the Mars' orbit, in a triumph for the Arab world's first interplanetary mission.

Launch of Al-Amal or Hope mission

The United Arab Emirates (UAE) launched its first-ever mission to Mars, an unmanned probe called 'Al-Amal' or 'Hope', in July, 2020. It was launched on a Japanese rocket from the Tanegashima Space Centre in southern Japan.

It is the first ever interplanetary mission to Mars led by any West Asian, Arab or Muslim majority country. Executed by the UAE's space agency Mohammed bin Rashid Space Centre, the mission was announced in 2015 with the aim of creating first integrated model of the Mars atmosphere.

'Hope' was planned to enter Mars orbit by February 2021, which will mark the 50th year of the unification of the UAE, an alliance of seven emirates.



News Update

- UAE's spacecraft called 'Amal' has reached the Mars' orbit after nearly seven-months completing the 300-million-mile journey.
- **UAE became the first Arab nation and only the second nation in history to succeed in placing a spacecraft into Martian orbit on their very first attempt (after India).** It will orbit the Red Planet (Mars) for one full Martian year.
- Amal is expected to begin transmitting information back to Earth in September 2021, and its data will be available for scientists around the world to study.

Objectives of the Mission

- The Al-Amal probe will be the first to study the Martian climate through daily and seasonal cycles.
- It will observe the weather on Mars such as the huge dust storms that cover the Red Planet and examine the interaction between the upper and lower layers of the Martian atmosphere.
- It will study the cause of surface corrosion on Mars and the reasons why Mars is losing its upper atmosphere.

- The Hope probe is also the foundation for a much bigger goal of building a human settlement on Mars within the next 100 years. The UAE has set a goal to build a human colony on Mars by 2117.

Reasons for exploring Mars

Features similar to dry river beds and minerals that can only be formed in the presence of liquid water, have been found on Mars. This indicates that the ancient Martian atmosphere was much warmer, allowing water to flow on its surface.

Therefore, scientists want to study the past environments that existed on Mars to understand how a planet's atmosphere can change over time. Further, if Mars had warmer atmosphere and water in its ancient past (3.5-3.8 billion years ago), it is possible that it exists in some special regions even today.

Exploring connections between today's Martian weather and the ancient climate of Mars will help to understand the past and future of Earth as well as the potential of life on Mars and other distant planets.

5.3 GEO SPATIAL DATA

Why in News: The Ministry of Science and Technology has released new guidelines for the Geo-spatial sector in India. The guidelines deregulate existing protocols and liberalise the sector to a more competitive field. The existing regime imposed significant restrictions on the mapping industry.

Geo-spatial data and applications

Geo-spatial data

Geospatial data is data about objects, events, or phenomena that have a location on the surface of the earth. The location may be

- Static in the short-term, like the location of a road, an earthquake event, malnutrition among children.
- Dynamic like a moving vehicle or pedestrian, the spread of an infectious disease.

Geospatial data combines

- location information

- attribute information (the characteristics of the object, event, or phenomena concerned), and
- Temporal information or the time at which the location and attributes exist.

Uses of Geo-spatial data

- **Mapping:** The central function of a geographic information system (GIS) is to provide a visual representation of data in a mapped format. It is estimated that 80% of the data we consider has a geospatial element of some form.
- **Road Safety Analysis:** GIS can be used as a key tool to minimise accident hazard on roads, by identifying the accident locations and providing remedial measures.
- **Urban Growth:** Analyse, locate and monitor urban expansion on suitable sites.
- **Transport:** Manage and monitor roads, railway, waterways and logistics by using environmental and topographical data in the GIS platform.
- **Environment:** Environmental Impact Assessments (EIA) are required to contain specific information on the magnitude and characteristics of environmental impact.
- **Agriculture:** GIS can be used to create more effective and efficient farming techniques, by analysing soil data and determining the best crop to plant.

The past decade has seen an increase in the use of geo-spatial data in daily life with various apps such as food delivery apps like Swiggy or Zomato, e-commerce like Amazon or even weather apps.

Background

Present policy on geo-spatial data

There are strict restrictions on the collection, storage, use, sale, dissemination of geo-spatial data and mapping under the current regime. The policy had not been renewed in decades and has been driven by internal as well as external security concerns.

The sector so far is dominated by the Indian government as well as government-run agencies such as the Survey of India.

Limitations due to the present policy

- **Delays:** Private companies need to go through a system of permissions and pre-approvals from different departments of the government as well as the defence and Home Ministries, to be able to collect, create or disseminate geo-spatial data.
- **Government control:** Initially conceptualised as a matter solely concerned with security, geo-spatial data collection was the prerogative of the defence forces and the government.

