



CURRENT AFFAIRS AUGUST 2022



- ONE NATION ONE ELECTION
- NATIONAL LAND MONETIZATION CORPORATION
- ARTIFICIAL INTELLIGENCE AND JUDICIARY
- BLUE ECONOMY AND INDIA

Basement C59 Noida, opposite to
Priyagold Building gate, Sector 2,
Pocket I, Noida, Uttar Pradesh
201301

Basement 8 , Apsara Arcade,
Karolbagh metro station
Gate no. - 6, New Delhi
110005

17A/41, 1st Floor, WEA, (Near by
Karol Bagh Metro Station) Karol
Bagh, New Delhi 110005

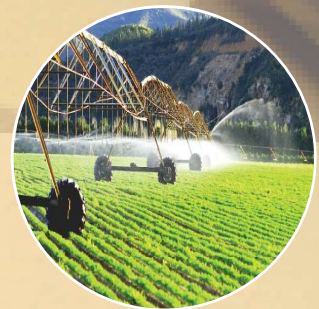
**PLUTUS
IAS**

PLUTUS IAS

MONTHLY

CURRENT AFFAIRS

AUGUST 2022



Basement C59 Noida, opposite to Priyagold Building gate, Sector 2, Pocket 1, Noida, CONTACT NO- 8448440231

www.plutusias.com



CURRENT AFFAIRS

AUGUST 2022

Electric Vehicle (EV)

Electric Vehicle (EV)

Introduction:-

- An electric vehicle (EV) is one that operates on an electric motor for propulsion.
- Electric Vehicles (EV's) include all types of vehicles like road, rail, surface and underwater vessels, aircraft etc,
- In the late 19th century EVs first came into existence, when electricity was among the preferred methods for motor vehicle propulsion. But it has drawn a considerable amount of interest in the past decade amid a problem of rising carbon footprint and other environmental impacts of fuel-based vehicles.
- The International Energy Agency said in 2021 that governments should do more to meet climate goals, including policies for heavy electric vehicles.
- Electric vehicle sales may increase from 2% of global share in 2016 to 30% by 2030.
- An electric vehicle may be powered by different methods like, through a collector system by electricity from off-vehicle sources, battery, solar panels, fuel cells etc.

Types of electric vehicles:

- **Battery Electric Vehicle (BEV):** These vehicles are fully powered by electricity. They don't have an internal combustion engine, fuel cell, or fuel tank. These are more efficient as compared to hybrid and plug-in hybrids.
- **Hybrid Electric Vehicle (HEV):** These vehicles use both the internal combustion (usually petrol) engine and the battery-powered motor. The petrol engine is used both to drive and charge when the battery is empty.
- **Plug-in Hybrid Electric Vehicle (PHEV):** These are hybrid electric vehicles whose battery can be recharged by plugging it into an external source of electric power. These vehicles use both an internal combustion engine and a battery. This means the vehicle's battery can be charged with electricity rather than the engine.
- **Fuel Cell Electric Vehicle (FCEV):** In these vehicles electric energy is produced from chemical energy. For example, a hydrogen FCEV.

Advantages of Electric Vehicles

- Reduce greenhouse gas emissions
- Lower running cost
- Environment friendly
- Reduce dependence on petroleum
- Low maintenance & servicing cost
- Better Energy Efficiency
- Lesser vibration

- Lesser noise

Government of India Schemes and Initiatives for Promotion of Electric Vehicles

1) Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME)

FAME – II scheme came into force from April 1, 2019. Government cleared a Rs 10,000-crore programme under this scheme. The main objective of this scheme is to promote & encourage faster adoption of electric and hybrid vehicles. The Phase-II of FAME India Scheme is being implemented through following three components:

- Demand Incentives
- Establishment of network of Charging Stations
- Administration of Scheme including Publicity, IEC (Information, Education & Communication) activities.

2) In 2013, India promoted 'National Electric Mobility Mission Plan (NEMMP) 2020' with the main objective to make a major shift to electric vehicles and to address the issues of national energy security, air pollution, and growth of domestic manufacturing capabilities. Under this scheme facilities like subsidies, create supporting infrastructure for promotion & development of electric vehicles.

3) India is among a handful of countries that support the global EV30@30 campaign, which aims for at least 30% new vehicle sales to be electric by 2030. The main aim is to help realise the multiple benefits offered by electric mobility for innovation, economic and industrial development, energy security, and reduction of local air pollution.

Anoop Singh

PMLA VERDICT

Supreme court in the recent judgement in the **Vijay Mandal Chaudhary vs UOI** has upheld the amendments to the Prevention of Money Laundering Act 2002, which has created a furor in the political circles. This is due to the apprehension of the political parties and other activists that it can be misused by the government of the day adversely.

WHAT ARE THE RECENT CHANGES?

First of all the term of money laundering has been redefined. Money laundering was earlier not an independent crime, but the amendment seeks to treat money laundering as a stand alone crime. Secondly under **Section 3** of the PMLA, the person shall be considered to be involved in the act of money laundering if he is involved in Concealment, possession, Use or projecting untainted property, claiming as untainted property, acquisition. Also under this amendment a person will be considered to be involved in the money laundering, till the time he is getting the fruits of activities related to the money laundering.

WHAT ARE THE INTENTIONS BEHIND IT?

1. **STRICT VIGIL:** On the the uncontrolled black money which is in circulation in the market and is used for the purpose of tax evasion, terrorism etc.
2. **FORMALISATION:** Of the economy, by deterring the people to fall for the money laundering.
3. **NEW ALTERNATIVES:** Like crypto currency, requires much tougher sanctions to deal with the emerging problems.

WHAT COULD BE THE PROBABLE ISSUES FOR WHICH THE PEOPLE ARE PROTESTING?

