About ICJ

- The International Court of Justice (ICJ) is the principal judicial body of the UN.
- **Established in 1946** to replace the Permanent Court of International Justice, the ICJ mainly operates under the statute of its predecessor, which is included in the UN Charter.
- It is the principal judicial organ of the United Nations, situated at the Peace Palace in **The Hague (Netherlands)**.
- It has 193 state parties and current President is Ronny Abraham.

Functions of ICJ

It has two primary functions:

- To **settle legal disputes** submitted by States in accordance with established international laws, and
- To **act as an advisory board** on issues submitted to it by authorized international organizations.

Who nominates the candidates?

- Every state government, party to the Charter, designates a group who propose candidates for the office of ICJ judges.
- This group includes four members/jurists of the Permanent Court of Arbitration (machinery which enables arbitral tribunals to be set up as desired and facilitates their work) also picked by the State.
- Countries not part of the statute follow the same procedure where a group nominates the candidates.
- Each group is limited to nominate four candidates, two of whom could be of their nationality. Within a fixed duration set by the Secretary-General, the names of the candidates have to be sent to him/her.

What are the qualifications of ICJ judges?

- A judge should have a high moral character.
- A judge should fit to the qualifications of appointment of highest judicial officers as prescribed by their respective states or.
- A judge should be a juriconsult of recognized competence in international law.
The 15 judges of the Court are distributed as per the regions:

1. Three from Africa.
2. Two from Latin America and Caribbean.
3. Three from Asia.
4. Five from Western Europe and other states.
5. Two from Eastern Europe.

Features of ICJ

- The Court is composed of 15 judges, who are elected for terms of office of nine years by the United Nations General Assembly and the Security Council.
- These organs vote simultaneously but separately.
- In order to be elected, a candidate must receive an absolute majority of the votes in both bodies.
- In order to ensure a measure of continuity, one third of the Court is elected every three years and Judges are eligible for re-election.
- ICJ is assisted by a Registry, its administrative organ.
- Its official languages are English and French.
- Unlike other organs of international organizations, the ICJ is not composed of representatives of governments. Members of the Court are independent judges whose first task, before taking up their duties, is to make a solemn declaration in open court that they will exercise their powers impartially and conscientiously.
- In order to guarantee his or her independence, no Member of the Court can be dismissed unless, in the unanimous opinion of the other Members, he/she no longer fulfils the required conditions. This has in fact never happened.
- Judge Dalveer Bhandar is the member of the ICJ since 27 April 2012.

Functioning of ICJ

- ICJ acts as a world court with two primary objectives given above.
- Only States which are members of the United Nations and which have become parties to the Statute of the Court or which have accepted its jurisdiction under certain conditions, are parties to contentious cases.
- States have no permanent representatives accredited to the Court. They normally communicate with the Registrar through their Minister for Foreign Affairs or their ambassador accredited to the Netherlands.
- The judgment is final, binding on the parties to a case and without appeal (at the most it may be subject to interpretation or, upon the discovery of a new fact, revision).
- By signing the Charter, a Member State of the United Nations undertakes to
comply with the decision of the Court in any case to which it is a party.
• ICJ discharges its duties as a full court but, at the request of the parties, it may also establish ad hoc chambers to examine specific cases.
• Advisory proceedings before the Court are only open to five organs of the United Nations and 16 specialized agencies of the United Nations family or affiliated organizations.
• Opinions provided by the court in advisory proceedings are essentially advisory and not binding.

Source: Aspire IAS Class notes

China-Pakistan Economic Corridor (CPEC)

- CPEC is connecting China's Xinjiang with Pakistan's Gwadar port is regarded as the flagship project of the multi-billion dollar Belt and Road Initiative (BRI) which is aimed at furthering China's global influence with infrastructure projects funded by Chinese investments all over the world.
- The CPEC is bilateral project between Pakistan and China, intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects linking the Western part of China to the Gwadar Port in Balochistan, Pakistan running some 3000 km from Xinjiang to Balochistan via Khunjerab Pass in the Northern Parts of Pakistan. CPEC is a part of OBOR.
- It will pave the way for China to access the Middle East and Africa from Gwadar Port, enabling China to access the Indian Ocean and in return China will support development projects in Pakistan to overcome the latter’s energy crises and stabilizing its faltering economy.
- China has committed to invest over USD 60 billion in Pakistan as part of the CPEC under which it planned to build a number of special economic zones.
- CPEC's potential impact on Pakistan has been compared to that of the Marshall Plan undertaken by the United States in post-war Europe. Pakistani officials predict that CPEC will result in the creation of upwards of 2.3 million jobs between 2015–2030, and add 2 to 2.5 percentage points to the country's annual economic growth.
A HIGHWAY TO DOLLARS

The China-Pakistan Economic Corridor, a set of highways, railways and infrastructure projects, which will run from Kashgar in China to Gwadar port in south-western Pakistan, reaffirms the massive interest that China has in the region.

- CPEC was announced by China in July 2013, and signed on November 8, 2014.
- India’s opposition: Prime Minister Narendra Modi, criticised the project as ‘unacceptable’ during his visit to Beijing in June, 2015.

**Investments:** Close to $50 billion in 15 years

- Kashgar
- Gilgit-Baltistan
- Islamabad
- Lahore
- Dera Ismail Khan
- Gwadar
- Karachi
- Arabian Sea

**Chinese interests in CPEC:** With CPEC, it gets an alternative route to the Middle-East and Africa. It now uses the Strait of Malacca and the Indian Ocean for shipments.

**Original proposed route**

**Proposed alternative route**

**Source:** Agencies & Vivekananda International Foundation

**India has reservations over certain CPEC transport projects crossing Gilgit-Baltistan (part of Pakistan-occupied Kashmir) and the implications of China’s access to the Indian Ocean and how it might affect India’s security.**

**China would save around $2 billion every year if it were to use the CPEC to import 50% of its current volume of oil supplies.**
Reviving the Silk Road

Announced by Chinese President Xi Jinping in 2013, the Silk Road initiative, also known as China's Belt and Road initiative, aims to invest in infrastructure projects including railways and power grids in central, west and southern Asia, as well as Africa and Europe.

Key

- Silk Road Economic Belt
- New Maritime Silk Road
- Gas pipelines
- Oil pipelines
- Railroad
- Proposed economic corridors
- Ports with Chinese engagement
- Planned or under construction

Source: Mercator Institute for China Studies.

C. Inton, 24/03/2017
India’s objections to CPEC

- **Sovereignty claims**: India objects to the CPEC project as upgrade works to the Karakoram Highway are taking place in Gilgit Baltistan in Pakistan-occupied Kashmir; territory that India claims as its own.
- **Encirclement fears**: India has alleged that China and Pakistan intended to develop the corridor not just for its economic benefits, but also is motivated by the "strategic intent of besieging India."
- India has not supported OBOR. China’s insistence on establishing the CPEC project through PoK is seen by India as infringing its sovereignty.
- China is building roads and infrastructure in the disputed territory of Gilgit-Balistan, which is under Pakistan’s control but which India claims as a part of Jammu and Kashmir.
- If CPEC project gets implemented successfully, this would hamper India’s strategic interests in the South Asian region. It will serve Beijing’s strategic ambition to encircle India.
- CPEC can aid Pakistan’s legitimacy in the Kashmir dispute.
- China’s increasing footprints in the South Asian region is detrimental to India’s strategic hold e.g. construction of the Hambantota Port in Sri Lanka provided China critical strategic location in Indian Ocean.

Source: Aspire IAS Notes

United Nations Security Council (UNSC)

GS-II | 01 September, 2021

About UNSC

- United Nations Security Council (UNSC) is one of the six main organs of the United Nations established by UN Charter.
- **Article 23** of the UN Charter concerns the composition of the UNSC.
- The **other 5 organs** of the UN are—the General Assembly, the Trusteeship Council, the Economic and Social Council, the International Court of Justice, and the Secretariat.
- The UNSC has been given primary responsibility for maintaining international peace and security and may meet whenever peace is
threatened.

- While other organs of the UN make recommendations to member states, **only the Security Council has the power to make decisions** that member states are then obligated to implement under the Charter.
- The **Headquarters of UNSC is at New York**.

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**Members of UNSC**

- China and Russia have vetoed four draft resolutions on Syria since 2011.
- The U.S. has used its veto right 42 times for Israel since 1972.
- Palestine has not become a UN member, as full membership requires UNSC approval.
- China blocks Taiwan’s UN membership, not recognizing Taiwan as a sovereign country.

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**UNSC Structure**

- Use of force at UN is decided by **UNSC**.
- Five permanent members have the right to veto a draft resolution.
- To adopt a draft resolution, none of the permanent members should veto it and 9 countries should vote in favor.

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**CRITICISM OF UN STRUCTURE**

- Permanent membership system.
- Five permanent members’ veto right and weak equal representation due to a small number of members.

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**PERMANENT MEMBERS**

- China
- France
- The UK
- Russia
- U.S.

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**REFORM PROPOSALS**

- Increasing the number of non-permanent members.
- Restricting veto right.
UNSC has 15 members (5 are permanent and 10 non-permanent). Non-permanent members elected for 2-year terms by the UNGA.

**Permanent 5 or P5 member**: UNSC has 5 permanent members namely France, UK, China, Russia and USA.

10 non permanent seats are distributed on a regional basis
- 5 for African and Asian States.
- 1 for Eastern Europe States
- 2 for Latin American and Caribbean States and
- 2 for Western Europe and other States.

Each year 193 member UNGA elects 5 non permanent members for a 2 year term at UNSC, with 5 replaced each year. A retiring member is not eligible for re-election.

The council's presidency is a capacity that rotates every month among its 15 members.

The Asia-Pacific Group gets to nominate one of its members for the 2020 elections to a non-permanent seat of UNSC. India won the unanimous support of all countries in 55 member Asia Pacific Group at UN for its bid for a non permanent seat at UNSC for a 2 year term in 2021-22.

**Voting and Discussions at UNSC:**

- Each member of the Security Council has one vote: Decisions of the Security Council on matters are made by an affirmative vote of nine members including the concurring votes of the permanent members.
- A "No" vote from one of the five permanent members blocks the passage of the resolution.
- Any member of the UN which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that member are specially affected.

**India as a UNSC Presidency**

- Recently, India assumed the presidency of the United Nations Security Council (UNSC) for the month of August 2021.
- This will be the country’s first presidency during its 2021-22 tenure as a non-permanent member of the Security Council.
- India began its two-year tenure as a non-permanent member of the UNSC in January 2021.
- This is India’s eighth term on the UNSC.
- India is going to organise key events in three major areas of maritime security, peacekeeping and counter-terrorism.
The Security Council will also have on its agenda several important meetings including Syria, Iraq, Somalia, Yemen, and the Middle East.

The Security Council will also be adopting important resolutions on Somalia, Mali, & United Nations Interim Force in Lebanon.

Prime Minister (PM) Narendra Modi will be the first Indian PM to preside over a meeting of the UNSC.

The last time an Indian PM was engaged in this effort was the then PM PV Narasimha Rao in 1992 when he attended a UNSC meeting.

Source: Aspire IAS Notes

China opens first road-rail transport link to Indian Ocean

It is highly recommended by us to watch this lecture by Ankit Sir on OBOR of China and India’s strategy to Counter China, and then visit this lecture. This topic is just an extension of OBOR and India-China relations.
The first shipments on a newly-launched railway line from the Myanmar border to the key commercial hub of Chengdu in western China, that provides China a new road-rail transportation channel to the Indian Ocean, were delivered last week, state media reported on Tuesday.

A “test cargo” through what is being called the China-Myanmar New Passage arrived at the Chengdu rail port in Sichuan province on August 27, the official China News Service reported.

The transport corridor involves a sea-road-rail link. Goods from Singapore reached Yangon Port, arriving by ship through the Andaman Sea of the northeastern Indian Ocean, and were then transported by road to Lincang on the Chinese side of the Myanmar-China border in Yunnan.
province. The new railway line that runs from the border town of Lincang to Chengdu, a key trade hub in western China, completes the corridor.

- “This passage connects the logistics lines of Singapore, Myanmar and China, and is currently the most convenient land and sea channel linking the Indian Ocean with southwest China,” the China News Service said, adding that "the one-way journey saves 20 to 22 days".
- China also has plans to develop another port in Kyaukphyu in the Rakhine state, including a proposed railway line from Yunnan directly to the port, but the progress there has been stalled by unrest in Myanmar.
- Chinese planners have also looked at the Gwadar port in Pakistan as another key outlet to the Indian Ocean that will bypass the Malacca Straits. Gwadar is being developed as part of the China Pakistan Economic Corridor (CPEC) to the far western Xinjiang region, but has been slow to take off amid concerns over security.
- The costs and logistics through CPEC are also less favourable than the Myanmar route with the opening of the rail transport channel from the Myanmar border right to western China’s biggest commercial hub, Chengdu. Transportation time on the railway line from the Myanmar border to Chengdu takes three days.
- The Irrawaddy website that focuses on Myanmar news said the route is “the first to link western China with the Indian Ocean”.
- The railway line currently ends in Lincang on the Chinese side opposite the Myanmar border trade town of Chin Shwe Haw. Plans are underway to develop Chin Shwe Haw as a “border economic cooperation zone” under the Belt and Road Initiative.
- The Irrawaddy said the route goes through Mandalay, Lashio and Hsenwi on the Myanmar side and “is expected to become the lifeblood of international trade for China and Myanmar, while providing a source of income for Myanmar’s military regime”.

Source: TH
BRICS is an acronym for the grouping of the world’s leading emerging economies, namely Brazil, Russia, India, China and South Africa.

Salient Features

- Together, BRICS accounts for about 40% of the world’s population and about 30% of the GDP (Gross Domestic Product), making it a critical
economic engine. It’s an emerging investment market and global power bloc.

- Structure
  - BRICS does not exist in form of organization, but it is an annual summit between the supreme leaders of five nations.
  - The Chairmanship of the forum is rotated annually among the members, in accordance with the acronym B-R-I-C-S.

History of BRICS

- The acronym "BRICS" was initially **formulated in 2001** by economist **Jim O’Neill, of Goldman Sachs**, in a report on growth prospects for the economies of Brazil, Russia, India and China – which together represented a significant share of the world’s production and population.
- In 2006, the four countries initiated a regular informal diplomatic coordination, with annual meetings of Foreign Ministers at the margins of the General Debate of the UN General Assembly (UNGA).
- This successful interaction led to the decision that the dialogue was to be carried out at the level of Heads of State and Government in annual Summits.
- **BRIC started as a formal grouping in 2006 on the margins of G8 outreach summit.**
- Originally the first four were grouped as "BRIC" before the induction of South Africa in 2010.
- **1st Summit was held in Yekaterinburg, Russia in 2009**.
- Moreover, first 5-member BRICS summit was held in 2011.
- Since 2009, the BRICS nations have met annually at formal summits. 8th summit in 2016 was held in Goa and BIMSTEC countries were invited for a joint summit as per the tradition. 9th summit will be held in China.

Timeline

- The first BRIC Summit took place in 2009 in the Russian Federation and focused on issues such as reform of the global financial architecture.
- **South Africa was invited to join BRIC in December 2010,** after which the group adopted the acronym BRICS. South Africa subsequently attended the Third BRICS Summit in Sanya, China, in March 2011.

Objectives

- The BRICS seeks to deepen, broaden and intensify cooperation within the grouping and among the individual countries for more sustainable, equitable and mutually beneficial development.
Areas of Cooperation

1. Economic Cooperation

- There are rapidly growing trade and investment flows between BRICS countries as well as economic cooperation activities across a range of sectors.
- Agreements have been concluded in the areas of Economic and Trade Cooperation; Innovation Cooperation, Customs Cooperation; strategic cooperation between the BRICS Business Council, Contingent Reserve Agreement and the New Development Bank.
- These agreements contribute to the realisation of the shared objectives of deepening economic cooperation and fostering integrated trade and investment markets.

2. People-to-People Exchange

- BRICS members have recognised the need for strengthening People-to-People exchanges and to foster closer cooperation in the areas of culture, sport, education, film and youth.
- People-to-People exchanges seek to forge new friendships; deepen relations and mutual understanding between BRICS peoples in the spirit of openness, inclusiveness, diversity and mutual learning.
- Such People-to-People exchanges include the Young Diplomats Forum, Parliamentarian Forum, Trade Union Forum, Civil BRICS as well as the Media Forum.

3. Political and Security Cooperation

- BRICS member political and security cooperation is aimed at achieving peace, security, development and cooperation for a more equitable and fair world.
- BRICS provides opportunities for sharing policy advice and exchanges of best practices in terms of domestic and regional challenges as well as...
advancing the restructuring of the global political architecture so that it is more balanced, resting on the pillar of multilateralism.

- BRICS is utilised as a driver for South Africa’s foreign policy priorities including the pursuit of the African Agenda and South-South Cooperation.

4. Cooperation Mechanism

- Cooperation among members is achieved through:
  - Track I: Formal diplomatic engagement between the national governments.
  - Track II: Engagement through government-affiliated institutions, e.g. state-owned enterprises and business councils.
  - Track III: Civil society and People-to-People engagement.

Impacts of BRICS on global institutional reforms

- The main reason for co-operation to start among the BRICs nation was the financial crises of 2008. The crises raised doubts over sustainability of the dollar-dominated monetary system.
- The BRICs called for the “the reform of multilateral institutions in order that they reflect the structural changes in the world economy and the increasingly central role that emerging markets now play”.
- BRICs managed to push for institutional reform which led to International Monetary Fund (IMF) quota reform in 2010. Thus the financial crises had momentarily reduced western legitimacy and briefly let the BRICs countries become “agenda setters” in multilateral institutions.

New Development Bank

- NDB (New Development Bank) is headquartered in Shanghai.
- At the Fourth BRICS Summit in New Delhi (2012) the possibility of setting up a new Development Bank was considered to mobilize resources for infrastructure and sustainable development projects in BRICS and other emerging economies, as well as in developing countries.
- During the Sixth BRICS Summit in Fortaleza (2014) the leaders signed the Agreement establishing the New Development Bank (NDB).
- Fortaleza Declaration stressed that the NDB will strengthen cooperation among BRICS and will supplement the efforts of multilateral and regional financial institutions for global development thus contributing to sustainable and balanced growth.
- NDB’s key areas of operation are clean energy, transport infrastructure, irrigation, sustainable urban development and economic cooperation among the member countries.
The NDB functions on a consultative mechanism among the BRICS members with all the member countries possessing equal rights.

**Contingent Reserve Arrangement**

- Considering the increasing instances of global financial crisis, BRICS nations signed BRICS Contingent Reserve Arrangement (CRA) in 2014 as part of Fortaleza Declaration at Sixth BRICS summit.
- The BRICS CRA aims to provide short-term liquidity support to the members through currency swaps to help mitigating BOP crisis situation and further strengthen financial stability.
- The initial total committed resources of the CRA shall be one hundred billion dollars of the United States of America (USD 100 billion).
- It would also contribute to strengthening the global financial safety net and complement existing international arrangements (IMF).

**Challenges**

- The marked dominance of big three Russia-China-India is challenge for the BRICS as it moves ahead. To become a true representative of large emerging markets across the world, BRICS must become pan-continental. Its membership must include more countries from other regions and continents.
- The BRICS will need to expand its agenda for increasing its relevance in the global order. As of now, climate change and development finance, aimed at building infrastructure dominate agenda.
- As BRICS moves forward foundational principles of BRICS i.e. respect for sovereign equality and pluralism in global governance are liable to be tested as the five member countries pursue their own national agendas.
- The military standoff between India and China on the Doklam plateau, which has effectively brought to an end the naive notion that a comfortable political relationship is always possible amongst the BRICS members.
- China’s efforts to co-opt nation states, which are integral to its Belt and Road Initiative, into a broader political arrangement has potential to cause conflict among BRICS members especially China and India.

**Importance for India**

- India can benefit from collective strength of BRICS by way of consultation and cooperation on economic issues of mutual interests, as well as topical global issues, such as, international terrorism, climate change, food and energy security, reforms of global governance institutions, etc.
India remains engaged with the other BRICS countries on its NSG membership. The NDB will help India to raise and avail resources for their infrastructure and sustainable development projects. The NDB has approved its first set of loans, which included a loan of US$ 250 million in respect of India for Multitranche Financing Facility for Renewable Energy Financing Scheme.

Way Forward

- BRICS did well in its first decade to identify issues of common interests and to create platforms to address these issues.
- For BRICS to remain relevant over the next decade, each of its members must make a realistic assessment of the initiative’s opportunities and inherent limitations.
- BRICS nations need to recalibrate their approach and to recommit to their founding ethos. BRICS must reaffirm their commitment to a multi-polar world that allows for sovereign equality and democratic decision making by doing so can they address the asymmetry of power within the group and in global governance generally.
- They must build on the success of the NDB and invest in additional BRICS institutions. It will be useful for BRICS to develop an institutional research wing, along the lines of the OECD, offering solutions which are better suited to the developing world.
- BRICS should consider a BRICS-led effort to meet their commitments under the Paris Agreement on climate change and the UN’s sustainable development goals. This could include e.g. setting up a BRICS energy alliance and an energy policy institution.
- NDB in partnership with other development finance institutions could be a potent vehicle to finance progress towards the sustainable development goals amongst the BRICS members.
- Idea of setting up a BRICS Credit Rating Agency (BCRA) as proposed by India, opposed to Western agencies like Standard & Poor’s, Moody’s etc can be on BRICS future agenda.

For BRICS Summit 2021 and Critical Analysis: Click here

Source: PIB
Rationale for PMJDY

- Ministry of Finance is committed to provide financial inclusiveness and support to the marginalized and hitherto socio-economically neglected classes.
- Financial Inclusion is a national priority of the Government as it is an enabler for inclusive growth.
- It is important as it provides an avenue to the poor for bringing their savings into the formal financial system, an avenue to remit money to their families in villages besides taking them out of the clutches of the usurious money lenders.
- A key initiative towards this commitment is the Pradhan Mantri Jan Dhan Yojna (PMJDY), which is one of the biggest financial inclusion initiatives in the world.
- PMJDY was announced by PM Narendra Modi on 15th August 2014.
- The underlying pillars of PMJDY are Banking the Unbanked, Securing the Unsecured and Funding the Unfunded.

Pradhan Mantri Jan-Dhan Yojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.

Objectives:

- Ensure access of financial products & services at an affordable cost
- Use of technology to lower cost & widen reach

Basic tenets of the scheme

- Banking the unbanked - Opening of basic savings bank deposit (BSBD) account with minimal paperwork, relaxed KYC, e-KYC, account opening in camp mode, zero balance & zero charges
- Securing the unsecured - Issuance of Indigenous Debit cards for cash withdrawals & payments at merchant locations, with free accident insurance coverage of Rs. 2 lakh
- Funding the unfunded - Other financial products like micro-insurance, overdraft for consumption, micro-pension & micro-credit.

The scheme was launched based upon the following 6 pillars:
Universal access to banking services – Branch and BC
Basic savings bank accounts with overdraft facility of Rs. 10,000/- to every eligible adult
Financial Literacy Program – Promoting savings, use of ATMs, getting ready for credit, availing insurance and pensions, using basic mobile phones for banking
Creation of Credit Guarantee Fund – To provide banks some guarantee against defaults
Insurance – Accident cover up to Rs. 1,00,000 and life cover of Rs. 30,000 on account opened between 15 Aug 2014 to 31 January 2015
Pension scheme for Unorganized sector

Extension of PMJDY with New features

- The Government decided to extend the comprehensive PMJDY program beyond 28.8.2018 with some modifications
- Focus shift from ‘Every Household’ to Every Unbanked Adult’
- RuPay Card Insurance - Free accidental insurance cover on RuPay cards increased from Rs. 1 lakh to Rs. 2 lakh for PMJDY accounts opened after 28.8.2018.
- Enhancement in overdraft facilities - OD limit doubled from Rs 5,000/- to Rs 10,000/-; OD upto Rs 2,000/- (without conditions). Increase in upper age limit for OD from 60 to 65 years.

Impact of PMJDY

- PMJDY has been the foundation stone for people-centric economic initiatives. Whether it is direct benefit transfers, COVID-19 financial assistance, PM-KISAN, increased wages under MGNREGA, life and health insurance cover, the first step of all these initiatives is to provide every adult with a bank account, which PMJDY has nearly completed.
- One in 2 accounts opened between Mar’14 to Mar’20 was a PMJDY account. Within 10 days of nationwide lockdown more than about 20 crore women PMJDY accounts were credited with ex-gratia.
- Jandhan provides an avenue to the poor for bringing their savings into the formal financial system, an avenue to remit money to their families in villages besides taking them out of the clutches of the usurious money lenders. PMJDY has brought the unbanked into the banking system, expanded the financial architecture of India and brought financial inclusion to almost every adult.
In today's COVID-19 times, we have witnessed the remarkable swiftness and seamlessness with which Direct Benefit Transfer (DBTs) have empowered and provided financial security to the vulnerable sections of society. An important aspect is that DBTs via PM Jan Dhan accounts have ensured every rupee reaches its intended beneficiary and preventing systemic leakage.

Achievements of PMJDY

- PMJDY Accounts have grown three-fold from 14.72 Crore in Mar’15 to 43.04 Crore as on 18-08-2021
- 55% Jan-Dhan account holders are women and 67% Jan Dhan accounts are in rural and semi-urban areas
- Out of total 43.04 crore PMJDY accounts, 36.86 crore (86%) are operative
- Total RuPay cards issued to PMJDY accountholders: 31.23 Crore
- Under PM Garib Kalyan Yojana, a total of Rs. 30,945 crore have been credited in accounts of women PMJDY account holders during Covid lockdown
- About 5.1 crore PMJDY accountholders receive direct benefit transfer (DBT) from the Government under various schemes

Way Forward and Conclusion

- Endeavour to ensure coverage of PMJDY account holders under micro insurance schemes. Eligible PMJDY accountholders will be sought to be covered under PMJJBY and PMSBY. Banks have already been communicated about the same.
- Promotion of digital payments including RuPay debit card usage amongst PMJDY accountholders through creation of acceptance infrastructure across India
- Improving access of PMJDY account holders to Micro-credit and micro investment such as flexi-recurring deposit etc.

Source: PIB
Atal Pension Yojana (APY) addresses the old age income security of the working poor and the longevity risks among the workers in unorganised sector.

It encourages the workers in unorganised sector to voluntarily save for their retirement.

The Government had launched the scheme with effect from 1st June, 2015.

The scheme replaces the Swavalamban Yojana / NPS Lite scheme.

**Benefits of APY**

- Fixed pension for the subscribers ranging between Rs.1000 to Rs. 5000, if s/he joins and contributes between the age of 18 years and 40 years. The contribution levels would vary and would be low if subscriber joins early and increase if s/he joins late.
- The same pension is payable to Spouse after death of Subscriber.
- Return of indicative pension wealth to nominees after death of spouse.
- Contributions to the Atal Pension Yojana (APY) is eligible for tax benefits similar to the National Pension System (NPS). The tax benefits include the additional deduction of Rs 50,000 under section 80CCD(1).

**Eligibility for APY**

- Atal Pension Yojana (APY) is open to all bank account holders who are not members of any statutory social security scheme.
- Any individual who is eligible to receive benefits under the APY will have to furnish proof of possession of Aadhaar number or undergo enrolment under Aadhaar authentication. An APY subscriber will have to get the Aadhaar number recorded in his or her APY pension account and also in his/ her savings account where the periodic pension contribution instalments are debited and government co-contribution is to be credited.

**Age of joining and contribution period**

- The minimum age of joining APY is 18 years and maximum age is 40 years. Therefore, minimum period of contribution by the subscriber under APY would be 20 years or more.

**Focus of APY**

-
Mainly targeted at unorganised sector workers.

- Enrollment agencies
- All Points of Presence (Service Providers) and Aggregators under Swavalamban Scheme would enroll subscribers through architecture of National Pension System.
- Operational Framework of APY
- It is Government of India Scheme, which is administered by the Pension Fund Regulatory and Development Authority. The Institutional Architecture of NPS would be utilised to enroll subscribers under APY.

### About PFRDA

- Pension Fund Regulatory and Development Authority (PFRDA) is the statutory Authority established by an enactment of the Parliament, to regulate, promote and ensure orderly growth of the National Pension System (NPS) and pension schemes to which this Act applies.
- NPS was initially notified for central government employees recruits w.e.f 1st Jan 2004 and subsequently adopted by almost all State Governments for its employees. NPS was extended to all Indian citizens (resident/non-resident/overseas) on a voluntary basis and to corporates for its employees.

### Funding of APY

- Government would provide fixed pension guarantee for the subscribers:
- Under the APY, the Central Government’s co-contribution of 50% of the subscriber’s contribution upto Rs. 1000 per annum, was available to each eligible subscriber, for a period of 5 years, i.e. from 2015-16 to 2019-20, who join APY before 31st March, 2016 and who is not a beneficiary of any social security scheme and is not an income tax payer.
- Government would also reimburse the promotional and development activities including incentive to the contribution collection agencies to encourage people to join the APY.
- Age of Joining, Contribution Levels, Fixed Monthly Pension and Return of Corpus to the nominee of subscribers
- The Table of contribution levels, fixed monthly pension to subscribers and his spouse and return of corpus to nominees of subscribers and the contribution period is given below. For example, to get a fixed monthly pension between...
Rs. 1,000 per month and Rs. 5,000 per month, the subscriber has to contribute on monthly basis between Rs. 42 and Rs. 210, if he joins at the age of 18 years. For the same fixed pension levels, the contribution would range between Rs. 291 and Rs. 1,454, if the subscriber joins at the age of 40 years.

Source: PIB
Indian Council of Medical Research (ICMR) has given its nod to Diagnostic machines used to test drug-resistant tuberculosis (TB) for conducting Covid-19 tests. In this regard, Truenat beta CoV test on TrueLab workstation will be used for screening test of COVID-19. A total of 800 truenat machines are available in India.

Currently India is using real time Polymerase Chain Reaction (RT-PCR) testing approved by United States and Food and Drug Administration (FDA).

About Truenat:

- It is a battery operated small machine that requires minimal training and gives the result between 30-60 minutes.
- The sample of the throat and the nasal swab is collected by the trained technicians wearing personal protective equipment.
- There are two-way and four-way Truenat machines. Four-way Truenat machines can run 32 to 48 samples of multiple diseases – COVID19, HIV and TB, while two-way can handle 16 to 24 samples.
- The cost of a test on Truenat machines will be of Rs 1000-Rs.1500.

Indian Council for Medical Research

- ICMR is India’s apex scientific body for the formulation, coordination and promotion of biomedical research.
- It was established in 1911 as Indian Research Fund Association (IRFA) making it one of oldest and largest medical research bodies in the world.
- The ICMR functions under Department of Health Research, Ministry of Health and Family Welfare.
- It is headquartered in New Delhi.
- Its Governing Body is presided over by Health Minister.
- Director General– Prof. Balram Bhargava
- It is assisted in scientific and technical matters by Scientific Advisory Board comprising eminent experts in different biomedical disciplines.
- ICMR’s research priorities coincide with national health priorities such as control and management of communicable diseases, fertility control, maternal and child health, control of nutritional disorders, research on major non-communicable diseases like cancer, cardiovascular diseases, diabetes and mental health research and drug research (including traditional remedies).
India has the highest burden of tuberculosis (TB) in the world. Even as the government was pushing to end TB by 2025, the COVID-19 pandemic has caused a massive disruption in TB services. TB case notifications across India have dropped by over 50% since March, with an estimated 3,00,000 missed case notifications (until May 30).

This is worrisome, as undiagnosed TB can worsen patient outcomes and increase transmission in the community. As the lockdown ends, we will see a big surge in people seeking care with TB and COVID-19 symptoms. However, people will struggle to get care because the public sector is still dealing with the pandemic, while the private sector is not functioning at normal capacity or is reluctant to manage people with fever and cough.

To find the missed TB patients, we will need to find ways to rapidly resume public TB services, integrate TB and Covid-19 testing and be creative about engaging the private health sector to augment public TB services.

It is critical for the National TB Elimination Programme to resume routine TB services, which include diagnostic services, such as microscopy and rapid molecular testing, as well as drug-susceptibility testing.

Dual testing

- Since fever and cough are symptoms of both TB and COVID-19, simultaneous screening and testing can be encouraged. Thankfully, India has access to three existing technologies that permit dual testing for both infections.
- The first is the digital chest x-ray (CXF) which could be deployed along with artificial intelligence (AI) based tools for both TB and COVID-19.
- AI-based algorithms are now available that obviate the need for trained
radiologists to read the x-rays. If a CXR is suggestive for TB on the AI algorithm, then a confirmatory test such as GeneXpert can be done to confirm TB and also detect drug-resistance.
- One such **AI-enabled screening tool is called qXR**, developed by Qure.ai, an **Indian company**. Several studies show accuracy that is comparable or better than human radiologists.
- The **screening tool, qXR**, has now added the capability of detecting signs of COVID-19 from the x-rays images.
- Based on an estimated 3,00,000 missed during the national lockdown, around 10,50,000 CXR (assuming 70% of these are pulmonary TB cases and 5 CXRs are needed to detect one patient with pulmonary TB) **will be required for detecting TB cases**.
- This is an overwhelming figure for any health system especially during a pandemic. However, a **dynamic partnership with 80,000 licensed diagnostic radiology facilities** will help combat this.
- CXR screening will require confirmatory testing for both diseases, and **molecular testing** is the most accurate and rapid option. There are two technologies already in use in India that could be leveraged for simultaneous testing of sputum samples for both infections.
- One is called **GeneXpert** India has over 1,100 of these systems in use. A large number of private labs, too, have this technology. On this platform, TB can be detected using a cartridge called **Xpert MTB/RIF** and COVID-19 by using the **Xpress SARS-CoV2 cartridge**.
- The second molecular platform is called **TrueLab**, developed by a **Indian company** – Molbio Diagnostics.
- This technology is already being used in some states and in private labs to test for TB using a chip called **Truenat MTB**.
- Molbio now has a chip called **Truenat Beta CoV** that **used for COVID-19**. This chip, along with Xpress **SARS-CoV2 cartridge**, has been approved by ICMR for emergency use for COVID-19 testing.
- Typically, TB testing requires sputum sample. Now, SARS-CoV-2 testing is done using nasopharyngeal swabs, but there is no reason why sputum samples cannot be used, since sputum is generated deeper in the lungs. However, it is important to validate both test molecular platforms for simultaneous testing using the same sputum sample.

Source: TH
POSAN Abhiyan, 2018

- It is a flagship programme of Ministry of Women and Child Development launched from Jhunjhunu in Rajasthan.
- It is a multi-ministerial convergence mission initiated after NITI recommendations to reduce the problem of Malnutrition.
- Govt is implementing several schemes under ICDS as direct target intervention.
- **Provisions**
  - Aim is to generate Jan Andolan towards Nutrition. Use of technology, Reduce stunting, Under nutrition, Anaemia, Low birth weight, focus on Adolescent girls and P&LW.
  - It ensures convergence with various programs like Anganwadi Services, PM Matru Vandana Yojana, Scheme for Adolescent Girls, NHM, Swach Bharat Mission, PDS, MGNREGA etc.
- **Goals**
  - It is a comprehensive approach to improve nutritional status of Children from 0-6 years, Adolescent Girls and Pregnant Women and Lactating Mothers in 3 years from 2017-18.
  - It will strive to reduce stunting, undernutrition, anaemia (among young children, women and adolescent girls) and reduce low birth weight by 2%. 2%. 3% and 2% per year for 3 years.
  - **Mission 25**: It would strive to reduce Stunting target from 38.4% (NFHS – IV) to 25% by 2022.
  - **3 things** = Technology, Behavioural Change and Targeted Approach.
  - Decentralized Governance and Good Governance.
  - **7 Components** = Grievance redressal, Convergence, ICDS, Behavioural change, Incentives, Innovation, Training and capacity building.
  - Integration with Digital India = VHSN - Very high speed network.
  - Anganwadi Workers is integrated in this scheme.
  - Also include Breastfeeding.
- **Funding**
  - For 3 years from 2017-18 with a Budget outlay of 9046 crore.
  - 50% of 9046 crore is through Budgetary support with 60:40 (Center: States) for States; 90:10 Northeast and Himalayan and 100% for UTs without legislature.
  - The rest 50% will be given by World Bank or other Multilateral
National Nutrition Mission

1. It is perhaps the most ambitious Program of Central Government. Need for NNM
   1. Current efforts are fragmented. There is a need to bring together all relevant stakeholders on a single platform.
   2. The mission sets specific targets and a timeline for it.
   3. It has targeted Strategy consisting of a plan of actions and interventions.
   4. It targets behavioral change by social awareness and by creating a mass movement.
2. It has intro Central nodal agency with extensive financial resources to coordinate C-S schemes and imbue additional financial resources. Total outlay = 9000 Cr over 3 years.
3. Decentralized Governance.
4. Encourage local Solutions. Improving post harvest management.
5. Aims:
   1. Overcoming Calorie Deficiency - use NFSA.
   3. Hidden Hunger - Micronutrient deficiency by Genetic Garden of Bio-fortified plants and Farming System of nutrition Programme.
   5. Create a cadre of Community Hunger Fighters.
6. Specific targets / Decline annually
   1. Stunting = 2%.
   2. Under nutrition = 2%.
   3. Low birthweights = 2%.
   4. Anemia = 3%.
7. Key Implementation Strategy
   1. Outcome Orientation
   2. Incentives based on outcomes
   3. Data collection and monitoring.
   4. Coordination between different programs.
   5. Geographical convergence.
   6. Behavioral change through Jan Andolan.

National Nutrition Strategy by NITI Aayog

1. The nutrition strategy envisages a framework wherein 4 proximate determinants of nutrition – uptake of health services, food, drinking water and...
sanitation and income and livelihoods work together to accelerate decline of under nutrition in India.

2. **Decentralized efforts**: The Strategy envisages a **Kuposhan Mukt Bharat** – linked to Swachh Bharat and Swasth Bharat. **Focus on behavioural change.**

3. The aim is to ensure that States create **customized State/ District Action Plans** to address local needs and challenges with a greater role for panchayats and urban local bodies.

The Integrated Child Development Service (ICDS) Scheme, 1975 (Flagship)

- The Scheme has been renamed as **Anganwadi Services**. It is 1 of the World's largest programmes providing for an **integrated package of services** for the **holistic** development of the child.
- **Funding**: Centrally **Sponsored** Scheme. All components of ICDS except Supplementary Nutrition Programme (SNP) are financed through a 60:40 ratio. For SNP = 50:50. The North East states have a 90:10 ratio.
- **Coverage**: The scheme is universal covering all the districts of the country. **Both Urban and Rural India.**
- **Objectives**
  1. To improve the **nutritional and health** status of children in the age group **0-6 years**;
  2. To lay the foundation for **proper psychological, physical and social development** of the child;
  3. To reduce the **incidence of mortality, morbidity, malnutrition and school dropout**;
  4. To achieve effective co-ordination, implementation and enhance the capability of the mother.
- **Components**
  1. **Beneficiaries**: Children of **0 - 6 years**; Pregnant women and Lactating Mothers (PW&LM)
  2. **6 Services under ICDS**: Provided at **Anganwadi centers** through Anganwadi Workers (AWWs) and Anganwadi Helpers (AWHs) at grassroots level. 
     1. Supplementary Nutrition, Pre-school non-formal education, Nutrition & health education
     2. Immunization, Health check-up and Referral services. They are provided through NHM, Auxiliary Nurse Midwife.
  3. There will be **1 Anganwadi centre (AWC) for population of 400-800;** 2
AWCs for 800-1600; and thereafter in multiples of 800 -1 AWC.

4. The AWWs and AWHs are paid fixed salary of Rs.4,500/- and Rs.2250/- per month respectively. Workers of Mini-Anganwadi Centres are being paid honoraria of Rs.3500/-. In addition, monthly performance linked incentive of Rs.250/- is also being paid to AWH.

5. Anganwadi Workers work in ARSH, SABLA and ICDS.

- **Wheat Based Nutrition Program (WBNP)**
  1. It is implemented by Ministry of Women and Child Development.
  2. Foodgrains are given to ICDS for providing food to children from 2 to 6 years and pregnant/ lactating women.

- **ICDS Systems Strengthening and Nutrition Improvement Project (ISSNIP)**: To improve nutritional and early childhood development outcomes of children in India. To strengthen ICDS policy framework.