- **Red tape:** Compliance with these regulatory restrictions has subjected startups in India to red tape, hindering Indian innovation in map technologies for decades.
- **Foreign access:** India relies heavily on foreign resources for mapping technologies and services and there is high need for indigenous sources of data.
- **India v/s other countries:** Large amounts of geo-spatial data are also available on global platforms, which make the regulation of data that is freely available in other countries, untenable.

Shift in the use cases of Geo-spatial data

- While for decades, geo-spatial data has been a priority for strategic reasons and for internal and external security concerns, this priority has seen a shift in the past 15 years.
- Geo-spatial data has now become imperative for the government in planning for infrastructure, development, social development, natural calamities as well as the economy. More and more sectors such as agriculture, environment protection, power, water, transportation, communication, health (tracking of diseases, patients, hospitals etc) are relying heavily on this data.

News Update

The department of science and technology has announced a drastic change to India's mapping policy, specifically for Indian companies. As part of this, the ministry of science and technology on Monday issued guidelines for acquiring and producing geospatial data and geospatial data services, including maps.

"What is readily available globally does not need to be restricted in India and, therefore, geospatial data that used to be restricted will now be freely available in India", the guidelines state.

The corporations and innovators are no longer subject to restrictions nor do they require prior approvals before they collect, generate, prepare, disseminate, store, publish, update digital geo-spatial data and maps within the territory of India.

There shall be no requirement for security clearance, license or any other restrictions. However, self-certification will be used to convey adherence to these guidelines.

The startups and mapping innovators will be trusted to self-certify, apply good judgement and be relied upon to demonstrate adherence to guidelines. In addition, measures to promote the development of Indian geospatial innovations that take advantage of the latest map-making technologies are proposed.

Benefits of the deregulation

- **Availability:** The government aims to make the geospatial data and modern mapping technologies available to Indian companies.
- **Economy:** It will help India achieve a \$5 trillion economy and the vision of Atmanirbhar Bharat or self-reliant India. The availability of comprehensive, highly accurate, granular, and constantly updated representation of geospatial data will significantly benefit diverse sectors of the economy.
- **Diverse sectors:** In every economic endeavor, spanning agriculture, finance, construction, mining and local enterprise, India's farmers, small businesses and corporations alike stand to gain tremendously from the updated rules.
- **Innovation:** It will significantly boost innovation in the country and greatly enhance the preparedness of the country for emergency response.
- **Competition:** It will enable Indian companies to compete in the global mapping ecosystem by leveraging modern geospatial technologies. It will enable Indian innovators to create substantial advances in mapping ultimately making our lives easier and empowering small businesses.
- **Planning:** Locally available and locally relevant maps and geospatial data would also help improve planning and management of resources and better serve the specific needs of the Indian population.
- **Infrastructure:** Maps and accurate geospatial data are crucial for national infrastructure projects such as linkages of rivers, creation of industrial corridors, and deployment of smart power systems, the guidelines state.
- **Government Schemes:** Emerging vibrant initiatives such as Digital India, Smart Cities, e-Commerce, autonomous drones, delivery, logistics and urban transport require a leap forward in mapping with greater depth, resolution and precision.
- **Technology:** Individuals, companies, organizations, and government agencies shall be free to process the acquired geospatial data, build applications, and develop solutions in relation to such data

5.4 NATIONAL HYDROGEN MISSION

Why in News: The Finance Minister in the Union budget for 2020-21 formally announced the National Hydrogen Mission. It will draw up a roadmap for using hydrogen as an energy source. The initiative has the potential of transforming transportation.

Hydrogen

Hydrogen is the chemical element with the symbol H and atomic number 1. It's the most abundant chemical element, estimated to contribute 75% of the elemental mass of the universe.

On earth, vast numbers of hydrogen atoms are contained in water, plants, animals and, of course, humans.

Hydrogen as fuel

Hydrogen is a clean alternative to methane, also known as natural gas. Hydrogen can be produced from a variety of resources, such as natural gas, nuclear power, biogas and renewable power like solar and wind.

While Hydrogen is present in nearly all molecules in living things, it's very scarce as a gas – less than one part per million by volume. The challenge is harnessing hydrogen as a gas on a large scale to fuel our homes and businesses.

Natural gas used as fuel

Natural gas is a non-renewable hydrocarbon used as a source of energy for heating, cooking, and electricity generation. We've continued to use natural gas because:

- it's a readily available resource,
- it's cost effective and,
- It's a cleaner alternative to coal as coal being the dirtiest fossil fuel that we historically relied on for heating and to generate electricity.