1. **VAGUE DEFINITIONS:** Section 3 of the act says” Whosoever directly or indirectly attempts to indulge or knowingly assists or knowingly is a party or is actually involved in any process or activity connected with the **proceeds of the crime** including concealment, possession , acquisition or the use and projecting and claiming it as untainted property”. This definition makes a difficult reading on the use of the proceeds of the crime.
2. **LEGALITY:** According to the lawyer Abhinav Shekhari’s analysis it was concluded that PMLA is not a penal statute , but a sui generis one. i.e. law can according to the court can overlook several constitutional safeguards.
3. **ECIR ISSUES:** Enforcement case information report is considered to not to be shared with the individuals. While on the other hand the FIR can be shared with the individuals.
4. **MISUSE OF THE GOVERNMENT AGENCIES:** ED which works under the central government can be misused by the government of the day and hence could act as a political leverage in their hands.
5. **Section 63 of PMLA :**States that information must be given by the accused, false information or no information will constitute another offence however compelling the accused to be a witness against themselves is violative of the right against self-incrimination.

WHAT COULD BE THE WAY FORWARD?

Though PMLA amendment has been brought out with the good intention of keeping a vigil on the money laundering, terrorism control and tax evasion but it has caused some serious repercussion in the political scenario. What is the need of the hour is to create a

political good will and the acceptance in the social setup. Also since it has now become the law of the land, it needs to be respected by creating a general awareness among the masses. In this way we will be able to enhance the transparency and formalization in the Indian economy.

Samarth singh

BANGLADESH ECONOMIC CRISIS

WHY IN THE NEWS?

1. Bangladesh has recently approached to the IMF for a \$4.5 Billion bailout.
2. Inflation in Bangladesh is hovering above 7%
3. The forex reserve has seen a fall from \$45.5 billion from an year earlier of \$39.67 billion
4. Bangladesh has also experienced lengthy blackouts in recent weeks, sometimes for up to 13 hours a day, as the country struggle to source enough diesel and gas to meet demand.
5. Bangladeshi Taka has fallen from 85 some time back to currently 95 with respect to US dollar

WHY CAUSE OF CONCERN?

a) GEO-ECONOMIC CRISIS : Could get fueled ,as after Sri Lanka and Pakistan, Bangladesh will be the 3rd nation to face such economic crisis in the Indian subcontinent region.

d) Per capita Income: Of Bangladesh which was more recently great-

er than India could see the decline.

e) COMMUNALISM and RELIGIOUS FUNDAMENTALISM : Economic woes could pave the way for the islamist fundamentals to rise which till now have been effectively controlled by Sheikh Hasina government under its economic hammer.

WHAT LED TO THE CRISIS?

1. INFLATION IN USA :

1.1) Inflation in USA has led to decrease in the demand of clothes and wearing in the stores like Walmart

1.2) Store like them usually get their textiles import from the country like Bangladesh

1.3) Due to the decrease in the demand , the exports of Bangladesh have hence been severely affected

1.4) This has led to the loss of foreign exchange reserve and slight enhancement of Current Account Deficit .

2. COVID SCENARIO

2.1) Loss of Employment: Of the Bangladeshi nationals in the foreign countries has reduced the remittances coming to the country.

2.2) Loss of Forex: Earlier the money sent by Bangladeshis to their own country hence now could not be reached.

WHAT ARE THE REPURCUSSIONS FOR INDIA?

a) DEBT TRAP DIPLOMACY: Of China could come in place in order to strengthen its string of pearls around India, as done in the case of

Pakistan.

b) Burden for India: Under its **Neighborhood first policy**, India will be forced to give economic aid to Bangladesh, as it has done with Sri Lanka.

IS THE SITUATION REALLY BAD?

- Bangladeshi foreign minister A H M Mustafa Kamal said that there is no such crisis in the country.
- He reiterated that the approach to IMF is only **precautionary**, in order to deal with the probable future rise of the crude oil prices in the future.
- Foreign Aids: Bangladesh has been recently given the foreign amounting to \$10 billion from various parties such as Asian Development Bank, World Bank, Japan, China etc.

WHAT LIES AHEAD?

1. Focus on the infrastructure- For enhancing the capital investment in the economy.
2. Banking sector regulation: That it doesn't collapse in this emerging scenario.
3. Investment in climate change.: For sustainable farming in order to ensure food security in the coming future.
4. Diplomatic vigilance : That Bangladesh should not become the prey of "**China's Wolf Warrior Diplomacy**".

India also went for bailout in 1991, but came out of the economic woes very successfully. Bangladesh needs to understand and learn from its neighbors like India, that how it can sail through the situation wisely. This way it could not only ensure the social security

of its population, but could also ensure **Geo-Economic** and **Geo-political** stability.

Samarth Singh

GIG ECONOMY

GIG WORKERS

According to the Code on Social Security, 2020 (India), “A gig worker is a person who performs work or participates in work arrangements and earns from such activities, outside of the traditional employer-employee relationship”. Gig workers include contract firm workers, independent contractors, online platform workers, and temporary workers.

Further gig workers can be divided into two :- platform and non-platform workers. Platform workers are those who work on digital platforms or online software apps such as Swigg, Zomato, Ola, Uber etc. On the other hand, non-platform gig workers are casual wage earners and can work either full-time or part-time.

GIG ECONOMY

- Gig Economy is a free market system in which temporary positions are common and workers are working in organizations contracted with short-term engagements.
- Gig economy is a system that is based on flexible, short-term, or freelance work.
- Individuals who are part of the gig economy are called gig workers, who are frequently employed on a contractual ba-

sis with the organization, but are not regarded as regular employees.