- **ANGANWADI**:
  1. Anganwadi is a type of rural mother and child care centre in India.
  2. It was started in 1975 as a part of ICDS to combat child hunger and malnutrition.
  3. It provides basic healthcare include contraceptive counseling and supply, nutrition education and supplementation, as well as preschool activities.
  4. It may be used as depots for oral rehydration salts, basic medicines and contraceptives.

- **Anganwadi Worker responsibilities according to MoWCD rules**:
  1. Community support, conduct regular quick surveys, pre-school activities.
  2. Provide health and nutrition education to families especially pregnant women on how to breastfeed, etc.
  3. Motivating families to adopt family planning.
  4. Educating parents about child growth and development.
  5. Assist in the implementation of Kishori Shakti Yojana (KSY) to educate teenage girls and parents. Identify disabilities in children, and so on.

- **Anganwadi Worker (AWW) guides ASHA** in performing activities such as importance of nutritious food, personal hygiene, care during pregnancy, importance of immunisation etc. **Anganwadi worker is a depot holder for drug kits** and will be issuing it to ASHA.

- **ICDS Scheme Analysis**:
  1. There are 13.79 lakh Anganwadis in the country out of which 9.31 lakh centers are linked to Government’s web enabled data entry system called Rapid Reporting system. Out of them, only 1.09 lakh centers are in urban areas.
  2. For every 100 Anganwadi beneficiaries, only 7 are in urban areas.
Because of lack of Anganwadis in cities, leading to poor coverage.

3. World Urban Prospects 2018 given by UN DESA (Dept of Economic and Social Affairs) estimate urban population in India which, at present is 34%, will be 40% by 2030 and 50% by 2050. The need for Anganwadis in urban India is high.

- Center seeks to revamp child care scheme in urban areas
  1. NITI Aayog will develop draft policy. Urban areas are likely to receive a renewed focus under the govt’s ICDS programme, which provides for anganwadis or day-care centres for delivery of nutrition and pre-school education. Health and ICDS models that work in rural areas may not work in urban areas because of higher population density, transportation challenges and migration.
  2. 2018 Govt data says, of the 14 lakh anganwadis in India there are only 1.38 lakh anganwadis in urban areas.
  3. The CNNS Survey highlighted that malnutrition among children in urban India is characterised by relatively poor levels of breastfeeding as mothers have to travel long distances for work. It also found a higher prevalence of obesity because of relative prosperity and lifestyle patterns, along with iron and Vitamin D deficiency.

Source: PIB
The government has released National Digital Health Blueprint (NDHB) which aims to create National Digital Health Eco-System, in public domain. Health Ministry has sought imgs from various stakeholders on its vision.

Findings of the National Digital Health Blueprint (NDHB):

- It lays out the ‘building blocks’ for the implementation of the National Health Stack (NHS), which aims to deploy Artificial Intelligence (AI) in leveraging health records.
- Keeping true to the government’s larger agenda, of ‘data as a public good’, the blueprint proposes the linking of multiple databases to generate greater and granular data that can be leveraged by the public as well as private sector – including insurance companies, hospitals, apps and researchers.
- The blueprint proposes a National Digital Health Mission “as a purely government organisation with complete functional autonomy adopting some features of some of the existing National Information Utilities like UIDAI and GSTN.”

Objectives of National Health Stack

The policy document essentially lays the implementation plan and defines the ‘building blocks’ of the NHS. In doing so, it lays down the following objectives:

- To establish national and regional registries to create single source of truth in respect of Clinical Establishments, Healthcare Professionals, Health Workers and Pharmacies.
- Creating a system of Personal Health Records accessible to the citizens and to the service providers based on citizen-consent.
- Promoting the adoption of open standards by all the actors in the National Digital Health Ecosystem.
- Promoting Health Data Analytics and Medical Research.

Issues in National Blueprint for Digital Health:

- This National Blueprint illustrates yet another example of the Centre moving forward with a major digitisation program involving the data of millions of citizens without a data protection law in place.
- Data security is a prerequisite for any data movement. Currently, data privacy
in health is a gray area.

- Data researchers and activists have expressed concerns about the development of this policy, which proposes a health data set-up on a foundation of India Stack – a bouquet of privately-owned proprietary software applications.

Source: Aspire IAS Notes

National Digital Health Mission

National Digital Health Mission was launched by Prime Minister Narendra Modi on August 15, 2020 while addressing the nation from the Red Fort to mark the occasion of India's 74th Independence Day.

- It is a part of National Digital Health Blueprint launched in 2019.
- National Digital Health Mission will be a "completely technology-based" initiative. According to the Prime Minister, the initiative will revolutionise the health sector.
- Under the National Digital Health Mission, every Indian will get a Health ID card that will contain all relevant information about his/her past medical conditions, treatment and diagnosis.
- Since launch, the digital modules and registries have been developed and the mission has been rolled out in six Union Territories.
- So far, nearly 11.9 lakh Health IDs have been generated and 3106 doctors and 1490 facilities have registered on the platform.

What is National Digital Health Mission?

- National Digital Health Mission aims to improve the efficiency, effectiveness, and transparency of health services in the country. It comes under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).

Features

- Under National Digital Health Mission, every Indian will get a Health ID card that will store all medical details of the person including prescriptions,
treatment, diagnostic reports and discharge summaries.
- The citizens will be able to give their doctors and health providers one-time access to this data during visits to the hospital for consultation.
- However, access to the confidential medical data will have to be given separately for each visit due to fears over data confidentiality.
- The National Digital Health Mission will allow patients to access health services remotely through tele-consultation and e-pharmacies, as well as offer other health-related benefits.

**How will Health ID cards work?**

- Every time an Indian citizen visits the doctor or a pharmacy, all details including prescriptions will be logged in the health ID card.
- This will enable all information regarding the person’s health, right from the doctor’s appointment to the advised medication, to be logged in his/ her health profile.
- The Health ID will contain information about every single test, every disease, diagnosis, treatment and the medicines prescribed by the doctor prescribed and final reports.

**What is Universal Health Interface?**

- It has been envisaged that Unified Health Interface (UHI) - an open and interoperable IT network for digital health should soon be rolled out.
- This interface shall enable public and private solutions and apps to plug in and be a part of National Digital Health Ecosystem. It will allow users to search, book and avail necessary healthcare services such as tele-consultations or laboratory tests.
- The system will ensure that only verified healthcare providers join the ecosystem.
- This is likely to unleash a digital health tech revolution with innovations and various services for citizens.
- In such a manner, healthcare infrastructure and human resources can also be utilised in a more efficient manner across the nation.
- The concept of UPI e-Voucher developed by National Payment Corporation of India (NPCI) was also in discussions. This digital payment option will enable financial transactions linked to specific purpose which can be used only by the intended user. It can be useful for targeted and efficient delivery of various government schemes and an immediate use cases of UPI e-Voucher could be healthcare services.

Analysis of National Digital Health Mission: [click here](#)
Prime Minister Shri Narendra Modi delivered a video-address during the plenary session of the 6th Eastern Economic Forum (EEF) held on 3 September 2021 in Vladivostok.

It may be recalled that PM was the Chief Guest for the 5th EEF in 2019, the first by an Indian Prime Minister.

In Indian history and civilization the word ‘Sangam’ has a special meaning. It means confluence or coming together of rivers, people or ideas. In my view, Vladivostok is truly a ‘Sangam’ of Eurasia and the Pacific.

Applauding President Putin’s vision for the development of the Russian Far East, PM reiterated India’s commitment as part of its “Act East Policy” of being a reliable partner of Russia in this regard.

In 2019, India committed to an “Act Far East” policy. This policy is an important part of our special and privileged strategic partnership with Russia. He underlined the natural complementarities of India and Russia in the development of Russian Far East.

PM stressed on the importance of greater economic and commercial engagement between the two sides in line with the ‘Special and Privileged Strategic Partnership’.

- Mazagon Docks Limited will partner with ‘Zvezda’ for construction of some of the most important commercial ships in the world.
- India and Russia are partners in space exploration through the Gaganyaan program.
- India and Russia will also be partner in opening of the Northern Sea Route for international trade and Commerce.
- The friendship between India and Russia has stood the test of time. Most recently it was seen in our robust cooperation during the Covid-19 pandemic including in the area of vaccines. The pandemic has highlighted the importance of the health and pharma sectors in our bilateral cooperation.
- Ministry of Petroleum & Natural Gas Mr Hardeep Puri is in Vladivostok to represent India at this forum Indian workers are participating in major gas...
projects in the Amur region, from Yamal to Vladivostok and onward to Chennai. We envisage an energy and trade bridge known as Chennai - Vladivostok Maritime Corridor.

- This connectivity project along with the International North-South Corridor will bring India and Russia physically closer to each other.
- India has long term supply of coking coal to the Indian steel industry.
- We are also exploring new opportunities in agro industry, ceramics, strategic and rare earth minerals and diamonds.
- He also referred to other potential areas of economic cooperation including diamond, coking coal, steel, timber etc.

Source: PIB

India at BRICS Digital Health Summit

GS-II | 04 September, 2021

- Digital Health has become the priority in wake of COVID 19 Pandemic.
- The two waves presented us with unique challenges for which an effective and humane centralized response sensitive to regional needs was warranted.
- The Digital health was aptly utilized to manage the pandemic and enabled us for a much more scientific and data driven approach for strengthening our response.
- India’s National Digital Health Blueprint is an overarching architectural framework for digital initiatives of Health in India.
- We are implementing the recommendations for streamlining the digital health programmes through National Digital Health Mission (NDHM).
- NDHM through the issue of Unique Health ID will create a single source of truth for facilities and practitioners and lead to extension of various health services through digital mode.
- India’s immediate field level priorities for creating an ecosystem of Digital Health includes Hospital Management Information System (HMIS) implementation in all district hospitals for real time clinical management, affordable and accessible medical consultation to every citizen through telemedicine and establishing a framework for health disaster management integrating all stakeholders.
- On the creation of a pool of human resource for managing pandemic digitally,
the Minister showcased how India leveraged iGoT (online training platform) to train more than 16 million COVID warriors across the spectrum to manage COVID which includes doctors, paramedic, nurses, community participants etc.

- BRICS digital health platform is the need of the hour to ensure health data availability across BRICS countries in an interoperable manner to ensure continuum of care.
- India has priorities towards full adoption of digital health technologies at all levels and BRICS’s strategy in building a cadre of competent health informatics professionals using a standardized curriculum across BRICS countries.
- India’s expectations from the development of a repository of evidence based digital technologies and innovations for health systems (under BRICS) and India’s strategic approach to sustain the gains from use of digital innovations during COVID-19 in a sustainable manner towards building health systems resilience was also discussed.
- Ability of the platform to leverage existing organizations and their experience like Global Digital Health Partnership, World Health Organization, G20 etc. and policy advocacy for wider as well as appropriate adoption of Digital Technologies not limiting to BRICS Countries was envisioned as India’s key expectation from this platform.
- We initiated a robust mechanism through a national Covid portal which integrated surveillance, testing, logistic management, data driven analytics etc.
- We popularized Arogya Setu and ITIHAS application – Digital Surveillance Application to source data from citizens and to predict the upcoming hotspots in the community.
- Arogya Setu became one of the most downloaded application with more than 201 million downloads.
- Similarly, to take health services to the doorstep of citizen, we are augmenting the National telemedicine platform (eSanjeevani) of India and establishing telemedicine HUBs with dedicated doctors in all Districts. The HUBs will serve all facilities in their region, for both Covid & non Covid health care support.
- India is leveraging the Disease Surveillance Programme through an Integrated Health Information Platform which source real time data from facilities on 33 Epidemic Prone Diseases for community surveillance. India is undertaking the World’s largest vaccine drive and the whole effort is being managed through digital tool, Co-WIN (Winning over COVID).
Co-WIN has been declared as a global good by Government of India for adoption by any country for managing their vaccination drive, not only limiting to COVID but for conventional immunization also.

In presence of honorable Health Ministers of BRICS nations, **BRICS Digital Health Declaration** was adopted.

**India being the host of the BRICS Digital Health Summit**, the conclave was presided by Union Health Secretary Shri Rajesh Bhushan who brought focus to the wide adoption of digital health in the COVID-19 Pandemic on the spectrum that includes population surveillance, active case finding, communication with common citizens in crisis.

The embarking of nations on digital technology in embracing primary universal health coverage was highlighted.

Source: PIB

**IT Rules 2021 for Social Media & OTT Platforms**

**Introduction**

- The government has notified guidelines to provide a **grievance redressal mechanism** for users of digital platforms of all kinds — social media sites, messaging apps, over-the-top (OTT) streaming services, and digital news publishers.
- The **Information Technology (Guidelines for Intermediaries and Digital Media Ethics Code) Rules, 2021** also mandate that social media and messaging platforms will have to adhere to new requirements in assisting investigative agencies of the government.

**Rules for Social media intermediaries**

Although there is no single set of rules that uniformly applies to the different kinds of digital platforms.

- **Grievance Officer: Social media platforms** like Google or Facebook, or intermediaries, for instance, will now have to appoint a grievance officer to
deal with users’ complaints.

**Chief Compliance Officer:** There are additional requirements on ‘significant’ social media intermediaries — meaning the platforms whose registered users in India are above the threshold notified by the government. Such intermediaries have to appoint a ‘Chief Compliance Officer’, who will have to ensure that the rules are followed; the officer “shall be liable in any proceedings relating to any relevant third-party information, data or communication link made available or hosted by that intermediary”.

**Nodal contact person:** The intermediaries will also have to appoint a nodal contact person for 24x7 coordination with law enforcement agencies.

**Identification of 1st originator:** The other key requirement is that such a social media intermediary would have to “enable the identification of the first originator of the information on its computer resource” as may be required by a judicial order.

- In other words, a problematic message, that is considered “an offence related to the sovereignty and integrity of India, the security of the State, friendly relations with foreign states, or public order, or of incitement to an offence relating to the above or in relation with rape, sexually explicit material or child sexual abuse material”, will have to be traced to its initiator on messaging applications like WhatsApp and Signal.

**Rules for digital publishers**

- **3 tier Grievance Redressal mechanism:** For digital publishers of news and current affairs as well as video streaming services, an identical three-tier structure for grievance redressal has been mandated.
  - This structure will look into grievances in relation to a Code of Ethics, which is listed in the appendix to the rules.

- **Code of Ethics:** Among other things, the Code of Ethics includes the ‘Norms of Journalistic Conduct’ as prescribed by the Press Council of India, as also content that shall not be published — “content which is prohibited under any law for the time being in force shall not be published or transmitted”, and the Programme Code under the Cable Television Networks (Regulation) Act, 1995.

- **Classification of content:** The guidelines also require streaming services to classify content based on its nature and type.
  - So, for instance, content “for persons aged 16 years and above, and can be viewed by a person under the age of 16 years with parental guidance shall be classified as U/A 16+”.

What is the context in which these rules have been framed?

- The issue came up last year when the Supreme Court was hearing a case involving Sudarshan TV.
- In the course of the case, it asked the government for suggestions to improve the self-regulatory mechanism for electronic media. The government, in its affidavit, highlighted the need to regulate web-based media.
- There has also been a face-off between the government and Twitter in recent weeks over the social media platform’s non-compliance with its order to block several hashtags and handles of journalists, activists and politicians in the backdrop of the ongoing farmers’ protests. Twitter eventually complied, though not fully.
- Questions about how social media platforms can be made accountable for the spread of fake news and pornographic content have been raised in Parliament and by the Supreme Court in recent years, something that has been highlighted by the government in its release as well.

What has changed from earlier?

- The scope of regulation of the digital space has been expanded.
- The new guidelines not only replace the Information Technology (Intermediaries Guidelines) Rules, 2011, but go a step further.
- They also regulate digital news publishers and streaming services, which was not the case earlier. The 2011 rules were a narrower set of guidelines for intermediaries.
- Under Section 79 of the Information Technology Act, the intermediaries are not liable for user-generated content, provided they adhere to the rules — “an intermediary shall not be liable for any third-party information, data, or communication link made available or hosted by him,” it states. These rules have been tightened now.

Why are the rules being criticised?

- **Strict government regulation:** For digital news media, these guidelines will subject it to governmental regulation in a way.
  - The three-tier structure of regulation will entail oversight by a government committee at the highest level. Any grievance that does not get satisfactorily solved at the self-regulatory levels will get escalated to the government panel.
  - The Internet Freedom Foundation (IFF), a digital liberties organisation,
refers to this as “excessive governmental control over digital news and OTT content”.

- **Traceability of Originator:** The other rule that has been criticised by the IFF is the requirement of traceability of the originator of a problematic message.
  - The news guidelines do suggest that this will not be required “where other less intrusive means are effective in identifying the originator of the information”.
  - **Censorship and surveillance:** The rules have also been criticised for increasing the potential for censorship and surveillance.

Source: TH

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**Diversion of Fresh water from Brahmani river basin**

GS-III | 04 September,2021
The massive diversion of fresh water from the Brahmani river basin could pose a grave threat to Bhittarkanika mangroves vegetation in Odisha.

Bhitarkanika — a notified Ramsar wetland — is spread over 195 sq. km and is home to 62 mangrove species. Besides, 1,600 salt water crocodiles crawl on the mudflats of the Bhitarkanika mangrove forest.

Mangroves grow in brackish water. Proportionate fresh water flow from the Brahmani river basin and the Kharasrota river keep the salinity level of the water along the shore down.

The brackish water becomes ideal for the mangroves to grow and stay healthy.

The Wildlife Society of Orissa (WSO), an environmental pressure group, had
drawn public attention on the excess water allocation for industries, which is likely to reduce fresh water discharge to the sea.  
- “The Talcher-Angul coal mines, steel and power plants as well as the Kalinganagar steel and power hub are drawing enormous quantities of fresh water from the Brahmani river,” said Biswajit Mohanty, secretary, WSO.  
- “Against an available 4,400 mcum of fresh water stored by the Rengali reservoir, 4,318 mcum, that is almost equal to the available water supply shall be withdrawn from the river,” he said.  
- According to the WSO secretary, 105 million litres, as per government claims, would be withdrawn for the mega drinking water project.  
- Mr. Mohanty said, “The reduction in water flow would lead to drastic changes in the water regime of the Bhitarkanika mangroves. The Sunderbans mangrove forest was drastically affected after the Farraka barrage was commissioned.”  
- Stating that the lack of normal flow of fresh water would increase saline ingress upstream, the WSO secretary said it would affect the local flora and fauna as well as the livelihoods of the farmers and fishermen.  
- Besides, there could be a quantum increase in the man–crocodile conflict since the estuarine crocodiles would leave the core sanctuary area and migrate upstream once salinity increases, he said.

For news on Wetlands and conservation: click here

Source: TH
North-east is very important for our country from the aspects of security.
Our aim is to end all disputes in the Northeast by 2022 and usher in a new era of peace and development in the Northeast in 2023.
India has made efforts to establish peace by enriching the dignity, culture, language, literature and music of the Northeast.
We believe that development cannot happen without peace, and if employment, health, education and home and electricity for everyone are needed, then these cannot be achieved by picking arms.

For the North-East region, the Union Home Minister has identified 3 objectives:

1. The first objective is to preserve and protect its dialects, languages, dance, music, food, culture and to create attraction for it all across India.
2. The second is to end all disputes in the Northeast and make it a peaceful region.

3. And the third important objective is to make the Northeast a developed region and try to bring it back at par with the level of contribution made in pre-independence GDP.

All-round Development of North East:

The Government of India is committed to making the North East an economic hub connecting Southeast Asia under the Act East Policy.

- The Government of India has spent a total amount of Rs. 2 lakh 65 thousand 513 crore from the year 2014 to March, 2021 for the development of various infrastructure projects in the North-East region.

- In comparison to 13th Finance Commission, the 14th Finance Commission has given 251 percent more Central taxes.
- At the same time, in comparison to the 13th Finance Commission, the 14th Finance Commission, has given 183 percent more funds.
- The budget of the DONER Ministry has also been increased by 65 percent in 2019-20 as compared to 2014-15.
- During January 2020, as per the direction given in the NEC by the Union Home Minister, a very important decision was taken by the DONER Ministry and for focused development of the deprived areas, deprived/neglected sections of society and emerging priority areas, under the existing schemes of NEC, 30 percent of the allocation of NEC has been earmarked for new projects.
- Under this, 54 projects worth Rs. 214 crore were approved during 2020-21 in the Northeastern states.
- In the 13th Finance Commission, NEC allocated a budget of 3449 crore in comparison in the 14th Finance Commission a budget of 5348 crore was allocated. This is an increase of about one and a half times.

Major Agreements of the Northeast

NLFT Tripura Agreement:

- The agreement was signed on 10 August 2019 in the presence of the Union Home Minister.
- Immediately thereafter 88 cadres surrendered with 44 weapons in the surrender ceremony held on 13.08.2019.
As per the MoU, for the overall development of the tribals of Tripura, the Government of Tripura will be given a Special Economic Development Package (SEDP) of Rs.100 crore by the Government of India during a period of five years.

- From this package Rs. 100 crore, Rs. 40 crore, the amount has already been released to Tripura during the financial year 2020-21 and as per the agreement, the rest amount of Rs.60 crore will be provided to Tripura in the next three year period (2021-22 to 2023-24).

**Bru Accord:**

- For permanent settlement of 6959 Bru families (37,136 persons) in Tripura with a financial package of about Rs. 661 crore Government of India, Government of Tripura and Government of Mizoram with representatives of Bru migrants on 16.01.2020 signed this historic agreement in the presence of Union Home Minister.
- As per the agreement, each resettled Bru family will be provided a fixed deposit of Rs.4 lakh as financial assistance, free ration, five thousand rupees per month for two years, Housing assistance at the rate of Rs.1.5 lakh and a land plot of 30 x 40 sq. ft.
- For the rehabilitation of Bru migrants, Rs 128.38 crore has been given during the financial year 2019-20 and Rs 140 crore during the financial year 2020-21 to the Tripura government.
- The Tripura government initially earmarked 14 locations in six districts for the settlement of Bru migrants and all 13 such proposals, which required forest clearance, have been approved in-principle by the Ministry of Environment and Forests, Government of India.
- So far, plots have been allotted to 2110 families at four locations, out of which 1426 Bru families have been provided housing related assistance.

**Bodo Peace Accord:**

- A Memorandum of Understanding was signed on 27.01.2020 by the Government of India, Government of Assam and representatives of Bodo groups to resolve the long pending Bodo issue in the presence of Union Home Minister Shri Amit Shah.
- After the agreement, 1615 cadres of NDFB groups surrendered their weapons on 30.01.2020. NDFB groups got disbanded on 09-10 March, 2020.
- As per the MoU, a Special Development Package (SDP) of Rs. 1500 crore
Now Karbi Anglong Agreement: [Click here](#)

**Safe Northeast**

- The security situation in the North-Eastern states has greatly improved since 2014 under the government of Prime Minister Shri Narendra Modi. The year 2019 and 2020 saw the lowest number of insurgency related incidents and casualties of civilians and security forces during the last two decades.
- There were 824 incidents of violence in the Northeast in 2014 in which 212 innocent civilians were killed; it has reduced to only 162 such incidents in 2020, in which only 2 civilians were killed.
- In comparison to 2014, there has been an 80 percent reduction in insurgency incidents in the year 2020. Similarly, in this period, the number of casualties in security forces has decreased by 75 percent and civilian casualties by 99 percent.
- In the last 2 years, 3922 militants have surrendered with 873 weapons.
- For reimbursement of Security Related Expenditure (SRE) incurred by the 4 North Eastern States on various security items and rehabilitation of surrendered insurgents Rs.2002 crore amount has been released since 2014-2015.

Source: PIB
Law and order is a state subject in the federal structure and to strengthen the federal structure, a link connecting the implementing agencies of all the states, that is, the police, and its federal organizations, is very important.

The challenges are faced from the perspective of the country, there are governments of different parties and ideologies in states, there are regional parties as well, apart from this, if law and order is to be ready to face the challenges, then there is a link to do that.

If that link is not there, the law and order system of the country will collapse and in 51 years, Bureau of Police Research & Development (BPR&D) has done a great job of connecting all the states in terms of law and order in the country.

Different states of the country have different policies and challenges and it was not possible for the states to meet these challenges until a central system assessing all these challenges, practicing its global parameters, do not work day and night to upgrade the force.

The greatest thing in a democracy is the freedom of the individual which is directly linked with law and order and democracy can never succeed without law and order.

More than 35,000 police personnel have sacrificed their lives in various works in last 75 years and laid down their lives for the country.

Today cyber-attacks, drone attacks, narcotic smuggling, throw currency and hawala rackets are the biggest challenges.

BPR&D is such an institution which should change its work according to the challenges.

The main task of BRP&D is to prepare our police forces by preparing them by studying the best practices around the world and assessing the changing challenges.

Basic policing cannot be good without improving the beat system.

More work needs to be done to revive, update and upgrade the beat system.

Government efforts for Internal Security

The work of abrogation of Article 370 and 35A in Jammu and Kashmir, changes in CrPC, IPC, cyber.

India has started a campaign to crack down on narcotics by making amendments in NIA Act, changes in Arms Act, changes in UAPA Act, four tier structure through Narco.

Police and the Narcotics Control Bureau across the country have broken their
own record in the last 25 years by catching the maximum number of narcotics within the last two years.

- Shri Amit Shah said that the government has made a lot of agreements in the Northeast. NLFT agreement, resettlement of Bru refugees, Bodo peace agreement and agreement with Karbi Anglong.
- Establishment of National Defense University, establishment of FSL University, coordination of criminal justice system with CCTN has been done.
- We are also working very fast in the direction of e-procedure and e-forensics.
- National Academy for Coastal Policing was also established in Gujarat, National Cyber ??Crime Portal has been dedicated to the nation.
- NATGRID
- We have made a very good use of the Private Security Agency Licensing Portal at the national level. FCRA has also been radically changed.

**Way Forward**

- BPR&D should also work to modernize, train, operate and enhance operation skills of CAPFs in view of the kind of border security challenges that have come before us today. Hence Ministry of Home Affairs might amend its charter.
- Bureau should work for institutionalizing reforms that have been implemented on the ground.

Source: PIB

Karbi Anglong Peace Agreement 2021
GS-III | 06 September,2021

**About Karbi Anglong**
Karbi Anglong district is one of the 33 administrative districts of Assam in India. Diphu is the administrative headquarter of the district. Karbi Anglong, the largest district in Assam, comprises various tribal and ethnic groups — Karbis, Bodos, Kukis, Dimasas, Hmars, Garos, Rengma Nagas, Tiwas, and Man (Tai Speaking). Apart from these groups, a lot of non-tribals also reside in the hilly district. The Karbis racially belong to the Mongoloid group and linguistically to the Tibeto-Burman group. It is an autonomous district administrated by Karbi Anglong Autonomous Council under the Sixth Schedule of the Indian Constitution and located in central Assam.

Spread across an area of 10,434 sq km, Karbi Anglong is geographically divided into two parts — East Karbi Anglong (EKA) and West Karbi Anglong (WKA) — with its administrative headquarters located at Diphu town in EKA. The Karbi Anglong District Council (KADC), which looks after safeguarding the rights of the tribal people, was upgraded to Karbi Anglong Autonomous Council (KAAC) in April 1995. The Sixth Schedule allows the constitution of autonomous district councils in Assam, Meghalaya, Tripura and Mizoram to safeguard the rights of tribal population.

What is the Karbi issue?

- The Karbi insurgency — for a separate state of Karbi Anglong and North Cachar Hills — is one of the several insurrections that Assam has faced over the years, apart from the Bodoland movement and the one led by ULFA to demand sovereignty for Assam.
- After Independence of India, Several tribes of Northeast India like Naga people, Mizo people, Bodo people and Khasi people begin demanding separate statehood or complete independence identity for themselves.
- These demands were agitated both by common people and group of insurrections.
- The Congress Govt. Assam in 1960, declared Assamese language as the official language of the State ignoring existence of multiple tribes and languages, causing discontent among indigenous tribes, which form majority of then Assam State.
- This led to the formation of Nagaland State in 1963 and State of Meghalaya in 1971.
- The then unified districts (Karbi Anglong district & Dima Hasao district)
were invited to join the newly created Meghalaya.

- The twin districts **vetoed to join the newly created State of Meghalaya**, after the assurance of greater independence from State of Assam.
- Though the same assurance by State of Assam remain partly or wholly unfulfilled and diluted through decades.
- This led to several memorandums, wave of agitations in the twin Districts of Karbi Anglong district and Dima Hasao district complaining of lack of fulfilment, infiltration in the Sixth schedule, ignorance and imposition of Assamese towards these districts by the State of Assam.
- Several clashes have broken out between various tribes in Karbi over the years.
- From the period between October 2003 and March 2004, a series of violent clashes had broken out between Karbi and Kuki militants, leaving 98 dead and 28 others injured.
- The Kukis are a majority in the Singhasan hill area. In 2005, clashes between Karbis and Dimasas killed 106 people and injured 19.
- In 2013, in a joint agitation Bodo, Dimasa and Karbi disrupted transport service through highway and railway in their respective districts. Eventually, leading in lose of 2 lives due to police firing and damages to many public and private property.
- In 2014, over 3,000 people from Karbi and Rengma Naga tribes were rendered homeless due to violent clashes that broke out between KPLT and Rengma Naga Hills Protection Force (RNHPF) on 27 December.
- The district is also a hotbed of militant activities who aspire to achieve statehood though violence. UPDS, now defunct, has come overground for overall good, peace and development of the region and people.

**Demand for Statehood**

- Regarded as the father and architect of ‘Karbi Nation’ and ‘Karbi Nationalism’, Semson Sing Ingti along with few others started a movement to raise awareness and political consciousness among the Karbi people.
- In 1946, the first Karbi socio-political organisation, Karbi A Dorbar, was constituted, which submitted the demand for a separate state before the Bordoloi committee the next year. Gopinath Bordoloi, the first chief minister of Assam, headed this committee set up in 1947 to prepare schemes for the northeastern tribal areas.
- In 1979, the Karbi Anglong People’s Conference (KAPC) — the autonomous district council for the protection of the rights of tribal people — declared they needed a separate state for the hilly population of Assam.
- The Karbis’ demand for a separate state of Karbi Anglong and North Cachar
Hills gained further momentum after the Centre carved out Telangana in 2014.

- However, unlike before, the demand for the separate state was backed by militant groups in the area in the 1990s. But these groups got disintegrated with time and fractionated out.
- Militant outfits — Karbi National Volunteers (KNV) and Karbi People’s Force (KPF) — were formed in 1996, but could hardly gain any prominence. Then in 1999, both organisations came under one umbrella, calling itself the United Peoples’ Democratic Solidarity (UPDS).
- The UPDS’ then general secretary Horen Sing Bey is now the BJP MP from the Karbi Anglong Lok Sabha constituency.
- The UPDS entered into a ceasefire agreement in 2002 with the Indian government, after which its ‘anti-talk’ faction formed the Karbi Longri North Cachar Hills Liberation Front (KLNLF) in 2004.
- In 2010, the KLNLF entered into a ceasefire agreement with the Government of India during which over 400 cadres laid down their arms. Then, one of its members Amitabh Hanse broke away from the outfit with 17 other cadres to form the Karbi People’s Liberation Tiger (KPLT), declaring to continue the struggle for fulfilling the needs of the Karbi people.

Karbi Peace Agreement

- A historic agreement has been reached to establish peace in the Karbi-Anglong region.
- Government of India and Government of Assam are making constant efforts to fulfill the just aspirations of the Karbi people.
- The tripartite MoU was signed twice in 1995 and 2011.
- But due to apathy by the old governments, despite these agreements, peace could not be established in Karbi-Anglong.
- Indian Government held several rounds of talks with representatives of the Karbi and Kuki organizations, in an effort to find a comprehensive and final solution to the demands of the Karbi group, while upholding the territorial integrity of Assam.

Key points of the Karbi-Anglong Peace Agreement

- Under this historic agreement, 5 militant organizations laid down arms and more than 1000 of their armed cadres have given up violence and joined the mainstream of society in February 2021.
- A special development package of Rs. 1000 crore will be allocated over five years by the Central Government and the Assam Government to take up
special projects for the development of Karbi areas.

- This agreement will transfer as much autonomy as possible in exercising their rights to the Karbi Anglong Autonomous Council, without affecting the territorial and administrative integrity of Assam.
- This agreement will ensure the protection of the culture, identity, language, etc. of the Karbi people and all-round development of the region.
- In this agreement the Karbi armed groups have agreed to renounce violence and to engage in a peaceful democratic process established by the law of the land. Keeping this in mind, a provision has also been made in this agreement to rehabilitate the cadres of armed groups.
- The Government of Assam will set up a Karbi Welfare Council to focus on the development of the Karbi people living outside the Karbi Anglong Autonomous Council area.
- The Consolidated Fund of the State will be amended to meet the resources of the Karbi Anglong Autonomous Council.
- Overall, the present agreement proposes to give more legislative, executive, administrative and financial powers to the Karbi Anglong Autonomous Council.

Achievements so far in Karbi Anglong region

- On 23 February 2021, 5 militant organizations from Karbi Anglong formally laid down arms.
- More than a thousand cadres of 5 militant organizations of Karbi Anglong surrendered their arms and ammunitions. They surrendered a total of 338 weapons and 11000 rounds of ammunition including AK-series rifles, M16 rifles, LMGs, rocket launchers etc.
  1. People’s Democratic Council of Karbi Longri (PDCK),
  2. Karbi Longri North Cachar Hills Liberation Front (KLNLF),
  3. Karbi People’s Liberation Tigers (KPLT),
  4. Kuki Liberation Front (KLF) and
  5. United People's Liberation Army (UPLA)
- 32 projects estimated of Rs. 350 crore under the Karbi Anglong Autonomous Council package announced under the previous agreement are in various stages of completion today.
- The Union Home Minister laid the foundation stone of Karbi Bhawan and Dimasa Bhawan in Delhi on 19th August 2019, which was a long pending demand.
- 22 crore projects have been approved under the North-East Infrastructure Development Scheme
- Under NLCPR scheme of Central Pool, 20 projects costing 200 crores are
The Assam Hill Medical College and Research Institute has been inaugurated at Diphu and the academic session has commenced. The development of tourist lodge at Bagori entry point has been successfully completed. Construction of Cancer Care Center at Diphu is underway.

Source: PIB
Recently, the President promulgated Tribunal Reforms (Rationalisation and Conditions of Service) Ordinance 2021 through which the Appellate authorities under nine laws have been replaced with High Courts. (Click here to read about Administrative Tribunals in India)

The Ordinance amended the Finance Act 2017 to include provisions related to the composition of search-cum-selection committees, and term of office of members in the Act itself.

The Finance Act 2017

- It empowered the central government to notify rules on qualifications of members, terms and conditions of their service, and composition of search-cum-selection committees for 19 tribunals (such as Customs, Excise, and Service Tax Appellate Tribunal).

Major Provisions:

- The Chairperson and Members of the Tribunals will be appointed by the central government on the recommendation of a Search-cum-Selection Committee.
- The Committee will consist of:
  - Chief Justice of India, or a Supreme Court Judge nominated by him, as the Chairperson (with casting vote),
  - Secretaries nominated by the central government,
  - The sitting or outgoing Chairperson, or a retired Supreme Court Judge, or a retired Chief Justice of a High Court,
  - The Secretary of the Ministry under which the Tribunal is constituted (with no voting right).
- The term of office for the Chairperson of the tribunals will be of 4 years or till the attainment of the age of 70 years, whichever is earlier.
- For other members of the tribunals, the term will be of 4 years or till the age of 67 years, whichever is earlier.
- The Nine Laws (Replacement of Appellate Authorities/Tribunals):
  - The Cinematograph Act, 1952.
  - The Trade Marks Act, 1999.
  - The Copyright Act, 1957.
  - The Customs Act, 1962.
Reason for Replacing Tribunals:
- The quality of adjudication has been underwhelming in most cases, the delays have been substantial because the government has struggled to find competent persons willing to accept positions on these tribunals, and litigation has actually become more expensive, as these tribunals added another layer to it.
- There has been incessant litigation since 1985 by advocate bar associations against the tribunals over serious questions of their independence from the executive.
- The cases with High courts could increase.

Source: TH

Special Livestock Sector Package

Why in news?
The Cabinet Committee on Economic Affairs (CCEA) has approved implementation of a special livestock sector package. Click here to read about Livestock sector.

About the Package
- It aims to boost growth in the livestock sector and thereby making animal husbandry more remunerative to 10 crore farmers engaged in Animal Husbandry Sector.
- The Central government will spend Rs. 9,81 on livestock development over the next five years
- All the schemes of the Department will be merged into three broad categories as:
  - Development Programme: It includes Rashtriya Gokul Mission,
National Programme for Dairy Development (NPDD), National Livestock Mission (NLM) and Livestock Census and Integrated Sample Survey (LC & ISS) as sub-schemes.

- **Disease Control Programme**: It is renamed as Livestock Health and Disease Control (LH & DC) which includes the present Livestock Health and Disease Control (LH & DC) scheme and National Animal Disease Control Programme (NADCP).

- **Infrastructure Development Fund**: It includes the Animal Husbandry Infrastructure Development fund (AHIDF), the Dairy Infrastructure Development Fund (DIDF), scheme for support to Dairy Cooperatives and Farmer Producer Organizations engaged in Dairy activities.
Private Companies and State agencies have vast amounts of data. There is no legal framework for data protection. Even the individuals do not know that their data is being used. Thus, there was a need for legislation which was also said by K S Puttaswamy case, 2018 that held Right to Privacy (Art 21) to be a Fundamental Right.

Against this backdrop, B N Srikrishna Committee (on Data Protection) prepared the Personal Data Protection Bill, 2018 to MEITy. It deals with the guidelines for collection, storage, and processing of personal data, consent of individuals, penalties & compensation, and a code of conduct.

**Terms**

- Data is the large collection of info about Data Principal (individuals) stored in a computer.
- Data is collected and handled by Data Fiduciaries (like FB). Fiduciary controls how and why the data is processed.
- Data Processing is analysis of data to collect patterns, turn raw data into useful. This is done by a 3rd party Data Processor (like Cambridge Analytica).
- The physical attributes of data, where data is stored, where it is send and where it is turned into something useful are Data Flows. It determines who has
the access to data, who profits off it, who taxes and who owns it.

- Data Localisation is the act of storing data on any device physically present within the borders of the country.

Provisions of the Data Protection Bill, 2019
Decoding the data protection bill

**WHAT IT MEANS FOR CONSUMERS**

- **DATA** can be processed or shared by any entity only after consent.
- **SAFEGUARDS**, including penalties, introduced to prevent misuse of personal data.
- **ALL** data to be categorized under three heads—general, sensitive and critical.

**THE GOVERNMENT & REGULATORY ROLE**

- **GOVT** will have the power to obtain any user’s non-personal data from companies.
- **THE** bill mandates that all financial and critical data has to be stored in India.
- **SENSITIVE** data has to be stored in India but can be processed outside with consent.

**WHAT COMPANIES HAVE TO DO**

- **SOCIAL** media firms to formulate a voluntary verification process for users.
- **SHARING** data without consent will entail a fine of ₹15 crore or 4% of global turnover.
- **DATA** breach or inaction will entail a fine of ₹5 crore or 2% of global turnover.

*Source: Mint research*
It requires all Fiduciaries to store copy of all personal data in India.

Bill trifurcates the data and mandates the storage in India depending on the type of data

1. **Personal Data**: Identifies the individual like Name, address etc.

2. **Sensitive Personal Data**: passwords, financial data, Health data, sex life, sexual orientation, biometric data, genetic data, transgender status, intersex status, caste or tribe, and Religious or political belief or affiliation. Such data can be processed only with explicit, informed, clear & specific consent of person. This is to be stored only in India. It can be processed abroad only in certain conditions including approval of Data Protection Agency (DPA).

3. **Critical Personal Data**: Anything that Govt may deem critical. Like Military or National Security Data. Both stored and processed only in India.

- Bill removes the requirement of data mirroring (personal data). Individual consent is required for data transfer.
- Fiduciaries must provide Govt non personal data when demanded. It includes anonymised data like traffic patterns, demographic data.
- It requires Social media companies to develop their own user verification mechanism.
- Data Protection Authority of India (DPAI) to be set up (headed by a Chairperson and <= 6 whole time members) to monitor and enforce provisions of the Act.
- Adjudicating Officers in the DPA. Adjudicating decisions can be appealed in the appellate tribunal. Appeals from the tribunal will go to Supreme Court.
- Each Company will have a Data Protection Officer (DPO) for auditing, grievance redressal, maintenance etc.
- It proposes Purpose Limitation and Collection Limitation clause which limit the collection of data to what is needed for clear, specific and lawful purposes.
- It grants individuals right to data portability and ability to access and transfer one's own data.
- It legislates on the Right to be Forgotten, right to restrict or prevent continuing disclosure of personal data. This has roots in EU law of GDPR (General Data Protection Regulation).
- Bill also states Penalties: Minor violations (5 crore or 2% of turnover) and Major (15 crore and 4% turnover).