Problem with natural gas

When natural gas is burnt, it provides heat energy. But a waste product alongside water is carbon dioxide, which when released into the atmosphere contributes to climate change.

Why is hydrogen important as a future clean energy source?

When we burn hydrogen, the only waste product is water vapour. Hydrogen's potential as a clean fuel source has a history spanning nearly 150 years.

In 1937, the German passenger airship LZ129 Hindenburg used hydrogen fuel to fly across the Atlantic, only to explode while docking at Naval Air Station Lakehurst in New Jersey, killing 36 people. In the late 1960s, hydrogen fuel cells helped power NASA's Apollo missions to the moon.

After the oil price shocks of the 1970s, the possibility of hydrogen replacing fossil fuels came to be considered seriously. Three carmakers: Japan's Honda and Toyota, and South Korea's Hyundai

have since moved decisively in the direction of commercializing the technology, albeit on a limited scale.

While Hydrogen is the most common element in nature, it is not found freely. Hydrogen exists only in a combined form with other elements, and has to be extracted from naturally occurring compounds like water. Although hydrogen is a clean molecule, the process of extracting it is energy-intensive.

National hydrogen mission

India has announced a National Hydrogen Mission that will draw up a roadmap for using hydrogen as energy. For the current financial year, MNRE has been allotted Rs 25 crore for research and development (R&D) in hydrogen.

There will be five key areas the government will focus on. These include:

- R&D,
- Demand creation
- How it can be used in industry
- How to create an ecosystem and policies for the same
- How to bring industry on board along with international partnerships.

ECOLOGY and ENVIRONMENT

❖ Paper III: The articles in this section are relevant to the following topics:

- Conservation, environmental pollution and degradation, environmental impact assessment
- Disaster and disaster management.

❖ Prelims Oriented Questions

6.1 CENTRE OF WETLAND CONSERVATION AND MANAGEMENT

Why in News: On the occasion of the World Wetlands Day (on 2nd February), the Ministry of Environment, Forest and Climate Change announced the establishment of a Centre for Wetland Conservation and Management (CWCM) - in Chennai.

The CWCM has been set up as a part of the National Centre for Sustainable Coastal Management (NCSCM), Chennai. The National Mission for Clean Ganga (NMCG), also launched community-based program to raise awareness about conservation and rejuvenation of 10 wetlands in along the river under its flagship 'Namami Gange' mission.

The Namami Gange is the first of its kind program where wetland conservation is integrated with the river basin management plan.

Functions of CWCM

CWCM would address specific research needs and knowledge gaps related to wetlands. It will aid in the application of integrated approaches for conservation, management and wise use of the wetlands.

It will assist the national and state/UT governments in the design and implementation of policy and regulatory frameworks, management planning, monitoring and targeted research for conservation of wetlands.

Wetlands

A wetland is a place where the land is covered by water, either saltwater, freshwater. Wetlands are areas that have physical characteristics between deepwater and terrestrial habitats (land), and are often located between them.

The primary factor that distinguishes wetlands from other land forms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil. Hydric soil is soil which is permanently or seasonally saturated by water, resulting in anaerobic (lack of oxygen) conditions.

Marshes and ponds, the edge of a lake or ocean, the delta at the mouth of a river, low-lying areas that frequently flood all of these are wetlands.

Ecosystem services of Wetlands

Wetland ecosystems, such as rivers, lakes, marshes, rice fields and coastal estuaries, provide many benefits that contribute to human well-being. These include fish and fiber, water supply, water purification, ground water recharge, climate regulation, flood regulation, coastal protection, recreational opportunities and tourism.

Water storage

Worldwide, most freshwater for human use comes from inland wetlands: lakes, rivers and swamps.

Groundwater recharge

Wetland systems are directly linked to groundwater and act as crucial regulator of both the quantity and quality found below the ground. Sediments that are porous allow water to filter down through the soil and overlying rocks into the ground which act as an important source of water.

Water purification

Wetlands act as natural water filters, as they trap pollutants such as phosphorus and heavy metals in their soils and break down suspended solids to neutralize harmful bacteria.

Regulate climate change and its impact

Wetlands biologically cycle carbon dioxide, methane and hydrogen sulfide. They sequester (trap) and release carbon, which helps in regulating climate change.

Wetlands help to minimize impacts from flooding by providing an area for water to move and slow down during storm events, which reduces the overall destructive impact of such events. Wetlands also play a critical role in maintaining the quality of the environment by absorbing and processing waste products.