INDIA AND GIG ECONOMY

- NITI Aayog report titled 'India's Booming Gig and Platform Economy'. India's gig workforce is expected to expand to 2.35 crore by 2029-30. This report estimates that in 2020-21, approx 77 lakh workers were engaged in the gig economy. They constituted 2.6% of the non-agricultural workforce or 1.5% of the total workforce in India. The Report states that at the moment, medium-skilled occupations make up about 47% of gig work, high-skilled jobs make up about 22%, and low-skilled employment make up about 31%.
- According to the India Staffing Federation report (2019), India is the 5th-largest in Flexi-staffing in the world, after the US, China, Brazil and Japan.
- Boston Consulting Group's report, highlights that in India, over 15 million workers are employed as gig workers across the industries. The number will be enhanced by over 24 million in the near-medium term and to 90 million in the long term.
- According to an ASSOCHAM report, the gig sector has the potential to grow to the US \$455 billion at a Compound Annual Growth Rate (CAGR) of 17% by 2024. The Indian gig economy has the potential to add 1.25% to the Indian Gross Domestic Product (GDP) and provide over 90 million jobs in the non-farm sectors of India.
- Economic Survey 2020-21, "the changing nature of work with the change in technology, the evolution of new economic ac-

tivities, innovation in organisation structures and evolving business models have grown the potential of the gig economy.” The survey stated that digital platforms played a significant role in discovering job seekers and job providers in the absence of middlemen.

Advantages of gig economy

- It makes the work more adaptable to the requirements of the employee and the employer.
- Workers have the flexibility to work according to their convenience and availability.
- Cost Efficiencies for Companies.
- Jobs for low and semi-skilled workforce.
- Nature of payment against the work is more of a piece rate and also negotiable.
- Start-up culture has also been promoted.

Disadvantages of gig economy

- Lack of social security.
- Poor working conditions.
- Lack of benefits like allowances, housing and travel expenses, provident fund etc.
- Low wages.
- Promotion of informal or unorganised labor.
- There may be no scope for upward mobility within the organisation.

- There is unequal gender participation in such platforms.

NITI Aayog has proposed a five pronged RAISE approach to ensure realisation of full access to social security for all gig and platform workers.

- RECOGNISE the varied nature of platform work to design equitable schemes.
- ALLOW augmentation of social security through innovative financing mechanisms.
- INCORPORATE, while designing schemes, the specific interests of platforms, factoring the impact on job creation, platform business and workers.
- SUPPORT workers to subscribe to government schemes and welfare programmes through widespread awareness campaigns.
- ENSURE benefits are readily accessible to workers.

Anoop singh

Cryptocurrency

What is cryptocurrency?

- Cryptocurrency or crypto is a form of currency that exists virtually or digitally and uses cryptography to secure transactions.
- It is a digital payment system that doesn't rely on any central bank or banks to verify transactions. It's a peer-to-peer system

that can enable anyone anywhere to send and receive payments.

- Cryptocurrency payments systems exist purely on a digital database describing specific transactions. When any transactions take place then it is recorded in a public ledger.
- Cryptocurrency is stored in digital wallets.
- When a cryptocurrency is minted or created or issued by a single issuer, it is generally considered centralized. When implemented with the decentralized control system, it works through distributed ledger technology, typically a blockchain, that serves as a public financial transaction database.
- The first decentralized cryptocurrency was Bitcoin, which was founded in 2009 and remains the best known today. As of March 2022 there were more than 9,000 other cryptocurrencies in the marketplace.
- Recently, the Central African Republic (CAR) became the second country after El Salvador to adopt Bitcoin as legal tender.

How does cryptocurrency work?

- Cryptocurrencies run on a distributed public ledger called blockchain, a record of all transactions updated and held by currency holders.
- Each unit of cryptocurrency is created through a process called mining, (It means by using computer power to solve complicated mathematical problems that generate coins). Users can also buy the cryptocurrencies from brokers, then store and spend them using cryptographic wallets.
- If any person has cryptocurrency, then s\he don't own anything tangible. What s\he owns is a key that allows to move a record or a unit of measure from one person to another without a trusted third party.

- Bitcoin developed in 2009, afterwards cryptocurrencies and applications of blockchain technology are still emerging in the financial sector, and this technology will also be expected to develop in the future. Transactions including shares, bonds, stocks, and other financial assets could eventually be traded using the technology.

Cryptocurrency examples

As of March 2022 there were more than 9,000 other cryptocurrencies in the marketplace. Some of the best known include:

- Bitcoin:- Founded in 2009, it was the first cryptocurrency and is still the most commonly traded. It was developed by Satoshi Nakamoto – widely believed to be a pseudonym for an individual or group of people whose precise identity remains unknown.
- Ethereum:- Developed in 2015, it is a blockchain platform with its own cryptocurrency, called Ether (ETH) or Ethereum. It is the most popular cryptocurrency in the world after Bitcoin.
- Litecoin:- This currency is almost similar to bitcoin but has moved more quickly to develop new innovations, including faster payments and processes to allow more transactions.
- Ripple:- It was developed in 2012. It is a distributed ledger system and can be used to track different kinds of transactions, not just cryptocurrency. The company behind it has worked with various banks and financial institutions.

Advantages of cryptocurrency.

- Transactions with cryptocurrencies are cheaper and faster money transfers.
- It is a decentralized system that does not collapse at a single point of failure.

- Transaction between two parties is easy, as there is no involvement of third parties like credit/debit cards or banks.
- Payments are safe and secured as this system is based on blockchain technology.
- There is also the concept of “wallet” or account address which is accessible by a public key and private key. But the private key is only known to the owner of the wallet.
- Transactions of cryptocurrencies are completed with minimal processing fees.

Disadvantages of cryptocurrency.

- High energy consumption for mining activities of cryptocurrencies.
- Security Issues like criminal activities, money laundering, terrorism etc.
- Cryptocurrencies do not have any sovereign guarantee and hence are not legal tender.
- It is believed that cryptocurrency will disrupt markets, industries, including finance and law.
- The market price of cryptocurrencies is also volatile or not stable. Their prices fluctuate very high.
- All over the world, the central bank of any country cannot regulate the supply and price value of cryptocurrencies in the economy. As a result this enhances a risk of financial instability of the country if their use becomes widespread.

Cryptocurrencies in India:

- In 2018, Reserve Bank of India issued a circular preventing all banks from dealing in cryptocurrencies. But later in May 2020

the Supreme Court declared this circular as null and void.