**Advantages of Data Protection Bill, 2019**

1. Data Localisation can help law Enforcement agencies. Much of cross border data transfer is governed by individual bilateral **mutual legal assistance**
treaties.
2. Instances of cyber attacks and surveillance will be checked. Recent Pegasus incident on Whatsapp.
3. Fake news which leads to lynching, national security threats can be monitored now.
4. Ability to tax Internet giants.
5. It will help to enforce data sovereignty.

Disadvantages of Data Protection Bill, 2019

1. The Bill focuses on consent of the person but it also gives powers to Government to dilute these provisions for Govt agencies.
2. The powers given to Govt makes the gains from K S Puttaswamy case (Right to Privacy as a part of life and liberty) meaningless.
3. Recent incidents of Israeli spyware Pegasus and Google alerting 500 Indian users regarding "government backed" phishing attempts, the Indian government has still not provided answer.
4. Even the B N Srikrishna has used "Orwellian" and "Big brother" in response to removal of safeguards for Govt agencies.
5. It said that the dangers to privacy is from state and non state actors both and hence the exemptions should be "narrow" and for use in "limited circumstances".
6. DPAI is selected by a panel filled with Govt nominees disregards the fact that Govt agencies are also regulated under the Act; they are major collector and processor of data themselves.
7. Even if data is stored in India, encryption keys may be out of the reach of national agencies. The terms National Security are open ended.
8. FB, Google fear that this data localisation norms will have a domino effect in other countries.
9. It may backfire India’s own startups attempting for global presence

Source: TH

New Heat wave Hotspots and Trends in India

GS-I | 08 September, 2021

- North-Western, Central, and further to south-central region of India are the new hotspot of intense Heatwave events over the past half-century,
said a study which found an increase in deadly Indian heat waves in recent years.

- The study also highlights the need for developing effective heat action plans in the three heatwave hotspot regions with a focus on different vulnerabilities among the inhabitants.
- Heatwaves emerged as a deadly health hazard, claiming thousands of lives across the globe in recent decades, with episodes strengthening in frequency, intensity, and duration in the past half-century in India as well.
- This has caused severe impacts on health, agriculture, economy, and infrastructure.
- In such a scenario, it is extremely important to identify the most heatwave vulnerable regions of the country to prioritize immediate policy intervention and stringent mitigation and adaptation strategies.
- A team of researchers studied the change in spatial and temporal trends in Heatwaves (HW) and Severe heatwaves (SHW) over the past seven decades in different meteorological subdivisions of India.
- This work has been supported under the Climate Change Program of the Department of Science & Technology. The study published in the journal “International Journal of Climatology” links the association of HW and SHW with mortality over India.
The study showed a shift in the Spatio-temporal trend of HW events from the eastern region of Gangetic West Bengal and Bihar to North-Western, Central and further to south-central region of India. The research also observed an alarming southward expansion and a spatial surge in SHW events in the last few decades that may put a greater population at additional risk of heat stress in a region already characterized by low Diurnal temperature range (DTR), or the difference between the maximum and minimum temperatures within one day and high humidity. Importantly, the HW/SHW events were found to be positively correlated with mortality in Odisha and Andhra Pradesh, highlighting that human health is highly susceptible to severe heatwave disasters.

Way Forward

- With an ever-increasing extreme-temperature threshold, a heat resilient future is the need of the hour.
- Dense population with an intensive outdoor work culture calls for an equitable heat resilient mitigation and adaptation strategies covering each section of
the society depending on their vulnerability.

- The study highlights the need for developing effective heat action plans in the three heatwave hotspot regions.

Source: PIB
Background

- The existing National Textile Policy 2000 was framed about 13 years ago. Since then, the industry has undergone various changes on the domestic and international front.
- The domestic textile industry has seen large-scale modernisation and technological up-gradation in the last decade and faces new challenges.

About the New Textile Policy 2020

- It is aimed at developing in the country a competitive textile sector which is modern, sustainable and inclusive.
- This new policy will have a special focus on manufacturing of apparel and garment, technical textiles, man-made fibre products and exports.
- It will envisage positioning India as a fully integrated, globally-competitive manufacturing and exporting hub.
- It will entail the strategy and action plan for the country's textile and apparel segments, while maintaining pre-eminent position in handicraft and handloom sectors.
- Technical textiles: The Cabinet has approved the National Technical Textiles Mission. The govt. will spend Rs.1,000 crore in developing raw materials for technical textiles; research associations will be asked to produce applications for these.

Challenges ahead

- Need for cost effectiveness is a major challenge.
- One factor affecting cost effectiveness is lack of scale. New industries should look at scale. The Textiles Ministry plans to develop 10 mega textile parks. Each one will be an integrated park. It is hoped to bring some economies of scale with this. Any State which has minimum 1,000 acres ready for the park will be supported to develop it.
- Indian exporters are largely cotton based. Therefore we should move to MMF (manmade fibre). If Indian exports in MMF grow to the level of cotton (i.e., the share of Indian cotton product exports in global trade) the overall exports will increase by $20-25 billion.

Click here to read The PLI Scheme for Textiles in India.
National Technical Textiles Mission

The Cabinet Committee on Economic Affairs (CCEA) approved the establishment of a National Technical Textiles Mission to help India position itself as a “global leader” in technical textiles. This includes increasing exports of these “futuristic” segments of textiles by over 40 per cent in the next two years.

What are technical textiles?

- Technical textiles are products used for functional purposes.
- They have various applications, ranging from agriculture, roads, railway tracks, sportswear and health on the one end, to bullet-proof and fire-proof jackets, high-altitude combat gear and space applications on the other end of spectrum.
- India’s technical textiles segment is estimated at $16 billion — approximately 6% of the global market for this segment.
- The penetration-level of technical textiles is low in India, varying between 5-10% as opposed to a level of 30-70% in developed countries.

Salient Features of National Technical Textiles Mission

- The Cabinet has approved a total outlay of Rs 1,480 crore for the project, which will be implemented over four years and aims to promote research, export and skill development in this sector.

- The Mission has four components to achieve these goals.

1. Component-I: Promoting both (i) fundamental research at fibre level and (ii) application based research in geo-textiles, agro-textiles, medical textiles, mobile textiles and sports textiles and development of biodegradable technical textiles.
2. Component-II: Promotion and Market Development.
3. Component-III: Export promotion of technical textiles and ensuring 10%
average growth in exports per year up to 2023-24. An Export Promotion Council for Technical Textiles will be set up for this purpose.

4. Component-IV: Promoting technical education at higher engineering and technology levels related to technical textiles.

- **Aim:** The Mission will aim at an average growth rate of 15-20 per cent per annum, taking the level of the domestic market size to $40-50 billion by the year 2024. The mission aims to do this through market development, market promotion, international technical collaborations, investment promotions and ‘Make in India’ initiatives.
- Around Rs 1,000 crore of the outlay is earmarked for “fundamental” research aimed at “path breaking” technological products in the fibres space, as well as application-based research in segments like agro-textiles, medical textiles and mobile textiles. It will also be used towards the development of biodegradable technical textiles.
- The government aims to enhance exports of technical textiles to Rs 20,000 crore by 2021-22 from approximately Rs 14,000 crore currently.
- The Mission’s export promotion component also aims for a 10% average growth in exports per year up to 2023-24.
- The Mission will also aim at improving education, skill development and adequacy of human resources in the country, which the government feels is currently “not adequate to meet the technologically challenging and fast growing technical textiles segment”. Arrangements have been made for the skill development of 50,000 people in the technical textiles field. The target of the mission is to nullify the burden of this segment on the country’s trade deficit over the course of one year.
- The Centre will focus on including the usage of technical textiles in “various” flagship missions and programmes of the country, like the Jal Jivan Mission, Swachh Bharat and Ayushman Bharat.
- A directorate in the Ministry of Textiles will be made operational for the implementation of this mission, but will move into a sunset phase after four years.
What is an Enforcement Directorate (ED)?

- Enforcement Directorate (ED) is a specialized financial investigation agency under the Department of Revenue, Ministry of Finance.
- On 1st May 1956, an ‘Enforcement Unit’ was formed in the Department of Economic Affairs for handling Exchange Control Laws violations under Foreign Exchange Regulation Act, 1947. In 1957, it was renamed as ‘Enforcement Directorate’.
- ED enforces the following laws:
  1. Foreign Exchange Management Act (FEMA), 1999.
  3. The Headquarters of Enforcement Directorate (ED) is situated in New Delhi and headed by the Director of Enforcement.
  4. The director is appointed by the Appointments Committee of the Cabinet headed by Prime Minister.

Why in news?

- The Supreme Court did not intervene with the government’s decision to “retrospectively extend” the tenure of Sanjay Kumar Mishra as the Director of the Enforcement Directorate (ED), saying his tenure is anyway drawing to a close in November 2021.
- In a judgment pronounced, a Bench led by Justice L. Nageswara Rao, however, said Mr. Mishra should not be given any further extension at the top of the specialised Central agency which investigates sensitive cases under the Prevention of Money Laundering Act.
- The court, however, upheld the power of the government to extend his tenure beyond two years.
- "As the tenure of appointment of Director of Enforcement is not a maximum period of two years, a person can be appointed as Director of Enforcement for a period of more than two years... The decision to extend the tenure of the respondent [Mishra] is pursuant to the recommendation made by the high-powered committee.”
- However, the court said the power to grant extensions for a “reasonable period” to the ED Director should be done rarely and only after recording the reasons.
The Collegium System  
GS-II | 09 September, 2021  

The Collegium System was introduced in response to the executive interference in judicial appointments. However, this system has failed to protect judicial appointments from executive interference. It is due to the reasons like Post-retirement appointments of judges.

At present, the collegium comprises of CJI (Chief Justice of India) and 4 senior-most judges of the Supreme Court. Despite various criticisms and attempts to reform the appointments and transfers process, the collegium system still persists.

Current Scenario

- The appointments of the judges are formally made by the President of India on the recommendation of the collegium. These proposals are processed through the Ministry of Law and Justice.
- The system was recently in the news as two judges of collegium expressed caution to CJI against the proposed elevation of 22 lawyers as High Court judges in Bombay. They felt that the proposed people were lacking in integrity and shouldn’t be appointed.

About Collegium System of Supreme Court

- It is the system by which the judges are appointed and transferred only by the judges.
- This system is not formed by an Act of Parliament or by a Constitutional provision. Instead, it is the system *evolved by the judgments of the Supreme Court*.
- The SC collegium is headed by the CJI and comprises of four other senior-most judges of the court.
- An HC collegium is led by its Chief Justice of High Court and four other senior-most judges of that court.
- The names recommended for appointment by a High Court collegium reach the government only after approval by the CJI and the Supreme Court collegium.
- The government can return the recommended Judge for reconsideration by
If the collegium reiterates its recommendation then the government is mandated to appoint a person.
The system was introduced for strengthening and improving the appointment process.

**Evolution of Collegium System**

1. **Article 124(2)** of the Indian Constitution provides that the Judges of the Supreme Court are appointed by the President. He/she should consult such a number of the Judges of the Supreme Court and of the High Courts in the States as he/she may deem necessary for the purpose.
2. **Article 217** of the Indian Constitution states that the Judge of a High Court shall be appointed by the President in consultation with the **Chief Justice of India** and the **Governor of the State**. Further, the Chief Justice of the High Court should also be consulted except in case of his/her own appointment.
3. **In First Judges Case (1981)** – The court said consultation under Article 124 doesn’t mean concurrence (unanimity). Based on this judgement, the President is not bound by CJI’s advice.
4. **In Second Judges Case (1993)** – The court overruled its previous decision and said CJI’s advice is binding. Further CJI is required to formulate its advice based on a collegium of judges consisting of CJI and two senior-most SC judges.
5. **In Third Judges Case (1998)** – The court expanded the collegium to a five-member body to include the CJI and the four senior-most judges of the court after the CJI.
6. **In the Fourth Judges Case (2015)** – The SC upheld the primacy of the collegium. Further, the court struck down the NJAC (National Judicial Appointments Commission) Act as unconstitutional. The Court held that the Act gave the government significant powers to appoint Judges. The Court held the Act encroached upon the judiciary’s independence and undermined the basic structure.
   - The NJAC comprised of 3 judges of SC, a central law minister, and 2 civil society experts.
   - A person would not be recommended by NJAC if any 2 of its members did not accept such recommendation, making the appointment process more broad-based.

**Need for Collegium System**
1. It separates the judiciary from the influence of the executive and legislative. This ensures impartial and independent functioning. So, the collegium system strengthens the principle of separation of powers (no organ of State should intervene in the functioning of another).

2. The State is the main litigant in Indian Courts. About 46% of total cases pending in India pertains to the government. If the power to transfer the judges is given to the executive, then the fear of transfer would impede justice delivery.

3. The executive organ is not a specialist or does not have the knowledge regarding the requirements of the Judge. Therefore, it is better if the collegium system appoints Judges.

4. The political vulnerability in India - The government handling the transfers and appointments is prone to nepotism. For example, there are ample amount of evidences where the civil servants were transferred for political gains. This cannot be feasible with the present collegium system. Further, the collegium system provides stability to the judges.

Criticisms of the Collegium System

1. It gives enormous power to judges that can be easily misused. The collegium system has made India, the only country where judges appoint judges.

2. The selection of judges by collegium is undemocratic. Since judges are not accountable to the people or representative of peoples i.e. executive or legislative.

3. There is no official procedure for selection or any written manual for functioning. This creates an ambiguity in the collegium’s functioning.

4. Sons and nephews of previous judges or senior lawyers tend to be popular choices for judicial roles. Thus, it encourages mediocrity in the judiciary by excluding talented ones and breeds nepotism.

5. The delays over the appointment are still persistent. The Supreme Court last appointed a judge in September 2019, and it currently has four vacancies, which is expected to be increased further this year.

6. The procedure lacks uniformity- Sometimes a judge of HC is elevated as chief justice of the same HC while in other cases he/she is made chief justice of some other high court.

7. Proactive decisions on improving transparency were rolled back to secrecy. This includes the practice of disclosing the reasons while announcing the collegium’s decision.
Suggestions and Way Forward

1. The Centre **needs to act on collegium’s decision** within a **specific time frame** so that delays are minimized. Many names for appointments to the High Courts of Bombay and Allahabad are pending before the government since May 2020.

2. Both the Centre and Judiciary **must stop the blame game** and focus collectively on reforming the appointment process. A consensus needs to be developed on a **memorandum of procedure**. This procedure has to include few important provisions such as,
   - Involving an agreement between the judiciary and the government which contains a set of guidelines for making appointments to the higher judiciary.
   - It should be **based on four criteria**, such as **transparency, eligibility criteria** for judicial appointments, a **permanent secretariat** to assist the collegium, and a **mechanism for complaints** against candidates.

3. At present, the collegium only puts out a public statement on who has been recommended. But it does not disclose who has been dropped out and for what reason. So, the collegium system must revert to an earlier practice of providing **rational reasons for its decision**.

4. Further, a **written manual** should be released by the Supreme Court. The manual should be followed in letter and spirit during appointments and transfers.

5. The Supreme Court should also release the records of **all collegium’s meetings in the public domain** in order to ensure transparency and rule-based process.

6. Apart from reforming the collegium system, the quality of judges can also be improved through the **implementation of All India Judicial Services (AIJS)**.

**Conclusion**

The system of appointments should be improved expeditiously as High Courts across the country are short of over 400 judges. A future rise in pendency of cases can be tackled only when the judiciary and executive are willing to negotiate with a citizen-centric spirit. For that, reforming the collegium system is a good step in right direction.
What is Minimum Support Price (MSP)?

- MSP is a form of market intervention by Center to insure agricultural producers against any sharp fall in farm prices (especially in bumper production years).
- They are announced at the beginning of the sowing season for certain crops on the basis of the recommendations of Commission for Agricultural Costs and Prices (CACP).
- The major objectives are to support the farmers from distress sales and to procure food grains for public distribution. In case the market price < MSP due to bumper production and glut in the market, Center purchases everything at MSP.

How many Commodities are included in MSP?

- MSP are currently announced for 24 commodities (7C + 5P + 8O + 4) including
  1. 7 cereals (paddy, wheat, barley, maize, jowar, bajra and ragi);
  2. 5 pulses (gram, arhar/tur, moong, urad and lentil); (Chickpea is in NAFED)
  3. 8 oilseeds (groundnut, rapeseed/mustard, toria, sesame, soyabean, sunflower seed, safflower seed and nigerseed);
  4. Copra, raw cotton, raw jute and virginia flu cured (VFC) tobacco.

Who decides the MSP in India?

- State can decide their own MSP but it should be > FCI. State and Center both can procure but the 1st right belong to State now. Whatever extra food grain is there; FCI can procure.
- Methods of Calculation: Pricing policy is rooted not in cost plus approach. Because along with Cost of production, CACP takes into account
  1. Demand and supply and Trends in market prices.
  2. Cost of production (A2 + FL method) and Changes in img prices.
  3. Input-output price parity and Inter-crop price parity.
  4. Terms of trade between agriculture and non-agriculture.
5. A minimum of 50% as the margin over cost of production
6. Comprehensive view of entire structure of economy of commodity
7. Effect on industrial cost structure; cost of living; general price level, international price situation, parity between prices paid and prices received by the farmers and effect on issue prices and implications for subsidy.

• Types of Production Costs according to CACP: There are 3 types of costs
  1. A2 = A2 costs = Input cost basically cover all paid-out expenses, both in cash and in-kind, incurred by farmers on seeds, fertilisers, chemicals, hired labour, fuel, irrigation, etc.
  2. A2+FL = It covers actual paid-out costs plus an imputed value of unpaid family labour. In 2017-18; Govt adopted the formula A2 + FL = Agri img cost + Unpaid Farm Labour
  3. C2 = C2 costs are more comprehensive, accounting for the rentals and interest forgone on owned land and fixed capital assets respectively, on top of A2+FL.
  4. Present Scenario: Abhijit Sen Committee, National Commission on Farmers chaired by M S Swaminathan said use full C2 cost. But Govt used MSP cost as 150% of A2 + FL.

Critical Analysis of MSP in India

• Benefits: Remunerative prices to Farmers; Control middlemen, hoarding, Motivate to grow 1 crop; Use dryland area agri (Coarse cereals, pulses and oilseeds)
• Problems: MSP not working; It is direct subsidy (Amber box subsidy); Differential MSP in States hence inequality in procurement; Gap between MSP and what farmer receives (Hence PM AASHA).
• For Sugar, it is Fair and Remunerative Prices (FRP). CCEA is the final authority.
• A pilot project under the Direct Payment Deficiency System (DPDS) for paying MSP guarantee for the cotton farmers has been initiated at Hinganghat taluka of Maharashtra in 2015. Under this system, Farmers will directly get the amount of MSP - Market Price when the Market Price < MSP. DPDS is a mode of DBT to Cotton farmers.

Market Intervention Scheme (MIS)
MIS is similar to MSP, which is implemented on the specific request of State Governments for procurement of perishable and horti commodities (if they are ready to bear 50% loss and 25% loss in Northeast States).
Under MIS, funds are not allocated to the States. Instead, central share of losses is released to the State Governments/UTs, for which MIS has been approved.

**Price Supports Scheme (PSS) for MSP operations**

- The Dept of Agri & Coop implements the PSS for procurement of COP: cotton, oil seeds and pulses through NAFED which is the Central nodal agency, at the MSP declared by the govt.
- NAFED undertakes procurement as and when prices fall below the MSP.
- Procurement under PSS is continued till prices stabilize at or above the MSP.

**Decentralised procurement (DCP) Scheme, 1997-98**

- It refers to the procurement of foodgrains (like paddy and/or wheat) to Central Govt stock through State agencies, rather than through FCI.
- States themselves procure grains for Central pool, store and distribute them for TPDS and OWS like Mid Day Meal, SC/ST/OBC Hostels etc. based on the allocation made by Center. Surplus is given to FCI and if there is deficit then FCI provides it.
- State Govts are not mandated to participate in the Scheme but are encouraged.

**Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA), 2018 - MoAFW**

1. It is an umbrella scheme aimed at ensuring remunerative prices to the farmers for their produce.
2. The main feature is that Central agencies would procure pulses and oilseeds directly from farmers. It allows cash payment to farmers or procurement by Private traders. It is a Centrally Sponsored Scheme.
3. Main crops covered are moong, urad, arhar, groundnut and soyabean.
4. The highest sanctioned procurement is in Maharashtra. It is comprised of 3 sub-schemes: Price Support Scheme, Price Deficiency Payment System and Pilot of Private Procurement & Stockist Scheme.

5. Price Support Scheme (PSS) -
1. Physical procurement of **pulses, oilseeds and Copra** will be done by Central Nodal Agencies with proactive role of State govs. (Operation Greens = TOP).
2. Both NAFED and FCI will take up PSS operations in states /districts.

6. Price Deficiency Payment Scheme (PDPS)

   1. It will cover **all oilseeds** (but it does **not** involve any physical procurement of crops) for which MSP is notified. It is modelled on Bhavantar Bhugtan Yojana of MP.
   2. In this **direct payment of the difference** between the **MSP and the selling price** will be made to pre-registered farmers.

7. Pilot of Private Procurement & Stockist Scheme (PPSS)

   1. States can use it on pilot basis PPSS which is for **oilseeds**, in addition to PDPS.
   2. It involves **physical procurement** of the oilseeds, it shall **substitute PSS/PDPS** in the pilot districts.

Click here to read the Analysis about the **Need for MSP Reforms**

Source: Aspire IAS Sanjeevani Notes

**PLI Scheme for Textiles**

* GS-III | 09 September, 2021*

**Why in news?**

- Taking steps forward towards the vision of an ‘Aatmanirbhar Bharat’, Government has approved the **PLI Scheme for Textiles for MMF Apparel, MMF Fabrics and 10 segments/ products of Technical Textiles** with a budgetary outlay of Rs. 10,683 crore.
- **PLI scheme for Textiles** is part of the overall announcement of **PLI Schemes for 13 sectors** made earlier during the Union Budget 2021-22,
with an outlay of Rs. 1.97 lakh crore.

- With the announcement of PLI Schemes for 13 sectors, minimum production in India is expected to be around Rs. 37.5 lakh crore over 5 years and minimum expected employment over 5 years is nearly 1 crore.
- PLI scheme for Textiles will promote **production of high value MMF Fabric, Garments and Technical Textiles** in country.
- The incentive structure has been so formulated that industry will be encouraged to invest in fresh capacities in these segments.
- This will give a major push to growing high value MMF segment which will complement the efforts of cotton and other natural fibre-based textiles industry in generating new opportunities for employment and trade, resultanttly helping India regain its historical dominant status in global textiles trade.
- The **Technical Textiles segment is a new age textile**, whose application in several sectors of economy, including **infrastructure, water, health and hygiene, defense, security, automobiles, aviation**, etc. will improve the efficiencies in those sectors of economy.
- Government has also launched a **National Technical Textiles Mission** in the past for promoting R&D efforts in that sector. PLI will help further, in attracting investment in this segment.
- **There are two types of investment possible with different set of incentive structure.**

1. Any person, (which includes firm / company) willing to invest minimum ?300 Crore in Plant, Machinery, Equipment and Civil Works (excluding land and administrative building cost) to produce products of Notified lines (MMF Fabrics, Garment) and products of Technical Textiles, shall be eligible to apply for participation in first part of the scheme.
2. In the second part any person, (which includes firm / company) willing to invest minimum ?100 Crore shall be eligible to apply for participation in this part of the scheme.

- In addition, priority will be given for investment in **Aspirational Districts, Tier 3, Tier 4 towns, and rural areas** and due to this priority Industry will be incentivized to move to backward area.
- This scheme will positively impact especially States like Gujarat, UP, Maharashtra, Tamilnadu, Punjab, AP, Telangana, Odisha etc.
- It is estimated that over the period of five years, the PLI Scheme for Textiles will lead to fresh investment of more than Rs.19,000 crore, cumulative turnover of over Rs.3 lakh crore will be achieved under this scheme and, will
create additional employment opportunities of more than 7.5 lakh jobs in this sector and several lakhs more for supporting activities.

- The textiles industry predominantly employs women, therefore, the scheme will empower women and increase their participation in formal economy.

### Other Production Linked Incentive Schemes in India

- PLI scheme “National Programme on Advanced Chemistry Cell Battery Storage”
- PLI Scheme for IT Hardware
- PLI Scheme for Food Processing Industry
- PLI Scheme for ‘National Programme on High Efficiency Solar PV Modules’
- PLI Scheme for White Goods

Click here to read other news related to Textile sector of India

- National Textile Policy 2020
- National Technical Textiles Mission

Source: PIB

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Asian Development Bank (ADB)

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- Asian Development Bank (ADB) is a **regional development bank** established on 19 December 1966.
- The Headquarters of ADB is in the Ortigas Center located in the city of Mandaluyong, Metro Manila, Philippines.
- India is a founding member of Asian Development Bank (ADB).
- It aims to promote social and economic development in Asia and the Pacific.

### Members of Asian Development Bank (ADB)

- The bank admits the **members** of the United Nations Economic and Social Commission for Asia and the Pacific (**UNESCAP**, formerly the Economic Commission for Asia and the Far East or ECAFE) and **non-regional**
developed countries.

- From 31 members at its establishment, ADB now has 68 members.
- The ADB was modelled closely on the World Bank, and has a similar weighted voting system where votes are distributed in proportion with members' capital subscriptions.
- As of 31 December 2016, Japan holds the largest proportion of shares at 15.677%, closely followed by United States with 15.567% capital share. China holds 6.473%, India holds 6.359%, and Australia holds 5.812%.

Roles and functions of Asian Development Bank (ADB)

- ADB defines itself as a social development organization that is dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration.
- This is carried out through investments – in the form of loans, grants and information sharing – in infrastructure, health care services, financial and public administration systems, helping nations prepare for the impact of climate change or better manage their natural resources, as well as other areas.

Masala Bonds and ADB

- Asian Development Bank (ADB) has listed its 10-year masala bonds worth Rs.850 crore on the global debt listing platform of India INX (BSE-owned exchange).

What are masala bonds?

- Masala Bonds are rupee-denominated bonds i.e the funds would be raised from overseas market in Indian rupees.
- Any corporate, body corporate and Indian bank is eligible to issue Rupee denominated bonds overseas.

**Conditions of Masala Bonds:**

1. RBI mandates that the money raised through such bonds cannot be used for real estate activities other than for development of integrated township or affordable housing projects.
2. It also can’t be used for investing in capital markets, purchase of land and on-lending to other entities for such activities as stated above.

About the move and its significance

- The proceeds would be used to support local currency lending and investment in India.
- ADB’s masala bonds are listed on both Luxembourg exchange and India INX.
- This is the first time a foreign issuer and a supranational is doing a primary listing with India INX. This will help further in making GIFT IFSC (Gujarat International Finance Tec-City -- International Financial Services Centre) a global hub for fund raising by Indian and Foreign issuers.

COVID 19 and Asian Development Bank (ADB)

- The Asian Development Bank has approved 1.5 billion dollars loan to India to help fund its fight against coronavirus pandemic.
- The loan has been sanctioned with a view to support immediate priorities such as disease containment and prevention, as well as social protection for the poor and economically vulnerable sections. The quick-disbursing fund is part of a larger package of support that ADB will provide in close coordination with the government and other development partners.

Why in news?

- The Asian Development Bank (ADB) and the Government of India today signed a $300 million loan as additional financing to scale up improvement of rural connectivity to help boost rural economy in the state of Maharashtra.
- The Government of India and Asian Development Bank (ADB) today signed a $112 million loan to develop water supply infrastructure and strengthen capacities of urban local bodies (ULBs) for improved service delivery in four towns in the state of Jharkhand.

Source: PIB
Background

- The Post Devolution Revenue Deficit Grant is provided to the States under Article 275 of the Constitution.
- The grants are being released as per the recommendations of the Fifteenth Finance Commission in monthly installments to meet the gap in Revenue Accounts of the States post devolution.
- The Commission has recommended these grants to 17 States during 2021-22.
- The eligibility of States to receive this grant and the quantum of grant was decided by the Commission based on the gap between assessment of revenue and expenditure of the State after taking into account the assessed devolution for the financial year 2021-22.
- The Fifteenth Finance Commission has recommended a total Post Devolution Revenue Deficit Grant of Rs. 1,18,452 crore to 17 States in the financial year 2021-22. Out of this, an amount of Rs. 59,226.00 crore (50%) has been released so far.
- The States recommended for PDRD Grant by the Fifteenth Finance Commission are: Andhra Pradesh, Assam, Haryana, Himachal Pradesh, Karnataka, Kerala, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand and West Bengal.
Recommendations made by the Fifteenth Finance Commission

Revenue deficit grants

- As per FFC estimates, 25 of the 28 states face a total pre-tax devolution revenue deficit of Rs.6.43 trillion in 2020-21.
- After accounting for the projected tax devolution to the states of Rs.8.55 trillion, 14 states garner post-tax devolution revenue surplus of Rs.3.08 trillion, while the remaining 14 face a combined post-tax devolution revenue deficit of Rs.74,340 crore. These states have been compensated by the FFC.
- The largest beneficiaries of the recommendation are Kerala (Rs.15,323 crore), Himachal Pradesh (Rs.11,431 crore), Punjab (Rs.7,659 crore), Assam (Rs.7,579 crore), Andhra Pradesh (Rs.5,897 crore), Uttarakhand (Rs.5,076 crore) and West Bengal (Rs.5,013 crore).

Weightage of population and demographic performance
Since the FFC used 2011 Census data, the tax share of most southern states with low population growth rates, such as Andhra Pradesh, Kerala and Karnataka, has come down, while the share of Bihar, Madhya Pradesh, Punjab, Maharashtra and Gujarat has gone up.

The FFC assigned 15% weight to the population of a state, down from the 17.5% allocated by the 14th Finance Commission, while raising the weight under demographic performance from 10% to 12.5%.

Special grants & nutrition grants

- The finance ministry has also asked the FFC to review its recommendations on special grants and nutrition grants to the states.
- The commission had recommended special grants of Rs.6,764 crore for 2020-21 to ensure that no state receives less than what it received in FY20 on account of tax devolution and revenue deficit grants.
- However, the Union finance ministry has requested the FFC to reconsider the recommendation, holding that “it introduces a new principle". The beneficiaries of the proposal were Karnataka, Mizoram and Telangana.

PM SVANidhi Scheme for Street Vendors

- PM SVANidhi is a Central Sector Scheme.
- Ministry of Housing and Urban Affairs is implementing Pradhan Mantri Street Vendors’ Atma Nirbhar Nidhi Scheme (PM SVANidhi) since June 01, 2020 to facilitate working capital loan of upto?10,000 of 1 year tenure to Street Vendors, vending in urban areas, to resume their businesses, adversely impacted by the pandemic.
On prepayment or repayment, they are eligible for an enhanced working capital loan of up to ₹20,000 and ₹50,000 in the second and third tranches respectively.

In addition, ‘SVANidhi se Samriddhi’ initiative, designed to build safety net for the beneficiaries’ families by linking them to existing socio-economic welfare schemes of Government of India. It was launched in January 2021 for 125 select cities.

As on July 26, 2021, 43.1 lakh loan applications have been received, out of these 25.2 lakh loans have been sanctioned and 22.7 lakh loans amounting to ₹2,243 crore have been disbursed.

In addition, Socio-economic profiling of 5.1 lakh beneficiaries along with their family members has been completed and 1.5 lakh scheme benefits have been extended.

This scheme targets to benefit over 50 lakh Street Vendors.

On timely/early repayment of the loan, an interest subsidy @ 7% per annum will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer on quarterly basis.

There will be no penalty on early repayment of loan.

The scheme promotes digital transactions through cash back incentives up to an amount of Rs. 100 per month.

Street Vendors engaged in vending in urban areas as on or before
March 24, 2020 are eligible for benefit under PM SVANidhi Scheme.

- The eligible vendors are identified as per following criteria:

1. Street vendors in possession of Certificate of Vending / Identity Card issued by Urban Local Bodies (ULBs);
2. The vendors, who have been identified in the survey but have not been issued Certificate of Vending / Identity Card;
3. Street Vendors, left out of the ULB led identification survey or who have started vending after completion of the survey and have been issued Letter of Recommendation (LoR) to that effect by the ULB / Town Vending Committee (TVC); and
4. The vendors of surrounding development/ peri-urban / rural areas vending in the geographical limits of the ULBs and have been issued Letter of Recommendation (LoR) to that effect by the ULB / TVC.
MoHUA – SIDBI MoU

- A Memorandum of Understanding has been signed between Ministry of Housing & Urban Affairs and Small Industries Development Bank of India (SIDBI), in order to engage SIDBI as the Implementation Agency for PM Street Vendor’s AtmaNirbhar Nidhi (PM SVANidhi) - a Special Micro-Credit Facility for Street Vendors.
- SIDBI will implement the PM SVANidhi Scheme under the guidance of MoHUA.
- It will also manage the credit guarantee to the lending institutions through Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE).
- It will develop and maintain a customized and integrated IT Platform providing end-to-end solutions, including documentation of all the processes.
and workflows for an end-to-end solution, through a Portal and a Mobile App, to ensure engagement and information flow between Urban Local Bodies (ULBs), Lending Institutions, Digital Payment Aggregators and other stakeholders.

- It will leverage the network of lending Institutions like Scheduled Commercials Banks (SCBs), Non-Bank Finance Companies (NBFCs), Micro Finance Institutions (MFIs), Co-operative Banks, Small Finance Banks (SFBs), Regional Rural Banks (RRBs), etc. for the Scheme implementation.
- With a view to ensure effective implementation, SIDBI shall also provide a Project Management Unit (PMU), comprising of domain experts in training/capacity building, project and platform management, Information Education and Communication (IEC), banking, NBFC and MFI sectors etc., for the period of PM SVANidhi i.e. upto March 2022.

Special drive for Digital onboarding of street vendors

- Pilot run of the ‘special drive for Digital onboarding of street vendors under PM SVANidhischeme’ was launched today.
- The drive launched today is in line with Prime Minister Shri Narendra Modi’s vision of “Sabka Saath Sabka Vikas”.
- The special drive aims to accelerate on-boarding of street vendors on the UPI QR code and handhold them to start accepting/making digital payment transactions.
- Five major aggregators including Paytm, Phone Pe, Bharat Pe, Mswipe and Aceware have agreed to participate in 45 days special drive for digitally onboarding the street vendors with BHIM-UPI QR code on pro-bono basis.
- The drive will cover 223 cities across the country with around 8,68,184 street vendors to be onboarded under various urban local bodies.
- Digital Payment Aggregators will educate the street vendors about the benefits of digital payments such as convenience, increased operational efficiency, seamless transfer of funds, cost saving, transparency and security.
- They will also hand hold the street vendors by performing penny drop transaction and any further support that is required to accept/pay digitally.
- Digital footprints including digital payment transactions and loan repayment data under the scheme would help in credit profiling of street vendors.
- This will enable inclusion of street vendors in the formal credit ecosystem, and help in driving financial inclusion of unorganized sector.
- This will enable inclusion of Street Vendors in the formal credit ecosystem, and help in driving financial inclusion of the unorganized sector.
- In recent years, a significant rise in use of digital payments has been
observed.

- Contactless digital payment modes including BHIM UPI, Rupay contactless etc, has significant role to facilitate social distancing, for prevention of Covid-19.
- The Covid-19 pandemic has catalyzed behavioural changes in citizens for adoption of digital payments, as reflected in the tremendous growth in BHIM UPI transactions from 99.95 crore in April 2020 to 355.55 crore in August-2021.
- During the coronavirus crisis, digital payments, particularly BHIM UPI has played a significant role in keeping economy running by supporting commerce and business.

Source: PIB

Medium Range Surface to Air Missile (MRSAM) System

GS-III | 10 September, 2021

- In a significant boost to India’s defence capabilities, the first deliverable Firing Unit (FU) of Medium Range Surface to Air Missile (MRSAM) System was handed over to Indian Air Force (IAF).
The MRSAM (IAF) is an advanced network centric combat Air Defence System developed jointly by Defence Research and Development Organisation (DRDO) and Israel Aerospace Industries (IAI) in collaboration with the Indian industry comprising of private and public sectors including MSMEs.

The MRSAM system provides point and area air defence for ground assets against a wide range of threats including fighter aircraft, UAVs, helicopters, guided and unguided munitions, sub-sonic & supersonic cruise missiles etc. It is capable of engaging multiple targets at ranges up to 70 kms in severe saturation scenarios.

The State of the art missile system is powered by indigenously developed rocket motor and control system for achieving high manoeuvrability during the terminal phase.
The Raksha Mantri described the development of MRSAM system as a shining example of the close partnership between India and Israel, adding that handing over of the system to IAF has taken this decades-old friendship to greater heights.

The Raksha Mantri reiterated the Government’s resolve to strengthen the security infrastructure of the country to deal with any challenges arising out of the rapidly changing global strategic scenario.

- The Raksha Mantri described the development of MRSAM system as a shining example of the close partnership between India and Israel, adding that handing over of the system to IAF has taken this decades-old friendship to greater heights.
- The Raksha Mantri reiterated the Government’s resolve to strengthen the security infrastructure of the country to deal with any challenges arising out of the rapidly changing global strategic scenario.
He stated that modernisation of the Armed Forces and building a self-reliant defence industry are being accorded top priority.

Stressing on the need for a strong military, he said Government is leaving no stone unturned to ensure the security and overall development of the country.

He listed out the measures taken by the Government, including

1. Setting up of Defence Industrials Corridors in Uttar Pradesh and Tamil Nadu;
2. Corporatisation of Ordnance Factory Board;
3. Notification of two positive indigenisation lists of over 200 items to increase exports and Transfer of Technology (ToT) by DRDO to the private sector.

He expressed confidence that India will soon become self-reliant in defence manufacturing as well as a global manufacturing hub of defence systems.

Source: PIB
A carbon dating analysis of rice with soil, found in a burial urn at Sivakalai in Thoothukudi district of Tamil Nadu, by the Miami-based Beta Analytic Testing Laboratory has yielded the date of 1155 BC, indicating that the Thamirabarani or Porunai civilisation dates back to 3,200 years.

Encouraged by this finding, Chief Minister M.K. Stalin announced in the Assembly the establishment of Porunai Museum in Tirunelveli at a cost of Rs. 15 crore.

The finding has established that the Porunai river [Thamirabarani] civilisation dates back to 3,200 years. It is the government’s task to scientifically prove that the history of the Indian subcontinent should begin from the Tamil
The shortest river in the state (Tamil Nadu), the Thamirabarani starts in Pothigai hills of the Western Ghats in the Ambasamudram taluk, flows through Tirunelveli and Thoothukudi districts and empties at Korkai (Tirunelveli district) into the Gulf of Mannar (Bay of Bengal).

- The Beta Analytic Testing Laboratory released the test report on August 27.
- **Carbon Dating** is the determination of the age or date of organic matter from the relative proportions of the carbon isotopes carbon-12 and carbon-14.
Mr. Stalin said archaeological excavations would be **carried out in other States and countries in search of Tamil roots**.

In the first phase, studies would be undertaken at the **ancient port of Muziris, now known as Pattanam, in Kerala**.

The research will be done jointly with Kerala archaeologists to establish the ancientness and culture of the Chera empire. Similar studies would be conducted at Vengi in Andhra Pradesh, Thalaikadu in Karnataka and Palur in Odisha.

The Chief Minister said the Tamil Nadu Archaeology Department would conduct research at **Quseir al-Qadim and Pernica Anekke in Egypt**, which were once part of the Roman empire, as well as in **Khor Rori in Oman**, to establish the Tamils' trade relations with these countries. Potsherds bearing Tamil scripts have been found in these countries. The study will be...
conducted with the help of the archaeologists of these countries.

- Mr. Stalin said studies would also be conducted in Southeast Asian countries, such as Indonesia, Thailand, Malaysia and Vietnam, where King Rajendra Chola had established supremacy.