Support biodiversity

Wetlands support a rich diversity of plants and animals. These species and their genetic diversity help to maintain wetland processes such as water storage and nutrient cycling.

Wetlands in India

India has nearly 4.6% of its land as wetlands, covering an area of 15.26 million hectares. At present, India has 42 sites designated as wetlands of international importance under Ramsar convention, covering a surface area of 1.08 million hectares.

Natural wetlands in India include

- High altitude wetlands in Himalayas.
- Flood plains of the major river systems.
- Saline and temporary wetlands of the arid and semi-arid regions.
- Coastal wetlands such as lagoons, backwaters, estuaries, mangroves, swamps and coral reefs.

World Wetlands Day

World Wetlands Day is celebrated every year on 2nd February to raise global awareness about the vital role of wetlands for people and the planet. This day also marks the date of the adoption of the Convention on Wetlands (also known as Ramsar Convention) on 2 February, 1971, in the Iranian city of Ramsar.

The Ramsar Convention is an international agreement promoting the conservation of wetlands. The year 2021 also commemorates the 50th anniversary of the signing of the Convention on Wetlands.

The theme for World Wetlands Day 2021 is 'Wetlands and Water'. It emphasizes the importance of wetlands as a source of freshwater and encourages action to restore them and stop their loss.

6.2 TIGER RESERVE

Why in News: The Centre has approved tiger reserve status for the sanctuaries covering the forests of Meghamalai and Srivilliputhur in Tamil Nadu.

The 1 lakh-hectare area, which has around 63 mammal species and 323 bird species, will be India's 51st tiger reserve. The last tiger reserve was notified six years ago in Arunachal Pradesh, Kamlang.

The work to declare this area as a tiger reserve has been going on for about seven years. Finally, after DNA analysis the area has been declared as a tiger reserve. Between March 2017 and August 2018, forest officials analysed 118 samples and confirmed the presence of at least 14 tigers.

Project Tiger

Project Tiger is a Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change launched in 1973. The project aims at ensuring a viable population of tigers in their natural habitats, protecting them from extinction.

It works to reduce factors that lead to the depletion of tiger habitats. It provides central assistance to the tiger States for tiger conservation in designated tiger reserves.

Tiger Reserves

Tiger Reserves are notified under the Project Tiger as per the provisions of the Wildlife protection Act, 1972. From 9 tiger reserves since its formative years, the Project Tiger coverage has increased to around 50 at present, spread out in 18 of our tiger range states.

This amounts to around 2.21% of the geographical area of our country. The tiger reserves are constituted on a core area/buffer strategy.

Core areas

The core areas are free of all human activities and have the legal status of a national park or a sanctuary. It is kept free of forestry operations like collection of minor forest produce, grazing

Buffer area

The buffer or peripheral areas are a mix of forest and non-forest land, managed as a multiple use area. A lesser degree of habitat protection is required in the buffer area. It aims to promote co-existence between wildlife and human activity and recognizes the importance of livelihood, developmental and cultural rights of the local people.

Declaration of Tiger Reserves under Project Tiger

The power to declare a Tiger Reserve rests with the Union Ministry of Environment of Central Government. It takes decision based upon the recommendations of National Tiger Conservation Authority (NTCA).

The Process

An initial proposal to declare a forest as a tiger reserve is mooted at the state level. The proposal must first be considered by the Principal Chief Conservator of Forest (Wildlife) of the respective State.

If the Principal Chief Conservator of Forest (Wildlife) and the state government are satisfied with the proposal, then it is forwarded to the NTCA for its consideration.

The State Government also prepares a comprehensive tiger conservation plan along with its proposal for declaration of tiger reserve as per the Wildlife Protection Act, 1972. The NTCA considers the proposals on following major grounds

- Biodiversity of the forest region
- Tiger population in the region
- Availability of the prey base for tigers
- Overall ecological and geo- morphological characteristics of the region
- Human presence in the region

Based on the above discussed parameters, viability of forest as a tiger reserve is evaluated by the NTCA. Its recommendations are then forwarded to the Union Ministry of Environment which then notifies a forest as a Tiger Reserve.

National Tiger Conservation Authority (NTCA)

The NTCA was formed by amending the Wildlife Protection Act, 1972 in 2006. It is a statutory body under the Ministry of Environment, Forests and Climate Change.