- Recently, the government has announced to introduce a bill; Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, to create its own sovereign digital currency and also simultaneously ban all private cryptocurrencies.
- The Union Budget 2022-2023 of India has proposed to introduce a digital currency in the coming financial year.
- It was also announced that any income from transfer of any virtual digital asset shall be taxed at the rate of 30%.

Anoop Singh

CHINA v/s TAIWAN CONFLICT- HISTORY

WHY IN THE NEWS:-

- Nancy Pelosi the US speaker's recent visit to Taiwan has recently fueled the geopolitical tension in the global scenario.
- This makes the history of **China Taiwan conflict** important for understanding the present day crisis.

HISTORY OF THE CHINA TAIWAN CONFLICT :-

- Taiwan seemed to have first appeared in Chinese records in 239AD, when Chinese emperor sent an expeditionary force to explore this particular area – This fact is often used by Beijing to back its territorial claim.
- After a relatively brief period of being a **Dutch colony** i.e. from 1624-1661, Taiwan was administered by **China's Qing dynasty** from 1683 to 1895.

- From the 17th Century, several migrants started arriving from China for fleeing turmoil and hardships. Most of them were **Hok-lo Chinese** from Fujian (Fukien) province or **Hakka Chinese**, largely from Guangdong. This group currently has highest demographic presence in the present day Taiwan.
- After **Japan won the First Sino-Japanese War** in 1895, the Qing government had to cede Taiwan to Japan. Subsequently, Japan surrendered the control of Taiwanese territory it had taken from China after the second world war, as it ended up on the losing side and the China was an ally of the US. Hence the Republic of China (ROC) began ruling Taiwan with the consent of its allies i.e. US and UK.
- After the civil war broke out in China in Aug 1949, then-leader **Chiang Kai-shek's** troops were defeated by **Mao Zedong's** Communist army. Hence **Chiang Kai-shek's** supporters (Chiang) the remnants of his **Kuomintang (KMT)** government and their supporters fled to Taiwan in 1949.
- Chiang established a government in exile in Taiwan which he led for the next 25 years.
- Chiang Ching-kuo, who was the son of Chiang Kai-shek allowed more democratization after coming to power. He faced resistance from local people resentful of authoritarian rule and was under pressure from a growing democracy movement.
- President Lee Teng-hui, who is also known as the Taiwan's Father of democracy, led constitutional changes, which eventually made way for the election of the island's first non-KMT president, Chen Shui-bian, in 2000.

Current Position of the world towards Taiwan:

1. Countries which recognize Taiwan:

- Vatican city
- Honduras
- Guatemala
- Saint Vincent and the Grenadines
- Tuvalu
- Haiti

2. India's stand: India recognises China's "**ONE CHINA POLICY**"

3. UNITED STATES:

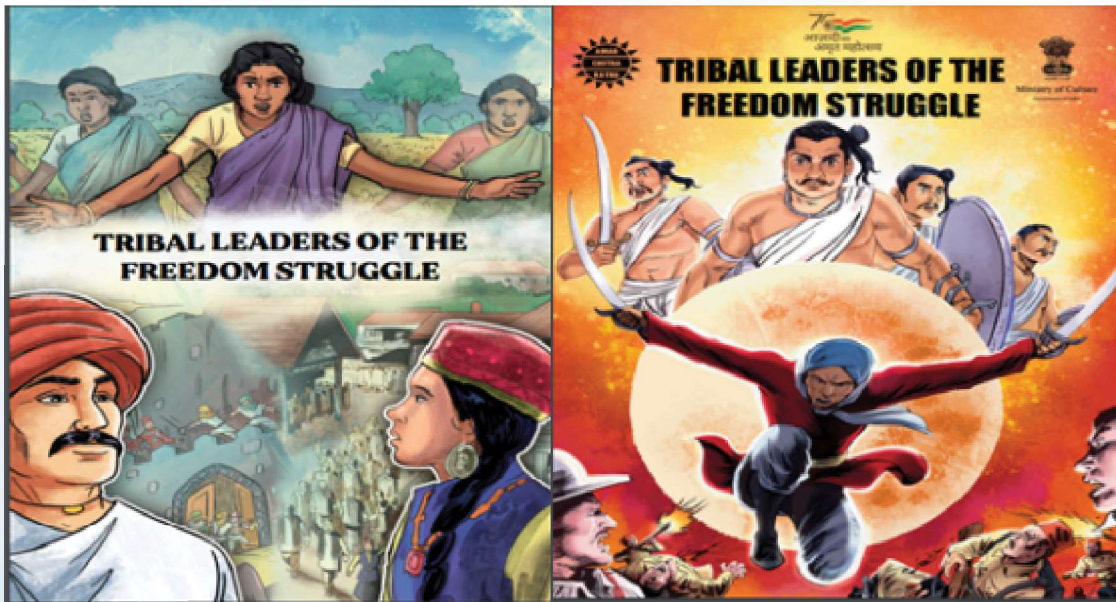
- Does not have official diplomatic relations.
- **Taiwan Relations Act:** States that "the United States will make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capabilities", and "shall maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or social or economic system, of the people of Taiwan".

Hence it can be concluded that , today we are living in a world where people of Taiwan can travel throughout the globe with Taiwanese passport but could enter the United Nations building, as it is not recognised by most of the countries. This needed to be mended in a proper way in order to make way for the sovereign rights of the small nations like them.

Samarth singh

Ministry of Culture releases the Comic book of Tribal Freedom Fighters

Topic In News: Ministry of Culture releases the third Comic book on stories of Tribal Freedom Fighters



Ministry: The Ministry of Culture has released the third Comic book on stories of 20 Tribal Freedom Fighters at the Tiranga Utsav celebration in New Delhi.

On the occasion, Union Minister for Home affairs and Cooperation Shri Amit Shah, Union and Minister of State for External Affairs, Smt Meenakshi Lekhi were present.