Other recent findings

- Recalling his visit to Keezhadi, where excavations had thrown up new findings, the Chief Minister said the carbon dating of the objects unearthed there had proved that the Tamil society had achieved literacy even in the sixth century BCE. **Keezhadi has united Tamils across the world.**
- The outcome of the excavations at Keeladi, Kodumanal and other sites in Tamil Nadu have corroborated the view that there might have been contacts between south India and north India as early as 600 BCE-700 BCE or even earlier.
- A **silver punch marked coin** was recently excavated from Keezhadi (Tamil Nadu) which bore the symbols of the sun, the moon, the taurine and other geometrical patterns.
- Studies on this found the coin to date back to the 4th century BC, which is before the time of the ancient Maurya empire (321-185 B.C.E).
- Archaeological excavations are being done at numerous places such as Kodumanal, Keeladi, Korkai, Sivakalai, in Tamil Nadu.
- As per the carbon dating of artefacts, the Keeladi civilisation dates back to 6th century BC.

Source: TH
What is Inflation?

- Inflation can be defined as a calculated surge in the average prices of goods and services for a longer duration in the economy.
- It is a macro concept, wherein the effect of inflation is seen over a large basket of goods.
- The ultimate effect of inflation is that the value of money is reduced i.e., the purchasing power of money is reduced.

Types of Inflation

1) Cost Push Inflation

- It is caused by rise in the prices of items like raw material cost, electricity charges or wage rate (including a rise in profit margin made by the producer).
- Ex. Price rise of coal/ crude oil may cause price rise in industries which use coal.
- In India, cost push inflation is the major supply side factor producing inflation.
- It can't be managed by monetary policy intervention by RBI. We have to augment production of commodities or imports. Other conventional measures are providing incentives like subsidies, tax cuts, and launching production boosting programmes like NFSM.
- Other reasons:
  1. Increase in price of items
  2. Hoarding and Speculation of commodities
  3. Defective Supply chain
  4. Increase in indirect taxes
  5. Depreciation of Currency
  6. Crude oil price fluctuation
  7. Defective food supply chain
  8. Low growth of Agricultural sector
  9. Food Inflation (growth agriculture sector has been averaging at 3.5%)

2) Demand Pull Inflation

1. It is caused by increased demand or income in the economy (due to increased money supply), without adequate increase in supply of output.
2. Ex. “too much money chasing too few goods” is an instance of demand pull inflation.
3. Monetary Policy is the best way to tackle demand pull inflation. Increase in
Repo rate will decrease demand for loans. Additional taxation by the Govt and reduced public expenditure are also good to reduce demand.

4. This type of inflation is caused due to an increase in aggregate demand in the economy. Other reasons are:
   - A growing economy or increase in the supply of money – When consumers feel confident, they spend more and take on more debt. This leads to a steady increase in demand, which means higher prices.
   - Asset inflation or Increase in Forex reserves- A sudden rise in exports forces a depreciation of the currencies involved.
   - Government spending or Deficit financing by the government – When the government spends more freely, prices go up.
   - Due to fiscal stimulus
   - Increased borrowing
   - Depreciation of rupee

Other Types of Inflation

i. **Disinflation**: Reduction in the rate of inflation
   ii. **Deflation**: Persistent decrease in price level (negative inflation)
   iii. **Reflation**: Price level increases when economy recovers from recession
   iv. **Creeping inflation** – If rate of inflation is low (upto 3%)
   v. **Walking/Trotting inflation** – Rate of inflation is moderate (3-7%)
   vi. **Running/Galloping inflation** – Rate of inflation is high (>10%)
   vii. **Runaway/Hyper Inflation** – Rate of inflation is extreme
   viii. **Stagflation**: Inflation + Recession (Unemployment)
   ix. **Suppressed / Repressed inflation**: Aggregate demand > Aggregate supply. Here govt will not allow rising of prices.
   x. **Open inflation**: Situation where price level rises without any price control measures by the government.
   xi. **Core inflation**: Based on those items whose prices are non-volatile.
   xii. **Headline inflation**: All commodities are covered in this.
   xiii. **Structural inflation**: Due to structural problems like infrastructural bottlenecks.

**Stagflation**:

- Stagflation is a situation where an economy faces both high inflation and low growth (and high unemployment).
- The root cause for Stagflation is attributed to a drastic fall in consumer demand and it is possible because of the supply side issues.
- Retail Inflation: Highest in Vegetable > Pulses and Products > Meat and Fish > Egg.
- **“Phillips Curve”**: there is an inverse relationship between inflation and
unemployment. Hence policy makers are advised to maintain a certain inflation rate to ensure that unemployment is kept to a minimum and the economy is operating at full capacity.

What causes Inflation?

- Inflation is mainly caused either by demand Pull factors or Cost Push factors. Apart from demand and supply factors, Inflation sometimes is also caused by structural bottlenecks and policies of the government and the central banks.
- Therefore, the major causes of Inflation are:
  - Demand Pull Factors (when Aggregate Demand exceeds Aggregate Supply at Full employment level).
  - Cost Push Factors (when Aggregate supply increases due to increase in the cost of production while Aggregate demand remains the same).
  - Structural Bottlenecks (Agriculture Prices fluctuations, Weak Infrastructure etc.)
  - Monetary Policy Intervention by the Central Banks.
  - Expansionary Fiscal Policy by the Government.

How to measure Inflation?

1) Consumer Price Index (CPI)

- It is a measure of change in retail prices only of goods and services. It is calculated on a monthly basis.
- It is used as an indicator of inflation, a tool for monitoring price stability and as a deflator in national accounts.
- The Dearness allowance of Govt employees and wage contracts between labour and employer is based on CPI.
- CPI is calculated by Laspeyre's index = \[\frac{\text{Total cost of a fixed basket of goods and services in the current period} \times 100}{\text{Total cost of the same basket in the base period}}\].
- CPI consists of services like housing, education, medical care, recreation etc.
- Presently the CPIs are:
  1. CPI (IW): Industrial workers; CPI (AL): Agricultural Labourers and; CPI (RL): Rural Labourers. They are occupation specific and compiled by Labour Bureau.
  2. CPI (Urban); CPI(Rural) and CPI (Combined): Have wider coverage and are compiled by CSO (now NSO). CPI for Urban Non Manual Employees was earlier computed by CSO but discontinued since 2008.

- RBI uses CPI-combined as the sole inflation measure for monetary policy.
Price data are collected from selected towns by the Field Operations Division of NSSO and from selected villages by the Department of Posts.

NREGA wages are currently linked with CPI (Agriculture Labour) but now Government has decided to index it to a new CPI (Rural).

1. CPI (R) is wider and covers more non food items like Insurance, Health and Education. CPI (AL) includes more food items.
2. Hence CPI (R) reflects better rural consumption basket compared to CPI (AL).
3. A living wage should include health, education and insurance besides base essentials.

Wholesale Price Index (WPI)

- It is aka Point to Point Inflation.
- WPI measures the average change in the prices of only goods (not services) at wholesale level. Base year 2011 - 12. 697 goods.
- Components and Prices tracked are:
  1. Manufactured products (64%): Ex factory price.
  2. Primary Articles (23%): Mandi price for Agri commodities.
  3. Fuel and Power (13%): Ex mines price for minerals.
- Calculated by Office of Economic Advisor (OEA), DPIIT, Ministry of Commerce
- The main uses of WPI are the following:
  1. Check Inflation.
  2. It is used as a deflator for many sectors including GDP by CSO.
  3. WPI is also used for indexation by users in business contracts.
  4. Global investors also track WPI as one of the key macro indicators for their investment decisions.
  5. It includes manufacturing imgs and intermediate goods.

- Revision of Base Year to 2011 - 12 in 2017
  1. It is a regular exercise to capture structural changes in the economy and improve the quality and coverage of index.
  2. In 2017, the Base year was revised (7th time) from 2004 - 05 to 2011 - 12 (based on Dr. Saumitra Chaudhuri Committee) to align it with other macroeconomic indicators like GDP and IIP.
  3. It also changed the basket of commodities and assigned new weights to the commodities.
  4. WPI with Base year 2011 - 12 doesn't include taxes to remove the impact of fiscal policy.
  5. Now, WPI series is closer to Producer Price Index which reflects the change in average prices of goods & services either as they leave or
What is the difference between WPI & CPI?

1. WPI, tracks inflation at the producer level and CPI captures changes in prices levels at the consumer level.
2. Both baskets measure inflationary trends (the movement of price signals) within the broader economy, the two indices differ in which weightages are assigned to food, fuel and manufactured items.
3. WPI does not capture changes in the prices of services, which CPI does.

Headline Retail Inflation vs Core Inflation

- **Headline inflation** is the raw inflation figure reported through the Consumer Price Index (CPI) that is released by CSO. The headline figure is not adjusted for seasonality or for the often-volatile elements.
- **Core inflation** removes the CPI components that can exhibit large amounts of volatility from month to month, which can cause unwanted distortion to the headline figure. The most commonly removed factors are those relating to the cost of food and energy.

Urjit Patel Committee on Monetary Policy Committee

- The expert committee was headed by Urjit R. Patel, Deputy Governor of the Reserve Bank of India.
- The committee felt that inflation should be the nominal anchor for the monetary policy framework. The nominal anchor or the target for inflation should be set at 4 per cent with a band of +/- 2 per cent around it.
- “It should be set by the RBI as its predominant objective of monetary policy in its policy statements,” the report said.
- The nominal anchor should be communicated without ambiguity, so as to ensure a monetary policy regime shift away from the current approach to one that is centred around the nominal anchor.
- “The nominal anchor should be defined in terms of headline CPI inflation, which closely reflects the cost of living and influences inflation expectations relative to other available metrics,” the committee felt.
- “This target should be set in the frame of a two-year horizon that is consistent with the need to balance the output costs of disinflation against the speed of entrenchment of credibility in policy commitment,” the report said.
- Since food and fuel account for more than 57 per cent of the CPI on which...
the direct influence of monetary policy is limited, the commitment to the nominal anchor would need to be demonstrated by timely monetary policy response to risks from second-round effects and inflation expectations in response to shocks to food and fuel, the committee pointed out.

- The committee asked the Central Government to ensure that the fiscal deficit as a ratio to GDP (gross domestic product) is brought down to 3.0 per cent by 2016-17.

**Monetary policy committee**

1. The panel felt that the monetary policy decision-making should be vested with a monetary policy committee (MPC).
2. It went on to recommend that the Governor of the RBI should be the Chairman of the MPC.
3. It felt that the Deputy Governor in-charge of monetary policy could be the Vice-Chairman.
4. The Executive Director in charge of monetary policy could be its member. It could have two external members.
5. The full-time external members would have full access to information/analysis generated within the Reserve Bank.
6. The term of office of the MPC could be three years, without prospect of renewal.
7. Each member of the MPC will have one vote with the outcome determined by majority voting, which has to be exercised without abstaining. Minutes of the proceedings of the MPC will be released with a lag of two weeks from the date of the meeting,” the committee said.

**Monetary Policy Committee, 2015**

- 1st time suggested by Y V Reddy Committee. Then Tarapore Committee (2006); Percy Mistry Committee (2007); Raghuram Rajan Committee (2009) and FSLRC Committee (2013) and Urjit Patel Committee (2013) talked about MPC.
- Monetary Policy Committee (MPC) was constituted as per Section 45ZB under the RBI Act of 1934 by the Central Government.
- RBI Governor is the head of MPC.
- There are 2 core tasks = Inflation targeting + Policy rate.
- The major four objectives of the Monetary Policy are mentioned below:
  - To stabilize the business cycle.
  - To provide reasonable price stability.
  - To provide faster economic growth.
Exchange Rate Stability.

- Center determines inflation target every 5 years. RBI maintains it.
- 6 members of MPC =
  - RBI Governor, Deputy Governor related to MPC, 1 RBI Board member.
  - 3 Govt nominees appointed through Selection Committee consisting of Cabinet Secretary head, RBI Governor, Secretary of Department of Economic Affairs, Ministry of Finance and 3 experts.
- Tenure is 4 years and they are not eligible for reappointment.
- Decision is binding on RBI.
- Quorum = 4 vote including RBI Governor.

**What is the news?**

- India’s retail inflation cooled to 5.3% in August from 5.6% in July, thanks to food price inflation falling to 3.11% from nearly 4% in July, and the effect of a high base last August.
- This marks the second month of marginal moderation in the Consumer Price Index (CPI), keeping retail inflation below the central bank’s upper tolerance threshold of 6% after hitting 6.3% in May and June this year.
- The Reserve Bank of India is expected to continue with its accommodative monetary policy stance, with the headline inflation number edging lower.
- However, economists warned that inflationary risks persist.

Source: TH

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**SVAMITVA Scheme**

GS-II | 14 September, 2021

**Features of SWAMITVA Scheme**

- SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) scheme is a collaborative effort of the Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India.
SVAMITVA, a Central Sector Scheme of the Ministry of Panchayati Raj was nationally launched by the Prime Minister on the occasion of National Panchayati Raj Day on 24th April 2021 after successful completion of the pilot phase of the Scheme in 9 States.

It was launched with a resolve to enable economic progress of Rural India by providing “Record of Rights” to every rural household owner.

Aiming to demarcate inhabited (Abadi) land in rural areas through the latest surveying drone-technology.

The scheme covers multifarious aspects viz.
1. facilitating monetisation of properties and enabling bank loan;
2. reducing property related disputes;
3. comprehensive village level planning,
4. would be the stepping-stone towards achieving Gram Swaraj in true sense and making rural India Atmanirbhar (self-reliant).

SVAMITVA Scheme aims to provide property rights to the residents of rural inhabited areas in India by using Drone survey and CORS Networks which
provides mapping accuracy of 5 cms.

- The Ministry of Panchayati Raj (MoPR) is the Nodal Ministry for implementation of the SVAMITVA scheme.
- In the States, the Revenue Department/Land Records Department will be the Nodal Department and shall carry out the scheme with the support of State Panchayati Raj Departments.
- Aim: To provide an integrated property validation solution for rural India.
  1. It is a scheme for mapping the land parcels in rural inhabited areas using drone technology and Continuously Operating Reference Station (CORS).
  2. The mapping will be done across the country in a phase-wise manner over a period of four years - from 2020 to 2024.
- The program is currently being implemented in six states - Haryana, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand.

Phases of SWAMITVA Scheme

- **Phase II (April 2021 – March 2025)** – Complete survey of remaining villages and CORS network coverage across the Country by 2022.

**Coal Project enhances Green cover: Case study**

Even as the notion is that Coal mining in India degrades land, new projects of Coal India Ltd. (CIL), under the Ministry of Coal are not only reclaiming land to its original shape but also enhancing Green cover along with Coal Mining activity.
Emphasis is to have simultaneous back filling of land after opencast Coal Mining operation and dense plantation thereon to maintain environmental equilibrium.

Out of many such greenfield projects, one of the largest project of CIL, Jayant Opencast Coal Project in Singrauli District of Madhya Pradesh is forging ahead with a mission of looking beyond coal mining with land restoration & enhancing green cover day by day.

This has helped in lowering down the effect of pollution substantially & has
also helped in increasing Carbon offset. The project is under Northern Coalfields Ltd. (NCL), a Subsidiary of CIL.

- During a detailed review of environmental & forest clearance of Jayant Project by Secretary (Coal), Ministry of Coal in New Delhi, the satellite data of the project presented by NCL revealed more Green cover than the pre-mining forest cover, which is an outstanding achievement for any mega Coal project operating in large leasehold area.

About Jayant OC Project (2020)

- Jayant Coal Project operates in an area of about 3200 hectares with an annual coal production capacity of 25 Million Tonnes. Mining operation in the project started way back in the year 1975-76.
- Coal production started from the year 1977-78 by deploying larger capacity Heavy Earth Moving Machines (HEMM) such as Dragline, Shovel, Dumpers etc.
- Coal produced from the project is linked to Singrauli Super Thermal Power Station of NTPC located at Shaktinagar, Uttar Pradesh, which has a generation capacity of 2000 MW.
- Coal is being transported to power plant through dedicated Merry-Go-Round (MGR) system.
- In line with the Green Cover Mission, massive plantation is being carried out every year in and around the project which includes reclaimed area & overburden (OB) dump areas with the help of Madhya Pradesh Rajya Van Vikas Nigam Limited (MPRVNHL).
- Saplings include species such as Jamun, Jungle Jalebi, Seesam, Sirus, Mahua, Subabul, Bel, Amla, Kachnar, Karanj, Neem, Amaltas, Bamboo, Bougainvillea, Cassia, Gulmohar, Khamer, Peltophorum etc.
- The pre-mining forest cover was around 1180 hectares which has now increased to the level of 1419 hectares of Green cover as per the Land Reclamation Report based on Satellite Data for the year 2020. This is about 45% of the total leasehold area of the Project. The target is to have over 2600 hectare area covered under Green cover after closure of the mine, which will be more than double of the pre-mining stage.
- All new coal projects have mandatory well laid mine closure plan which apart from other activities, becomes a guiding factor for restoration of land to its original condition after completion of mining activity. Action on such restoration begins right from the start of the project wherein backfilling of void by overburden becomes a major activity after mining & simultaneous plantation over the land becomes key activity for early biological restoration.
Source: PIB
Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

For restitution of deprived forest rights across India. It provides for Integrated conservation & livelihood rights of people.

It is a tool to empower local self governance; address livelihood security of ppl & issues of conservation & Management of natural resources & conservation governance.

For the 1st time, it recognises & secures Community rights + Individual rights; Right to protect, regenerate or conserve or manage any community forest resources, right to IPR & traditional knowledge with respect to biodiversity.

Mo Tribal Affairs = nodal agency. Applicable to Tribal & OTFD Communities.
It recognises forest rights of OTFD provided they have resided in forests for \( \geq 3 \) generations prior to 13/12/2005.

Max limits of recognising rights on forest land = 4 ha.

It recognises the right of ownership access to collect, use & dispose of MFP by tribals. MFP includes all NTFP = Bamboo, brush wood, stumps, cane, cocoons, honey, wax, lac, leaves, med plants, roots, tubers etc.

Rights given will be heritable but not alienable or transferable.

FRA mandates that Gram Sabha have both right and power to protect, manage & conserve their forests. Gram sabha can initiate the process of determining the nature & extent of individual or community forest rights.

NP, WS included with Reserved Forests & Protected Forests for recognition of Rights.

Critically Wildlife Habitats

1. The phrase ‘critical wildlife habitat’ is defined only in ST&OTFD Act, 2006. They are areas of NP and WS where it has been 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 purpose of Wildlife conservation. CWH are absolutely free of human presence.

2. MoTA is the nodal agency for FRA but MoEFCC is the agency to notify the guidelines.

3. Chief Wildlife Warden of a state will notify an Expert Committee for the purpose of identification of critical wildlife habitats (CWH) in a national park or sanctuary. The Expert Committee will identify areas within national parks and sanctuaries, based on scientific and objective criteria relevant to the protected area, required to be kept inviolate for the purpose of wildlife conservation. Expert Committee shall carry out open consultations with all stakeholders. Hence CWH are declared by Central Govt only.

4. For the first time in India, Baigas have been given Habitat Rights. District Level Committee shall ensure that all PVTGs receive habitat rights, in consultation with the concerned traditional institutions of PVTGs and their claims for habitat rights are filed before the concerned Gram Sabhas.

Source: TH
Eighth Schedule of the Constitution

Constitutional provisions relating to Eighth Schedule

- The Constitutional provisions relating to the Eighth Schedule occur in Article 344(1) and 351 of the Constitution.
- Article 344(1) provides for the constitution of a Commission by the President on expiration of five years from the commencement of the Constitution and thereafter at the expiration of ten years from such commencement, which shall consist of a Chairman and such other members representing the different languages specified in the Eighth Schedule to make recommendations to the President for the progressive use of Hindi for official purposes of the Union.
- Article 351 of the Constitution provides that it shall be the duty of the Union to promote the spread of the Hindi language to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India and to secure its enrichment by assimilating without interfering with its genius, the forms, style and expressions used in Hindustani and in the other languages of India specified in the Eighth Schedule, and by drawing, wherever necessary or desirable, for its vocabulary, primarily, on Sanskrit and secondarily on other languages.
- It would thus appear that the Eighth Schedule was intended to promote the progressive use of Hindi and for the enrichment and promotion of that language. List of languages in the Eighth Schedule
- The Eighth Schedule to the Constitution consists of the following 22 languages:-
**LANGUAGES IN THE EIGHTH SCHEDULE OF THE INDIAN CONSTITUTION**

<table>
<thead>
<tr>
<th>LANGUAGE</th>
<th>SPOKEN IN</th>
<th>RECOGNISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assamese</td>
<td>Assam</td>
<td>1950</td>
</tr>
<tr>
<td>Bengali</td>
<td>West Bengal</td>
<td>1950</td>
</tr>
<tr>
<td>Bodo</td>
<td>Assam, West Bengal</td>
<td>2003</td>
</tr>
<tr>
<td>Dogri</td>
<td>Jammu, Himachal Pradesh</td>
<td>2003</td>
</tr>
<tr>
<td>Gujarati</td>
<td>Gujarat</td>
<td>1950</td>
</tr>
<tr>
<td>Hindi</td>
<td>Most parts of Northern States</td>
<td>1950</td>
</tr>
<tr>
<td>Kashmiri</td>
<td>Jammu and Kashmir</td>
<td>1950</td>
</tr>
<tr>
<td>Kannada</td>
<td>Karnataka</td>
<td>1950</td>
</tr>
<tr>
<td>Konkani</td>
<td>Goa and parts of Karnataka</td>
<td>1992</td>
</tr>
<tr>
<td>Malayalam</td>
<td>Kerala</td>
<td>1950</td>
</tr>
<tr>
<td>Manipuri</td>
<td>Manipur</td>
<td>1992</td>
</tr>
<tr>
<td>Marathi</td>
<td>Maharashtra</td>
<td>1950</td>
</tr>
<tr>
<td>Maithili</td>
<td>Parts of Bihar</td>
<td>2003</td>
</tr>
<tr>
<td>Nepali</td>
<td>Sikkim and parts of West Bengal</td>
<td>1992</td>
</tr>
<tr>
<td>Odia</td>
<td>Odisha</td>
<td>1950</td>
</tr>
<tr>
<td>Punjabi</td>
<td>Punjab, Chandigarh</td>
<td>1950</td>
</tr>
<tr>
<td>Sanskrit</td>
<td>-</td>
<td>1950</td>
</tr>
<tr>
<td>Sindhi</td>
<td>Gujarat, Rajasthan and Maharashtra</td>
<td>1967</td>
</tr>
<tr>
<td>Santhali</td>
<td>Jharkhand, Bihar, West Bengal</td>
<td>2003</td>
</tr>
<tr>
<td>Tamil</td>
<td>Tamil Nadu, Puducherry</td>
<td>1950</td>
</tr>
<tr>
<td>Telugu</td>
<td>Andhra Pradesh, Telangana</td>
<td>1950</td>
</tr>
<tr>
<td>Urdu</td>
<td>Northern India</td>
<td>1950</td>
</tr>
</tbody>
</table>
Of these languages, 14 were initially included in the Constitution. Sindhi language was added in 1967. Thereafter three more languages viz., Konkani, Manipuri and Nepali were included in 1992. Subsequently Bodo, Dogri, Maithili and Santhali were added in 2004.

Demands of languages for inclusion in the Eighth Schedule

At present, there are demands for inclusion of 38 more languages in the Eighth Schedule to the Constitution.


Present status on inclusion of languages in the Eighth Schedule

- “As the evolution of dialects and languages is dynamic, influenced by socioeco-political developments, it is difficult to fix any criterion for languages, whether to distinguish them from dialects, or for inclusion in the Eighth Schedule to the Constitution of India.
- Thus, both attempts, through the Pahwa (1996) and Sitakant Mohapatra (2003) Committees to evolve such fixed criteria have not borne fruit.
- The Government is conscious of the sentiments and requirements for inclusion of other languages in the Eighth Schedule and will examine the requests keeping in mind these sentiments, and other considerations such as evolution of dialects into language, widespread use of a language etc.”

Source: TH

Adjusted Gross Revenue (AGR) issue of Telecoms

GS-III | 16 September, 2021
What is Adjusted Gross Revenue (AGR)?

- Adjusted Gross Revenue (AGR) is the usage and licensing fee that telecom operators are charged by the Department of Telecommunications (DoT). It is divided into spectrum usage charges and licensing fees, pegged between 3-5 % and 8 % respectively.
- As per DoT, the charges are calculated based on all revenues earned by a telco – including non-telecom related sources such as deposit interests and asset sales. Telcos, on their part, insist that AGR should comprise only the revenues generated from telecom services.

What is the issue of Adjusted Gross Revenue (AGR) of Telcoms?

- The telecom sector was liberalised under the National Telecom Policy, 1994 after which licenses were issued to companies in return for a fixed license fee. To provide relief from the steep fixed license fee, the government in 1999 gave an option to the licensees to migrate to the revenue sharing fee model.
- Under this, mobile telephone operators were required to share a percentage of their AGR with the government as annual license fee (LF) and spectrum usage charges (SUC). License agreements between the Department of Telecommunications (DoT) and the telecom companies define the gross revenues of the latter. AGR is then computed after allowing for certain deductions spelt out in these license agreements. The LF and SUC were set at 8 per cent and between 3-5 per cent of AGR respectively, based on the agreement.
- The dispute between DoT and the mobile operators was mainly on the definition of AGR. The DoT argued that AGR includes all revenues (before discounts) from both telecom and non-telecom services. The companies claimed that AGR should comprise just the revenue accrued from core services and not dividend, interest income or profit on sale of any investment or fixed assets.
- In 2005, Cellular Operators Association of India (COAI) challenged the government’s definition for AGR calculation.
- In 2015, the TDSAT (Telecom Disputes Settlement and Appellate Tribunal) stayed the case in favour of telecom companies and held that AGR includes all receipts except capital receipts and revenue from non-core sources such as rent, profit on the sale of fixed assets, dividend, interest and miscellaneous income.
- However, setting aside TDSAT’s order, Supreme Court on October 24, 2019
Why is Adjusted Gross Revenue (AGR) important?

- The definition of AGR has been such a contentious issue because it has huge financial implications for both telcos and the government. The revenue shared by telcos with the government goes into the consolidated fund of India.
- It was estimated, after the SC’s judgment, that the telecom operators owe the government about Rs.92,000 crore in back charges, interest and penalties on license fee alone.
- While the government has been deprived of the extra revenue, the financial implications for telecom companies — who now have to cough up overdue amounts piled up for years — are serious too.
- Especially at the current juncture, when profits for telcos are under pressure from severe competition and the falling ARPU (average revenue per user).

Why is Adjusted Gross Revenue (AGR) in news?
The Cabinet approved several measures to extend a lifeline to the cash-strapped telecom sector, including a redefinition of the much-litigated concept of adjusted gross revenue (AGR) to exclude non-telecom revenue and a four-year moratorium on players’ dues to the government.

Telecom Minister Ashwini Vaishnaw said the government was keen on ensuring that there were more players in the sector and consumers retained choices when asked about the fears of a duopoly emerging with just two major telecom players — Bharti Airtel and Reliance Jio.

In all, Mr. Vaishnaw announced nine structural reforms and five procedural reforms for the sector, including a fixed calendar for spectrum auctions with an extended tenure of 30 years for future spectrum allocations, and a mechanism to surrender and share spectrum. Foreign direct investment (FDI)
in the sector has also been allowed up to 100% under the automatic route, from the existing limit of 49%. Together, these measures would pave the way for largescale investments, including for 5G technology deployment, and generate more jobs, he said.

- The earlier definition of AGR, backed by the Telecom Department and upheld by the Supreme Court in 2019, had made telcos liable to pay ₹1.6 lakh crore. Last September, the top court granted players 10 years to pay up, starting April 2021. The change in definition that will reduce the burden on telcos, applies only prospectively, so past dues remain payable.
- Interest on those dues will now be compounded annually instead of monthly and the Minister said interest would be charged at a ‘reasonable’ rate of MCLR plus 2%. MCLR refers to the lowest lending rate banks are permitted to offer.

Source: TH
In a first by any Presiding Officer of the legislatures in the country and in the context of rising disruptions, Rajya Sabha Chairman Shri M.Venkaiah Naidu today unequivocally held that disruptions of proceedings amount to contempt of the House and disruptors can’t claim it as their privilege to do so.

Productivity of Rajya Sabha

- Speaking on disruptions in the Parliament, Shri Naidu informed that the productivity of Rajya Sabha is being quantified since 1978 and during the first 19 years till 1996, the productivity of the House has been over 100% and has begun to decline since then.
- While the House clocked annual productivity of over 100% during 16 of these 19 years, it was so only in two years in 1998 and 2009 during the next 24 years and not even once in the last 12 years.
- The Chairman further said that the productivity of Rajya Sabha during 2004-14 has been about 78% and it declined to about 65% since then.
- Of the 11 sessions that Shri Naidu presided over, four of them clocked low productivity of 6.80%, 27.30%, 28.90% and 29.55% and during the year 2018, the Rajya Sabha recorded the lowest ever productivity of 35.75% under the impact of disruptions, he stated.
- During the last monsoon session (254th), the Rajya Sabha lost more than 70% of the scheduled time including over 76% of the valuable Question Hour time, the Chairman noted.

Misusing the Privileges of the MPs

- The privileges granted to the Members are Freedom of Speech in the house, immunity from any action for anything said or vote given in the House or it’s committees and freedom from arrest and liability to court proceedings etc.
- Chairman Shri Naidu said such privileges were available only in so far as they were necessary for the House to freely perform it’s functions.
- Privileges are enabling rights of members to put across the views and voice the concerns of their constituents (people who elect the members) fearlessly.
- These could, therefore, be termed as indirect rights of member’s constituents. It is this essence of privileges that needs to be understood.
- Citing the renowned British constitutional theorist Erskine May, Shri Naidu
underlined that it is only for effective discharge of the collective functions of the House that the individual privileges are enjoyed by the members.

- Stating that legislatures are meant for effectively articulating the concerns of the people and to find solutions through effective laws besides deliberating on issues of larger public concern and ensuring the accountability of the executive, Shri Naidu argued that this required functional legislatures and not disrupted ones. He contended that any disruption in violation of the Rules of the House and the scheme of Privileges that renders the House dysfunctional amounts to contempt of the House which is mandated to function on behalf of the people.

Consequences of Disruptions of House

- They derail the scheduled business of the House, deprive other members willing and identified to participate in various proceedings of the day and delay the course of law making.
- The socio-economic consequences of defective and delayed laws resulting from such disruptions are quite substantial.
- In support of his contention that disruption amounts to contempt of the House, Shri Naidu recalled Erskine May and stressed that “Any act or omission which obstructs or impedes either House of Parliament in the performance of its functions, or which obstructs or impedes any member or officer of such House in the discharge of his duty, or which has a tendency, directly or indirectly, to produce such result may be treated as contempt even though there is no precedent of offence”.

Conclusion

- In conclusion, disruption of the proceedings is a certain negation of the spirit and intention behind the Rules of the House, the Code of Conduct, the Parliamentary Etiquette and the scheme of parliamentary privileges, all aimed at effective performance of individual members and the House collectively. Given the consequences, disruption of proceedings clearly amount to contempt of the House, by the logic of which, disruption can not be claimed as a privilege by the errant members”.

Source: PIB
What is a malware?

Malware is intrusive software that is designed to damage and destroy computers and computer systems. Malware is a contraction for “malicious software.”

Examples of common malware includes viruses, worms, Trojan viruses, spyware, adware, and ransomware.

Types of Malware

- **Viruses** are a subgroup of malware. A virus is malicious software attached to a document or file that supports macros to execute its code and spread from host to host. Once downloaded, the virus will lay dormant until the file is opened and in use. Viruses are designed to disrupt a system’s ability to operate. As a result, viruses can cause significant operational issues and data loss.

- **Worms** are a malicious software that rapidly replicates and spreads to any device within the network. Unlike viruses, worms do not need host programs to disseminate. A worm infects a device via a downloaded file or a network connection before it multiplies and disperses at an exponential
Rate. Like viruses, worms can severely disrupt the operations of a device and cause data loss.

- **Trojan viruses** are disguised as helpful software programs. But once the user downloads it, the Trojan virus can gain access to sensitive data and then modify, block, or delete the data. This can be extremely harmful to the performance of the device. Unlike normal viruses and worms, Trojan viruses are not designed to self-replicate.

- **Spyware** is malicious software that runs secretly on a computer and reports back to a remote user. Rather than simply disrupting a device’s operations, spyware targets sensitive information and can grant remote access to predators. Spyware is often used to steal financial or personal information. A specific type of spyware is a keylogger, which records your keystrokes to reveal passwords and personal information.

- **Adware** is malicious software used to collect data on your computer usage and provide appropriate advertisements to you. While adware is not always dangerous, in some cases adware can cause issues for your system. Adware can redirect your browser to unsafe sites, and it can even contain Trojan horses and spyware. Additionally, significant levels of adware can slow down your system noticeably. Because not all adware is malicious, it is important to have protection that constantly and intelligently scans these programs.

- **Ransomware** is malicious software that gains access to sensitive information within a system, encrypts that information so that the user cannot access it, and then demands a financial payout for the data to be released. Ransomware is commonly part of a phishing scam. By clicking a disguised link, the user downloads the ransomware. The attacker proceeds to encrypt specific information that can only be opened by a mathematical key they know. When the attacker receives payment, the data is unlocked.

- **Fileless malware** is a type of memory-resident malware. As the term suggests, it is malware that operates from a victim’s computer’s memory, not from files on the hard drive. Because there are no files to scan, it is harder to detect than traditional malware. It also makes forensics more difficult because the malware disappears when the victim computer is rebooted. In late 2017, the Cisco Talos threat intelligence team posted an example of fileless malware that they called DNSMessenger.

**Issues of cyberattacks in India:**

- India’s power sector facing cyberattacks, with at least 30 events reported
A majority of the attacks originate from China, Singapore, Russia and the Commonwealth of Independent States countries. The cyberattacks assume importance given the increased state of hostilities in the Indian subcontinent and India’s ambitious nuclear plans that include constructing a dozen new nuclear power reactors across the country, with a total power-generation capacity of 9,000 MW. While nine reactors totaling 6,700 MW are under construction, the Indian government has also given in-principle approval for setting up nuclear power capacities totaling 25,248 MW at Jaitapur (Maharashtra), Kowada (Andhra Pradesh), Chhaya Mithi Virdi (Gujarat), Haripur (West Bengal), and Bhimpur (Madhya Pradesh).

Minister of State for Atomic Energy and Space Jitendra Singh said that the cyber attack happened in the administrative block and not in the plant.

Malware in Kudankulam Nuclear Plant

- Malware was detected at state-run Nuclear Power Corp. of India Ltd’s (NPCIL) Kudankulam Nuclear Power Plant (KKNPP) in September.
- State-run NPCIL runs India’s fleet of 22 commercial nuclear power reactors with an installed capacity of 6,780 megawatts (MW).
- A malware infection was identified in NPCIL KKNPP Internet connected system.

Ransomware attack in T.N Public Department

- A ransomware attack is said to have encrypted certain sensitive documents of the Tamil Nadu Public Department since Friday morning.
- Official sources said some of those files related to VIP visits, programmes and arrangements made for them.
- While the suspect has demanded a ransom of $1,950 in cryptocurrency for handing over the decryption code, cybersecurity experts of the Centre for Development of Advanced Computing (C-DAC) and the Computer Emergency Response Team are trying to retrieve the files.

Way forward:

- As such, there are growing concerns that the country’s power infrastructure could be the next target of terrorists looking to cripple its economy. The issue has assumed greater importance as India now has an integrated national power grid, with south India joining the national electricity grid.
UPSC "PT" DNA (Daily News Analysis)

Source: TH
NIPUN stands for National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat)

The vision of NIPUN Bharat Mission is to create an enabling environment to ensure universal acquisition of foundational literacy and numeracy, so that every child achieves the desired learning competencies in reading, writing and numeracy by the end of Grade 3, by 2026-27.

NIPUN Bharat will be implemented by the Department of School Education and Literacy and a five-tier implementation mechanism will be set up at the National- State- District- Block- School level in all States and UTs, under the aegis of the centrally sponsored scheme of Samagra Shiksha.

The launch of NIPUN Bharat marks an important step undertaken by the Department of School Education and Literacy, among a series of measures taken for implementation of the National Education Policy 2020.

Samagra Shiksha Abhiyaan (Flagship Scheme), 2019

1. **Ministry of Education.** SDG 4.
2. **Objectives:** Quality education, Learning outcomes, Bridging gaps, Inclusion, Equity, Minimum standards, Vocationalization, support Sttes for RTE Act, 2009 and upgrade State CERTs.
3. **Funding:** It is a Centrally Sponsored Scheme with 60:40 for States and 90:10 for NE and Himalayan States.
4. **Salient Features:**
   1. Treat school education holistically as a continuum from Pre school to Class 12.
   2. Inclusion of senior secondary levels and pre-school levels in support for School education for the first time.
   3. Single and unified administrative structure leading to harmonized implementation.
   4. Focus on strengthening Teacher Education Institutions like SCERTs and DIETs.
   5. SCERT to be the institution for in-service and pre-service teacher training – will make training dynamic and need-based.
   6. Library grant for 1 million schools.
   7. The main emphasis of the Scheme is on improving quality of school education by focussing on the 2 T’s – Teacher and Technology.
2019 NRC final, rules Assam Foreigners’ Tribunal

While the Registrar General of India has not yet issued a notification on Assam’s National Register of Citizens (NRC) to make it a legal document, a Foreigners’ Tribunal has gone ahead and recorded it as the “final NRC” while declaring a man to be Indian.

Hearing a case against one Bikram Singha of Jamirala village whose name figured in the NRC list, member of FT-II in Karimganj town Sishir Dey said, “…there is no doubt that this NRC Assam published in 2019 is nothing but Final NRC…”

The FT-II’s ‘order cum opinion’ comes just days after Assam's Political (B) Department had on September 4 asked the FTs not to pass “consequential orders/directions” and stick to giving an “opinion” as mandated by the Foreigners (Tribunals) Order, 1964.

The letter to the FTs followed an assessment by the State’s Judicial Department of the “opinions” given by the members in the case of people suspected to be foreigners or doubtful voters.

The member also observed that Mr. Singha’s name figured in the NRC that was supervised by the Supreme Court on the basis of the Citizenship Act of 1955 and The Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003.

“…final NRC… has been published on 31.08.2019 which is available online on the official website of NRC Assam wherein also it’s referred and mentioned as ‘Final NRC’. This legal position is still in force. The National Identity Cards have yet to be issued to the citizens whose names have been included in Final NRC. But there is no doubt that this NRC Assam published in 2019 is nothing but Final NRC,” the order said.

Source: TH
Subdued Northeast Monsoon

Rainfall over the southern peninsular region has been deficient so far, indicating that the northeast monsoon has remained subdued this year.

Significance:

Pattern of Rainfall in India: India receives rainfall during two seasons:

- About 75% of the country's annual rainfall is received from the Southwest monsoon between June and September.
- The Northeast monsoon occurs during October to December, and is a comparatively small-scale monsoon, which is confined to the Southern peninsula. It is called the winter monsoon.

Northeast Monsoon and Rainfall:

- After the complete withdrawal of the Southwest monsoon from the country takes place by mid-October, the wind pattern rapidly changes from the south-westerly to the north-easterly direction.
- The period after the Southwest monsoon season, from October to December, is the peak time for cyclonic activity in the North Indian Ocean region covering the Arabian Sea and the Bay of Bengal.

The winds associated with the formation of low pressure systems, depressions, or cyclones influence this monsoon, and therefore, the rainfall.

Regions associated with Northeast Monsoon:

- The rainfall associated with the Northeast monsoon is important for Tamil Nadu, Puducherry, Karaikal, Yanam, coastal Andhra Pradesh, Kerala, north interior Karnataka, Mahe and Lakshadweep.
- Tamil Nadu records about 48% of its annual rainfall during these months, making it the key factor for undertaking agricultural activities and reservoir management in the state.
- Some South Asian countries such as Maldives, Sri Lanka and Myanmar, too, record rainfall during October to December.

Reasons for deficient rainfall this Northeast monsoon:

Prevailing La Niña conditions in the Pacific Ocean:

- La Niña conditions enhance the rainfall associated with the Southwest monsoon, but has a negative impact on rainfall associated with the Northeast monsoon.
- La Niña (Spanish for ‘little girl’) refers to the large-scale cooling of the ocean surface.
temperatures in the central and eastern equatorial Pacific Ocean, coupled with changes in the tropical atmospheric circulation, namely winds, pressure and rainfall.

- It usually has the opposite impacts on weather and climate as El Niño, which is the warm phase of the so-called El Niño Southern Oscillation (ENSO).