Functions of NTCA

- Approve the tiger conservation plan prepared by the State Government.
- Evaluate and assess various aspects of sustainable ecology and disallow any ecologically unsustainable land use such as, mining, industry and other projects within the tiger reserves.
- Provide information on protection measures including future conservation plan, estimation of population of tiger and its natural prey species, status of habitats, and such other management aspects.
- Approve and co-ordinate research and monitoring on tiger, co-predators, prey habitat, related ecological and socio-economic parameters and their evaluation.
- Ensure critical support including scientific, information technology and legal support for better implementation of the tiger conservation plan.

Meghamalai Wildlife Sanctuary

The Meghamalai Wildlife Sanctuary is spread across the districts of Theni and Madurai.

With a large population of ungulates (hoofed mammals), spotted deer, Indian gaurs and wild boars, Meghamalai has a large prey base for tigers. As this wildlife sanctuary is located at the border of Tamilnadu and Kerala, hence it acts as the buffer zone for Periyar Tiger Reserve in Kerala.

Srivilliputhur Wildlife Sanctuary

The Grizzled Squirrel Wildlife Sanctuary (GSWS), also known as Srivilliputhur Wildlife Sanctuary, was established in 1988 to protect the near threatened grizzled giant squirrel. Srivilluputhur, hosts leopards, Nilgiri tahr, and lion tailed macaques, jungle cats and sambars.

6.3 WORLD SUSTAINABILITY DEVELOPMENT SUMMIT 2021

Why in News: Prime Minister Narendra Modi recently inaugurated the World Sustainable Development Summit 2021. **This year the theme of the Summit is 'Redefining our common future: Safe and secure environment for all'.**

World Sustainable Development Summit

- **The World Sustainable Development Summit (WSDS) is the annual flagship event of The Energy and Resources Institute (TERI).** Instituted in 2001, the current Summit is the 20th edition of its journey to make sustainable development a globally shared goal.
- The Summit series has established itself as a responsible and an effective platform to identify and advance actions to address some of the most relevant issues concerning sustainable development.
- It aims to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform.

Highlights of the PM's address at the WSDS 2021 inauguration

- At the Summit, the PM said that two things will define the journey of humanity in the future. First is the health of the people and second is the health of the planet and both are inter-linked. He shared that the Summit aims to address the health of the planet.
- He highlighted that the scale of the challenge is unknown and conventional approaches cannot solve the problems faced by the world. Thus, there is a need to think innovatively, invest in youngsters and work towards sustainable development.
- The PM pointed that often discussions on sustainability become too focused on green energy but green energy is only the means and the destination is a greener planet.

Climate Justice

The PM emphasized on climate justice for fighting against climate change. Climate justice is inspired by a vision of trusteeship- where growth comes with greater compassion to the poorest.

Climate justice also means giving the developing countries enough space to grow. He underlined that when everyone understands their individual and collective duties, climate justice will be achieved.

India's progress

- The PM shared that India is committed to reduce emissions intensity of GDP by 33 to 35 percent from 2005 levels.
- The capacity of renewable energy is also increasing in the country and India is on track to set up 450 giga watts of renewable energy generating capacity by 2030. The PM said that sustainable development is incomplete without equitable access and India has made good progress in this domain as well.
- In March 2019, India achieved nearly hundred percent electrification, which was done through sustainable technologies and innovative models. He highlighted that through the Ujala program, three sixty seven million LED bulbs became a part of people's lives. This has helped to reduce over 38 million tonnes of carbon dioxide per year.
- Moreover, through the PM Ujjwala Yojana more than 80 million house-holds below poverty line have access to clean cooking fuel. India's mission to achieve sustainable development also includes special attention towards animal protection. On this front, the PM shared that in the last five to seven years, the population of lions, tigers, leopards and Gangetic river dolphin has increased.

The Energy and Resources Institute (TERI)

Headquartered in New Delhi, TERI is a research institute that specializes in the fields of energy, environment and sustainable development.

TERI's mission is to achieve a cleaner and sustainable future through the conservation and efficient use of energy and other resources, and innovative ways of minimizing and reusing waste. The institution believes that resource efficiency and waste management are the keys to smart, sustainable, and inclusive development.

TERI's work across sectors is focused on:

- Promoting efficient use of resources.
- Increasing access and uptake of sustainable inputs and practices.
- Reducing negative impact on environment and climate.

Research at TERI gets translated into technology products, technical services, as well as policy advisory. Thus, TERI's research and research-based solutions have had a transformative impact on industries and communities.

6.4 SIATANDI UTANDI TIGER RESERVE

Why in News: The residents of more than 10 villages in Chhattisgarh are trying to get their "community resource rights" in the forest around them, which is also a Tiger Reserve.