Collection of Stories: This collection of stories recalls the sacrifices of some of the bravest men and women who inspired their tribes and gave up their lives to fight British rule

Related Event: The Ministry of Culture as a part of Azadi Ka Am-

rit Mahotsav (AKM) has released pictorial books on 75 freedom fighters in collaboration with **Amar Chitra Katha (ACK)** to create awareness among the youth and children about the supreme sacrifice and patriotism of our lesser known heroes of freedom struggle.

The first ACK Comic book on India's 20 Women Unsung Heroes and Second Comic book on stories of 15 Women elected to the Constituent Assembly has been released earlier.

The tribal freedom fighters, who were unsung heroes of freedom struggle, and whose stories have been included are as follows:

1. Tilka Majhi rebelled against the atrocities of the British East India Company. He mobilized the Pahadia tribe to which he belonged and raided the Company treasury. He was hanged.
2. Thalakkal Chanthu of the Kurichiyar tribe was an invaluable part of Pazhassi Raja's war against the East India Company. He was hanged.
3. Budhu Bhagat of the Oraon tribe was shot down in one of his many encounters with the British, along with his brother, seven sons and 150 men from his tribe.
4. Tirot Singh, a Khasi chief, realized the duplicity of the British and waged war against them. He was captured, tortured and imprisoned. He died in prison.
5. Raghoji Bhangre belonged to the Mahadeo Koli tribe. He revolted against the British and continued his struggle even though his mother was imprisoned. He was captured and hanged.
6. Sidhu and Kanhu Murmu from the Santhal community, revolted against the British and their stooges. They led the Santhal in the Hul rebellion. Both were betrayed, caught and hanged.

7. Rendo Manjhi and Chakra Bisoi of the Khond tribe objected to the British interfering in their customs. Rendo was caught and hanged while Chakra Bisoi became a fugitive and died in hiding.
8. The Indian Uprising in Meerut had begun. Nilambar and Pitamber who belonged to the Bhogta clan of the Kharwar tribe were inspired to revolt and led their people to rise up against British oppression. They were both captured and hanged.
9. Ramji Gond of the Gond tribe rose against the feudal system by which wealthy landlords oppressed the poor with the support of the British. He was caught and hanged,
10. Telanga Kharia of the Kharia tribe, refused to accept the tax system of the British and their governance. He insisted that they follow their traditional method of self-governance and organized raids on the treasury. He was betrayed and shot dead.
11. Tantiya Bhil, known as the Robin Hood of the Central Provinces, robbed trains carrying British wealth and distributed it among his tribe, the Bhils. He was trapped and hanged.
12. Major Paona Brajabasi of Manipur, fought to defend the kingdom of Manipur. He was the hero of the Anglo-Manipur war. He fought like a lion but was overpowered and beheaded.
13. Birsa Munda, of the Munda tribe, became a legend in his opposition to the British. He led the Mundas in a series of confrontations with them. He was caught and imprisoned and according to British records, died of cholera. He was 25 years old when he died.
14. Matmur Jamoh of the Adi tribe of Arunachal Pradesh, rebelled against the arrogance of the British. He and his companions surrendered to the British as their villages were being burnt. They were sent to the Cellular Jail and died there.

15. Tana Bhagat of the Oraon tribe was inspired by a divine vision to preach to his people and make them aware of the exploitation of their British overlords. He was caught and tortured severely. He was released, a broken man, and died subsequently.
16. Malati Mem of the Tea-garden community was inspired to join Mahatma Gandhi's satyagraha movement. She fought against the British monopoly over opium and educated her people about the dangers of opium addiction. During an encounter with the police, she was shot dead.
17. Laxman Naik of the Bhuyan tribe, was also inspired by Gandhi and campaigned extensively to get tribes to join the freedom movement. The British framed him for the killing of a friend and he was hanged to death.
18. Helen Lepcha of the Lepcha tribe, was an ardent follower of Mahatma Gandhi. Her influence over her people made the British restless. She was shot at, imprisoned and hounded but she never lost courage. In 1941 she helped Netaji Subhas Chandra Bose escape from house arrest and travel to Germany. She was awarded the Tamra Patra for her invaluable contribution to the freedom struggle.
19. Pulimaya Devi Podar heard Gandhi when she was in school and wanted to join the freedom struggle immediately. Despite stiff opposition from her family she joined the movement after her studies and encouraged women to join her. She was imprisoned for her participation in protests. After independence she continued to serve her people and was awarded the title of 'Swatantra Sainani'.

Puneet Bhatia

Mission Vatsalya Scheme

1. **Related Ministry:** Ministry of Women and Child Development
2. **Historical Perspective:** Prior to 2009, the Ministry of women and child development Implemented **three schemes for children in need of protection**, The juvenile justice programme for children in need of care and protection as well as children in conflict with the law, The integrated programme for street children, The scheme for assistance to children's homes.
3. In 2010, these were merged into a single plan known as the **Integrated Child Protection Scheme**.
4. In 2017, it was renamed "**Child Protection Services Scheme**," and again in 2021-22 as **Mission Vatsalya**.
5. Mission Vatsalya Scheme is a roadmap to achieve development and child protection priorities aligned with the Sustainable Development Goals (SDGs).
6. It lays emphasis on child rights, advocacy and awareness along with strengthening of the juvenile justice care and protection system with the motto to 'leave no child behind'.
7. **Related Act:** The Juvenile Justice (Care and Protection of Children) Act, 2015 provisions and the Protection of Children from Sexual Offences Act, 2012 form the basic framework for implementation of the Mission. Funds under the Mission Vatsalya Scheme are released according to the requirements and demands made by the States/UTs.
8. **Who Sponsor this Scheme:** The Scheme is implemented

as a Centrally Sponsored Scheme in partnership with State Governments and UT Administrations to support the States and UTs in universalizing access and improving quality of services across the country. The fund sharing pattern is in the ratio of 60:40 between Center and State & Union Territories with Legislature respectively.