  - El Niño (Spanish for ‘little boy’) is the abnormal surface warming observed along the eastern and central regions of the Pacific Ocean (region between Peru and Papua New Guinea).
  - La Niña and El Niño are large-scale ocean phenomena which influence the global weather winds, temperature and rainfall.
  - They have the ability to trigger extreme weather events like droughts, floods, hot and cold conditions, globally.
  - Each cycle can last anywhere between 9 to 12 months, at times extendable to 18 months and re-occur after every three to five years.

**Inter Tropical Convective Zone (ITCZ):**

- The current position of the ITCZ has also contributed to the poor rainfall during the ongoing monsoon season.
- The ITCZ is a low-pressure belt, whose northward and southward movements along the equator determine the precipitation in the tropics.
- Currently, the ITCZ is located to the north of its normal position.

**Other Important Atmospheric Circulation**

**Madden-Julian Oscillation (MJO):** The MJO can be defined as an eastward moving 'pulse' of clouds, rainfall, winds and pressure near the equator that typically recurs every 30 to 60 days.

Source: TH

Climate Change and Summits
GS-III | 21 September, 2021
Context: Climate Change is one of the most important topics for UPSC Prelims 2021 and it is also important for Mains Answer Writing for IAS Mains 2021. Hence, AspireIAS has come up with a comprehensive document for Climate Change.

What is Climate?

- Weather is what conditions of the atmosphere are over a short period of time.
and climate is how the atmosphere "behaves" over relatively long periods of time (like 100 years).

- Climate change is a complex problem, although Environmental in nature, has consequences for all spheres. It impacts poverty, economic development, population growth, sustainable development and resource management. Hence the solutions should come from all disciplines.

Club of Rome

- After World War 2, there emerged a group in 1968 called the Club of Rome. They came up with a model known as Limit’s to Growth model.
- The team tracked industrialisation, population, food, use of resources, and pollution.
- They modelled data up to 1970, then developed a range of scenarios out to 2100, depending on whether humanity took serious action on environmental and resource issues. If that didn’t happen, the model predicted “overshoot and collapse” – in the economy, environment and population – before 2070.
- This was called the “business-as-usual” scenario.
- The book’s central point, much criticised since, is that “the earth is finite” and the quest for unlimited growth in population, material goods etc would eventually lead to a crash.
- Thus, it talked about Sustainable development.
Silent Spring is an environmental science book by Rachel Carson. The book was published on September 27, 1962, documenting the adverse environmental effects caused by the indiscriminate use of pesticides. Carson accused the chemical industry of spreading disinformation, and public officials of accepting the industry’s marketing claims unquestioningly.

Stockholm Conference/ UNCHE (Conference on Human Environment)/ Man Environment summit, 1972
Stockholm Conference was an international conference convened under United Nations auspices held in Stockholm, Sweden from June 5-16, 1972. It was the UN's first major conference on international environmental issues, and marked a turning point in the development of international environmental politics.

- It brought the industrialized and developed countries together.
- It not discuss about Climate Change but only about pollution & Environmental degradation.
- To delineate the rights of the human family to a healthy and productive environment.
- It discussed on the rights of people to adequate food, to sound housing, to safe water, to access to means of family planning.

World Commission on Environment and Development (WCED)
WCED was created in 1983 as an independent body by UNGA. WCED was asked to formulate 'A global agenda for change'.

- It gave concept of “sustainable development”
- The Brundtland Commission’s characterization of ‘sustainable development’ is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- The prominence given to ‘needs’ reflects a concern to eradicate poverty and meet basic human needs, broadly understood.
- The concept of sustainable development focused attention on finding strategies to promote economic and social development in ways that avoided environmental degradation, over-exploitation or pollution, and side lined less productive debates about whether to prioritize development or the environment.

**IPCC (The Intergovernmental Panel on Climate Change)**
IPCC was established by World Meteorological Organization and UNEP in 1988. It is a Statistical organization or Intergovernmental body. IPCC is the scientific body under UN for assessing the science related to climate change. The membership is open to all members of UN and WMO. Currently 195 countries are the members. It accepted Climate change in 1988. It does not conduct its own original research nor does it monitor climate related data. Thousands of scientists work on voluntary basis. It also got Nobel Peace Prize in 2007.

The aim of IPCC is
1. To provide political leaders with periodic scientific assessments concerning climate change, its implications and risks, as well as to put forward adaptation and mitigation strategies.
2. To assess scientific information regarding human induced Climate change and its impact and options for adaptation and mitigation.
3. It produces reports not just for Greenhouse Gases but on topics like aviation, regional impacts of Climate change, technology transfer, land use, CO2 capture and storage and on the relation between safeguarding ozone layer.

The IPCC has three working groups:
1. Working Group I, dealing with the physical science basis of climate change.
2. Working Group II, dealing with impacts, adaptation and vulnerability.
3. Working Group III, dealing with the mitigation of climate change.
Rio Summit/Earth Summit/UNCED (UN Conference on Environment and Development), 1992

- **Aim:** To stabilize the GHG concentrations at a level that would prevent dangerous anthropogenic interference with the Climate system.
- The following legally binding agreements (Rio Convention) were opened for signature:
  1. Convention on Biological Diversity (UNCBD)
  2. Framework Convention on Climate Change (UNFCCC)
  3. Convention to Combat Desertification (UNCCD)
- **UNFCCC:** (entered in Force in 1994): It has near universal membership. 195 countries ratified. Focus
  1. **Adaptation:** adjustment in ecological, social or economic systems in response to actual or expected climatic changes. Ex Agriculture pattern.
  2. It has 5 components: Observation; Assessment of climate impacts and vulnerability; Planning; Implementation and Monitoring and evaluation of adaptation actions.
  3. **Climate Finance (through Green Climate Fund):** Annex II parties (Developed countries) are to provide finances to assist Developing countries.
  4. **Mitigation:** Reducing GHG and enhancing sinks & reservoirs. Ex Renewable Energy.
- **GEF (Global Environment Facility)**
GEF was established in 1992 Rio Summit. It is a partnership of 183 countries, International institutions, Civil society organizations & Private sector.
2. It Grants funds for Environment projects. Since it's inception it has provided $17.9 bn in grants.
3. It is a financial mechanism for 6 Environmental conventions: UNFCCC, UNCCD, UNCBD, Montreal Protocol on Ozone, Minamata Convention on Mercury, Stockholm for POP
4. World Bank is the trustee of GEF & administers it.
5. Council is the GEF's main governing body of 32 members (14:16:2:: Developed:Developing:Economic in Transition).

**Agenda 21**
1. It is a non binding, voluntarily implemented action plan of UN for sustainable development.
2. UNCCD has come from direct recommendation of Agenda 21.
3. In 1993, UNCED established the Commission on Sustainable Development (CSD) to follow up on the implementation of Agenda 21.

**1997 Kyoto Protocol and UNFCCC**
- Kyoto Protocol was adopted in 1997 and entered into force in 2005. 191 countries adopted it.
- Through Marrakesh Accords the 2008 - 2012 1st Commitment period. Detailed rules for implementation were adopted.
- Doha Amendment = 2013 - 2020, revised GHG list and New commitments for Annex I.
- It is the first Internationally binding treaty to control emission for Climate change. It legally binds developed countries to emission reduction targets. USA never ratified Kyoto protocol.
- Kyoto Protocol has 6 GHGs = CO2, Methane, Nitrous Oxide (N2O), Perfluorocarbons (PFCs), Hydrofluorocarbons (HFCs) and Sulfur Hexafluoride (SF6).
- 3 Parties
  1. **Annex I** = industrialized countries that are members of OECD + Economies in Transition (EIT) including Russia, Baltic States and Central and Eastern European states.
  2. **Annex II** = OECD members but not EIT parties. They must provide financial resources for Developing countries. Provide finance to GCF.
3. Non Annex I = Mostly developing. UN recognised LDCs. Especially vulnerable to CC, Desertification, drought.

• Kyoto Mechanism

1. It includes Joint Implementation (JI), Clean Development Mechanism (CDM), Emissions Trading, Climate Change.
2. Emissions trading: Countries buy 'Kyoto units' from other to help meet domestic Emission reduction targets.
3. CDM: meet their domestic Emission reduction targets by buying GHG reduction units from non Annex I countries. Invest in Renewable Energy projects.
4. Joint Implementation: Any Annex I country can invest in emission reduction projects (JI projects) in any other Annex I country as an alternative to reduce emissions domestically.

Important UNFCCC Summits

1) Bali Summit (COP 13, 2007)

• It has Bali roadmap which gave long term plan for the 1st time.
• Reaching an agreed outcome and adopting a decision at COP15 in Copenhagen.
• The review of the financial mechanism, going beyond the existing Global Environmental Facility.

2) Poznan (Poland) Climate Change Conference (COP 14, 2008)

• It launched the Adaptation Fund under the Kyoto Protocol.
• The Fund is financed in part by government and private donors, and also from a 2% share of proceeds of Certified Emission Reductions (CERs) issued under Clean Development Mechanism projects.

3) Copenhagen (Denmark) Climate Change Conference (COP 15, 2009)

• The Copenhagen Accord included the goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius above pre-
industrial levels, subject to a review in 2015.
- Developed countries promised to provide US$30 billion for the period 2010-2012, and to mobilize long-term finance of a further US$100 billion a year by 2020 from a variety of sources.

4) Cancun (COP 16, 2010)

- UK was the head.
- **Green Climate Fund** was formed in Cancun summit
  1. It was formed in Cancun summit (100 bn $/ year by 2020 will be given by developed to developing). HQ = Incheon, South Korea. World Bank is the trustee.
  2. GCF will have thematic funding windows. It gives support to Developing countries to reduce GHG emissions and adapt to Climate change.
  3. GCF is accountable to and functions under COP.
- **Technology mechanisms (CTCN, TEC, TICH)**
  1. CTCN (Climate Technology Center Network) = Technology development and transfer actions that support mitigation and adaptation.
  2. TEC (Technology Executive Committee) = implement technology transfer framework with support in developing countries through TNA (Technology Need Assessment process under Poznan strategic program on technology transfer).
  3. TICH (Tech Information Clearing House) = provide information.


- The outcomes included a decision by Parties to adopt a universal legal agreement on climate change as soon as possible, and no later than 2015.
- Second phase of Kyoto Protocol was secured.
- Approved the Governing Instrument for the GCF.
- Formulate a Draft paper of Kyoto Protocol II (KP II) by 2015.
- Discuss the draft paper, clause by clause between 2015-20.
- 100% implementation of Kyoto Protocol II by 2020. Till then extend Kyoto Protocol I till 2017.
- Target 2°C by end of 21st C. (Not 1.5 degree - It was in Paris)
- Think about small Island countries and Sea level rise.

6) Doha (COP 18, 2012)
The conference reached an agreement to extend the life of the Kyoto Protocol, which had been due to expire at the end of 2012, until 2020 (second commitment period 2013 – 2020).

The extension of the Kyoto Protocol until 2020 limited in scope to only 15% of the global CO2 emissions. This was due to the lack of participation of Canada, Japan, Russia, Belarus, Ukraine, New Zealand and the United States. (they all refused to join the second commitment period under the Kyoto Protocol)

Also, developing countries like China, India and Brazil are not subject to any emissions reductions under the Kyoto Protocol.

It endorsed South Korea as the host of GCF.

7) Warsaw (COP 19, 2013)

The conference led to an agreement that all states would start cutting emissions as soon as possible, but preferably by the first quarter of 2015.

The term **Intended Nationally Determined Contributions** was coined in Warsaw.

UN REDD was converted into **UNFCCC's “REDD +” = Reducing Emissions from Deforestation and Degradation Plus.**

1. REDD was a programme initiated by UN in 2005. To mitigate climate change through enhanced Forest management in developing countries. It creates a financial value for carbon stored in forests by offering incentives for developing countries to reduce emissions. Now, UN-REDD Programme assists countries develop capacities needed to achieve UNFCCC’s REDD+ initiative.

REDD + is a UNFCCC mechanism to incentivize developing countries to better manage, protect and save forests to help in climate change. The talks for REDD+ started in Montreal summit but established in Warsaw summit. 45% of CO2 can be absorbed from Forests. REDD + could capture 1 billion tonnes of additional CO2 over next 3 decades. It goes beyond merely checking deforestation and forest degradation, and includes

- REDD+ is Result based = Developing country will have to prove the result 1st, only then they'll get the money through Green Climate Fund.

**Forest Carbon Partnership Facility:** World Bank is the trustee. It is the partnership of govt's, businesses, civil society & indigenous people. For REDD+ incentives. Inter American Development Bank, UNDP are delivery partners under the Readiness Fund and responsible for providing REDD+
BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) is a multilateral fund supported by donor govt & managed by World Bank. It seeks to promote reduced GHG emissions from land sector. World Bank’s Forest Investment Programme is also a part of REDD +. Lost and Damage: Lost (permanent loss includes economic/ non economic losses) and Damage (which is repairable like deforestation & temperature rise). Poor countries want money from rich for the CC. Further the Warsaw Mechanism was proposed, which would provide expertise, and possibly aid, to developing nations to cope with loss and damage from such natural extremities as heatwaves, droughts and floods and threats such as rising sea levels and desertification.

8) Lima Summit (COP 20, 2014)

9) Paris Summit (COP 21, 2015)

- Reduce Global average temperature < 2°C and try for < 1.5° C (for the 1st time).
- Move away from CBDR (Common but differentiated responsibilities and new INDC (which talks about post 2020 climate actions).
- India’s INDC (Intended Nationally Determined Contributions) are
  1. Reduce Carbon intensity of its GDP by 33 - 35% by 2030 from 2005 levels.
  2. Additional Carbon sink of 2.5 - 3 billion tonnes of CO2 equivalent through additional forest & tree cover by 2030.
  3. Increase share of Renewable Energy to 40% of Total Energy.
- CDKN (Climate and Development Knowledge Network) created a guide for NDC implementation for LDCs.
- Intenational Solar Alliance, 2015
  1. 1st treaty based Inter-governmental organization based in India.
  2. HQ at National Institute of Solar Energy, Gurugram.
  3. Objectives = 1000 GW of Solar capacity globally & 1000 bn $ investment by 2030.
  4. All 121 countries between Tropics to now all invited.
- Bonn Challenge (Forest Landscape Restoration) =
1. Restore 150 million ha of deforested and degraded land by 2020 and 350 mn ha by 2030.
2. Launched by Germany & IUCN. Extended to 2030 by New York declaration.
   - **Global Stocktake (GST)**: is a 5 yearly review of impact of countries' climate change actions. Under the Paris Agreement 1st GST will happen in 2023.
   - Long term goal to achieve net zero emissions.
   - **4 new things were included**

1. Global Forest Watch Climate = Potential to shift debate on monitoring forest based emissions.
2. African Forest and Landscape Restoration Initiative (AFR 100) to restore 100 mn ha of degraded and deforested land in Africa.
3. Initiative 20x20 is a landscape restoration effort in Latin American & Caribbean countries (28 mn ha)
4. World Resource Institute announced 25 new partners to Building Efficiency Accelerator as a part if UN SE4All initiative (GM Times).

**Marrakech (COP 22, 2016):**

**Bonn (COP 23, 2017)**

**Katowice (COP 24, 2018):**

- Technology: e-Vehicles & e Mobility; Sustainable cities & Urbanisation. Responsibility of individual cities.
- More Renewable Energy through attitudinal change.
- Afforestation, Implementation of GCF.
- **Talanoa Dialogue** = Led by Fiji. 1st ever International conversation of its kind to assess progress towards goals of Paris. 1.5°C relevance.
- **1st Virtual Climate Summit, 2018** is a part of Talanoa dialogue.
- It was organized by Climate Action Network (CAN) and Climate Vulnerable Forum (CVF). CVF was formed in Copenhagen Summit. Formed by Maldives Govt.
- 1.5°C target by 2020 by improving INDCs.
- Adopted **Jummemj Declaration** = call to action if vigilance against threats.
- Vulnerable nations stepping up and showing real climate leadership.

**2019 COP 25 - Madrid, Spain.**

- EU is working on a legislation to bring about Net 0 Emissions. UK has also turned its Net 0 2020 Goal into a legal requirement.
The international community lost an important opportunity to show increased ambition on mitigation, adaptation and finance to tackle the climate change.

Next Climate Summit is in **Glassgow, UK**. Issues to be discussed are liability for damages caused by rising temperatures that developing countries were insisting on.

For the Article related to 5 Year anniversary of Paris summit: [click here](#)

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**New Monsoon Forecast Model and Madden Julian Oscillation**

**New Monsoon Forecast Model**

- The India Meteorological Department (IMD) may introduce new monsoon models this year to better forecast changes in rainfall.
- The monsoon that concluded in 2020 was unique, in that with monsoon 2019, it was only the third time in a century that India saw back-to-back years of above normal rainfall. In both years — and monsoon 2019 was a 25-year high — the IMD failed to forecast the magnitude of the excess and only indicated that the monsoon would be “above normal”.
- D.S. Pai, who heads the IMD’s Climate Research Services, Pune, said in his talk there were three different models that could be tested this year. Two of them were dynamical models and one a statistical model.

**Computer simulation**

- In the former, the climate on any particular day is simulated on supercomputers and meteorologists observe the changing daily output. The other is the traditional statistical model that equates relationships of physical parameters, such as for instance sea surface temperatures, snowfall, the temperature of landmass etc, with the actual observed rainfall in the past.
- The **three models** under consideration are:
  1. 12 global circulation models (dynamical) whose outputs would be combined
What is Madden Julian Oscillation?

It is an oceanic-atmospheric phenomenon which affects weather activities across the globe. It brings major fluctuation in tropical weather on weekly to monthly timescales.

2. The MJO can be defined as an eastward moving 'pulse' of clouds, rainfall, winds and pressure near the equator that typically recurs every 30 to 60 days.

3. It's a traversing phenomenon and is most prominent over the Indian and...
Phases of MJO (Madden Julian Oscillation)

The MJO consists of two parts or phases. Strong MJO activity often dissects the planet into halves. One half within the enhanced convective phase and the other half in the suppressed convective phase.

1. Enhanced rainfall (or convective) phase:

Winds at the surface converge, and the air is pushed up throughout the atmosphere. At the top of the atmosphere, the winds reverse (i.e., diverge). Such rising air motion in the atmosphere tends to increase condensation and rainfall.

2. Suppressed rainfall phase:

- Winds converge at the top of the atmosphere, forcing air to sink and, later, to diverge at the surface. As air sinks from high altitudes, it warms and dries, which suppresses rainfall.
- It is this entire dipole structure, that moves west to east with time in the Tropics, causing more cloudiness, rainfall, and even storminess in the enhanced convective phase, and more sunshine and dryness in the suppressed convective phase.

How Does MJO Affect Indian Monsoon?

- The Indian Ocean Dipole (IOD), El Nino and MJO are all oceanic and atmospheric phenomena, which affect weather on a large scale. IOD only pertains to the Indian Ocean, but the other two affect weather on a global scale-up to the mid-latitudes.
- IOD and El Nino remain over their respective positions, while MJO is a traversing phenomenon.
- The journey of MJO goes through eight phases.
- When it is over the Indian Ocean during the Monsoon season, it brings good rainfall over the Indian subcontinent.
- On the other hand, when it witnesses a longer cycle and stays over the Pacific Ocean, MJO brings bad news for the Indian Monsoon.
- It is linked with enhanced and suppressed rainfall activity in the tropics and is very important for the Indian monsoonal rainfall.

Periodicity of MJO:

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If it is nearly 30 days then it brings good rainfall during the Monsoon season. If it is above 40 days then MJO doesn't give good showers and could even lead to a dry Monsoon.
Shorter the cycle of MJO, better the Indian Monsoon. Simply because it then visits the Indian Ocean more often during the four-month-long period.
Presence of MJO over the Pacific Ocean along with an El Nino is detrimental for Monsoon rains.

Source: TH

Monsoon in India - UPSC
GS-I | 21 September, 2021

South West Monsoon in India (Jun, July, Aug, Sep):

**Definition:** It is the seasonal reversal in the wind direction. It is experienced in tropical areas (20°N to 20°S). In India, it is experienced in June, July, August and September.
5 Key players in Monsoon:

1) Differential heating and cooling of land (LP) and Sea (HP) in summer.

2) Northward shifting of ITCZ in July over Ganga plains

- ITCZ is a low pressure zone located at the equator where trade winds converge.
- This leads to the formation of thermal low over North and Northwest India.
- Southeast Trade winds from S hemisphere cross the Equator (40°E to 60°E of longitude) and turn right due to Coriolis force in the SW direction.
- It is also called as Monsoon trough during monsoon year.
- The location and shift of ITCZ governs the breaks and pulsating nature of Monsoons.

3) The presence of High Pressure (HP) area over Madagascar (20°S of Indian Ocean). The intensity and position of this HP area affects Indian monsoon.

4) Tibetan plateau gets intensely heated
This results in strong vertical air currents and the formation of High Pressure over the plateau @ about 9 km above sea surface.

This is **Tropical Easterly Jetstream** which is associated closely with the burst of monsoon.

**Tropical Easterly Jetstream is also a major reason why there are no cyclones during Monsoon because the presence of an Easterly jet over the Indian landmass** in the upper troposphere prevents vertical circulation of air...which is a pre-condition for formation of cyclones.

5) **Northward shifting of Sub Tropical Westerly Jet Stream (STWJ) over North of Himalayas**:

**Jet Stream Theory: Origin of Monsoon**

(Reason for the sudden burst of Monsoon)

- STWJ is a band of fast moving air from **West to East** usually found in mid-latitudes in the upper troposphere @ the height of 8-15km
- During Winter, STWJ shifts Southwards. It gets bifurcated coz of Himalayas and 1 branch blows South of Himalayas. There is a presence of HP belt over the Northwest India and Low Pressure
over Indian Ocean.
- Presence of STWJ south of Himalayas also induces HP belt in the upper troposphere. Consequently wind direction is from SE to NW.
- During summer, sun is in Northern Hemisphere, Northwest India is intensely heated. Therefore, LP belt is created over the surface of Northwest India.
- Indian Ocean is comparatively cooler and has a HP belt. Ideally, wind should blow from sea to land but there is still presence of STWJ to the South of Himalayas.
- HP belt over the upper troposphere prevents the upward movement of air from the surface LP and thus, the monsoon is not yet activated.
- By the start of June STWJ is moved to N of Himalayas and thus upper tropospheric HP is removed. This induces a rapid movement of wind from sea towards land, giving the sudden "burst" or "break" of monsoon.

6) The presence of Tropical Easterly Jetstream over peninsula in summer. It is associated closely with the burst of Monsoon.

- **Role of Tibetan Plateau**: It is the highest & largest plateau of the world w avg height of 4000 m and is surrounded by even higher mountain ranges.
- **In summer, Tibetan Plateau acts as a heat source**. Air above it is heated & is warmer compared to the surrounding air of mountain ranges. Warm air rises above and creates HP belt in the upper air above Tibetan plateau. Air spreads from HP belt and sinks over Indian Ocean around 30°S and 70°E.
- This movement from Tibet to IO is known as Tropical Easterly Jet (TEJ). This jet drives monsoonal winds towards Indian subcontinent and intensifies SW monsoon.
- The area over IO where TEJ sinks is known as Mascarene High.
- It is a major reason why there are no cyclones over the Indian landmass. It is present in the Upper troposphere & prevents d vertical circulation of air which is a pre-condition for formation of cyclone.

7) S-E trade winds from Southern hemisphere cross the equator and turn right due to coriolis force.

El Nino/La Nina and the Indian Monsoon
El-Nino is a complex weather system that appears once every 3-7 years, bringing drought, floods and other weather extremes to different parts of the world.
The system involves oceanic and atmospheric phenomena with the appearance of warm currents off the coast of Peru in the Eastern Pacific and affects weather in many places including India.

- El-Nino is merely an extension of the warm equatorial current which gets replaced temporarily by cold Peruvian current or Humbolt current (locate these currents in your atlas).
- This current increases the temperature of water on the Peruvian coast by 10°C. This results in:
  1. the distortion of equatorial atmospheric circulation;
  2. irregularities in the evaporation of sea water;
  3. reduction in the amount of planktons which further reduces the number of fish in the sea.

- The word El-Nino means ‘Child Christ’ because this current appears around Christmas in December. December is a summer month in Peru (Southern Hemisphere). El-Nino is used in India for forecasting long range monsoon rainfall. In 1990-91, there was a wild El-Nino event and the onset of southwest monsoon was delayed over most parts of the country ranging from five to twelve days.

Retreating Southwest (SW) Monsoon Season (Oct, Nov): Retreat of Monsoon and onset of the NE Monsoon:
Unlike sudden burst of SW monsoon, retreat is gradual. It starts retreating from North India by the 2nd week of Sep. By the end of Sep, SW monsoon becomes weak as the LP trough (ITCZ) of Ganga plain starts moving southwards in response to southwards march of the Sun.

The monsoon retreats from the Western Rajasthan by the 1st week of Sep. It withdraws from Rajasthan, Gujarat, Western Ganga plains and Central Highlands by the end of month.

By beginning of Oct, LP covers Northern Bay of Bengal and by early Nov, it moves over KN and TN. By mid Dec the ITCZ is completely removed from the Peninsula.

It is marked by clear skies and rise in temp. The land is still moist. Owing to the conditions of HT and humidity, the weather becomes rather oppressive. This is commonly known as ‘October Heat’. In the 2nd ½ f Oct, temp ? esp in NI.

Tropical depressions or Bay Cyclones in late monsoons:

Why is the retreating monsoon season dry in North India and rain in the Coromandal Coast in Oct & Nov?

It is associated w the passage of cyclonic depressions which
originate over Andaman Sea and manage to cross the Eastern coast of S peninsula. These tropical cyclones are very destructive.

- The thickly populated deltas of Godavari, Kaveri and Krishna are their preferred targets. Every year cyclone brings disaster here.
- A few cyclonic storms also strike the coast of WB, Bangladesh and Myanmar. Such cyclones are less frequent in Arabian Sea. Why?

**Why do the cyclones in Arabian Sea not affect India?**

- Tropical cyclones move from east to West.....they are secondary circulations and maintain the larger direction of the planetary winds (i.e Trade winds which blow from East to West).
- So, any cyclones to form in Arabian Sea are less likely to affect India.
- Also, another reason that can be given is that the findlater jet of the coast of Somalia causes coastal upwelling and hence cooling of waters in the western Indian ocean and cooler temperatures would not support the formation of tropical cyclones.
- However, please note that it would happen only if the Findlater Jet is very strong.

**What is the difference between Retreating Southwest Monsoon and Northeast Monsoon?**

![Map of India showing monsoon patterns](image-url)
Retreating South West Monsoon | Northeast Monsoon
---|---
- Blow in Oct, Nov
- Season of transition between hot, rain season and cold, dry season.
- Characterised by oppressive heat and humidity called ‘October Heat’.
- They blow from SW direction but are not strong enough to blow right into Northern plain.
- They withdraw in stages which result in decreasing rain.

- Dec, Jan, Feb
- Cold Weather Season.
- This is very pleasant season with low temperature, low humidity and clear skies.
- These winds blow from NE direction from land to sea.
- They do not give rain to any part of India except TN coast.

**Mechanism of Monsoon**

It can be understood in 4 different points:

1) **Onset and Landward advance of Monsoon from Kerala:**

- Differential heating of land (LP) and sea (HP) in summer.
- Northward shift of ITCZ.
- Northward shifting of STWJ.
- Heating of Tibetan plateau and inducement of TEJ.

2) **Rain bearing systems:**

- Monsoon rainfall enters in India thr’ 2 branches, Arabian Sea branch of SW Monsoon brings rain to W coast and further interiors of Peninsula (It is related to offshore meteorological conditions along eastern coast of Africa) and BoB Bengal branch gives rainfall over Eastern, NE and NI. Tropical depressions originating in BoB cause rainfall in Northern plains.

**Arabian Sea Branch of SW Monsoon:** The total volume is 3 times more than BoB branch. It approaches Southwest coast of India by the 1st week of June. They further split into 3 branches:

1. **Western Ghats (WG):**
The high WG leads the moist air to rise quite high. Heavy rain (200-250 cms) falls on the windward slopes of WG.

The leeward side receives only 60 cm rainfall & rain shadow areas receive much less.

The winds progressively deposit less rainfall from W to E Ex. Mumbai-200 cm & Chennai-40 cm and from S to N Ex. Thiruvan-puram-325 cm, GA-300 cm & Mumbai-200 cm.

The intensity of rainfall over the west coast of India is related to 2 factors: The offshore meteorological conditions and The position of equatorial jet stream along the eastern coast of Africa.

2. North of Mumbai: After crossing the Ghats the monsoon winds cross the plateau & reach MP, JH and OD giving rainfall. Part of this wind enters through Narmada valley & causes good rainfall in the Chota Nagpur plateau. Further North, a part of these winds passes over West and Southeast Rajasthan without depositing much rainfall and goes straight to the sub-Himalayan region giving rainfall to the foothills of the W Himalayas, eastern PN, HR and NE RJ where it meets the BoB branch.

3. Saurashtra Peninsula and Kachch: Aravallis runs almost parallel to the direction of this branch and do not form a barrier to intercept the winds, and hence do not receive much rainfall from this branch.

Bay of Bengal branch of SW Monsoon:

1. These winds pass over Ganga and Brahmaputra delta strike against Shiwalik ranges, Himalayas, Chittagong and Assam hills, then tise and cause heavy rainfall in WB, SK, AR and southern slopes of Khasi-Jaintia hills. Cherrapunji (1250 cm) receives the highest rainfall in the World.

2. 1 branch of BoB branch is deflected in Western direction, blowing from SE, between Himalayas and Peninsula. The winds move up in the Indo gangetic plain parallel to Himalayas.

3. The rainfall decreases up to Kashmir from Ganga plains (250 cm). A small amount of ppt is received on the E Aravalli slopes as they form a barrier, but Thar on the West side lies in the rain shadow for the SW monsoon BoB branch and receives little or no rainfall.

4. During monsoon, strong winds and wet spells last for a few days followed by
a period of weak winds or monsoon lull. This leads to dry spells between two wet spells.

5. The normal duration of monsoon in most parts of India is 100 days to 120 days but in RJ it is 45-50 days, while it is max of 6 months in Kerala. Temp are < in d wet season due to cloudiness & rainfall.

Why Tamil Nadu dry during this season?
- TN coast is parallel to BoB branch of SW monsoon.
- It lies in the rain shadow region of Arabian Sea branch of SW Monsoon.

3) Break in the Monsoon:
- **During SW monsoon**, if rain fails to occur for 1 or more weeks, it is known as break in the monsoon. These breaks are quite common during rainy season. The **location and shift of ITCZ governs the breaks and pulsating nature of Monsoons**. These breaks in diff regions are due to different reasons:
  1. In NI, rains are likely to fail if the rain-bearing storms are not very frequent along monsoon trough or the ITCZ over this region.
  2. Over the W coast, the dry spells are associated with the days when winds blow parallel to the coast.
  3. Dry spells occur over Western RJ due to thermal conditions in the lower atmosphere, such as Inversion of temp.
  4. Cyclonic originating head of BoB and their crossing into the mainland may result in BoB branch of SW monsoon winds getting drawn into cyclonic depression resulting in dry spells in SE parts of Ganga plains.
- **Position of ITCZ over Northern plain**: called as monsoon trough determines tracks of tropical depressions. As the axis of monsoon trough oscillates, the tracks of these depressions also vary. This cause wide fluctuation in the direction and path these depressions take intensity of rainfall a.w.a variations in the amount of rainfall from year to year. If the trough lies close to Himalayas. It causes heavy rainfall in the foothills which results in widespread floods and prolonged dry spells in the plains. If the LP trough lies over Ganga plain, it results in heavy rains in the plains and dry spells in the foothills.
4) Retreat of Monsoon and onset of the NE Monsoon.

Completed above.

What are the characteristics of Monsoonal Rainfall?

- Rainfalls received from southwest monsoon is seasonal in character. June - Sep.
- Governed by Relief or Topography.
- Monsoon rainfall decreases from the increasing distance from the sea.
- Monsoon rains occur in wet spells of few days. Then Breaks related to cyclonic disturbances over BoB and their crossing into mainland.
- Heavy downpour leads to runoff and soil erosion.
- 75% of the total rain received during SW monsoon. Agri dependent on it.
- Uneven spatial distribution.
- Rain sometimes end considerably earlier than usual causing great damage to standing crops and making the sowing of winter crops difficult.

Source: NCERT and Aspire IAS Notes

WIPO (World Intellectual Property Organization)

*WIPO has its origins in the United International Bureaux for the Protection of Intellectual Property (BIRPI) which was established in 1893.*
It is a UN specialized agency created in 1967 to promote IP protection and encourage creative activity all over the World. Headquarter of WIPO is in Geneva - Switzerland. India joined in 1975. WIPO is basically a global forum for IP policy, services, information and cooperation. WIPO is a self funded agency of UN. It has 192 members. 4 Types of IP are: Trade Secrets, Trademarks, Copyrights and Patents.

Functions of WIPO

- To assist the development of campaigns that improve IP Protection all over the globe and keep the national legislations in harmony.
- Signing international agreements related to Intellectual Property Rights (IPR) protection.
- To implement administrative functions discussed by the Berne and Paris Unions.
- To render legal and technical assistance in the field of IP.
- To conduct research and publish its results as well as to collect and circulate.
Some Treaties associated with WIPO

- **WIPO Performance and Phonograms Treaty (WPPT)**
  1. WPPT deals with the rights of two types of beneficiaries, especially in the digital environment:
  2. For example: Singers, Actors, Musicians, etc. (Performers) and Producers of Phonograms.

- **Budapest Treaty**: International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure was the purpose of this treaty.

- **Madrid Protocol for the International Registration of Marks**: The Protocol ensures the protection of a mark in many countries by securing an international registration that has effect in all of the designated Contracting Parties.

- **Marrakesh Treaty to Facilitate Access to Published Works by Visually Impaired Persons and Persons with Print Disabilities**: Marrakesh Treaty allowed copyright exceptions that facilitated the creation of accessible versions of books. It also provided copyrighted works for the visually impaired. India was the 1st country to ratify Marrakesh treaty.

- **WIPO Copyright Treaty**: It dealt with the Protection of works and the rights of their authors in the digital environment.

India is a part of the following WIPO treaties

- IPO Convention (1975)
- Paris Convention (1998)
- Berne Convention (1928)
- Phonograms Convention (1975)
- Nairobi Treaty (1983)

**WIPO publishes Global Innovation Index (GII)**
UPSC "PT" DNA (Daily News Analysis)

- It is a global ranking for countries for success in innovation.
- It is published by WIPO with Cornell University and INSEAD.
- It ranks on the basis of IPR to R&D, online creativity, mobile app, education, software spending, ease of doing business etc.
- Click here to read Global Innovation Index 2021.

Source: Aspire IAS Notes
Cybercrime is a crime that involves a computer and a network. The computer may have been used to commit the crime and in many cases, it is also the target. Cybercrime may threaten a person or a nation’s security and financial health. In a computing context, security includes both cyber security and physical security.

Currently, almost 70 categories of cyber security products have been identified. These include products used for data loss prevention, security analytics, big data analytics, web security, antivirus, mobile payments, mobile data protection, cloud security, spam free email solutions, among others.

National Cyber security Policy, 2013

In light of the growth of IT sector in the country, the National Cyber Security Policy of India 2013 was announced by Indian Government in 2013 yet its actual implementation is still missing. As a result fields like e-governance and e-commerce are still risky and may require cyber insurance in the near future.
Its important features include:

- To build secure and resilient cyber space.
- Creating a secure cyber ecosystem, generate trust in IT transactions.
- 24 x 7 NATIONAL CRITICAL INFORMATION INFRASTRUCTURE PROTECTION CENTER (NCCIIPC)
- Indigenous technological solutions (Chinese products and reliance on foreign software)
- Testing of ICT products and certifying them. Validated products
- Creating workforce of 500,000 professionals in the field
- Fiscal Benefits for businessman who accepts standard IT practices, etc.

Countering cyber crimes is a coordinated effort on the part of several agencies in the Ministry of Home Affairs and in the Ministry of Communications and Information Technology.

The law enforcement agencies such as the Central Bureau of Investigation, The Intelligence Bureau, state police organizations and other specialised organizations such as the National Police Academy and the Indian Computer Emergency Response Team (CERT-In) are the prominent ones who tackle cyber crimes.

**National Cyber Response Centre – Indian Computer Emergency Response Team (CERTIn)**

- CERT-In monitors Indian cyberspace and coordinates alerts and warning of imminent attacks and detection of malicious attacks among public and private cyber users and organizations in the country.
- It maintains 24×7 operations centre and has working relations/collaborations and contacts with CERTs, all over the world; and Sectoral CERTs, public, private, academia, Internet Service Providers and vendors of Information Technology products in the country.

**National Information Infrastructure Protection Centre (NIIPC)**

- NIIPC is a designated agency to protect the critical information infrastructure in the country.
- It gathers intelligence and keeps a watch on emerging and imminent cyber threats in strategic sectors including National Defence.
- They would prepare threat assessment reports and facilitate sharing of such information and analysis among members of the Intelligence, Defence and Law enforcement agencies with a view to protecting these agencies’ ability to collect, analyze and disseminate intelligence.
National Critical Information Infrastructure Protection Centre (NCIIPC)

- National Critical Information Infrastructure Protection Centre (NCIIPC) is an organisation of the Government of India created under Sec 70A of the Information Technology Act, 2000 (amended 2008).
- It is designated as the National Nodal Agency in respect of Critical Information Infrastructure Protection.
- NCIIPC has broadly identified the following as ‘Critical Sectors’–
  1. Power & Energy
  2. Banking, Financial Services & Insurance
  3. Telecom
  4. Transport
  5. Government
  6. Strategic & Public Enterprises

Cyberdome Project (UPSC Mains)

- Cyberdome, the hi-tech centre for cybersecurity being set up by the Kerala Police.
- Cyberdome will be a hi-tech centre for cyber security. The project is worth Rs.2-crore. The project is being established on the public-private partnership model with the technical support offered by IT companies.

Unique features of the project:

- As many as 500 ethical hackers and cybersecurity experts would be involved in the project.
- It would have centres for social media awareness, protection of children on the Internet, Internet monitoring and ICT (Information and Communication Technology) in service delivery.
- It would also host an Anti-Cyber Terror Cell and a cybersecurity training unit.
- It would be equipped with an automated crime intelligence-gathering unit and a unit for anti-piracy on the Internet.
- It will have its server hosted at the State Data Centre. Software companies will provide technical support on a voluntary basis, develop software for the purpose, and supply technical manpower.
- The station will be manned by police officers with IT-related qualifications. The Additional Director General of Police (Crimes) will be in charge of the project.
- Cyberdome would be open to new models of partnership to find solutions to emerging threats and challenges.
Important functions:

- It would work on prevention of hacking and defacement of websites and child pornography.
- It would have facilities to analyse Skype and VOIP (Voice over Internet Protocol) calls and deal with money laundering on the Internet. Policing the Dark Net would be another mandate of the Cyberdome.
- Cyberdome would synergise its operations with the Computer Emergency Response Team-Kerala.

Source: PIB

Nagaland Issue

Four years after the government inked the Naga peace accord in 2015, the Centre has now said that the process had almost concluded, despite the fact that the talks had hit a roadblock in its final stages.

Why is the Naga Peace talks being delayed?

It is mainly because of unrealistic demands. NSCN I-M has issued statements in the past claiming that it wanted a separate Constitution, flag and integration of all contiguous Naga-inhabited areas under Nagalim (Greater Nagaland).
Government of India’s stand:

A mutually agreed draft comprehensive settlement, including all the substantive issues and competencies, is ready for inking the final agreement. Respecting the Naga people’s wishes, the Government of India is determined to conclude the peace process without delay.
How old is the Naga political issue?

Pre-independence:

1. The British annexed Assam in 1826, and in 1881, the Naga Hills too became part of British India. The first sign of Naga resistance was seen in the formation of the Naga Club in 1918, which told the Simon Commission in 1929 “to leave us alone to determine for ourselves as in ancient times”.
2. In 1946 came the Naga National Council (NNC), which declared Nagaland an independent state on August 14, 1947.
3. The NNC resolved to establish a “sovereign Naga state” and conducted a “referendum” in 1951, in which “99 per cent” supported an “independent” Nagaland.

What are the Naga peace talks?

- The talks seek to settle disputes that date back to colonial rule.
- The Nagas are not a single tribe, but an ethnic community that comprises several tribes who live in the state of Nagaland and its neighbourhood.
- One key demand of Naga groups has been a Greater Nagalim that would cover not only the state of Nagaland but parts of neighbouring states, and even of Myanmar.