Despite the Chhattisgarh government's promise of recognition of these rights, these villagers are facing hurdles from authorities of the Tiger Reserve. The dispute is largely based on the interpretation of the laws between the tribes and tribal officials on the one side and Tiger Reserve officials on the other side.

Community Resource Rights in forests as per Forest Rights Act, 2006

Section 3(1) (i) of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 gives right to protect, regenerate or conserve or manage "community forest resource".

Any community resource which the tribals have been traditionally protecting and conserving for sustainable use are included in this section. For recognition of Community Forest Resource rights, traditional boundary of a tribal village is recognised.

It empowers the gram sabha of the village to take decisions on protection, regeneration, conservation and management of the forest and its produce.

According to the Act's Section 4(1), notwithstanding anything contained in any other law in force, and subject to the provisions of this Act, the Central Government recognises and vests forest rights under Section 3(1) of the Forest Rights Act. Its interpretation would be done by the officials on the ground.

Thousands of tribals are living in villages located in the core areas of Sitanadi Udanti Tiger Reserve in Chhattisgarh. At present Chhattisgarh have three tiger reserve Indravati, Achanakmar, and Sitanadi Udanti. They are demanding that their Community Forest Resource rights be recognised.

Scheduled Tribes and Other Traditional Forest Dwellers (Recognition Of Forest Rights) Act, 2006

- The Forest Rights Act (FRA), 2006 recognizes the rights of the forest dwelling tribal communities and other traditional forest dwellers to forest resources, on which these communities were dependent for a variety of needs, including livelihood, habitation and other socio-cultural needs.
- It recognizes the symbiotic relationship of the STs with the forests, which is reflected in their dependence on the forest as well as in their traditional wisdom regarding conservation of the forests.

Objectives

- To undo the historical injustice occurred to the forest dwelling communities.
- To ensure land tenure, livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dwellers.
- To strengthen the conservation regime of the forests by including the responsibilities and authority on Forest Rights holders for sustainable use, conservation of biodiversity and maintenance of ecological balance.

Critical wildlife habitats (CWH)

They are defined under the Forest Rights Act, 2006. They are areas of national parks and sanctuaries where it has been specifically and clearly established, case by case, on the basis of scientific and objective criteria, that such areas are required to be kept as inviolate for the purposes of wildlife conservation.

SOCIAL ISSUES

❖ Paper I: The articles in this section are relevant to the following topics:

- Salient features of Indian Society, Diversity of India.
- Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.
- Effects of globalization on Indian society
- Social empowerment, communalism, regionalism & secularism.

7.1 BIO MEDICAL WASTE

Why in News: The Ministry of Health and Family Welfare recently informed the Rajya Sabha, that guidelines issued by Central Pollution Control Board (CPCB) on handling Covid-19 linked biomedical waste is being followed by all Central Government hospitals.

Background

Covid-19 had presented a unique challenge before the country where it had to deal with huge amounts of biomedical waste (BMW) exclusively from various Covid-19 related facilities in cities/towns and district/block headquarters.

Hence, to deal with it the Central Pollution Control Board (CPCB) had issued detailed guidelines on handling Covid-19 linked biomedical waste (BMW) in April 2020. Though India already had Bio-Medical Waste Management Rules, 2016, the CPCB guidelines were released to ensure that the waste generated specifically during testing of people and treatment of COVID-19 patients is handled in a scientific manner.

Guidelines to deal with Covid-19 related Biomedical Waste

The guidelines carry specific dos and don'ts for handling Covid-19 related BMW: categorised yellow for highly infectious waste at healthcare facilities, quarantine camps/homes, laboratories, isolation wards and Common Bio-medical Waste Treatment and Disposal Facility (CBWTF).

It is the responsibility of the respective state pollution control boards/committees to maintain records of Covid-19 linked centers and ensure proper collection and disposal of biomedical waste as per the guidelines.

It is compulsory to provide personal protective equipment (PPE) to all workers who are engaged in handling such waste. The guidelines have specific provisions on how to collect and dispose used PPE and N95 masks. Further, the civic bodies have been asked to make provisions for separation of waste using colour-coded bins, bags and containers.

Bio-Medical Waste Management Rules, 2016

Biomedical waste, according to the existing biomedical waste rules is any waste that is generated during the diagnosis, treatment or immunisation of human beings, animals or research activities etc.

It could include human tissues, items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs, beddings contaminated with blood or body fluid, blood bags, needles, syringes or any other contaminated sharp object.

Thus, it is important that the disposal of biomedical waste takes place in a scientific and environmentally sound manner to minimise the adverse impact on health workers and the environment.