9. **The fund sharing pattern** between Center and State is in the ratio of 90:10 for the North-Eastern States viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura and two Himalayan States viz. Himachal Pradesh and Uttarakhand, and UT of Jammu and Kashmir. For Union Territories without Legislature, it is 100% central share.
10. Mission Vatsalya scheme supports the children through Non-Institutional Care under Private Aided Sponsorship wherein interested sponsors (individuals/ institutions/ company/ banks/ industrial units/ trusts etc.) can provide assistance to children in difficult circumstances.
11. The District Magistrates take measures to encourage individuals or Public/ Private Sector Organizations to sponsor a child or a group of children or an Institution. Such arrangements are subject to stipulations as per the Juvenile Justice (Care and Protection of Children) Act, 2015, and Rules thereof.
12. **Conclusion:** These guidelines are in the right direction, as there are enormous children in our country who are suffering from physical and mental disabilities and all these initiatives would make their life easy.
13. The need to implement all these initiatives efficiently and at a better pace.

14. This information was given by the Union Minister of Women and Child Development, Smt. Smriti Zubin Irani, in a written reply in Lok Sabha today.

Puneet Bhatia

DRDO successfully test fires indigenously developed ATGMs

DRDO successfully test fires indigenously developed laser-guided ATGMs



Why in News: Indigenously developed Laser-Guided Anti-Tank Guided Missiles (ATGM) were successfully test-fired from Main Battle Tank (MBT) Arjun by Defense Research and Development Organization (DRDO) and Indian Army at KK Ranges with support of Armored Corps Center & School (ACC&S) Ahmednagar in Maharashtra on August 04, 2022.

The missiles hit with precision and successfully destroyed the targets at two different ranges. Telemetry systems have recorded the satisfactory flight performance of the missiles.

The all-indigenous Laser Guided ATGM employs a tandem High Explosive Anti-Tank (HEAT) warhead to defeat Explosive Reactive Armor (ERA) protected armored vehicles. The ATGM has been developed with multi-platform launch capability and is currently undergoing technical evaluation trials from the 120 mm rifled gun of MBT Arjun.

Raksha Mantri Shri Rajnath Singh has complimented DRDO and Indian Army for successful performance of the Laser Guided ATGMs. Secretary, Department of Defense R&D and Chairman DRDO Dr. G Satheesh Reddy congratulated the teams associated with the test firing of Laser Guided ATGMs.

About DRDO: The Defense Research and Development Organization (DRDO) is the premier agency under the Department of Defense Research and Development in the ministry of defense of the Government of India, charged with the military's research and development, headquartered in Delhi, India.

It was formed in 1958 by the merger of the Technical Development Establishment and the Directorate of Technical Development and Production of the Indian ordinance factories with the Defense Science Organization. Subsequently, the Defense Research & Development Service (DRDS) was constituted in 1979 as a service of Group 'A' Officers / Scientists directly under the administrative control of the Ministry of Defense.

Anti-Tank Guided Missiles:

ATGMs are primarily **designed to hit and destroy heavily armored military vehicles.**

The missiles can be transported by a **single soldier, to larger**

tripod-mounted weapons, which require a squad or team to transport and fire, to vehicle and aircraft mounted missile systems.

This type of guided missiles rely on an **electro-optical imager (IIR)** seeker, a laser or a **W-band radar seeker** in the nose of the missile.

These are '**fire-and-forget**' missiles where the **operator can retreat** right after firing as **there is no more guidance required**.

Laser-Guided ATGM:

The all-indigenous Laser Guided ATGM employs a tandem High Explosive Anti-Tank (HEAT) warhead to defeat Explosive Reactive Armor (ERA) protected armored vehicles.

The ATGM has been developed with multi-platform launch capability and is currently undergoing technical evaluation trials from the 120 mm rifled gun of MBT Arjun.

Some other Anti-tank Missiles:

Helina:

It has a maximum range of seven kilometers and has been designed and developed for integration on the weaponized version of the ALH (Advanced Light Helicopter).

The missile system has all-weather, day, and night capability and can defeat battle tanks with conventional armor as well as explosive reactive armor.

The Nag:

It is a **third-generation fire-and-forget** missile developed for

mechanized formations to engage **heavily fortified enemy tanks**.

SANT:

It is a **Smart Stand-off Anti-Tank Missile** being developed for launch from the **Mi-35 Helicopter** for the Air Force's anti-tank operations.

MPATGM:

It stands for **Man-Portable Anti-Tank Guided Missile** which has a range of 2.5 kilometers, with **fire-and-forget** and **top attack capabilities** for infantry use.

Puneet Bhatia

Democracy is waiting in Jammu and Kashmir

Democracy is waiting in Jammu and Kashmir

Why in news?

Three years have elapsed since the orders were passed separating the State of Jammu and Kashmir into two Union Territories in accordance with Article 370 of the Indian Constitution.

Reasons behind the bifurcation of state:

- Both security and militancy would be eliminated.
- The inhabitants of the erstwhile State would benefit as it integrated with the Indian economy.
- Pandits from Kashmir who have lived as internal refugees for more than 30 years would be allowed to go home.

- It would usher in a new era of non-dynastic politics.

What harsh measures were implemented after the bifurcation?

- Arrests without a trial—Several hundreds of people were detained without being brought to trial in 2019.
- Media repression—Despite criticism from the Supreme Court in the Mohammed Zubair case, the media is nonetheless restrained, and journalists are frequently detained.
- Elections that were delayed despite the delimitation commission's exercise being finished have not yet been notified.
- Imposition of President's Rule: For the past four years, Jammu and Kashmir has been governed by both the President and the Lieutenant-Governor.
- Deaths of civilians: The Home Ministry reports that between 2019 and 2021, there were more civilian deaths than during Mr. Modi's first term (2014-19).
- Alienation and insurgency: The Valley is so hostile toward the Indian Union that public support for insurrection is at an all-time high.
- The South Asia Terrorism Portal reports that between 2019 and 2021, 437 Kashmiri youngsters joined the ranks of the insurgency.
- Economic decline: According to the NITI Aayog, Jammu and Kashmir dropped from being one of the best-performing States in the Indian Union to being among the worst last year.
- Attacks by militants: Just like in the 1990s, Kashmiri Pandits are once again the focus of terrorist violence.
- Report of the Delimitation Commission: Under general observations on methodology, the crucial point of why Jammu has gained

6 Assembly seats and the Valley only 1, has been glossed over.

What next ?