Rise of Naga nationalism

- The British had annexed Assam in 1826, in which they subsequently created the Naga Hills district and went on to extend its boundaries.
- The assertion of Naga nationalism, which began during British rule, has continued after Independence, and even after Nagaland became a state.
- Along the way, the unresolved issues gave rise to decades of insurgency that claimed thousands of lives, including of civilians.

How has the Naga assertion played out historically?

- The earliest sign of Naga resistance dates back to 1918, with the formation of the Naga Club.
- In 1929, the Club famously told the Simon Commission “to leave us alone to determine for ourselves as in ancient times”.
- In 1946, A Z Phizo formed the Naga National Council (NNC), which declared Naga independence on August 14, 1947, and then, in 1951, claimed to have
conducted a referendum.
- The referendum got overwhelming majority in support of an independent Naga state.
- By the early 1950s, the NNC had taken up arms and gone underground.
- The NNC split in 1975, the breakaway group being the NSCN, which split further in later years, most prominently into the NSCN(I-M) and NSCN (Khaplang) in 1988.

And how have the peace talks played out in recent years?

Before the ongoing talks, which followed a framework agreement in 2015, there were two other agreements between Naga groups and the Centre.

1975:
- A peace accord was signed in Shillong in which the NNC leadership agreed to give up arms.
- Several NNC leaders, including Isak Chishi Swu, Thuingaleng Muivah and S S Khaplang refused to accept the agreement and broke away to form the NSCN.
- In 1988 came another split, with Khaplang breaking away to form the NSCN(K) while Isak and Muivah headed the NSCN(I-M).

1997:
- The NSCN(I-M ) signed a ceasefire agreement with the government in 1997, preceded by rounds of talks since 1995.
- The key agreement was that there would be no counter-insurgency offensive against the NSCN(I-M), who in turn would not attack Indian forces.
- The NSCN(I-M) had then announced to “every citizen of Nagalim wherever they may be”, that a ceasefire agreement was entered into between India and the outfit to bring about a lasting political solution.

2015:
- In August that year, the Centre signed a framework agreement with the NSCN(I-M).
- PM Modi described it as a “historic agreement” towards settling the “oldest insurgency” in India. This set the stage for the ongoing peace talks.
- In 2017, six other Naga armed outfits under the banned of the Naga National Political Groups (NNPGs) joined the talks.
What was in the framework agreement?

- The government has not yet spelt out the details in public.
- Following the agreement, the government had said in a press statement: “The Government of India recognised the unique history, culture and position of the Nagas and their sentiments and aspirations.
- The NSCN understood and appreciated the Indian political system and governance.
- On the other hand, the NSCN(I-M) issued a statement earlier this year which said that Nagaland State does and will not represent the national decision of the Naga people.
- The statement was in opposition the proposal for a Register of Indigenous Inhabitants of Nagaland (RIIN) in the state of Nagaland.

Where does the territorial demand currently stand?

- The accord being finalised “does not change the boundary of states; provides autonomous Naga territorial councils for Arunachal and Manipur; a common cultural body for Nagas across states.
- It provides for specific institutions for state’s development, integration and rehabilitation of non-state Naga militia and the removal of the Armed Forces Special Powers Act.
- The map of Greater Nagalim in the NSCN(IM) vision, on the other hand, covers a 1,20,000 sq km sprawl across the Northeast and Myanmar — the area of Nagaland state itself is only 16,527 sq km, a fraction of this vision.
- Amid the anxiety this has caused among citizens in neighbouring states, state governments have assured them that their respective states' territorial integrity would not be compromised.

What are the other issues?

- The government and the NSCN(I-M) have failed to agree on issues relating to a separate Naga flag and a constitution.
- In its latest statement, the NSCN(I-M) has said it will not budge from the demand for the flag and the constitution — and that it is looking for a lasting solution.
- However the NSCN(I-M) has adopted a procrastinating attitude to delay the settlement raising the contentious symbolic issues of separate Naga national flag and constitution.

Where could the disagreement lead to?
The statement from the Governor’s office has given rise to speculation that the government is ready to sign a final peace agreement with other groups without the NSCN(I-M), the largest group.

Civil society groups in Nagaland are divided in their opinion. Some have said the talks should be wrapped up with whatever is offered now and keep other issues open for later negotiations. Others believe all issues should be settled and the NSCN(I-M) should be on board, even if it takes longer than the deadline.

Source: TH

South China Sea Issue
GS-II | 22 September, 2021

About South China Sea
The South China Sea is an arm of the western Pacific Ocean in Southeast Asia. It is south of China, east & south of Vietnam, west of the Philippines and north of the island of Borneo. Bordering states & territories (clockwise from north): the People’s Republic of China, the Republic of China (Taiwan), the Philippines, Malaysia, Brunei, Indonesia, Singapore, and Vietnam. It is connected by Taiwan Strait with the East China Sea and by Luzon Strait with the Philippine Sea. It contains numerous shoals, reefs, atolls and islands. The Paracel Islands, the Spratly Islands and the Scarborough Shoal are the most important.

Importance of South China Sea

- This sea holds tremendous strategic importance for its location as it is the connecting link between the Indian Ocean and the Pacific Ocean. (Strait of Malacca)
- According to the United Nations Conference on Trade And Development
(UNCTAD) one-third of the global shipping passes through it, carrying trillions of trade which makes it a significant geopolitical water body.

- According to the Department of Environment and Natural Resources, Philippines, this sea has one-third of the entire world’s marine biodiversity and contains lucrative fisheries providing food security to the Southeast Asian nations.
- The South China Sea is believed to have huge oil and gas reserves beneath its seabed.

In News: The Chinese fishing fleets have been seen raiding the rich waters of the South China Sea that are internationally recognised as exclusively Indonesia’s to fish. The fishermen in Natuna Islands (Indonesia) are worried.

The Chinese steel trawlers scrape the bottom of the sea and destroy other marine life. Chinese trawling also breaches the maritime borders. Since China is its largest trading partner, it has been argued that the Indonesian government has not taken any steps to deal with the incursions by Chinese fishing boats.

China’s illegal fishing near the Natuna islands carries global consequence, reminding regional governments of Beijing’s expanding claims to the South China Sea through which one-third of the world’s maritime trade flows. China wants to claim the resources such as oil, natural gas, and fish in the South China Sea. The presence of Chinese fishers also helps to embody China’s maritime claims. The nine dash line (rejected by an international tribunal) asserted by China violates the principle of Exclusive Economic Zones (EEZ).
History of South China Sea Dispute

- In the first half of the 20th century, the Sea remained almost quiet. In fact, at the end of World War II, no claimant occupied a single island in the entire
South China Sea.
- China laid claim to the South China Sea in 1947. It demarcated its claims with a U-shaped line made up of **eleven dashes** on a map, covering most of the area.
- But two “dashes” were removed in the early 1950s to bypass the Gulf of Tonkin as a gesture to communist comrades in North Vietnam.
- The remaining ‘**nine-dash line**’ stretches hundreds of kilometers south and east of its southerly Hainan Island, covering almost 90% of South China Sea.
- After 1960’s when the huge reserve of oil and natural gas were discovered in the region, the territorial claims started growing in an unprecedented manner.
- **The United Nations Convention on the Law of the Sea (UNCLOS)**, which came into force in 1994, established a legal framework intended to balance the economic and security interests of coastal states with those of seafaring nations.
- While UNCLOS has been signed and ratified by nearly all the coastal countries in the South China Sea, based on their own interpretation of the UNCLOS, claimant countries started to legitimize their claims.
- In 2002, ASEAN and China came together to sign the Declaration on the Code of Conduct of Parties in the South China Sea to keep disputes away. However, it didn’t achieve the desired outcomes.
- In 2009, Malaysia and Vietnam sent a joint submission to the Commission on the Limits of the Continental Shelf (CLCS) for setting out some of their claims. In response to this China submitted a map containing the infamous “nine-dash” line and due to which, there was no headway in the dispute resolution.

**Why is South China Sea in the news?**

- The **Permanent Court of Arbitration (PCA)**, based in The Hague, Netherlands, recently ruled that China’s claims of historical rights over the South China Sea (SCS) has no legal basis. The case against China was initiated by the Philippines.

- The Permanent Court of Arbitration (PCA) has ruled that China’s claims to the waters within the “nine-dash line”, was in breach of the **UN Convention on the Law of the Sea (UNCLOS)**. The court also observed that China has caused “severe harm to the coral reef environment” by building artificial islands.

- The Philippines had lodged the suit against China in 2013 and has welcomed the ruling, but China has reacted furiously, saying that it “does not accept
China had even refused to participate in the case, saying that the tribunal had “no jurisdiction” over the issue.

It is important to note that this ruling, comes at a critical juncture, as China bolsters its global economic status. China has a long-standing ambition to be accorded recognition as a market economy under the World Trade Organization (WTO).

With reference to the current ruling by the tribunal, the U.S. can’t exert much moral pressure as it has not even ratified the United Nations Convention on the Law of the Sea (UNCLOS). Conversely, since both China and the Philippines have ratified the UNCLOS, there is more pressure on China to comply.

**Geopolitics and Activities undertaken in the region:**

- Between China and the Philippines, the conflict centers around the *Scarborough Shoal*. The Scarborough Shoal, is essentially a triangle-shaped chain of reefs and rocks with a total area of 150 square kilometers.

- In 1995, China took control of the disputed *Mischief Reef*, constructing octagonal huts on stilts- Chinese officials said at the time that these would serve as shelters for fishermen. The Philippines registered a protest through the Association of Southeast Asian Nations.

- In fact, the current round of tension between the two countries began in 2008-2009 after a tense but bloodless stand-off over the Scarborough Shoal, led to China gaining de facto control of it in 2012.

- Also recently, China has constructed and installed military-capable infrastructure in the *Spratly Islands*.

- China’s state-owned *China National Offshore Oil Corporation (CNOOC)* has accelerated oil exploration, especially in the western region of the South China Sea. China’s rising energy demands appears to be a factor fuelling its assertion in South China Sea, and sharpening its disputes with littoral states, especially Vietnam and the Philippines, along with Taiwan, Malaysia and Brunei.

- Recently, Chinese and Russian naval forces carried out joint air defense and anti-submarine drills in the South China Sea (SCS)- this was part of an eight-
day naval war game, **Joint Sea-2016**, which is the largest naval military exercise ever between the two countries.

**Reasons for the stalemate on a possible solution**

- ASEAN member nations, namely, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, often show signs of anxiety whenever claimants over the South China Sea, most often China, escalate the conflict.

- In fact, one of the fundamental principles of the Association of Southeast Asian Nations (ASEAN) has been to resolve disputes by peaceful means and to reach agreement by a consensus.

- But on the issue of the South China Sea, ASEAN has been unable to formulate a consensus policy. Reasons for this can be attributed partly to the fact that not all 10 ASEAN members are claimants to the South China Sea. While another reason is that members of ASEAN have overlapping claims among themselves. Moreover, bilateral relations between China and some smaller ASEAN members, such as Laos and Cambodia, are also a factor. Because of its economic and military power, China has been able to win over some ASEAN members.

- In fact, when China insisted on talks among the parties concerned, the claimants in ASEAN wanted to pursue it through multilateralism or the Court of Arbitration. Thus, the existence of two opposing approaches was, and continues to be a major challenge for bringing a mutually acceptable solution to the South China Sea disputes.

**Strategic Importance of South China Sea:**

- It is important to note that the South China Sea (SCS) contains one of the world’s busiest international sea lanes and is also home to many of the world’s busiest shipping ports. The South China Sea also connects the Pacific and Indian Oceans and thus is of a unique strategic importance to the littorals of these two oceans which are important naval powers in the region—such as India, Japan, etc.

- The SCS, is one of the main arteries of the global economy and trade. More than $5 trillion of world trade ships pass through the SCS each year. The SCS is rich in resources, with numerous offshore oil and gas blocks. The
The United States Energy Information Agency estimates that there are 11 billion barrels of oil and 190 trillion cubic feet of natural gas in deposits under the South China Sea (SCS).

The waters of the South China Sea (SCS), contain lucrative fisheries that, according to some estimates, account for 10% of the global total.

India's Stand on South China Sea

It is important to note that in July 2014, an Arbitration Tribunal, set up under the Permanent Court of Arbitration, delivered its ruling, in the matter of the Bay of Bengal Maritime Boundary Delimitation between India and Bangladesh. The maritime boundary so delimited covered the territorial sea, the exclusive economic zone (EEZ) and the continental shelf.

The United Nations tribunal awarded Bangladesh 19,467 sq. km of the 25,602 sq. km sea area of the Bay of Bengal.

India has been widely credited, with her acceptance of the decision and the manner in which she has abided by it. This is an example which China should be encouraged to emulate. In fact, it is interesting to note that the US has asked China to learn from India’s handling of its maritime disputes with its neighbours- referring to the maturity with which India has agreed to the settlement on the maritime boundary with Bangladesh.

Under the ‘Act East’ policy, India has been taking a higher position at the global high table- this was reflected in the joint statement issued in September 2014, by the Governments of U.S. and India when Indian PM Narendra Modi, travelled to U.S. The joint statement “urged the concerned parties to pursue resolution of their territorial and maritime disputes through all peaceful means, in accordance with universally recognized principles of international law, including the United Nations Convention on the Law of the Sea.” The joint statement also, “affirmed the importance of safeguarding maritime security and ensuring freedom of navigation and over flight throughout the region, especially in the South China Sea.”

In the wake of the recent judgement by the Permanent Court of Arbitration, it is a good time for India to assert that it believes in global commons, and in freedom of navigation. India has rightfully not come out in ‘open’ support of...
the verdict from the tribunal, as any overt support to this verdict might run against India’s ambitions of securing membership into the NSG- where China’s support is needed.

- India has legitimate commercial interest in the South China Sea (SCS) region. But India follows the policy of not involving itself in the disputes between sovereign nations.

- India has been concerned about the security of its trade-flows and energy interests in the South China Sea. Vietnam has offered India seven oil blocks in its territory of the SCS- this move didn’t get down well with China. India has signed energy deals with Brunei too.

- India has been a strong advocate of the idea of freedom of navigation. This belief is strongly echoed by most other major powers, including the U.S.

**Possible Way Forward**

China operates from a position of strength in the South China Sea, wherein it has physical control over critical islands in the region, coupled with this, her policy of gradual militarization of the disputed islands in the South China Sea, would impact freedom of navigation- making China the main arbiter of the accepted range of ‘legitimate’ operations in the South China Sea.

Also, although the ruling is historic, the tribunal lacks powers to enforce its rulings, it is important that the claimant nations do not escalate the issue, but work on arriving at a consensus through effective diplomacy.

Judicial verdicts on issues of contested sovereignty have had historical precedents of triggering a nationalist backlash. It is thus important to consider possible solutions to this dispute. Some measures are as under:

- To resolve the disputes peacefully, the claimants in the region should be willing to abandon their confrontational attitude, and instead agree to find a middle path- even if this requires sacrificing certain portions of their claims.

- All claimants can perhaps limit their claim to the areas of 200 nautical miles of the Exclusive Economic Zone in accordance with the United Nations Convention on the Law of the Sea (UNCLOS). Thus, by agreeing to such a proposal, the claimants can also reach an agreement to leave international waters for free navigation.
Another possible solution would be for the parties concerned to establish a common ownership of the disputed areas whereby all the revenues from the South China Sea are equitably shared among the littoral countries.

Perhaps another possibility would be for the disputing countries to specifically lay out their claims and allow a neutral party to adjudicate on the basis of the UNCLOS or any other relevant international laws.

Source: TH

India now has 10 Blue Flag beaches

GS-III | 22 September, 2021

In yet another recognition of India’s commitment to protect and conserve the pristine coastal and marine ecosystems through holistic management of the resources the globally recognized and the coveted International eco-label "Blue Flag", has accorded the Blue Flag Certification for 2 new beaches this year – Kovalam in Tamil Nadu and Eden in Puducherry beaches.

What are Blue Flag beaches?
WHAT IS A BLUE FLAG BEACH?

A beach with Blue Flag certification, awarded for all-round high quality

Needs to meet 33 standards for water quality, safety, environmental education and information

Given by Foundation for Environmental Education (FEE) amongst member countries

13 Indian beaches, across

Odisha
Maharashtra
Goa
Puducherry
Daman and Diu
Lakshadweep
Andaman and Nicobar Islands

selected for the certification this year

1 in every 6 beaches with Blue Flag status worldwide are in Spain

Over 4,000 Blue Flags are flying in 49 countries around the world
Blue Flag certification is a globally recognised eco-label accorded by "Foundation for Environment Education in Denmark" based on 33 stringent criteria.

Blue Flag for Beach Cleanup started in 1985 with the objective to enhance standards of cleanliness, upkeep & basic amenities at beaches.

Each state and UT will nominate a beach to be funded by Integrated Coastal Management Programme.

They must comply with 33 conditions related to Environment and Tourism.

Spain tops the list followed by Greece, France. Japan and South Korea are the only countries in South and SE Asia to have Blue Flag beaches.

Asia's 1st certificate went to Odisha - Chandrabhaga Beach.

12 beaches were considered: Shivrajpur (GJ); Bhogave (MH); Ghoghla (Diu); Miramar (Goa); Kasargod and Padubidri (Karnataka); Kappad (Kerala); Eden (Puducherry); Mahabalipuram (TN); Rushikonda (AP); Golden (Odisha) and Radhanagar (A&N).
Foundation for Environment Education in Denmark (FEE) which accords the globally recognized eco-label - Blue Flag certification, has also given re-certification for 8 nominated beaches Shivrajpur-Gujarat, Ghoghla-Diu, Kasarkod and Padubidri-Karnataka, Kappad-Kerala, Rushikonda- Andhra Pradesh, Golden-Odisha and Radhanagar- Andaman and Nicobar, which were awarded the Blue Flag certificate last year.

Beach Environment & Aesthetics Management Services (BEAMS)

The Ministry of Environment, Forest and Climate Change in its pursuit of “Sustainable Development” of the coastal regions of India embarked upon a highly acclaimed & flagship program Beach Environment & Aesthetics
Management Services (BEAMS) which is one of the initiatives under ICZM approach that the MoEF&CC has undertaken for the sustainable development of coastal regions of India, with a prime objective to protect and conserve the pristine coastal and marine ecosystems through holistic management of the resources.

- This was aimed for achieving the globally recognized and the coveted International eco-label “Blue Flag”, accorded by International Jury comprising of members from IUCN, UNWTO, UNEP, UNESCO etc.
- FEE Denmark conduct regular monitoring & audits for strict compliance of the 33 criteria at all times.
- A waving “Blue Flag” is an indication of 100% compliance to these 33 stringent criteria and sound health of the beach.
- The objective of BEAMS program is to abate pollution in coastal waters, promote sustainable development of beach facilities, protect & conserve coastal ecosystems & natural resources, and seriously challenge local authorities & stakeholders to strive and maintain high standards of cleanliness, hygiene & safety for beachgoers in accordance with coastal environment & regulations.

In the last 3 years or so, our Ministry have achieved commendable results in environmental management of these 10 beaches and some of them are enumerated below:

- Sand dune restoration and nourishment of 95,000 Sqm (approx.) with native plantation.
- Reduction in marine litter by 85% and 78% in marine plastic in last 3 years.
- Scientific & responsible disposal of 750 tonnes of marine litter.
- Improvement in cleanliness level from “C” (poor) to “A++(outstanding) through scientific measurement system
- Saving of 1100 ML/year of municipal water through recycling
- 3 years’ database on regular testing of bathing water quality (physical, chemical and biological contamination) and health risk monitoring.
- Approx. 1,25,000 beach goers are educated for responsible behaviour in the beaches
- Increase in footfall for recreation activities by approx. 80% leading to economic development.
- Alternate livelihood opportunities for 500 fishermen families through pollution abatement, safety & services.

CRZ rules eased for Blue Flag beaches
Blue Flag beach certification is accorded by Denmark based Foundation for Environment Education. It started in France in 1985 and has been implemented in Europe since 1987 and in areas outside Europe since 2001.
when South Africa joined.

- It has 33 stringent criteria under 4 major heads –
  1. Environment Education and Information.
  2. Bathing Water Quality
  3. Environment Management and Conservation and
  4. Safety and Services.

- This beach is an eco tourism model and marks out beaches as providing tourists and beachgoers - clean and hygienic bathing water, facilities, a safe and healthy environment and sustainable development of that area. It requires beaches to create certain infrastructure like portable toilet blocks, grey water treatment plants, solar power plant, seating facilities, CCTV surveillance.
- Now CRZ rules are eased for Blue Flag beaches. Activities are permitted in CRZ including Islands, subject to maintaining a minimum distance of 10 m from High Tide Line. States can construct infrastructure to enable International recognition. It is based on Cleanliness, Environment propriety.

Source: PIB
About Foreign direct investment (FDI)

- The regulations for foreign investment in India have been framed by the RBI in terms of Sections 6 and 47 of FEMA, 1999.
- FDI is an investment from a party in 1 country into a business or corporation in another country with intention of establishing a lasting interest.
- RBI is the regulator of FDI but DPIIT (Ministry of Commerce & Industry) is implementing through consolidated FDI Policy.
- FDI is a source of non-debt finance for the economic development of the country.
- Lasting interest differentiates FDI from FPI, where investors passively hold securities from a foreign country.
- FDI can be made by expanding one’s business or by becoming the owner of a company in another country.
- FDI is allowed under two modes - either through the automatic route, for which companies don’t need government approval, or through the government route, for which companies need a go-ahead from the centre.
India has attracted total FDI inflow of US$ 27.37 billion during first four months of F.Y. 2021-22 which is 62% higher as compared to corresponding period of F.Y. 2020-21 (US$ 16.92 billion).

FDI equity inflow grew by 112% in the first four months of F.Y. 2021-22 (US$ 20.42 billion) compared to the year ago period (US$ 9.61 billion).

‘Automobile Industry’ has emerged as the top sector during the first
four months of F.Y. 2021-22 with 23% share of the total FDI Equity inflow followed by Computer Software & Hardware (18%) and Services Sector (10%) respectively.

- Under the sector ‘Automobile Industry’, majority of FDI Equity inflow (87%) was reported in the state of Karnataka during the first four months of the current financial year (2021-22).
- **Karnataka is the top recipient state** during the F.Y. 2021-22 (upto July, 2021) with 45% share of the total FDI Equity inflows followed by Maharashtra (23%) and Delhi (12%).
- Total FDI into India from 2014-15 to 2018-19 has been US $ 286 billion as compared to US $ 189 billion in the 5-year period prior to that (2009-10 to 2013-14).
- **In fact, total FDI in 2018-19 i.e. US $ 64.37 billion is the highest ever FDI received for any financial year.**
- As per UNCTAD's World Investment Report 2019, global FDI flows slid by 13% in 2018 - 3rd consecutive annual decline. Despite, dim global picture, India is an attractive destination.
- As of now (March 2019), **Singapore** remains India’s top FDI source, twice that from Mauritius.

### Sectors of FDI (Foreign Direct Investment)

1. **Coal Mining**: 100% FDI under automatic route is allowed for coal & lignite mining for captive consumption by power projects, iron & steel and cement units etc. 100% FDI under automatic route is also permitted for setting up coal processing plants like washeries subject.
2. The extant FDI policy provides for 100% FDI under automatic route in **manufacturing sector** and contract manufacturing as well.
3. 100% FDI for **Single Brand Retail Trading (SBRT)**: If SBRT entity has FDI > 51%, then 30% of value of goods has to be procured from India.
4. 100% FDI in **e-Marketplace e-commerce model**. Not in inventory model.
5. 100% FDI is now allowed in **Technical Textiles, Defense** sector, **Pharma (brownfield) and Air transport**.
6. Now recently 100% FDI in Direct to Home (DTH) services.
7. 49% FDI Govt route: under approval route in Up-linking of 'News & Current Affairs' TV Channels.
8. 49% Automatic = insurance, Pension, Pvt security agencies.
9. 26% FDI under government route for uploading/ streaming of News & Current Affairs through Digital Media, on the lines of print media.

### Depository Receipts (DR) - Part of FDI
It is a Foreign Currency denominated instrument (whether listed or not), issued by a foreign depository in the permissible jurisdiction on the back of eligible securities issued to that foreign depository.

A DR is a financial instrument representing certain securities (like Share, bonds etc) issued by a company/entity in a foreign jurisdiction. They are called American DR (ADR), Global DR (GDR) or Indian DR (IDR) depending on the location in which these receipts are issued.

Thus, ADR and GDR are issued outside India by a foreign depository on the back of an Indian security deposited with a domestic Indian custodian in India. GDR is also known as Euro issues.

ADR/ GDR issued are considered as a part of FDI.

FII (Foreign Institutional Investor) Vs FDI (Foreign Direct Investment):

- Where an investor has a stake of <= 10% in a company, it will be treated as FII. If >10% then it is FDI. FDI is also permissible in lower dozes in unlisted entities.
- FII necessarily has to be an institution. FDI can come from an individual also.
- FDI has more direct involvement in technology, management etc while FIIs are interested in capital gain and momentary price differences.
- FDI involves an interest in the management of an enterprise and includes reinvestment of profits. FIIs do not generally influence the management of the enterprise.

New FDI rules, 2020

- The Government of India has made its approval for Foreign Direct Investment (FDI) by neighbouring countries mandatory.
- This revised FDI policy aims to curb opportunistic takeovers/acquisitions of Indian companies due to the current Covid-19 pandemic.

New FDI policy, 2020:

- An entity of a country, which shares a land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route. India shares land borders with Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar.
- A transfer of ownership in an FDI deal that benefits any country that shares a border with India will also need government approval.
- Investors from countries not covered by the new policy only have to inform the RBI after a transaction rather than asking for prior permission from the
FDI Routes in India

There are three routes through which FDI flows into India. They are described in the following table:

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
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<tbody>
<tr>
<td>100% FDI permitted</td>
<td>Up to 100% FDI permitted through</td>
<td>Up to 100% FDI permitted through</td>
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<tr>
<td>Automatic Route</td>
<td>Government Route</td>
<td>Automatic + Government Route</td>
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</table>

**Automatic Route FDI**

In the **automatic route**, the foreign entity does not require the prior approval of the government or the RBI.

Examples:

- Medical devices: up to 100%
- Thermal power: up to 100%
- Services under Civil Aviation Services such as Maintenance & Repair Organizations
- Insurance: up to 49%
- Infrastructure company in the securities market: up to 49%
- Ports and shipping
- Railway infrastructure
- Pension: up to 49%
- Power exchanges: up to 49%
- Petroleum Refining (By PSUs): up to 49%

**Government Route FDI**

Under the **government route**, the foreign entity should compulsorily take the approval of the government. It should file an application through the Foreign Investment Facilitation Portal, which facilitates single-window clearance. This application is then forwarded to the respective ministry or department, which then approves or rejects the application after consultation with the DPIIT.

Examples:
**UPSC "PT" DNA (Daily News Analysis)**

- Broadcasting Content Services: 49%
- Banking & Public sector: 20%
- Food Products Retail Trading: 100%
- Core Investment Company: 100%
- Multi-Brand Retail Trading: 51%
- Mining & Minerals separations of titanium bearing minerals and ores: 100%
- Print Media (publications/printing of scientific and technical magazines/speciality journals/periodicals and a facsimile edition of foreign newspapers): 100%
- Satellite (Establishment and operations): 100%
- Print Media (publishing of newspaper, periodicals and Indian editions of foreign magazines dealing with news & current affairs): 26%

**Sectors where FDI is prohibited**

There are some sectors where any FDI is completely prohibited. They are:

- Agricultural or Plantation Activities (with exceptions like horticulture, fisheries, tea plantations, Pisciculture, animal husbandry, etc.)
- Atomic Energy Generation
- Lotteries (online, private, government, etc.)
- Investment in Chit Funds
- Trading in TDR’s
- Any Gambling or Betting businesses
- Cigars, Cigarettes, or any related tobacco industry
- Housing and Real Estate (except townships, commercial projects, etc.)

**Cabinet approved 100% FDI in DTH service**

Union Cabinet on Wednesday approved 100% Foreign Direct Investment (FDI) in direct to-home (DTH) services, extension of the licence period from 10 years to 20 and a reduced licence fee.

Source: PIB
• It is the largest of Rhino species found in Nepal, Bhutan, Pakistan and India.
• It is Vulnerable and in Schedule I of Wildlife Protection Act.
• 22 September is Rhino Day.
• India is home to 2,200 rhinos, or over 85% population. In India it is found in UP, West Bengal and Assam.
• According to WWF data of 2012, Assam has 91% of total Rhino of India which is mainly concentrated in Kaziranga National Park (Largest absolute population), Pobitora Wildlife Sanctuary (largest density in World). Others are Manas Tiger Reserve, Orang Tiger Reserve and Laokhowa Reserved Forests. Kaziranga has 70% of World population.
• Kaziranga National Park or Tiger Reserve is a UNESCO World Heritage Site, Biodiversity Hotspot, home to 2/3rd of Indian Rhinos. Circumscribed by Brahmaputra, Dhansiri, Dhiplu Rivers. It is an Important Bird Area given by Birdlife International.
Indian Rhino Vision 2020 (IRV 2020)

1. IRV 2020 was launched in 2005 and implemented by Assam Govt with the Bodo autonomous council as an active partner and supported by WWF-India.
2. It is an ambitious effort to attain a wild population of at least 3,000 greater one horned rhinos spread over 7 protected areas Assam by 2020.
3. IRV 2020 aims to translocate Rhinos from Kaziranga NP and Pabitora WS to 5 other protected areas namely Manas, Laokhowa, Buracharpuri-Kochmora, Dibrusaikhowa and Orang.

New Delhi Declaration on Asian Rhinos 2019 by 5 Rhino range nations (Indian)

- Organised by MoEF in collaboration with IUCN, Asian Rhino Specialist Group, WWF-India and Aaranyak NGO.
- 5 Rhino range nations are India, Bhutan, Nepal, Indonesia and Malaysia.
- To increase the population of 3 species of Asian rhinos (Greater one-horned, Javan and Sumatran rhinos) and to conserve and review the population every four years.

Threats to Rhino

- It is threatened by poaching for horn, habitat destruction, flooding etc.
- Kaziranga NP has largest population and has reached its carrying capacity and might not be support any more Rhinos. Entire population can be decimated by a disease outbreak, natural disaster etc. Hence, translocation is done.

Other Rhinos of the World

1. Javan and Sumatran rhinos/ Andatu are currently classified as critically endangered. Both are regionally extinct in India.
2. The Sümatran rhino, the smallest of all rhino species and the only Asian rhino with two horns, became extinct in the wild in Malaysia.
3. World's last male Northern white rhino = Sudan. Now only 2 females left.
4. The 3 species of Rhino in Asia — Greater one-horned, Javan and Sumatran.
5. Black Rhino and White Rhino also have 2 horns but are in Africa.
6. Javan and Sumatran Rhino are critically endangered.
7. Greater one-horned (or Indian) rhino is vulnerable in the IUCN Red List. They
are spread across India, Nepal, Bhutan, Indonesia and Malaysia. These countries are also known as Asian Rhino Range Countries.

8. Sumatran rhinoceros has become extinct in Malaysia. It is the smallest of all Rhino species. These are the only Asian Rhino with 2 horns. It is Critically Endangered in IUCN.

9. Uttarakhand State Wildlife Board has cleared a proposal by the Wildlife Institute of India (WII) to introduce rhinoceroses in the Corbett Tiger Reserve (CTR).

Source: TH

Deposit Insurance Credit Guarantee Corporation Bill 2021

GS-III | 23 September, 2021

About DICGC Bill 2021

- Accessing depositors money has been an issue of when it will be allowed and under what conditionalities. Normally, it takes about 8-10 years, after complete liquidation of the bank. Now, what we are saying is even.
As per the proposed process, a bank under moratorium would have to collect all the account details and balances and share it with the Deposit Insurance Credit Guarantee Corporation (DICGC) within 45 days. The DICGC would get another 45 days to check the details and process the claims.

With the deposit insurance increased from ₹1 lakh to ₹5 lakh, it will cover 98.3% of all deposit accounts and 50.9% of all deposits' value. Just compare this with what prevails outside — only 80% of deposits are insured, with 20%-30% of deposit value globally.

The premium paid by banks to the DICGC would also be raised.

This happened in the backdrop of Punjab and Maharashtra Bank Cooperative crisis.

DICGC (Deposit Insurance Credit Guarantee Corporation) and Cooperative Banks

- DICGC is an 

  **RBI subsidiary.** It provides Deposit insurance cover.
- **Cooperative Banks** deposit insurance cover increased from Rs. 1 lakh to Rs. 5 lakh. In 1993, it was increased from 30000 to 1 lakh.
- DICGC insures all bank deposits, such as savings, fixed, Current and recurring.
- But it **does not insure**
  1. Deposits of foreign/ Central/ State governments and of
| Central / State Govts, |
| 2. Deposits of **State Land development banks** with the **State Cooperative Banks**, |
| 3. **Inter bank deposits** |
| 4. Deposits received **outside India** and |
| 5. Those specifically exempted by the Corporation with the prior approval of Banking regulator. |

- But it **doesn’t cover NBFCs and Primary Agriculture Cooperative Societies**.
- DICGC also charges a **flat 0.1% insurance premium on the deposits** of banks.

### Way Forward

- Among BRICS, India has the lowest deposit insurance cover to per capita income ratio, at 0.9 times.
- There is a suggestion to increase it to Rs. 15 lakhs or that those who want increased coverage should pay additional premium.
- During such freeze in withdrawals atleast the statutory amount should be released.
- But DICGC doesn’t cover NBFCs and Primary Agriculture Cooperative Societies.
- RBI in 2015 suggested that this premium should be based on differential risk based on lending practices of bank.
- SBI says 93% of the premium in 2018-19 was from commercial banks (Public banks 75% and Private Banks 18%).
- We can also bring private sector insurers and re-insurers in the deposit insurance segment which could drive down premium prices.

Source: IE

### Electric Vehicles and Government Policies

**GS-III | 23 September,2021**

- Electric car uses alternate fuel electricity instead of petrol or diesel.
- An electric vehicle, uses one or more electric motors or traction motors for propulsion.
There is a growing acceptance for hybrid and electric cars in the country and more and more manufacturers are entering this niche segment with an express objective of lowering the fuel import bill and running cost of vehicles. Conversion of vehicles to electric vehicles has a potential to save fossil fuels worth about $100 bn annually, which in turn would save the country precious foreign exchange, prevent the dependence on imported petroleum products and reduce the pollution in cities by 80-90%.
An electric vehicle may be powered through self-contained battery, solar panels or an electric generator to convert fuel to electricity.

India’s auto industry has become one of the largest in the world due to the competitive environment in the market.

The turnover of the auto industry is equivalent to 7.1% as per the Review Report of Automotive Mission Plan 2016.

Government of India approved the National Mission on Electric Mobility in 2011 and subsequently National Electric Mobility Mission Plan (NEMMP) 2020 was unveiled in 2013.

As part of the mission, Department of Heavy Industry has formulated a scheme namely FAME – India (Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India) for implementation with effect from 1st April 2015, with the objective to support hybrid/electric vehicles market development and Manufacturing eco-system.

The upfront cost of electric vehicles is higher than the Internal Combustion Engine (ICE) vehicle. However, the operational cost of electric vehicles is lower than the ICE vehicles. Further, electric vehicles are being supported by way of demand incentives under FAME India Scheme phase II to reduce the cost difference between the electric vehicles and ICE vehicles.

KEY TRENDS

1/3rd Of the EV motor market will emerge from demand in EV Buses in India in 2025

67% Will be the Passenger Car segment’s share in Battery Market in 2025

15.6 Million KWh Will be the total demand for Li-ion battery pack in 2025

61% Will be the 2W vehicle segments’ share in the Power electronics market in 2025
National Electronic Mobility Mission Plan

- It was launched in 2013 with an aim to achieve national fuel security by promoting hybrid and electric vehicles (cars + buses) in the country.
- There is an ambitious target to achieve 6-7 million sales of hybrid and electric vehicles year on year from 2020 onwards.

FAME (Faster Adoption and Manuf of Electric Vehicles), 2015 = Mo

<table>
<thead>
<tr>
<th>IC Engine (ICE) Vehicles</th>
<th>Electric Vehicles (EV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powertrain: IC engine</td>
<td>Powertrain: Motor (+ Engine)</td>
</tr>
<tr>
<td>High specific energy of fuel</td>
<td>Low specific energy of battery</td>
</tr>
<tr>
<td>Power density: High</td>
<td>Power density: Low</td>
</tr>
<tr>
<td>Emits greenhouse gases</td>
<td>No tailpipe emissions</td>
</tr>
<tr>
<td>Travels &gt; 300 miles / fill</td>
<td>Travels &lt; 100 miles / charge</td>
</tr>
<tr>
<td>Short refilling time (&lt; 5 min.)</td>
<td>Long charging time (0.5-8 hr.)</td>
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<tr>
<td>Fuel tank takes less space</td>
<td>Battery takes large space</td>
</tr>
<tr>
<td>Fuel weight is very less</td>
<td>Batteries are very heavy</td>
</tr>
<tr>
<td>Higher maintenance costs</td>
<td>Lesser maintenance costs</td>
</tr>
<tr>
<td>Braking energy not recovered</td>
<td>Can recover braking energy</td>
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<tr>
<td>Running cost: high</td>
<td>Running cost: low</td>
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<tr>
<td>Engine efficiency: ~ 30%</td>
<td>Motor efficiency: ~ 80%</td>
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<tr>
<td>Needs complex gear system</td>
<td>Needs only one gear</td>
</tr>
<tr>
<td>Noisy operation</td>
<td>Quiet operation</td>
</tr>
<tr>
<td>Ample refilling infrastructure</td>
<td>Lacks charging infrastructure</td>
</tr>
<tr>
<td>Need to pick up some speed to deliver maximum torque</td>
<td>Produce maximum torque instantly after starting of motor</td>
</tr>
<tr>
<td>Uses only hydrocarbons</td>
<td>Uses electricity from many resources</td>
</tr>
</tbody>
</table>
Heavy Industries and Public Enterprises

- **Aim of FAME:**
  1. To encourage faster adoption of Electric and Hybrid vehicles by offering **upfront incentive on purchase of electric vehicles** and also by establishing necessary charging infrastructure for electric vehicles.
  2. Fast track the goals of NEMMP, 2013.
- **4 focus areas of FAME**
  1. Charging infrastructure
  2. Demand creation
  3. Pilot projects
  4. Technology development
- **FAME II, 2019**
  1. The Phase-II of FAME seeks to give a push to EVs in public transport and seeks to encourage adoption of EVs by way of **market creation and demand aggregation**.
  2. The emphasis is on electrification of the 3 Wheeler and 4Wheeler segment for public transportation or commercial purposes. In 2 Wheeler segment, the focus will be on private vehicles.
  3. Incentives will be extended to only those vehicles which are fitted with advanced battery like a lithium-ion and other new technology batteries. **Batteries make up for 50% of EV costs.** Hence they are subsidising batteries.
  4. FAME 2 will offer incentives to manufacturers, who invest in developing electric vehicles and its components, including lithium-ion batteries and electric motors.
  5. It proposes establishment of **charging infrastructure to be established** in metros, other million-plus cities, smart cities and cities of hilly states so that there is availability of at least 1 charging station in a grid of 3 km x 3 km.
  6. **India does not have any known reserves of lithium and cobalt,** which makes it entirely dependent on imports of lithium-ion batteries from Japan and China.
  7. The scheme with total outlay of Rs 10,000 Crores over the period of three years will be implemented with effect from 1st April 2019.

What is the news?
Under Phase-II of FAME India Scheme, Rs. 1000 Cr. is allocated for the development of charging infrastructure in the country. This Ministry has sanctioned 2,877 Electric Vehicle Charging Stations amounting to about Rs 500 Crore in 68 cities across 25 States/UTs under Phase II of FAME India Scheme. Under Phase-I of FAME India Scheme, 427 charging stations have been installed.

Further, following initiatives have also been taken up by the Government for improving the charging infrastructure required for electric vehicles in the country-

1. Ministry of Power (MoP) has released a notification on charging
National Mission on Transformative Mobility and Battery Storage

- Aim is to promote “clean, connected, shared and sustainable” mobility initiative in the country.
- It will have an inter-ministerial steering committee, chaired by CEO, NITI Aayog that will coordinate among key stakeholders to integrate various initiatives to transform mobility in India.
- It will support and implement Phased Manufacturing Programme (valid for 5 years till 2024) for large scale, export competitive integrated batteries and cell-manufacturing Giga plants in India.
- The Mission will launch another programme to localize production across entire Electric vehicle value chain and finalise its details.
- It will have ‘Make in India’ strategy for Electric Vehicle components and battery technologies.