To address this need, the Bio-Medical Waste Management Rules, 2016 were notified to efficiently manage the generated bio waste in the country. Bio-Medical Waste Management Rules, 2016 was later amended to improve compliance and strengthen the implementation of environmentally sound management of biomedical waste in India.

Common Bio-medical Waste Treatment and Disposal Facility (CBWTF)

A Common Bio-medical Waste Treatment and Disposal Facility (CBWTF) is a set up where biomedical waste generated from health care facilities is given necessary treatment to reduce adverse effects on human health and environment.

An installation of individual treatment facility by health care facility (HCF) requires comparatively high capital investment. In addition, it requires separate dedicated and trained skilled manpower and infrastructure development for proper operation and maintenance of treatment systems.

The concept of CBWTF not only addresses such problems but also prevents expansion of treatment technologies in a particular town or city. In turn, it reduces the monitoring pressure on regulatory agencies. By running the treatment equipment at CBWTF to its full capacity, the cost of treatment of per kilogram bio-medical waste also gets significantly reduced.

These considerable advantages have made CBWTF a popular and a proven concept in most parts of the world to deal with biomedical waste.

7.2 SWAMITVA SCHEME

Why in News: A total of Rs 913.43 crore has been provided to Ministry of Panchayati Raj (MoPR) in budget 2021-22 which marks 32% increase over the revised estimate of 2020-21.

Out of the total allocation, Rs 593 crores is provided under the Scheme Rashtriya Gram Swaraj Abhiyan (RGSA). A provision of Rs 200 crores has been made for a new scheme-SVAMITVA.

SVAMITVA scheme

SVAMITVA is a Central Sector Scheme of the Ministry of Panchayati Raj, which was launched by the Prime Minister on National Panchayati Raj Day, 24th April 2020. The scheme aims to provide the 'record of rights' to village household owners in rural areas and issue property cards.

These cards are physical copies of property titles of the villagers' homes and the area surrounding their respective houses (as opposed to cultivated land). Mapping of all 6.62 lakh villages in the country, will be done by the Survey of India with a very low estimated error margin of plus-minus five centimeters. The target is to complete the exercise in four years (2020-2024).

The states will implement the scheme using state laws under the Panchayati Raj or Revenue Act, and can decide on the type of card to be distributed.

Progress under SVAMITVA scheme:

- During the pilot phase, the scheme is being implemented in 9 States Uttar Pradesh, Uttarakhand, Madhya Pradesh, Haryana, Maharashtra, Karnataka, Punjab, Rajasthan and Andhra Pradesh.
- Till 31st January, 2021, drone survey has been completed in about 23,300 villages. Property cards have been prepared and distributed/under distribution to about 2.30 lakh property holders of about 1,432 villages.
- It is expected that about 250 Drone Teams will be in place by March 2021. Steps are being taken to deploy about 500 Drone Teams in the States/UTs in 2021-22. The MoPR has sent a proposal of Rs 566.23 crore to Department of Expenditure for extending the scheme to rest of India.
- In 2021-22, with budget provision of Rs. 200 crores, 16 States will be covered targeting 2.30 lakh villages.

Benefits of SVAMITVA

Experts across the world have stressed that property ownership rights play a big role in a country's development. The cards will help the villagers to use property as a financial asset for taking loans and other financial benefits, and end disputes among villagers over land ownership.

- It will help in strengthening the Panchayati Raj system and will also make village management easier for gram panchayats in a systematic way like municipalities and municipal corporations. Moreover, development related work in the village will also become easier, due to accurate land records.

- Drone survey technology makes mapping activities easier and more efficient. It reduces survey time and survey costs, as data capture by a drone is much faster compared to land-based methods.
- The drone requirements for SVAMITVA scheme has also given a boost to the drone manufacturing sector in India.

Rashtriya Gram Swaraj Abhiyan (RGSA)

- Rashtriya Gram Swaraj Abhiyan (RGSA) is a Centrally Sponsored Scheme.
- It aims to strengthen Panchayati Raj Institutions (PRIs) for achieving Sustainable Development Goals (SDGs), with a special focus on Panchayats identified under Mission Antyodaya and 115 Aspirational districts as identified by NITI Aayog.
- Infrastructure facilities like Panchayat Bhawans, computer & broadband connectivity, trained manpower etc. and providing quality training to the elected representatives and other functionaries of the PRIs are the principal components of RGSA.