The first action that needs to be taken right away is holding assembly elections.

It would be in the spirit of “cooperative federalism” if they could be held under the earlier delimitation and the current report of the commission presented to the new Assembly for discussion.

The restoration of statehood has been regularly promised by Home Minister Shah, but three years is a long time to keep that pledge without carrying it out.

Vivek Raj

Revdī Culture – A slang for underprivileged or a Genuine concern for development

Freebies like free power and a monthly stipend to women are among promises made by parties and this is common in elections in state after state. Earlier this month, the PM said it's time to stop this practice and called it the 'revdi' culture hurting the country, its development and well-being. **Election Commission of India (ECI)** cannot regulate policy decisions regarding the “offering/distribution of any freebies either before or after the election”.

Impact of such freebies on state budgets:

- Expenditure side.
- Revenue side.

- Negative impact on state-owned enterprises.
- Low tax collections: due to Free electricity, free water, free rides etc., there is no realization of tax on these.

Debate on Government Intervention in form of freebies/welfare measure:

Basically, all contemporary debate can be divided into two segments

- Those who advocate government
- Those who are against government intervention.

Against government intervention

Scholars associated with **Neo-Liberal School** like **Fredrich Hayek and Robert Nozick** argue against any kind of government intervention.

- Building on the work of **Classical Economist Adam Smith**, who had given the Idea of “**Invisible Hand**”, the Neo-liberal scholars argue that the **Market is like a nervous system capable of receiving unlimited stimulus.**
- Basically, they argue that **there is no need for any government intervention** in any sphere of socio-economic development of society. **The Market forces are capable of that.**
- That is why, father of **Neo-Liberalism Hayek** has termed **Planning** as “**Road to Serfdom**”.

In favor of Government Intervention

Countering the argument of Neo-liberal scholars there are **various scholars who argue in favor of state intervention.**

- Scholars like **Naom Chomsky**, have criticized the “policy of

no-intervention”, arguing that the state **not only works as a policy planner** but it **carries out various activities** that **build the capacity of individuals** to better enjoy the available resources. Thereby increasing the overall socio-economic status of the entire

- Similarly, **Indian-American economist Amartya Sen** has argued that the state **is an important tool to realize the “Equality of Capability”**, which is more significant than **“Equality of Opportunity”** and even **“Equality of Resources.”**
- For example, by providing **free and quality education and health to all citizens**, the state basically ensures that **everyone can have the ability to compete at equal footing.**
- Moreover, **Raghu Ram Rajan**, in his book **“the Third pillar – how market and state leave people behind”**, has argued that **there are places where market forces fail** and the state has to provide services to **ensure dignity of individual and equal chance to development.**

Recent Efforts:

- To determine if it is possible to restrict the distribution of freebies by political parties using public funds, **Supreme Court’s** direct union government should engage the finance commission.
- The Supreme Court has decided to set up an expert group with representation from Niti Aayog, Finance Commission, Election commission, RBI and political parties to study the impact of freebies on tax payers and economy, and recommend measures to regulate it.

Measures to mitigate the negative impacts:

- The **Finance Commission** (an independent authority) can consider the **state’s debt**, when allocating funds to other states and

use that information to determine if the state's economy would remain resilient over time in the face of subsidies.

- Increasing the effectiveness of the Election Commission of India (ECI) by adding **giveaways to the Moral Code of Conduct (MCC) and** controlling manifestos.
- Increasing transparency to make sure **it reaches the intended recipients**. A agricultural loan forgiveness, for instance, only applies to genuine farmers.
- Modifying the **FRBM Act by putting a cap** on the amount that can be spent on loan waivers, free power, and water.

Conclusion:

Thus, it is evident that the presence of freebies could be good economic stimulus provided that sad state of affairs of the Indian economy. However, excessive freebies that too when economy is running well could be counterproductive.

Vikas gupta



CURRENT AFFAIRS

AUGUST 2022

Personal Data Protection Bill – Provisions and Issues

Personal Data Protection Bill, 2019: It is based on Justice B N Srikrishna committee. It has following provisions:

- The Bill establishes a Data Protection Authority (DPA) as an independent regulator with quasi-judicial powers.
- Each company will have a Data Protection Officer (DPO) who will liaison with the DPA for auditing, grievance redressal, recording maintenance and more.
- Holistic Approach: The Bill governs the processing of personal data by: government, companies incorporated in India, and foreign companies dealing with personal data of individuals in India.
- The Bill classifies the data into 3 types:
 - Critical data (characterized by the government) must be stored and handled only in India.
 - Sensitive data like passwords, financial data, health data, biometric data, etc may be processed outside India with the explicit consent of the user and to be stored in India only.
 - General data is any data that is non-critical and non-sensitive is categorised as general data with no limitation

on where it is stored or managed.

- Rights of the individual includes seeking correction of inaccurate, incomplete, or out-of-date personal data, and the Right to be forgotten, i.e., to restrict continuing disclosure of their personal data by a fiduciary.
- Data Processing can be done only if consent is provided by the individual. However, in certain circumstances, personal data can be processed without consent. These include:
 - If required by the State
 - Legal proceedings
 - To respond to a medical emergency.
- Big Social media intermediaries have to provide a voluntary user verification mechanism for users in India.
- The central government can exempt any of its agencies from the provisions of the Act in interest of security of state, public order, sovereignty and integrity of India and friendly relations with foreign states,
- The Bill amends the Information Technology Act, 2000 to delete the provisions related to compensation payable by companies for failure to protect personal data.