Government Efforts for Electric vehicles :-

- Recently, the demand incentive under FAME-II scheme has been increased to Rs. 15,000/KWh from Rs. 10,000/KWh with an increase in cap from 20% to 40% of cost of vehicle, thus enabling cost of electric two wheelers at par with ICE two Wheeler vehicle.
- The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced chemistry cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.
- GST on electric vehicles has been reduced from 12% to 5%; GST on chargers/ charging stations for electric vehicles has been reduced from 18% to 5%.
- Ministry of Road Transport & Highways (MoRTH) announced that battery-operated vehicles will be given green license plates and be exempted from permit requirements.
- MoRTH issued a notification advising states to waive road tax on EVs, which in turn will help reduce the initial cost of EVs.
India's EV Mission 2030 = Government wants all electric fleet of vehicles by 2030.

Automotive Mission Plan, 2026 = Bringing Indian Automotive industry in top 3 in Engineering, manufacturing & exports of vehicles and components.

Green Urban Transport Scheme = Reduce CO2 emissions from transportation. Govt plans to launch eco friendly transportation facility in urban areas.

Green Bus Project in Nagpur was launched with the 1st Ethanol run, eco friendly bus in Nagpur.

Recent Efforts
1. NITI Aayog Policy = Post March 2023 sell only electric 3Wheelers and post Mar 2025 sell only electric 2Wheelers having < 150 CC. When this policy in effect we want domestically produced Li ion battery and other advanced technology batteries.
2. Economic Survey 2019 = India can be made a Detroit of EVs. Our aim is Inclusive growth through affordable, relation and sustainable energy.
3. Budget 2019-20 =
   1. IT exemption of 1.5 lakhs on Interest. To make India a global manufacturing hub of EVs on loan < Mar 31, 2023.
   2. GST reduced from 12% to 5%. Inclusion of solar storage batteries and charging infrastructure in it.
   3. Custom duty exempted on certain parts of EV including e drive assembly, on board charger to incentivise EV.

Global Fuel Economy Initiative (GFEI)

- GFEI is a global partnership of expert groups which have come together to support governments around the world to set policies for cleaner and more efficient vehicles.
- GFEI works towards its goal of a more efficient global fleet through three key activities. We undertake research, undertake global advocacy, and support countries as they seek policy solutions.
- GFEI has set a target of improving the average fuel economy (in litres/100km terms) for the global light duty vehicle fleet by at least 50% by 2050 (what we call ‘50by50’) and by 2030 for new vehicles.
- These fuel efficiency gains would save 33Gt of CO2 by 2050 and $2 trillion by 2025, money which could be used to support the transition to electric vehicles.
Four fold jump in Li-ion batteries imports since 2016

- Indian Manufacturers source Li-ion batteries from China, Japan and South Korea. India is one of the largest importers in the World.
- In 2018, Central Electro Chemical Research Institute (CECRI) in Tamil Nadu's Karaikudi under CSIR and RAASI Solar Pvt Ltd signed an MoU for India's 1st Li-ion battery Project.
- China dominates the Li-ion battery market. NITI started National Mission on Transformative Mobility and Battery Project.
- Demand of Li-ion batteries in India will increase because of e-Vehicles policy and announcements of investments worth $1.4 billion to make India 1 of the largest manufacturing hubs for e-Vehicles by 2040.

For the Hindu Editorial on e-Vehicle batteries: click here

Source: TH

National Policy on Electronics, 2019

Objective of National Policy on Electronics, 2019

- The Policy envisions positioning India as a global hub for Electronics System Design and Manufacturing - (ESDM) by promoting domestic manufacturing, skill development, start-up, export eco-system and improving ease of doing business for the ESDM industry.
- It aims to achieve a turnover of $400 billion and generate 1 crore jobs in the ESDM sector by 2025.

Salient features of National Policy on Electronics, 2019

- Creating eco-system for globally competitive ESDM sector- by encouraging domestic manufacturing through consistent tax incentives, establishing Electronic
- Manufacturing Clusters, promoting Defence Offsets and sub-sectors like semi-
conductor facilities, display fabrication units etc.

- Developing and Mandating Standards in the sector- which would include institutional mechanism for participation of all stakeholders (Govt, Industry, Academia, Experts) and mandatory compliance in the field of electronics goods, including cyber security.
- Promoting Ease-of-doing Business- by facilitating single window mechanism for global investors using existing mechanisms like Invest India, National Investment Promotion and Facilitation Agency.
- Encourage Industry-led R&D and Innovation- in all sub-sectors of electronics. This would encompass support to various initiatives in areas like 5G, IoT/Sensors, Artificial Intelligence etc.
- Human Resource Development- by generating research base at Ph.D. level, opportunities for joint IPRs to Indian candidates at foreign institutions, and work closely with all agencies (Centre and State).
- Export Promotion- by providing attractive package of incentives so that exporters can compete in global markets.
- Promote Trusted Electronics Value Chain- to improve national cyber security profile and control its supply chain across national defense and critical national infra like energy grids, digital economy etc.
- Promote Cyber Security- by enhanced understanding of cyber security issues, risks; development of testing facilities, photonics, nano-based devices etc by the start-ups.
- Developing Core Competencies in the sub-sectors of Electronics- such as Indian Fabless Chip Design Industry, Medical Electronic Devices Industry, Automotive Electronics Industry, Power Electronics for Mobility and Strategic Electronics Industry.
- Promotion of Electronic Components Manufacturing Ecosystem- by providing incentives for lithium-ion cells, chip components, fuel cells, optical fibre, solar cells etc.
- Promotion of Electronics Manufacturing Services (EMS) Industry- including Engineering & Design of PCBs, Functional testing, Maintenance services like warranty and repair services etc.
- Mega Projects- by providing special package which would invite extremely high-tech and huge investments in areas like semiconductor facilities, display fabrication etc.

Source: TH
Missions of the Policy

1. To promote the creation of a sustainable Indian software product industry, driven by intellectual property (IP), leading to a ten-fold increase in share of the Global Software product market by 2025.
2. To nurture 10,000 technology startups in software product industry, including 1000 such startups in Tier-II and Tier-III towns & cities and generating direct and in-direct employment for 3.5 million people by 2025.
3. To create a talent pool for software product industry through
   - Up-skilling of 10 lakh IT professionals,
   - Motivating 1 lakh school and college students
   - Specialise 10,000 professionals that can provide leadership.
4. To build a cluster-based innovation driven ecosystem by developing 20 sectoral and strategically located software product development clusters.
5. For the implementation of this policy, National Software Products Mission will be set up with participation from Government, Academia and Industry.

Promoting Software Products Business Ecosystem by

1. Creation of an Indian Software Product Registry will act as a common pool of Indian Software Products thereby providing a trusted trade environment.
2. Facilitating active participation of software companies in Capital Market.
4. Evolving a Classification System for Indian Software Products.

Promoting Entrepreneurship & Innovation for Employment by

1. Initiating a programme of incubation- to provide all kinds of support so as to nurture at least 10,000 software product startups.
2. Initiating a Programme to support Research and Innovation on Software Products in Institutes of Higher Learning and Research to bridge the existing gaps in the Industry-Academia research.
3. Creating a dedicated Software Product Development Fund (SPDF)- it will have a corpus of Rs. 1000 crore in the form of Fund of Funds and participate in venture fund

Skilling and Human Resource Development by

1. Using a FutureSkills Programme- for upskilling/re-skilling of 3 million IT Professionals in emerging technologies.
2. Initiating a national “Talent Accelerator” programme to motivate school and college students.

3. Creating a talent pool of 10,000 committed software product leaders

**Improving Access to Domestic Market and Cross Border Trade Promotion by**

1. Integrating the registry of Indian software products with Government e-market (GeM)
2. Encouraging Indian Product Startups/ MSMEs through hackathons.

**Implementation Mechanism such as**

1. Establish a “National Software Product Mission (NSPM)”- design appropriate strategy, recommend specific policy measures, recommend specific initiatives, monitor and collate various initiatives.
2. Include various MEITy’s organizations in the implementation such as Software Technology Parks of India (STPI), National Informatics Centre (NIC) etc.

Source: Aspire IAS Sanjeevani Notes
What is the Census of India?

- The decennial Census of India has been conducted 15 times, as of 2011.
- While it has been undertaken every 10 years, beginning in 1872 under British Viceroy Lord Mayo, the first complete census was taken in 1881.
- Post-1949, it has been conducted by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs, Government of India.
- All the censuses since 1951 were conducted under the 1948 Census of India Act.
- The last census was held in 2011, whilst the next will be held in 2021.
- The Census of India, one of the largest exercises of its kind, enumerates and collects demographic and socio-economic information on the Indian population.

About Census 2021

- Census exercise will be conducted in February 2021. It will have the facility of self enumeration.
- 2 Phases
  - Phase 1: House listing and Housing census.
  - Phase 2: Population enumeration.
- 2021 Census = 1st time data would be stored in electronically and 1st time OBC will be collected.
- The Census 2021 will be conducted in 18 languages out of the 22 scheduled languages (under 8th schedule) and English, while Census 2011 was in 16 of the 22 scheduled languages declared at that time.
- It also will introduce a code directory to streamline the process
- The option of “Other” under the gender category will be changed to “Third Gender”.
- There were roughly 5 lakh people under “other” category in 2011.
- For the first time in the 140 year history of the census in India, data is proposed to be collected through a mobile app by enumerators and they will receive an additional payment as an incentive.
- The Census data would be available by the year 2024-25 as the entire process would be conducted digitally and data crunching would
Why the Census is important?

- **Enumerating, describing and understanding** the population of a society and what people have access to, and what they are excluded from, is important not only for **social scientists** but also for **policy practitioners** and the **government**.
- However, as early as the 1940s, W.W.M. Yeatts, Census Commissioner for India for the 1941 Census, had pointed out that, “the census is a large, immensely powerful, but blunt instrument unsuited for specialised enquiry”.
- This point has also surfaced in later critiques offered by scholars who consider the Census as both a data collection effort and a technique of governance, but not quite useful enough for a detailed and comprehensive understanding of a complex society.
- As historian and anthropologist Bernard Cohn had demonstrated, the Census may in fact produce an imagination of society, which suggests the epistemological complexities involved.
- It is also important for the **Delimitation exercise**.

While the usefulness of the Census cannot be disregarded, for instance with regard to the **delimitation exercise**, there is a lack of depth where some issues are concerned. In this context, the discussion around **caste and its enumeration** have been controversial.

**Evolution of Socio Economic and Caste Census (SECC)**

- Since Independence, aggregated Census data on the **Scheduled Castes and Scheduled Tribes** on certain parameters such as education have been collected.
- With demands to conduct a **full-scale caste census** gaining traction over time, some have seen the inclusion of **broader caste information** as a necessity to capture contemporary Indian society and to **understand and remedy inequalities**, while others believe that this large administrative exercise of capturing caste and its complexities is not only **difficult**, but also socially untenable.
- Following decades of debate, the Socio-Economic and Caste Census
(SECC) was conducted in 2011 and took a few years to complete; this was a distinct exercise from the Census of 2011.

- The SECC, which collected the first figures on caste in Census operations since 1931, is the largest exercise of the enumeration of caste. It has the potential to allow for a mapping of inequalities at a broader level.

**Socio Economic Caste census (SECC):**

An Expert Group under the Chairmanship of former Finance Secretary Sumit Bose was constituted to study the objective criteria for allocation of resources to States and identification and prioritization of beneficiaries under various programme using Socio-Economic and Caste Census (SECC) data. The committee has recently submitted its report to the ministry of rural development (MoRD) and has recommended the use of SECC data for all government schemes instead of the below poverty line (BPL) data.

**What is SECC? (Prelims)**

- The SECC was commissioned by the previous government in 2011 to canvas every household (urban and rural) in the country to ascertain their socio-economic status so as to allow both central and state governments define poverty and to take steps to eliminate various types of deprivations faced by the Indians.
- SECC was a mega project conducted jointly by three ministries
  - Ministry of Rural Development
  - Ministry of Housing and Urban Affairs and
  - Ministry of Home Affairs.
- This was the first time since 1931 to ask every person their caste name to allow the government to re-evaluate which caste groups are well off and which caste groups are worst off and to better target the welfare schemes.

**7 Criterias used in SECC (PT Pointers)**

- Households with only one room, with no solid walls and roof
- Households with no adult male aged 15-59.
- Female headed households
- Households with differently abled members
Findings of SECC: (Data important for Mains and Essay)

A total of 24.39 Crore households were surveyed. Out of those, 91 Crore were rural households.

- **About 30% of the rural households are landless** and derive major part of their income from casual, manual labour.
- Among the land holdings, **40% is not irrigated**.
- Just 4% own any sort of mechanized agricultural equipment and just 10% own irrigational equipment.
- Only 4.6% of the rural households pay income tax.
- **Nearly 75% of households earn less than Rs 5000 per month**.
- Less than 5% of SC/ST households earn more than Rs 10000 per month.
- Only 5% of rural households depend on government jobs, 3.57% on private sector jobs.

On Literacy

- As per the SECC data **36% of rural India is illiterate**.
- 52% rural households have no literate adult above 25 years.
- Of the 64% literate rural Indians, only 1/5th have completed their primary education.
- Only 5.4% have completed high school and a mere 3.4% have graduated from college.

Women Empowerment

- A little more than 48% of the rural population is female and only 12.8% of the rural households are headed by women.
- **Lakshadweep** has the highest percentage of women-headed households with nearly 40% of the houses headed by women.

Transgenders (Prelims)

- This was the first census which released the data on trans-genders.
- Trans-genders comprise only 0.1% of India’s rural population.
Importance of SECC:

- Presently poverty in India is determined using the BPL method which is based on the income required to purchase food items (determined using calorie norms) and non-food items (clothing, education etc). SECC is more targeted and precise than the BPL method.
- While the BPL method identifies the number of poor people, SECC identifies who actually are poor. This will help in improving the efficiency of the government schemes and programmes, leads to better identification and targeting of beneficiaries and avoid duplication and fraud.
- BPL method uses income as the sole criteria to define poverty but income alone can miss a lot. Poverty is multidimensional and SECC takes this aspect into account while determining poverty. A multidimensional approach is very necessary for the success of poverty alleviation programmes. For example, an area in which most people are deprived of education is going to require a different poverty reduction strategy when compared to an area where most people are deprived of housing facilities.
- The deprivations faced by poor in various fields such as education, health, sanitation etc are not accounted in BPL method but are accounted in SECC. So SECC will help in not only poverty eradication but also eradication of various deprivations.
- The gender-related issues of poverty is taken into consideration in the SECC which was missing in the BPL method.

Drawbacks of SECC

- Even though SECC was conducted in both urban and rural areas, the government has released only SECC data of rural India.
- SECC collates data regarding the caste of the people. This caste related information faces the danger of being misused by political parties for their ulterior motives.
- SECC data must be regularly updated in order to remove beneficiaries who have overcome their deprivations. This will put a huge burden on the part of the government.
The main concerns

- It would be disingenuous to ignore the emotive element of caste and the political and social repercussions of a caste census.
- There have been concerns that counting caste may help solidify or harden identities, or that caste may be context-specific, and thus difficult to measure.
- These discussions along with various counterarguments are not new.
- Commenting on the 1941 Census, Census Commissioner Yeatts observed that, “Thanks to the acute interest in community figures, practically all communities this time were census-conscious and took pains to see that their houses were in the list and that they themselves were counted.”
- In discussions around caste, scholars such as Nicholas Dirks and Cohn have demonstrated that the Census had the effect of marking out caste and community in the forms we see today.
- The other concern is whether an institution such as caste can even be captured completely by the Census.
- Questions remain on whether the SECC is able to cover the effects of caste as an aspect of Indian social structure in everyday life, or at least to illuminate our understanding of its impact at varying scales — from the local, to the regional and to the national scale.
- Can the SECC take into account the nuances that shape caste and simultaneously the ways in which caste shapes everyday life in India?
- The Census and the SECC have different purposes.
- Since the Census falls under the Census Act of 1948, all data are considered confidential, whereas according to the SECC website, “all the personal information given in the Socio Economic Caste Census (SECC) is open for use by Government departments to grant and/or restrict benefits to households”.
- The Census thus provides a portrait of the Indian population, while the SECC is a tool to identify beneficiaries of state support.
- This difference is significant since it influences not only the methods of collection but also the use and potential for misuse of data.

A road map

- What is needed then is a discussion on the caste data that already exists, how it has been used and understood by the government and its various departments to grant or withdraw benefits, and also its utility for the important academic exercise of mapping social inequalities and social change.
- Linking and syncing aggregated Census data to other large datasets such as
the National Sample Surveys or the National Family Health Surveys that cover issues that the Census exercises do not, such as maternal health, would be significant for a more comprehensive analysis, enabling the utilisation of the large body of data that already exists.

- This linking of the Census with the National Sample Survey data has been suggested in the past by scholars such as Mamta Murthi and colleagues.
- Statisticians such as Atanu Biswas point out that Census operations across the world are going through significant changes, employing methods that are precise, faster and cost effective, involving coordination between different data sources.
- Care must however be taken to ensure that digital alternatives and linking of data sources involving Census operations are inclusive and non-discriminatory, especially given the sensitive nature of the data being collected.

Time lag and planning

Apart from themes specific to enumerating caste, there are other issues that the Census and the SECC in particular face.

- The first relates to the time lag between each Census, and the second to the delay in the release of data.
- The first of these is inherent in the way the Census exercises are planned.
- The second, however, also has important repercussions to understanding social change since data may remain un-released or released only in parts.
- Nearly a decade after the SECC for instance, a sizeable amount of data remains unreleased.
- While the Census authorities present documents on methodology as part of a policy of transparency, there needs to be a closer and continuous engagement between functionaries of the Census and SECC, along with academics and other stakeholders concerned, since the Census and the SECC are projects of governance as well as of academic interest.
- Before another SECC is conducted, a stocktaking of the previous exercise, of what has been learnt from it, and what changes are necessary, beyond changing exclusionary criteria for beneficiaries of state support, are crucial to enable the Census to facilitate effective policy work and academic reflection.
- Concerns about methodology, relevance, rigour, dissemination, transparency and privacy need to be taken seriously if this exercise is to do what it was set up to do.
What is the Startup Ecosystem in India?

- India has the 3rd largest startup ecosystem in the world; expected to witness YoY growth of a **consistent annual growth of 12-15%**
- India has about 50,000 startups in India in 2018; around 8,900 – 9,300 of these are technology led startups 1300 new tech startups were born in 2019 alone implying there are 2-3 tech startups born every day.

Definition of Startup Expanded

An entity shall be considered as a Startup:

- Upto a period of **ten years from the date of incorporation/ registration**, if it is incorporated as a **private limited Company** (as defined in the Companies Act, 2013) or **registered as a partnership firm** (registered under section 59 of the Partnership Act, 1932) or a **limited liability partnership** (under the Limited Liability Partnership Act, 2008) In India.
- **Turnover** of the entity for any of the financial years since incorporation/ registration has **not exceeded Rs 100 Crore**.
- Entity is working towards **innovation, development or improvement of products or processes or services**, or if it’s a scalable business model with a **high potential of employment generation or wealth creation**.
- Provided that an **entity formed by splitting up or reconstruction of an existing business shall not be considered A ‘Startup’**.

Indicators of Growth in the Startup Ecosystem

- The pace of growth in the startup ecosystem has increased to **15% year-on-year in 2018**, while the growth of the number of incubators and accelerators has grown to **11%**
- Significantly, the **number of women entrepreneurs stood at 14%**, up from 10% and 11% in the previous two years.
- Startups in the country have been able to create an estimated **40,000 new

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**Startup Ecosystem in India**

GS-III | 24 September, 2021

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- Startups in the country have been able to create an estimated **40,000 new**
jobs over the year, taking the total jobs in the start-up ecosystem to 1.6-1.7 lakh

- **Bangalore** has been listed within the **world’s 20 leading startup cities in the 2019 Startup Genome Project ranking**. It is also ranked as **one of the world’s five fastest growing startup cities**

**Funding raised by Indian Startups in 2019**

- The Indian startups have gone on to raise sizeable ticket sizes from various global and domestic funds. The top 15 deals constituted about 40% of total deal value, demonstrating that most funds are valuing deal quality more than quantity.
- Private equity deal volume in India rose for the second straight year, and while the average deal size declined slightly from the prior year, the **total value of $26.3 billion in 2018 was the second-highest of the last decade.** The number of deals greater than $50 million increased from the previous year.

**Drivers of Startup Ecosystem**

**Corporate Connect**

Enterprises are realizing the disruptive potential of start-ups and are thus, partnering/investing in them.

Examples of corporate support:

- **Facebook** in partnership with Startup India **disbursed cash grants of $50,000 each to the top 5 selected startups**
- **10000 Women program by Goldman Sachs** is providing women entrepreneurs all around the world with a **business and management education, mentoring and networking and access to capital**.
- **Microsoft Ventures Accelerator Program in India** has recently picked up 16 startups.

**Government Support**

Government of India is understanding the value of working with disruptive innovators across the value chain and using their innovations to improve public service delivery.
Department of Animal Husbandry and Dairying has conducted a grand challenge in association with Startup India to award top startups in 5 categories 10 lakhs INR.

Small Industries Development Bank of India has launched a scheme to provide assistance to existing Small and Medium Businesses in need of capital for growth.

Over 26 states in the country have Startup policies.

The start up India scheme envisaged:

1. A common platform for stakeholders to interact, facilitation for funding support, and partnership With academia and private sector entities.
2. An 80% rebate in patent registration fees as well as a 50% rebate in trademark filing. Startups could also benefit from
3. Faster exit norms and free of cost assistance provided by patent and trademark facilitators in filing for Intellectual Property Rights (IPRs).

Fund of Funds was set-up in 2016 with a total corpus of Rs 10,000 Crores, it does not invest directly in startups but rather participates in the capital of Securities and Exchange Board of India (SEBI)-registered Category-1 and Category-2 Alternate Investment Funds (AIFs). The tenure of the AIF supported under FFS be initially up to 12 years. The FFS is managed by Small Industries Development Bank of India (SIDBI).

Ministry of Agriculture in partnership with Startup India launched the Agriculture Grand Challenge, wherein 12 pre-identified problem statements were noted for seeking solutions from the startup.

National Startup Advisory Council

It was constituted by the Department for Promotion of Industry and Internal Trade.

The main objective of the council is to advise the Government of India on measures needed to build strong ecosystem to nurture innovation and startups in the country. This is to drive sustainable economic growth in the country and also to generate large scale employment opportunities.

The council is constituted with both Ex-officio and non-official members. These members are nominated by the Government of India. They include members from the central ministries and also founder of successful startups.
Quick Facts

- **Unicorn** is a privately held startup company valued at over $1 billion. The term was coined in 2013 by venture capitalist Aileen Lee, choosing the mythical animal to represent the statistical rarity of such successful ventures.
- 13 Indian Startups That Entered The Unicorn Club In 2021. There are 12 ecommerce unicorns, namely Flipkart, Snapdeal, FirstCry and others. The fintech sector has 12 startups in the list with Paytm, PhonePe, Zerodha, Razorpay, etc.
- **One Person Company (OPC)** is a company incorporated by a single person. Before the enforcement of the Companies Act, 2013, a single person could not establish a company.

**Legal status of OPC**: The OPC receives a separate legal entity status from the member. The separate legal entity of the OPC gives protection to the single individual who has incorporated it. The liability of the member is limited to his/her shares, and he/she is not personally liable for the loss of the company. Thus, the creditors can sue the OPC and not the member or director.

**Recent measures post COVID.**

- **DPIIT** had launched the United Against COVID-19- Innovation Challenge to identify innovative solutions to combat COVID-19.
- **SIDBI** has launched Covid-19 Startup Assistance Scheme (CSAS) for startups which aims to aid innovative startups that have demonstrated ability to adapt to economic impact from Covid-19 and ensured its employees safety and financial stability.
- SIDBI Make in India Soft Loan Fund for Micro Small and Medium Enterprises (SMILE) for financing the healthcare sector including hospitals, nursing home, clinics.

Source: PIB
About Government e-Marketplace (GeM), 2016 (Ministry of Commerce and Industry)

- GeM is a one-stop National Public Procurement Portal to facilitate online procurement of common use Goods & Services required by Center, States, their organizations and PSUs.
- Procurement of goods & services by Ministries and CPSEs is mandatory for goods and services available on GeM. It will bring transparency and efficiency in the government buying process.
- It also provides the tools of e-bidding and reverse e-auction to facilitate the government users achieve the best value for their money.
- At present, GeM has > 15 lakh products, ~20,000 services, and > 40,000 Government buyer organizations.
- SWAYATT is an initiative to promote Start-ups, Women and Youth Advantage Through e-Transactions on Government e Marketplace (GeM).
- GeM Start-up Runway is an initiative of GeM in association with Start-up India to facilitate Start-ups registered with Start-up India to access the public procurement market and sell innovative products and services to government buyers.

Government e-Marketplace wins CIPS Award

- Government e Marketplace (GeM) was announced as the winner in the "Best Use of Digital Technology" category at the CIPS Excellence in Procurement Awards 2021 (CIPS Awards). GeM emerged the winner in this category after competing with some of the biggest and best names in procurement across the public and private sector globally, including GEP, Jaguar Land Rover, Royal Dutch Shell, Vendigital and Shell. GeM was shortlisted as a finalist in two additional categories as well, i.e., ‘Public Procurement Project of the Year’ and ‘Best Initiative to Build a Diverse Supply Base’ where it was in the august company of some path-breaking organizations with great initiatives. The award was received on behalf of GeM by Shri Rohit Vadhwana, First Secretary (Economic), High Commission of India, in the UK at a ceremony held London yesterday.
- The CIPS Awards are one of the leading recognitions around procurement globally, which is conducted under the aegis of The Chartered Institute of Procurement & Supply (CIPS), London. CIPS is a global not-for-profit
organisation and professional body dedicated to promoting good practices in procurement and supply management, with a community across 150 countries.

- Recognition of GeM on a global platform of this stature is a tremendous shot in the arm for the GeM team and a testament to the vision of the PM Shri Narendra Modi. GeM has brought its technology-driven innovations and strategic business processes in pursuit of three fundamental goals: driving transparency, efficiency and inclusiveness in public procurement. The design and development of the GeM platform- its digital features and functionalities, key business processes as well as the ancillary offline activities like outreach and training of stakeholders-is guided by these three goals. The use of forward-looking technologies has helped GeM to broadly achieve these goals and more, over the past five years. GeM offers a cashless, contactless, and paperless experience for sellers and buyers, and serves as an end-to-end solution for procurement of common use goods and services by Government buyers. GeM has completely replaced a previously fragmented public procurement ecosystem by a unified and easy-to-use e-marketplace helping to leverage competitiveness, accessibility, and economies of scale of a diverse, open and transparent procurement system. GeM is an example of how digital platforms created with a strategic and clear intent to transform legacy processes can effect lasting change.

- Government e Marketplace is a 100% Government owned Section 8 Company setup under the aegis of Department of Commerce, Ministry of Commerce and Industry for procurement of goods and services by Central and State Government organizations.

Source: PIB

Cryptocurrency and China

China’s central bank said all financial transactions involving cryptocurrencies are illegal, sounding the death knell for the digital trade in China after a crackdown on the volatile currencies.
What is Blockchain Technology?

Blockchains are a new data structure that is secure, cryptography-based, and distributed across a network. The technology supports cryptocurrencies such as Bitcoin, and the transfer of any data or digital asset. Spearheaded by Bitcoin, blockchains achieve consensus among distributed nodes, allowing the transfer of digital goods without the need for centralized authorisation of transactions. The technology allows transactions to be simultaneously anonymous and secure, peer-to-peer, instant and frictionless. It does this by distributing trust from powerful intermediaries to a large global
network, which through mass collaboration, clever code and cryptography, enables a tamper-proof public ledger of every transaction that’s ever happened on the network.

- **A block** is the “current” part of a blockchain which records some or all of the recent transactions, and once completed, goes into the blockchain as permanent database. Each time a block gets completed, a new block is generated. Blocks are linked to each other (like a chain) in proper linear, chronological order with every block containing a hash of the previous block.

- **Benefits** of blockchain technology:
  1. As a public ledger system, it records and validate each and every transaction made, which makes it secure and reliable.
  2. All the transactions made are authorized by miners, which makes the transactions immutable and prevent it from the threat of hacking.
  3. Blockchain technology discards the need of any third-party or central authority for peer-to-peer transactions.
  4. It allows decentralization of the technology.

**What is Bitcoin?**

- Bitcoin is a type of digital currency that enables instant payments to anyone.
- Bitcoin was introduced in 2009.
- Bitcoin is based on an open-source protocol and is not issued by any central authority.
- Bitcoin is a peer-to-peer currency.
- Bitcoin is the first decentralised digital currency.

The price of the world’s most prominent cryptocurrency Bitcoin has more than halved in the last two months after hitting a peak in mid-April.
- The second-most valuable cryptocurrency, Ether, has seen a similar fall from its peak last month.
- China’s crackdown against cryptocurrencies, which are those that aren’t sanctioned by a centralised authority and are secured by cryptography, is said to have a lot to do with the crashing of the value of cryptocurrencies.

**What has China done?**

- In recent weeks, China has reportedly cracked down on crypto mining operations.
- The country has over the years accounted for a large percentage of the total crypto mining activity that takes place.
- In purpose, Bitcoin miners play a similar role to gold miners — they bring new
Bitcoins into circulation.
- They get these as a reward for validating transactions, which require the successful computation of a mathematical puzzle.
- And these computations have become ever-increasingly complex, and therefore energy-intensive in recent years.
- Huge mining operations are now inevitable if one is to mine Bitcoins.
- Access to cheap electricity has made mining lucrative in China.
- According to the Cambridge Bitcoin Electricity Consumption Index, China accounted for nearly two-thirds of the total computational power last year. Xinjiang and Sichuan provinces accounted for nearly half of this.
- Now, provincial governments one by one have acted against these mining operations. The latest to do so is Sichuan, which was a hydroelectric-based crypto mining hub.
- But that’s not all. A few days back, the People’s Bank of China directed banks and payment firms to pull the plug on cryptocurrency trading.
- Actually, there is little change in the policy as far as China is concerned. It first imposed restrictions on cryptocurrencies way back in 2013. It then barred financial institutions from handling Bitcoin.
- Four years later, it barred what are called initial coin offerings, under which firms raise money by selling their own new cryptocurrencies. This is largely an unregulated market.

What China wants?

- An inter-ministerial committee report in India two years ago noted that in 2017, the government of China also banned trading between RMB (China’s currency renminbi) and cryptocurrencies.
- It said, “Before the ban, RMB made up 90% of Bitcoin trades worldwide. In under a year, the trades between RMB and Bitcoin had fallen to under 1% of the world total.”
- The report also noted that China had decided to prohibit mining within its jurisdiction.
- While the miners had stopped their activities for some time, the steep increase in the price of Bitcoin had brought many back into action.
- The fact that cryptocurrencies bypass official institutions has been a reason for unease in many governments.
- Not just that. The anonymity that it offers aids in the flourishing of dark trades online. While many countries have opted to regulate the world of cryptocurrencies, China has taken the strictest of measures over the years.
- According to observers, the latest set of measures are to strengthen its monetary hold and also project its new official digital currency.
- An AFP report said, “China launched tests for a digital yuan in March. Its aim
is to allow Beijing to conduct transactions in its own currency around the world, reducing dependency on the dollar which remains dominant internationally.”

Way Forward: European Example EU is working on Anti Money Laundering Directive AMLD. All cryptocurrencies and wallet will have to do KYC norms and register with local authority. India should follow EU example.

Source: TH

PLI Scheme for Automobile & Auto components

- The Government has issued Notification regarding Production Linked Incentive (PLI) Scheme for Automobile & Auto components.
- The PLI Scheme for the auto sector envisages to overcome the cost disabilities of the industry for manufacture of Advanced Automotive Technology products in India.
- The incentive structure will encourage industry to make fresh investments for indigenous global supply chain of Advanced Automotive Technology products.
- It is estimated that over a period of five years, the PLI Scheme for Automobile and Auto Components Industry will lead to fresh investments of over Rs 42,500 crores, incremental production of over Rs 2.3 lakh crore and will create additional employment opportunities of over 7.5 lakh jobs.
- Further this will increase India’s share in global automotive trade.
- The PLI Scheme for Auto sector is open to existing Automotive companies as well as new Non-Automotive investor companies (who are currently not in automobile or auto component manufacturing business).
- The scheme has two components viz Champion OEM Incentive Scheme and Component Champion Incentive Scheme.

- The scheme for Automobile and auto components will be implemented over a period of five years starting from FY 2022-2023.
- An approved applicant shall be eligible for benefits for 5 consecutive
Financial Years.
- **Financial Year 2019-20 shall be treated as the Base Year for calculation of Eligible sales.**
- An existing automotive company or its Group company(ies) will need to meet the Basic Eligibility criteria to receive incentives. New Non-Automotive Investor company or its Group company(ies)(who are currently not in automobile or auto component manufacturing business) are required to meet the Global Net worth criteria of Rs 1000 crore.

The scheme has following components:

- **Champion OEM Incentive Scheme:** The Champion OEM Incentive scheme is a ‘sales value linked’ scheme, applicable on Battery Electric Vehicles and Hydrogen Fuel Cell Vehicles of all segments and any other Advanced Automotive Technology vehicle prescribed by MHI depending upon technical developments.
- **Component Champion Incentive Scheme:** The Component Champion Incentive scheme is a ‘sales value linked’ scheme, applicable on pre-approved Advanced Automotive Technology components of all vehicles, CKD/SKD kits, Vehicle aggregates of 2-Wheelers, 3-Wheelers, passenger vehicles, commercial vehicles and tractors including automobile meant for military use and any other Advanced Automotive Technology components prescribed by MHI depending upon technical developments.
- The list of Advanced Automotive Technology Vehicles and Advanced Automotive Technology Components can be modified by MHI from time to time depending upon technological developments.
- Minimum 50% domestic value addition will be required and Phased Manufacturing Programme similar to FAME-II Scheme will be followed.
- Pre-approval of eligible product will be done by Testing Agency of MHI as Advance Automotive Product as per the guidelines issued by MHI from time to time.
- Any eligible product will be incentivized only for once – Component level or Vehicle

Other Production Linked Incentive (PLI) Schemes in India

- PLI scheme “National Programme on Advanced Chemistry Cell Battery Storage”
- PLI Scheme for IT Hardware
- PLI Scheme for Food Processing Industry
- PLI Scheme for ‘National Programme on High Efficiency Solar PV Modules’
- PLI Scheme for White Goods (AC and LED Lights)
UPSC "PT" DNA (Daily News Analysis)

- PLI Scheme for Textiles
- PLI Scheme for Drones

Source: PIB
Definition of a Cyclone

- Cyclone refers to any spinning storm that rotates around a low-pressure center. The low-pressure centre is also referred to as the 'eye' of the storm, which is well known for being eerily calm compared with the areas under the spinning 'arms' of the storm.
- You could say that the eye is watching what's going on down below, so it needs a clear path, but the arms are where all the action happens because this is where the storm is throwing out all of its rain and wind.

How are cyclones formed?

- To form a cyclone, warm, moist air over the ocean rises upward from near the surface. As this air moves up and away from the ocean surface, it leaves less air near the surface. So basically as the warm air rises, it causes an area of lower air pressure below.
- Air from surrounding areas with higher air pressure pushes in to the low pressure area. Then this new “cool” air becomes warm and moist and rises, too. And the cycle continues.
- As the warmed, moist air rises and cools the water in the air forms clouds. The whole system of clouds and wind spins and grows, fed by the ocean’s heat and water evaporating from the ocean surface.
- As the storm system rotates faster and faster, an eye forms in the centre. It is very calm and clear in the eye, with very low air pressure. Higher pressure air from above flows down into the eye.
- Tropical cyclones usually weaken when they hit land, because they are no longer being “fed” by the energy from the warm ocean waters. However, they often move far inland, dumping many centimetres of rain and causing lots of wind damage before they die out completely.
Tropical cyclone

- Tropical cyclone is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- Drawing energy from the sea surface and maintaining its strength as long as it remains over warm water, a tropical cyclone generates winds that exceed 119 km (74 miles) per hour. In extreme cases winds may exceed 240 km (150 miles) per hour, and gusts may surpass 320 km (200 miles) per hour.
- Accompanying these strong winds are torrential rains and a devastating phenomenon known as the storm surge, an elevation of the sea surface that can reach 6 metres (20 feet) above normal levels.
- Such a combination of high winds and water makes cyclones a serious hazard for coastal areas in tropical and subtropical areas of the world. Every year during the late summer months (July–September in the Northern Hemisphere and January–March in the Southern Hemisphere), cyclones strike regions as far apart as the Gulf Coast of North America, northwestern Australia, and eastern India and Bangladesh.

Different names of tropical cyclones
Tropical cyclones are known by various names in different parts of the world. In the North Atlantic Ocean and the eastern North Pacific they are called hurricanes, and in the western North Pacific around the Philippines, Japan, and China the storms are referred to as typhoons. In the western South Pacific and Indian Ocean they are variously referred to as severe tropical cyclones, tropical cyclones, or simply cyclones. All these different names refer to the same type of storm.

Conditions for formation of tropical cyclones

- The temperature of the surface layer of ocean water must be 26.5 °C (80 °F) or warmer, and this warm layer must be at least 50 metres (150 feet) deep.
- A preexisting atmospheric circulation must be located near the surface warm layer.
- The atmosphere must cool quickly enough with height to support the formation of deep convective clouds.
- The middle atmosphere must be relatively humid at a height of about 5,000 metres (16,000 feet) above the surface.
- The developing system must be at least 500 km (300 miles) away from the Equator.
- The wind speed must change slowly with height through the troposphere—no more than 10 metres (33 feet) per second between the surface and an altitude of about 10,000 metres (33,000 feet).

Types of Cyclones:

Tropical cyclones are what most people are familiar with because these are cyclones that occur over tropical ocean regions.

- Hurricanes and typhoons are actually types of tropical cyclones, but they have different names so that it's clear where that storm is occurring. Hurricanes are found in the Atlantic and Northeast Pacific, typhoons are found in the Northwest Pacific. If you hear 'tropical cyclone,' you should assume that it's occurring in the South Pacific or Indian Ocean, but for this lesson, we'll use it refer to all types of tropical ocean cyclones.
- We can also further describe tropical cyclones based on their wind speeds. They are called category 1, 2, 3, 4 or 5, increasing with intensity and wind speed as the number increases. A category 1 cyclone is the weakest, with wind speeds of 74-95 mph. A category 5 cyclone, on the other hand, is extremely dangerous and has the potential for major damage. Category 5 cyclones have wind speeds of 155 mph and above!
Polar cyclones are cyclones that occur in polar regions like Greenland, Siberia and Antarctica. Unlike tropical cyclones, polar cyclones are usually stronger in winter months. As you can see, these storms really do prefer the colder weather! They also occur in areas that aren't very populated, so any damage they do is usually pretty minimal.

A mesocyclone is when part of a thunderstorm cloud starts to spin, which may eventually lead to a tornado. 'Meso' means 'middle', so you can think of this as the mid-point between one type of storm and the other. Tornadoes all come from thunderstorm clouds, but not all thunderstorm clouds make tornadoes. In order for a tornado to occur, part of that cloud has to spin, and though you can't really see this happening, this is the intermediate, or 'meso' step from regular cloud to dangerous spinning cloud running along the ground.

Depending upon its location and strength, a tropical cyclone is referred by different names:

- Typhoons in Western North Pacific
- Willy-willies in Australia
- Baguio in Philippine Islands
- Hurricanes around North America
- Taifu in Japan
- Cyclone in the Indian Ocean

How are the cyclones named?

- If the speed of a cyclone is more than 34 nautical miles per hour then it becomes necessary to give it a special name. If the speed of the storm reaches or crosses 74 mph, it is then classified into a hurricane/cyclone/typhoon.
- The cyclones that are formed in any ocean basin around the world are named by the Regional Specialised Meteorological Centres (RSMCs) and Tropical Cyclone Warning Centres (TCWCs). There are a total of six RSMCs in the world, including the India Meteorological Department (IMD).
- The World Meteorological Organization (WMO) and the United Nations Economic and Social Commission for the Asia Pacific (ESCAP) have been naming cyclonic storms since 2000.
- The India Meteorological Department (IMD) names the cyclones developing over the north Indian Ocean, including the Bay of Bengal and the Arabian Sea. It also issues advisories to 12 other nations in the region on the development of cyclones and storms.
In 2000, a group of nations called WMO/ESCAP-- Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand-- decided to name cyclones in the region. In 2018, five more countries were added-- Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen. After the aforementioned countries sent in suggestions, the WMO/ESCAP Panel on Tropical Cyclones (PTC) finalise the list. In April 2020, IMD released a list of 169 cyclone names. 13 suggestions were sent in by the aforementioned WMO/ESCAP member nations.