Objectives of RGSA:

- Enhance capacities and effectiveness of Panchayats and the Gram Sabhas.
- Enable democratic decision-making and accountability in Panchayats and promote people's participation.
- Strengthen the institutional structure for knowledge creation and capacity building of Panchayats.
- Promote devolution of powers and responsibilities to Panchayats according to the spirit of the Constitution.
- Strengthen Gram Sabhas to function effectively as the basic forum of peoples participation within the Panchayat system.
- Create and strengthen democratic local self-government in areas where Panchayats do not exist.

MISCELLANEOUS

➤ PM Formalisation of Micro food processing Enterprises Scheme

- The PM FME scheme is a centrally sponsored scheme launched by the Ministry of Food Processing Industries (MoFPI). It was launched last year under the Atmanirbhar Bharat Abhiyan package.
- It aims to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and promote formalization of the sector.

Objectives of PM FMEL

- Provide support to Farmer Producer Organizations, Self Help Groups, and Producers Cooperatives along their entire value chain.
- Increase access to credit.
- Increase access to common services like common processing facility, laboratories, storage, packaging, marketing and incubation services.
- Strengthening of institutions, research and training in the food processing sector.
- Increased access to professional and technical support for enterprises.
- Enhanced compliance with food quality and safety standards.

Funding

The scheme has proposed an outlay of Rs. 10,000 crore over a period of five years from 2020-21 to 2024-25. The expenditure under the scheme would to be shared as follows:

- 60:40 ratio between Central and State Governments
- 90:10 ratio between Centre and North Eastern and Himalayan States
- 60:40 ratio between Centre and Union Territories (UTs) with legislature and
- 100% by the Centre for other UTs.

➤ One District One Product approach

The PM FME scheme adopts One District One Product (ODOP) approach.

Objectives of ODOP:

- Convert each district of the country into an export hub by identifying products with export potential in the district.
- Support local exporters/manufacturers to scale up manufacturing.
- Promote manufacturing & services industry in the district and generate employment in the district.

Salient features of ODOP

- The ODOP could be a perishable agri-produce, cereal based product or a food product widely produced in a district.
- There may be more than one cluster of ODOP product in one district.
- There may be a cluster of ODOP product consisting of more than one adjacent district in a State.
- It aims to extract benefits of scale in terms of procurement of inputs, availing common services and marketing of products.

➤ Caracal

The National Board for Wildlife and Union Ministry of Environment, Forest and Climate Change recently included wildlife animal Caracal in the list of critically endangered species.

Caracal

The Caracal is a medium sized wildcat that has long legs, a short face, long canine teeth, long and pointy ears, with black hair on the tips of their ears. The caracal is primarily a nocturnal animal, and sightings are not common.

The animal gets its name from its distinctive ears. Caracal comes from the Turkish karakulak, meaning 'black ears'. In India, it is called siya gosh, a Persian name that translates as 'black ear'.

Habitat:

Along with India, the caracal is found in several dozen countries across Africa, the Middle East, Central and South Asia. The caracal has historically lived in 13 Indian states. It inhabits forests, marshy lowlands, semi deserts, and scrub forests, but prefers dry areas with low rainfall.

It could be earlier found in arid and semi-arid scrub forest and ravines in Rajasthan, Delhi, Haryana, Punjab, Gujarat, Madhya Pradesh, Uttar Pradesh, Maharashtra, Andhra Pradesh, Telangana, Odisha, Jharkhand, and Chhattisgarh. Today, its presence is restricted to Rajasthan, Kutch, and parts of MP.

➤ National Marine Turtle Action Plan

To address these issues the Ministry of Environment, Forest and Climate Change released the National Marine Turtle Action Plan on February 1, 2021.

- Its vision is to create a viable and healthy marine ecosystem for marine turtles and associated species through a coordinated and participatory mechanism to ensure long term survival of marine turtles.
- The plan notes that India has identified all its important sea turtle nesting habitats as 'Important Coastal and Marine Biodiversity Areas'.
- South Bay and West Bay on Little Andaman and Galathea on Great Nicobar, along with other nesting beaches in the islands, are specifically mentioned as "Important Marine Turtle Habitats in India" and the largest Leatherback nesting grounds in India.
- The plan identifies coastal development, including construction of ports, jetties, resorts and industries, as major threats to turtle populations.

Goals of NMTAP

- Conserve species and their habitat, and reduce negative impacts on survival of marine turtles.
- Improve understanding of marine turtle ecology and populations through research, monitoring and information exchange.
- Increase public awareness of the threats to marine turtles and their habitats, and enhance public participation in conservation activities.
- Enhance livelihoods of coastal communities by promoting sustainable ecotourism.
- Increase national, regional and international cooperation on marine turtle conservation.
- Strengthen law enforcement activities through a coordinated effort among relevant stakeholders.