Why are cyclones named?

The cyclones are named to help people identify them easily as it would be difficult to remember numbers and technical terms. Additionally, appending names makes it easier for the media, scientific community and the disaster management community to identify and report individual cyclones, disseminate warnings, increase community preparedness, and ward off confusion in areas that witness multiple cyclones.

Guidelines to name cyclones

The guidelines to name the cyclones are as follows:

1. The proposed name must be neutral to politics and political figures, religious beliefs, cultures and genders.
2. It must not hurt the sentiments of any group of people across the world.
3. It must not be rude and cruel in nature.
4. The name must be short, easy to pronounce and inoffensive to any member.
5. It must be of a maximum of eight letters and be given with its pronunciation and voice over.
6. The names of cyclones developing over the north Indian Ocean will not be repeated. Once used, it will cease to be used again.

Source: PIB
Coir Industry

- Coir Board was set up under the Coir Industry Act, 1953 by the Government of India for the overall sustainable development of coir industry in the Country.

- The functions of the Board as laid down under the Act include undertaking, assisting and encouraging scientific, technological and economic research, modernization, quality improvement, human resource development, market promotion and welfare of all those who are engaged in this industry.

- The Head Quarters of the Board is located at Coir House, M.G. Road, Kochi, Kerala and is running 48 establishments including 29 marketing outlets.
across the country.

- For the last more than 60 years Coir Board is steering the industry and the industry today plays a vital role in the economic development of rural areas of the country.
- Coir industry was concentrated in the State of Kerala, which has now been proliferated to other parts of the country also, with the efforts taken by the Board.
- The functions mandated under the Coir Industry Act are carried out by Coir Board under the various Schemes/Programmes, including research and development activities, training programmes, extending financial support for setting up of coir units, domestic as well as export market development, welfare measures to the workers etc.

**Significance of Coir Industry**

- Coir industry sustains **more than 7 lakhs of coir workers**, predominantly women, in different States of the country.
- It is estimated that around 80% of the work force in the industry are women and it plays a vital role in rural women empowerment of many coastal districts of the country.
- There are **1570 registered coir exporters** in the country.
- The **export of Coir and Coir products from India during the year 2020-21 registered an all time high record** of Rs.3778.98 crores with an increase of over Rs.1021 crores from the previous year.
- The increase in value works out to 37% in comparison with 2019-20 figures. Coir Board is focused to achieve Rs.7000 crores of coir exports in a couple of years.
- Under PMEGP (Prime Minister’s Employment Generation Programme), Coir Units have been started in different states of the country.
- Coir Products are eco friendly in nature and gained “Eco Mark” certification by the Ministry of Environment and Forests, Govt. Of India.
- Coir products save environment and help to reverse Global Warming.

1. “Coir pith” used to save water
2. “Coir Geotextiles” used to save soil
3. “Coir Wood” used to save trees and forest

- The Board’s Research Institutes are undertaking new R&D projects in coir with various CSIR units and Universities, in the field of spinning and product diversification.
- The initiatives of the Coir Board have led to a series of product development and diversification activities that have helped to launch a number of value
added products, meeting consumer needs.
- New end use applications of coir like the use of Coir Geotextiles for preventing soil erosion, conversion of Coir Pith into a valuable bio-fertiliser and soil conditioner and Coir Garden articles have gained popularity in India and abroad.
- The growing affinity towards environment friendly products has helped coir and coir products in domestic as well as foreign market.
- In Gujarat, Ministry of MSME has sanctioned following 2 SFURTI clusters with a project out lay of Rs.472.73 lakhs, which will throw open more employment opportunities,
  1. Samavedana Coir Cluster
  2. Tarapur Coir Cluster
- In Maharashtra, Ministry of MSME has sanctioned the 2 SFURTI clusters with project out lay of Rs.361.86 lakhs
  1. Pendur Coir Cluster
  2. Sawantwadi Coir cluster

**Conclusion**

MSMEs play a vital role in generating employment opportunities and contributes a lot for the socio-economic development of the country. Coir industry is opening up new avenues in the application of its products and is moving to Pan India with the popularisation of the schemes and services available, thereby providing employment opportunities and also the products and its applications.

Source: PIB
The National Disaster Management Authority (NDMA) is the apex statutory body for disaster management in India. The NDMA was formally constituted on 27th September 2006, in accordance with the Disaster Management Act, 2005 with Prime Minister as its Chairperson and nine other members, and one such member to be designated as Vice-Chairperson.

**Mandate:** Its primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response. It is also the apex body to lay down policies, plans and guidelines for Disaster Management to ensure timely and effective response to disasters.

**Vision:** To build a safer and disaster resilient India by a holistic, proactive, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation.

**Evolution of National Disaster Management Authority (NDMA)**

- In recognition of the importance of Disaster Management as a national priority, the Government of India set up a High-Powered Committee (HPC) in August 1999 and a National Committee after the Gujarat earthquake (2001), for making recommendations on the preparation of Disaster Management plans and suggesting effective mitigation mechanisms.
- The Tenth Five-Year Plan document also had, for the first time, a detailed chapter on Disaster Management. The Twelfth Finance Commission was also mandated to review the financial arrangements for Disaster Management.
- On 23 December 2005, the Government of India enacted the Disaster Management Act, which envisaged the creation of NDMA, headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

**Functions and Responsibilities of National Disaster Management Authority (NDMA)**

- Approve the National Disaster Plan
- Lay down policies on disaster management
Approve plans prepared by Ministries or Departments of the Central Government in accordance with National Plan
- Lay down guidelines to be followed by State Authorities in drawing up State Plan
- Lay down guidelines to be followed by different Ministries or Departments of Central Government for purpose of integrating measures for disaster prevention or mitigation of its effects in their development plans and projects
- Coordinate enforcement and implementation of disaster management policy and plan
- Recommend provision of funds for the purpose of mitigation
- Provide such support to other countries affected by major disasters as determined by Central Government
- Take such other measures for prevention of disasters or mitigation or preparedness and capacity building for dealing with threatening disaster situation or disaster as it may consider necessary
- Lay down broad policies and guidelines for the functioning of National Institute of Disaster Management

Institutional Framework for Disaster Management in India

- The Disaster Management Act, 2005 has provided the legal and institutional framework for disaster management in India at the national, state and district levels.
- In the federal polity of India, the primary responsibility of Disaster management vests with the state government.
  - The central government lays down the plans, policies and guidelines and provides technical, financial and logistical support while the district administration carries out most of the operations in collaboration with central and state level agencies.

National Executive Committee (NEC)

- A National Executive Committee is constituted under Section 8 of DM Act, 2005 to assist the National Authority in the performance of its functions.
- Union Home secretary is its ex-officio chairperson.
- NEC has been given the responsibility to act as the coordinating and monitoring body for disaster management, to prepare a National Plan, monitor the implementation of National Policy etc.

National Institute of Disaster Management (NIDM)
NIDM has the mandate of human resource development and capacity building for disaster management within the broad policies and guidelines laid down by the NDMA.

- **National Disaster response force (NDRF)**
  - NDRF is the specialized force for disaster response which works under the overall supervision and control of NDMA.

**State Disaster Management Authority (SDMA)**

- **Headed by Chief Minister** of the respective state, SDMA lays down the policies and plans for disaster management in the state.
- It is responsible to coordinate the implementation of the state Plan, recommend provision of funds for mitigation and preparedness measures and review the developmental plans of the different departments of the state to ensure integration of prevention, preparedness and mitigation measures.

- **State Executive Committee (SEC)** - Headed by the Chief Secretary of the state, SEC has the responsibility for coordinating and monitoring the implementation of the National Policy, the National Plan and the State Plan as provided under the DM Act.

**District Disaster Management Authority (DDMA)**

- Section 25 of the DM Act provides for constitution of DDMA for every district of a state.
- **The District Magistrate/ District Collector/Deputy Commissioner heads the Authority** as Chairperson besides an elected representative of the local authority as Co-Chairperson except in the tribal areas where the Chief Executive Member of the District Council of Autonomous District is designated as Co-Chairperson.
  - Further in district, where Zila Parishad exists, its Chairperson shall be the Co-Chairperson of DDMA.
- The District Authority is responsible for planning, coordination and implementation of disaster management and to take such measures for disaster management as provided in the guidelines.
- The District Authority also has the power to examine the construction in any area in the district to enforce the safety standards and to arrange for relief measures and respond to the disaster at the district level.
Achievements of Disaster Planning in India

- **Cyclone Fani**, was one of the worst cyclones to hit India in last two decades.
  - Odisha’s preparedness, efficient early warning system, timely action, and well-planned large-scale evacuation strategies helped 1.2 million people move safely into nearly 4,000 cyclone shelters, thereby saving the lives of vulnerable population in the sensitive coastal region.
  - The United Nations office for Disaster Risk Deduction (UNISDR) and other organizations have hailed government and volunteer efforts that have ensured the levels of destruction to keep minimum.
  - Similarly, Andhra Pradesh demonstrated an equally excellent evacuation strategy for millions during **cyclone Hudhud** in 2014.

- There has been significant **reduction in mortality rate** from the loss of over 10000 lives in 1999 during Super Cyclone in Odisha to a mortality of 16 in 2019 during cyclone Fani.

- NDMA runs intensive earthquake and extreme weather events awareness campaigns and provides guidelines regarding natural and man-made disasters.

- NDMA has released Guidelines on School Safety, Hospital Safety and Minimum Standards for Shelter, Food, Water, Sanitation and Medical Cover in Relief Camps. The Authority worked closely with the States in mitigating the impact of Heat Wave and the number of casualties came down drastically.

- NDMA conducts mock exercises for better crisis management during a disaster situation.

**Shortcomings and challenges**

- Questions were raised about the role of NDMA during **Uttarakhand Flooding in 2013**, where it failed to timely inform people about the flash floods and landslides. The post disaster relief response had been equally poor. Experts blamed the **poor planning of NDMA** that lead to unfinished projects for flood and landslide mitigation.

- A CAG report noted that there were **delays in completion of projects under the flood management programmes**. It noted the projects were not taken up in an integrated manner and blamed NDMA for institutional failures for **poor flood management**.
  - It held that there were huge **delays in completion of river management activities** and works related to border areas projects which were long-term solutions for the flood problems of Assam, north
Bihar and eastern Uttar Pradesh.

- Devastations during Kerala Floods in 2018 and Chennai Floods in 2015 were eye-opening for the institutions regarding preparedness for the disaster situation.
  - CAG report on 2015 Chennai Floods termed it to be a “man-made disaster” and holds Tamil Nadu government responsible for the catastrophe.
- The NDRF personnel lack sufficient training, equipment, facilities and residential accommodation to tackle the crisis situation properly.
- Misutilization of Funds - Government constituted National Disaster Response Fund and State Disaster Response Fund to deal with the disasters.
  - Audit findings reveal that some states have mis-utilized funds for expenditures that were not sanctioned for disaster management.
  - There was in a few cases significant delay in releasing funds. Additionally, some States didn’t invest the funds thereby incurring huge interest losses. This shows financial indiscipline in states management of funds.

Source: PIB
CPEC is connecting China’s Xinjiang with Pakistan’s Gwadar port is regarded as the flagship project of the multi-billion dollar Belt and Road Initiative (BRI) which is aimed at furthering China’s global influence with infrastructure projects funded by Chinese investments all over the world.

The CPEC is bilateral project between Pakistan and China, intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects linking the Western part of China to the Gwadar Port in Balochistan, Pakistan running some 3000 km from Xinjiang to Balochistan via Khunjerab Pass in the Northern Parts of Pakistan. CPEC is a part of OBOR.

It will pave the way for China to access the Middle East and Africa from Gwadar Port, enabling China to access the Indian Ocean and in return China will support development projects in Pakistan to overcome the latter’s energy crises and stabilizing its faltering economy.

China has committed to invest over USD 60 billion in Pakistan as part of the CPEC under which it planned to build a number of special economic zones.

CPEC's potential impact on Pakistan has been compared to that of the Marshall Plan undertaken by the United States in post-war Europe. Pakistani officials predict that CPEC will result in the creation of upwards of 2.3 million jobs between 2015–2030, and add 2 to 2.5 percentage points to the country’s annual economic growth.
A HIGHWAY TO DOLLARS

The China-Pakistan Economic Corridor, a set of highways, railways and infrastructure projects, which will run from Kashgar in China to Gwadar port in south-western Pakistan, reaffirms the massive interest that China has in the region.

• CPEC was announced by China in July 2013, and signed on November 8, 2014.

India's opposition: Prime Minister Narendra Modi, criticised the project as 'unacceptable' during his visit to Beijing in June, 2015.

Investments: Close to $50 billion in 15 years

- Kashgar
- Gilgit-Baltistan
- Islamabad
- Lahore
- Dera Ismail Khan
- Gwadar
- Karachi
- Arabian Sea

Original proposed route
Proposed alternative route

- India has reservations over certain CPEC transport projects crossing Gilgit-Baltistan (part of Pakistan-occupied Kashmir) and the implications of China's access to the Indian Ocean and how it might affect India's security.

- China would save around $2 billion every year if it were to use the CPEC to import 50% of its current volume of oil supplies.

Chinese interests in CPEC: With CPEC, it gets an alternative route to the Middle-East and Africa. It now uses the Strait of Malacca and the Indian Ocean for shipments.

SOURCE: AGENCIES & VIVEKANANDA INTERNATIONAL FOUNDATION
Reviving the Silk Road

Announced by Chinese President Xi Jinping in 2013, the Silk Road initiative, also known as China’s Belt and Road initiative, aims to invest in infrastructure projects including railways and power grids in central, west and southern Asia, as well as Africa and Europe.

Key

- Silk Road Economic Belt
- New Maritime Silk Road

Projects subsumed under China’s Belt and Road initiative

- Gas pipelines
- Oil pipelines
- Railroad
- Proposed economic corridors
- Ports with Chinese engagement
- Planned or under construction

Source: Mercator Institute for China Studies.

C. Iton, 24/03/2017
India’s objections to CPEC

- **Sovereignty claims**: India objects to the CPEC project as upgrade works to the Karakoram Highway are taking place in Gilgit Baltistan in Pakistan-occupied Kashmir; territory that India claims as its own.
- **Encirclement fears**: India has alleged that China and Pakistan intended to develop the corridor not just for its economic benefits, but also is motivated by the "strategic intent of besieging India."
- India has not supported OBOR. China’s insistence on establishing the CPEC project through PoK is seen by India as infringing its sovereignty.
- China is building roads and infrastructure in the disputed territory of Gilgit-Balistan, which is under Pakistan’s control but which India claims as a part of Jammu and Kashmir.
- If CPEC project gets implemented successfully, this would hamper India’s strategic interests in the South Asian region. It will serve Beijing’s strategic ambition to encircle India.
- CPEC can aid Pakistan’s legitimacy in the Kashmir dispute.
- China’s increasing footprints in the South Asian region is detrimental to India’s strategic hold e.g. construction of the Hambantota Port in Sri Lanka provided China critical strategic location in Indian Ocean.

Source: Aspire IAS Notes

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Pradhan Mantri Vaya Vandana Yojana-PMVVY â€“ OLD AGE & Senior Citizens

**About Pradhan Mantri Vaya Vandana Yojana - PMVVY**

PMVVY is a social security scheme for senior citizens intended to give an assured minimum pension to them based on an assured return on the purchase price / subscription amount.

- **Extension of Pradhan Mantri VayaVandanaYojana (PMVVY) up to 31st March, 2023 for further period of three years** beyond 31st March, 2020.
- **To allow initially an assured rate of return of 7.40 % per annum for the**
year 2020-21 per annum and thereafter to be reset every year.
- Annual reset of assured rate of interest with effect from April 1st of financial year in line with revised rate of returns of Senior Citizens Saving Scheme (SCSS) up to a ceiling of 7.75% with fresh appraisal of the scheme on breach of this threshold at any point.
- Approval for expenditure to be incurred on account of the difference between the market rate of return generated by LIC (net of expenses) and the guaranteed rate of return under the scheme.
- Capping Management expenses at 0.5% p.a. of funds of the scheme for first year of scheme in respect of new policies issued and thereafter 0.3% p.a. for second year onwards for the next 9 years.
- Delegating the authority to Finance Minister to approve annual reset rate of return at the beginning of every financial year.
- All other terms and conditions of the scheme remaining the same.

The minimum investment has also been revised to Rs.1,56,658 for pension of Rs.12,000/- per annum and Rs.1,62,162/- for getting a minimum pension amount of Rs.1000/- per month under the scheme.

Analysis for MAINS

National Elderly Policy defines person of 60+ age group as elderly.

Population figures on ageing
Age division of Indian population (0-14) is 30.8%, (15-59) is 60.3%, (60+) is 8.6%. According to Population Census 2011, there are nearly 104 million elderly persons in India. It has increased from 5.5% in 1951 to 8.6% in 2011. Projected a rise upto 19% in 2050. As regards rural and urban areas, more than 73 million persons i.e. 71% of elderly population resides in rural areas while 31 million or 29% of elderly population are in urban area.

Feminisation of ageing
- Among the challenges which India faces, UNPF report says the feminisation of ageing remained a key one.
- The sex ratio of the elderly has increased from 938 women to 1,000 men in 1971 to 1,033 in 2011 and is projected to increase to 1,060 by 2026.
- The report also noted that between 2000 and 2050, the population of 80-plus people would have grown 700% “with a predominance of widowed and highly dependent very old women” and so the special needs of such old
Problems associated with old age

- **Financial**
  - Retirement and dependence of elderly on their child for basic necessity.
  - Sudden increase in out of pocket expenses on treatment.
  - Migration of young working-age persons from rural area have negative impacts on the elderly, living alone or with only the spouse usually in poverty and distress.
  - Insufficient housing facility.

- **Health**
  - Multiple disabilities among the elders in old age.
  - Health issues like blindness, locomotor disabilities and deafness are most prevalent.
  - Mental illness arising from senility and neurosis.
  - Absence of geriatric care facilities at hospitals in rural area.

- **Social**
  - Indian society is undergoing rapid transformation under the impact of industrialization, urbanization, technical & technological change, education and globalization.
  - Consequently, the traditional values and institutions are in the process of erosion and adaptation, resulting in the weakening of intergenerational ties that were the hallmark of the traditional family.
  - Industrialization has replaced the simple family production units by the mass production and the factory.
  - Negligence by kids towards their old parents.
  - Disillusionment due to retirement.
  - Feeling of powerlessness, loneliness, uselessness and isolation in elderly.
  - Generational gap.

Recent initiatives by government

**Integrated Programme for Older Persons (IPOP)**

Ministry of Social Justice and Empowerment is a nodal agency for the welfare of elderly people. The main objective of the scheme is to improve the quality of life of older persons by providing basic amenities like shelter, food, medical care and entertainment opportunities, etc.

**Rashtriya Vayoshri Yojana (RVY)**

- This scheme is run by the Ministry of Social Justice and
Empowerment. This is a central sector scheme funded from the Senior Citizens’ Welfare Fund. The fund was notified in the year 2016. All unclaimed amounts from small savings accounts, PPF and EPF are to be transferred to this fund.

- Under the RVY scheme, aids and assistive living devices are provided to senior citizens belonging to BPL category who suffer from age-related disabilities such as low vision, hearing impairment, loss of teeth and locomotor disabilities. The aids and assistive devices, viz walking sticks, elbow crutches, walkers/crutches, tripods/quad pods, hearing aids, wheelchairs, artificial dentures and spectacles are provided to eligible beneficiaries.
- The scheme is being implemented by Artificial Limbs Manufacturing Corporation of India (ALIMCO), which is a public sector undertaking under the Ministry of Social Justice and Empowerment.

Indira Gandhi National Old Age Pension Scheme (IGNOAPS)

- The Ministry of Rural Development runs the National Social Assistance Programme (NSAP) that extends social assistance for poor households for the aged, widows, disabled, and in cases of death where the breadwinner has passed away.
- Under this scheme, financial assistance is provided to person of 60 years and above and belonging to family living below poverty line as per the criteria prescribed by Government of India. Central assistance of Rs 200 per month is provided to person in the age group of 60-79 years and Rs 500 per month to persons of 80 years and above.

Varishtha Pension Bima Yojana (VPBY)

- This scheme is run by the Ministry of Finance. The Varishtha Pension Bima Yojana (VPBY) was first launched in 2003 and then relaunched in 2014. Both are social security schemes for senior citizens intended to give an assured minimum pension on a guaranteed minimum return on the subscription amount.

The Pradhan Mantri Vaya Vandana Yojana

- The Pradhan Mantri Vaya Vandana Yojana (PNVVY) was launched in May 2017 to provide social security during old age. This is a simplified
version of the VPBY and will be implemented by the Life Insurance Corporation (LIC) of India.

- Under the scheme, on payment of an initial lump sum amount ranging from Rs 1,50,000 for a minimum pension of Rs 1000 per month to a maximum of Rs 7,50,000/- for a maximum pension of Rs 5,000 per month, subscribers will get an assured pension based on a guaranteed rate of return of 8% per annum payable monthly/quarterly/half-yearly/annually.
- The Centre will bear 75 percent of the total budget and the state government will contribute 25 percent of the budget, for activities up to district level.

Vayoshreshtha Samman

Conferred as a National award, and given to eminent senior citizens & institutions under various categories for their contributions on International day of older persons on 1st october.

Constitutional Articles related to Elderly population

- Article 41 and Article 46 are the constitutional provisions for elderly persons. Although directive principles are not enforceable under the law, but it creates a positive obligation towards the state while making any law.
- Section 20 of Hindu marriage and adoption act, 1956 makes it obligatory provisions to maintain an aged parents.
- Under Section 125 of Criminal Procedure Code, the elder parents can claim maintenance from their children.
- The Maintenance and Welfare of Parents and Senior Citizens Act, 2007, seeks to make it legal for the children or heirs to maintain their parents or senior citizens of the family.
- Convention on the Rights of Older Persons is proposed in United nation.
- In 1982, the Report of the World Assembly on Ageing (also known as "the International Plan on Ageing") was published, which represented the first international debate on the rights of older persons and presented a plan for their implementation.
- The UNPF were tasked with implementing the Plan of the Second World Assembly which adopted “Madrid International Plan” on ageing in 2002.

Role of SOCIETY

Elderly peoples carries immense experience of their personal and professional life, society at large need to channelise those experience for better tomorrow.

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They can provide a vital generational link for upcoming generations. It provides support and stability to families and society at large.

- Grandparents in joint families provide a crucial link for transferring values and morals to the younger generation in their initial years, thereby contributing towards upbringing of better human beings and responsible citizens.
- Acknowledging seniors’ contributions would help to make ours a more age-inclusive society that does not pit one generation against the other.
- Their deep cultural impressions and social experiences provide the necessary buffer against intolerance, violence and hate crimes which provides stability in society especially in the era of hate and crime. They can play a significant role in easing out societal tensions, both within and outside families through their insight and understanding.

Way forward

Increasing the monthly pension of elderly to minimum of Rs 2,000 per month.

- Under Pradhan Mantri Awas Yojana, Housing for the aged, particularly the aged poor, must be a priority.
- Assisted living facilities for indigent elderly, particularly those with age-related issues like dementia, needs policy focus.
- More tax benefits, or at least removing tax on deposit interest for seniors.
- Enhancing the geriatric care health infrastructure especially in rural area.
- Allocation of special budget for elderly population at both levels.
- Providing entertainment facilities like libraries and clubs at panchayat level.
- Appreciations for the contributions of elderlies at village level.

Conclusion

- For the welfare and care for the older persons, we must focus on the protection of already existing social support systems/traditional social institutions such as family and kinship, neighborhood bonding, community bonding and community participation must be revived and kins should show sensitivity towards elderly citizens.
- Social security is the concurrent responsibility of the central and state governments as, mandated under Indian constitution i.e, Well-being of senior citizens – Article 41 in particular and 46 in general of Indian constitution. In this regard, National Policy on Senior Citizen, 2011 was framed.
Industrial Revolution 4.0

1. It includes AI, Robotics, Blockchain AR, VR, IoT, Supercomputing, Machine Learning, Deep Learning, 3D printing.
2. IoT (Internet of Things): is defined by ICT as a dynamic global network infrastructure with self configuring capabilities.
3. Deep Learning or Hierarchical Learning is part of machine learning methods based on learning data representations. In deep learning, each level learns to transform its img data into a slightly more abstract and composite representation.
4. Applications like speech recognition, facial recognition, bioinformatics and drug discovery, financial fraud detection, AI in healthcare etc.

What is Artificial Intelligence (AI)?

- The term was coined in 1956 by John McCarthy.
- AI is a way of making a computer, a computer-controlled robot, or software performing humanlike tasks.
- It refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making. It describes the action of machines accomplishing tasks that have historically required human intelligence. It includes technologies like machine learning, pattern recognition, big data, neural networks, self algorithms etc.
- AI involves complex things such as feeding a particular data into the machine and making it react as per the different situations. It is basically about creating self-learning patterns where the machine can give answers to the never answered questions like a human would ever do.
- There are two subsets under the umbrella term AI: Machine learning and Deep learning.

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<thead>
<tr>
<th>Machine Learning</th>
<th>Deep Learning/ Deep Neural Learning</th>
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<tbody>
<tr>
<td>• Machine Learning involves the use of algorithms to parse</td>
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data and learn from it.
- It provides systems the ability to automatically learn and improve from experience without being explicitly programmed.
- This enables making a determination or prediction.

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<th>has networks capable of learning unsupervised from data that is unstructured or unlabeled.</th>
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<tbody>
<tr>
<td>Deep learning is technique for implementing machine learning.</td>
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<tr>
<td>Deep learning is an AI function that imitates the workings of the human brain in processing data and creating patterns for use in decision making.</td>
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**India and Artificial Intelligence**

- **G20 Osaka Summit**: PM underscored the significance of Digital Economy & Artificial Intelligence. He emphasised the government's reliance on the 5 'I's that stand for Inclusiveness, Indigenization, Innovation, Investment in infrastructure & International cooperation in developing these two areas.
- According to Global AI Report 2019, India is at 9th in terms of number of AI specialists working in the field. US, China and UK topped.
- CBSE has AI as an elective subject for its 9th Class.
- IIT Hyderabad is the 1st Indian Educational Institute starting B Tech in AI. It is 3rd in the World after Carneigie University and MIT.
- IIIT Hyderabad has also introduced popular executive programmes on AI, Machine Learning and Blockchain.
- Defense, IBM’s Blue Project, many startups are now foraying into AI.
- It is estimated that AI will add 957 billion $ to India’s GDP by 2035 boosting India’s annual growth by 1.3% points.

**Steps taken by the Government to promote Artificial Intelligence**

- In 2018-19 Budget, Govt mandated NITI to established National Program on AI.
- Budget 2018 announced funds for AI, machine learning, robotics and IoT sector.

**NITI Aayog’s National Strategy for Artificial Intelligence, 2018**
This strategy was being recommended by the Artificial Intelligence task force headed by V. Kamakoti.
5 Core areas for application of AI = Agriculture, Education, Health, Smart cities/infrastructure; Transport with AI.
India has the potential to become AI garage or solution provider for 40% of the World.
Application of AI = Cancer report, Reroute traffic, Telling Farmers where to store, Dropout.
It doesn’t talk about funding. Institutional structure with CERN like multinational lab.
Challenges = Only 4% AI professionals trained in Emerging technologies; low H Index (citation) and Data sets.

Kamakoti Committee

- Set up digital data banks, marketplaces and exchanges to ensure availability of cross-industry information.
- Data ombudsman: to address data-related issues and grievances.
- Ensure availability of funds for R&D
- Setting up National Artificial Intelligence Mission (N-AIM)
- The Commerce and Industry Ministry has also set up task forces to explore the use of AI and Big Data technologies.

In 2019, NITI Aayog circulated the cabinet note to establish a cloud computing platform called AIRAWAT

- AIRAWAT stands for Artificial Intelligence Research, Analytics and Knowledge Assimilation Platform.
- It is a part of Govt’s goal of making India a pioneer amongst emerging economies wrt AI and transform sectors like education, health, agriculture, urbanization and mobility.

National Strategy for Artificial Intelligence 2015-20

- NITI Aayog has published the National Strategy for Artificial Intelligence wherein it has identified five core areas for the application of Artificial Intelligence.

Application of AI in 5 Core Areas

Healthcare:

1. AI based Radiomics focuses on comprehensive quantification of tumor
phenotypes.
2. A joint venture between Microsoft and Indian start-up ‘Forus Health’ has
developed a portable device named “3Nethra” that can screen for common
eye problems as well as complicated conditions like diabetic retinopathy.

Agriculture:
1. AI is being used for soil care, sowing, herbicide optimization, precision
farming.
2. Intello Labs, Trithi Robotics are startups in Agri sector.
3. Coffee Board of India started using AI in activities.
4. Assam Tea growers may take AI route to recovery.

Education:
1. AI can be used for developing tools for customised learning, interactive and
intelligent tutoring systems.
2. For automated teacher posting and transfer systems, using analytics based on
demand – supply gaps across schools.

Smart Cities and Infrastructure:
1. Service delivery, crowd management, cyber security, public safety and water
and waste management.
2. Bandicoot robot have been developed for sewer cleaning to put an end to manual scavenging.

Smart Mobility and Transportation: AI-based traffic management system including sensors, CCTV cameras, automatic number plate recognition cameras, speed detection cameras, signalised pedestrian crossings.

Significance of Artificial Intelligence for India
- India can become an AI powerhouse.
- A study by Google Neural Network correctly identified cancerous skin lesions more often than Dermatologists did. India’s shortage of specialist Doctors in rural areas can benefit.
- Compete with the aspirations of USA, China and Japan.
- If used in Agri, it will bring revolution in Farming practices.
- Use in Renewable Energy. Eg. Delhi based firm Climate Connect predicts the amount that a solar plant will generate every 15 mins. It will help in completing the Solar target of 100 GW by 2022.
- ANYA: Chatbot for patient queries. Information is medically verified. 1st of its kind. For disease awareness.
Social media sites were told to filter content using AI.

Challenges in Artificial Intelligence

- Norman = Data is fed by a person only. He can be biased. Psychopath AI.
- Lack of enabling data ecosystems.
- Low intensity of AI research.
- Inadequate availability of AI expertise, manpower and skilling opportunities.
- High resource cost and low awareness for adopting AI in business processes.
- Unclear privacy, security and ethical regulations.
- Unattractive Intellectual Property regime to incentivise research and adoption of AI.
- Only 4% AI professionals trained in Emerging technologies; low H Index (citation) and Data sets.

US India Artificial Intelligence (USIAI) Initiative

- It is an initiative by Indo-U.S. Science and Technology Forum (IUSSTF), a bilateral organization funded by the Department of Science & Technology (DST), Governments of India, and the U.S. Department of States.
- IUSSTF’s USIAI Initiative focuses on AI cooperation in critical areas that are priorities for both countries. USIAI will serve as a platform to discuss opportunities, challenges, and barriers for bilateral AI R&D collaboration, enable AI innovation, help share ideas for developing an AI workforce, and recommend modes and mechanisms for catalyzing partnerships.

Features of USIAI

- The ambitious flagship initiative, USIAI, leverages IUSSTF’s unique ability to bring together key stakeholders from India and the United States to create synergies that address challenges and opportunities at the interface of science, technology, and society.
- Over the next year, IUSSTF will conduct a series of roundtables and workshops to gather insight from different stakeholder communities and prepare White Papers that identify technical, research, infrastructure, and workforce opportunities and challenges, and domain-specific opportunities for R&D in healthcare, smart cities, materials, agriculture, energy, and manufacturing.

Benefits of USIAI

- “The AI Initiative is another example of IUSSTF’s critical role in catalyzing
collaborations between India and the U.S. in cutting-edge areas of science and technology.

- The U.S.-India AI Initiative will provide an opportunity for key stakeholder groups to share experiences, identify new R&D areas and opportunities that would benefit from synergistic activities, discuss the emerging AI landscape, and address the challenges of developing an AI workforce.

Other Artificial Intelligence Initiatives by India

- Artificial Intelligence is being promoted and implemented in the country through a network of 25 technology hubs working as a triple helix set up under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS).

National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)

- NM-ICPS is to be implemented by Department of Science & Technology for a period of five years.
- NM-ICPS covers entire India which includes Central Ministries, State Governments, Industry and Academia.

Cyber-Physical Systems

- Cyber-physical systems integrate sensing, computation, control and networking into physical objects and infrastructure, connecting them to the Internet and to each other.
- Few Potential applications: Driverless cars that communicate securely with each other on smart roads, Sensors in the home to detect changing health conditions, improving agricultural practices and enabling scientists to address issues arising out of climate change, etc.
- Advances in cyber-physical systems will enable capability, adaptability, scalability, resiliency, safety, security and usability that will far exceed the simple embedded systems of today.

Objective
The NM-ICPS is a comprehensive Mission which would address technology development, application development, human resource development & skill enhancement, entrepreneurship and start-up development in Cyber Physical System (CPS) and associated technologies.

The Mission aims at establishment of 15 Technology Innovation Hubs (TIH), six Application Innovation Hubs (AIH) and four Technology Translation Research Parks (TTRP).

These Hubs & TTRPs will connect to Academics, Industry, Central Ministries and State Government in developing solutions at reputed academic, R&D and other organizations across the country in a hub and spoke model.

The Hubs & TTRPs have four focused areas along which the Mission implementation would proceed, namely:

- Technology Development,
- HRD & Skill Development,
- Innovation, Entrepreneurship & Start-ups Ecosystem Development, and
- International Collaborations.

PM-STIAC identified 9 National S&T Missions: In one of those mission 1 mission is National Mission on Artificial Intelligence:

- By NITI Aayog, Dept of S&T, Ministry of Electronics and Information Technology, Dept of Bio technology.

It will address societal needs like healthcare, education, agriculture, smart cities and infrastructure, including smart mobility and transportation.

Source: PIB
Renewable Energy Certificates (RECs)

GS-III | 30 September, 2021

Union Minister of Power and New & Renewable Energy, Shri RK Singh has given his assent to amendments in the existing Renewable Energy Certificate (REC) mechanism. The sales of Renewable Energy Certificates (RECs) rose over 79% to 8.38 lakh units in March 2020 compared to 4.68 lakh in the same month a year ago owing to good supply.

Features of Renewable Energy Certificates (RECs) Mechanism

- Renewable Energy Certificates (RECs) is a market-based instrument to promote renewable sources of energy and development of the market in electricity.
  - One REC is created when one megawatt hour of electricity is generated from an eligible renewable energy source.
- REC acts as a tracking mechanism for solar, wind, and other green energies as they flow into the power grid.
- RECs go by many names, including Green tag, Tradable Renewable Certificates (TRCs), Renewable Electricity Certificates, or Renewable Energy Credits.
- Under Renewable Purchase Obligation (RPO) bulk purchasers like discoms, open access consumers and capacitive users are required to buy a certain proportion of RECs. They can buy RECs from renewable energy producers.
  - RPO was instituted in 2011, it is a mandate that requires large power procurers to buy a predetermined fraction of their electricity from renewable sources.
- The proportion of renewable energy for utilities is fixed by the central and state electricity regulatory commissions.
- In India, RECs are traded on two power exchanges — Indian Energy Exchange (IEX) and Power Exchange of India (PXIL).
- The price of RECs is determined by market demand, and contained between the ‘floor price’ (minimum price) and ‘forbearance price’ (maximum price) specified by the Central Electricity Regulatory Commission (CERC).

Central Electricity Regulatory Commission (CERC).

- CERC is a regulator of the power sector in India.
- It intends to promote competition, efficiency and economy in bulk power
markets, improve the quality of supply, promote investments and advise the government on the removal of institutional barriers to bridge the demand-supply gap.

- It is a statutory body functioning with quasi-judicial status under the Electricity Act 2003.

Redesigned Renewable Energy Certificate (REC) Mechanism

Union Minister of Power and New & Renewable Energy, Shri RK Singh has given his assent to amendments in the existing Renewable Energy Certificate (REC) mechanism. The intent behind this decision is to align the ‘mechanism’ with the emerging changes in the power scenario and also to promote new renewable technologies.

The proposed changes will provide some flexibility to the players, additional avenues, rationalization and also addressing the RECs validity period uncertainty issues. Extensive stakeholder consultations have been held towards drawing up these changes.

The Salient features of changes proposed in revamped REC mechanism are:

- Validity of REC would be perpetual i.e., till it is sold.
- Floor and forbearance prices are not required to be specified.
- CERC to have monitoring and the surveillance mechanism to ensure that there is no hoarding of RECs.
- The RE generator who are eligible for REC, will be eligible for issuance of RECs for the period of PPA as per the prevailing guidelines. The existing RE projects that are eligible for REC would continue to get RECs for 25 years.
- A technology multiplier can be introduced for promotion of new and high priced RE technologies, which can be allocated in various baskets specific to technologies depending on maturity.
- RECs can be issued to obligated entities (including DISCOMs and open access consumers) which purchase RE Power beyond their RPO compliance notified by the Central Government.
- No REC to be issued to the beneficiary of subsidies/concessions or waiver of any other charges. The FOR to define concessional charges uniformly for denying the RECs.
- Allowing traders and bilateral transactions in REC mechanism.
- The changes proposed in revamped REC mechanism will be implemented by CERC through regulatory process. To address mismatch between availability of RE sources and the requirement of the obligated entities to meet their...
renewable purchase obligation (RPO), Pan-India market-based Renewable Energy Certificate (REC) Mechanism was introduced in the year 2010.

Source: PIB

**Electoral Bonds Scheme**

**What is Electoral Bonds Scheme?**

- As per the scheme, Electoral bonds means a bond issued in the nature of **promissory note** which is a **bearer banking instrument not carrying the name of buyer or payee**. They are used for making donations to political parties. Govt launched it on 2 Jan, 2018.
- They are **issued by Scheduled Commercial Banks** upon authorisation from **Central Govt (not RBI)** to donor, but **only against cheque and digital payments (not cash)**. They are redeemable in a **registered** political party.
- Amendments to **RBI Act, 1934 and RPA, 1951** was made through **Finance Bill, 2017**.
- It is an **interest free** banking instrument issued on a **non refundable basis** and are **not available for trading**. Further, **no loan** would be provided against these bonds. Purchases needs to have fulfilled **KYC norms**.
- Electoral Bonds would have a **life of only 15 days** during which it can be used for making donation **only to the political parties registered under Section 29A of RPA, 1951**. It will be encashed by them only through a designated bank account with the authorised bank.
- **No payment** shall be made to any payee political party if the bond is deposited after the expiry of the validity period and the bond deposited by any political party to its account shall be **credited on the same day**.
- The **information** furnished by the buyer shall be **treated confidential**. **No commission, brokerage or any charges** for the issue of bond shall be payable.
- **Maximum amount of cash donation** that a political party can receive is stipulated at Rs. **2000/- from 1 person**. Political parties are exempted from Income tax.
- As per **Section 29C (1) of RPA, 1951**, the political party needs to **disclose**
the details of Non governmental corporations and persons who donate > 20000 to it.

**Issues:**

1. **Donors are left anonymous:** So Electoral bonds cannot be identified or associated with any particular buyer or political party.
2. Election Commission argues that it **does not allow to check violations** of RPA.
3. Declaration of sources of funding for political parties is given in Section 29 of RPA, 1951. **Before 2017, they had to declare all donations made > 20000 but now they are out of this purview.**
4. Electoral Bods are **exempt from Income Tax Act.**
5. **Issue of corporate funding misuse** to Political parties and lobbying.
6. **Issue of favoring the ruling party.** As in 2017-18, 94.6% of bonds given to BJP.
7. **Foreign companies with a majority stake in Indian companies can invest in Electoral bonds.** This allows unchecked foreign funding.

**Benefits**

1. It limits the use of cash in political funding.
2. It curbs Black money as the payments are made only by Cash, DD, NEFT, RTGS.
3. It protects donor from political victimization as they remain anonymous.

**3 National Parties received 1931 crore** in FY 19 through Electoral Bond scheme which allows anonymous donations to political parties. **BJP got the highest.** Both EC and RBI are against it.

For analysis on Electoral Bonds: [click here](#)

Source: PIB