Opinion:

Justice (Rtd) BN Srikrishna, has reportedly called it “a piece of legislation that could turn India into an Orwellian state”.

Concerns:

- No independent collegium for the appointment of members to the DPA.

- Open-ended exceptions power to the government.

Recent Addition:

The Personal Data Protection Bill, 2019, was withdrawn by the Union Information Technology Minister in light of the recommendations given by the Joint Committee of Parliament (JCP) on the Law.

Conclusion:

Thus, it appears from above discussion that the bill appears to be a good step in the right direction. However, it has various issues that must be addressed to ensure that in a digital age someone's privacy is not taken for granted.



Vikas gupta

What is cryptocurrency?

- Cryptocurrency or crypto is a form of currency that exists virtually or digitally and uses cryptography to secure transactions.
- It is a digital payment system that doesn't rely on any central bank or banks to verify transactions. It's a peer-to-peer system that can enable anyone anywhere to send and receive payments.
- Cryptocurrency payments systems exist purely on a digital database describing specific transactions. When any transactions take place then it is recorded in a public ledger.
- Cryptocurrency is stored in digital wallets.

- When a cryptocurrency is minted or created or issued by a single issuer, it is generally considered centralized. When implemented with the decentralized control system, it works through distributed ledger technology, typically a blockchain, that serves as a public financial transaction database.
- The first decentralized cryptocurrency was Bitcoin, which was founded in 2009 and remains the best known today. As of March 2022 there were more than 9,000 other cryptocurrencies in the marketplace.
- Recently, the Central African Republic (CAR) became the second country after El Salvador to adopt Bitcoin as legal tender.

How does cryptocurrency work?

- Cryptocurrencies run on a distributed public ledger called blockchain, a record of all transactions updated and held by currency holders.
- Each unit of cryptocurrency is created through a process called mining, (It means by using computer power to solve complicated mathematical problems that generate coins). Users can also buy the cryptocurrencies from brokers, then store and spend them using cryptographic wallets.
- If any person has cryptocurrency, then s\he don't own anything tangible. What s\he owns is a key that allows to move a record or a unit of measure from one person to another without a trusted third party.
- Bitcoin developed in 2009, afterwards cryptocurrencies and applications of blockchain technology are still emerging in the financial sector, and this technology will also be expected to develop in the future. Transactions including shares, bonds, stocks, and other financial assets could eventually be traded using the

technology.

Cryptocurrency examples

As of March 2022 there were more than 9,000 other cryptocurrencies in the marketplace. Some of the best known include:

- **Bitcoin:-** Founded in 2009, it was the first cryptocurrency and is still the most commonly traded. It was developed by Satoshi Nakamoto – widely believed to be a pseudonym for an individual or group of people whose precise identity remains unknown.
- **Ethereum:-** Developed in 2015, it is a blockchain platform with its own cryptocurrency, called Ether (ETH) or Ethereum. It is the most popular cryptocurrency in the world after Bitcoin.
- **Litecoin:-** This currency is almost similar to bitcoin but has moved more quickly to develop new innovations, including faster payments and processes to allow more transactions.
- **Ripple:-** It was developed in 2012. It is a distributed ledger system and can be used to track different kinds of transactions, not just cryptocurrency. The company behind it has worked with various banks and financial institutions.

Advantages of cryptocurrency.

- Transactions with cryptocurrencies are cheaper and faster money transfers.
- It is a decentralized system that does not collapse at a single point of failure.
- Transaction between two parties is easy, as there is no involvement of third parties like credit/debit cards or banks.
- Payments are safe and secured as this system is based on blockchain technology.

- There is also the concept of “wallet” or account address which is accessible by a public key and private key. But the private key is only known to the owner of the wallet.
- Transactions of cryptocurrencies are completed with minimal processing fees.

Disadvantages of cryptocurrency.

- High energy consumption for mining activities of cryptocurrencies.
- Security Issues like criminal activities, money laundering, terrorism etc
- Cryptocurrencies do not have any sovereign guarantee and hence are not legal tender.
- It is believed that cryptocurrency will disrupt markets, industries, including finance and law.
- The market price of cryptocurrencies is also volatile or not stable. Their prices fluctuate very high.
- All over the world, the central bank of any country cannot regulate the supply and price value of cryptocurrencies in the economy. As a result this enhances a risk of financial instability of the country if their use becomes widespread.

Cryptocurrencies in India:

- In 2018, Reserve Bank of India issued a circular preventing all banks from dealing in cryptocurrencies. But later in May 2020 the Supreme Court declared this circular as null and void.
- Recently, the government has announced to introduce a bill; Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, to create its own sovereign digital currency and also simul-

taneously ban all private cryptocurrencies.

- The Union Budget 2022-2023 of India has proposed to introduce a digital currency in the coming financial year.
- It was also announced that any income from transfer of any virtual digital asset shall be taxed at the rate of 30%.

Anoop

Delay in data law

Delay in data law

Why in news?

After a Joint Parliamentary Committee gave the Personal Data Protection Bill, 2019 a close look, the administration decided to withdraw it (JPC).

Origin of the Bill

- The Supreme Court of India ruled that the right to privacy is an essential component of the right to life and the freedom of the individual as protected by the Indian Constitution in the landmark Justice K.S. Puttaswamy (Retd) v. Union of India decision.
- As a result of this ruling, questions about how major digital companies were handling the personal data of their Indian consumers began to surface.
- The Centre established an expert committee in 2017 to develop a legal framework for data protection, which was presided over by retired Supreme Court Justice B.N. Srikrishna.
- On July 27, 2018, the Srikrishna committee sent a draught of the Data Protection Bill and its report to the Ministry of Electronics and Information Technology.
- Justice Srikrishna questioned the Ministry's Bill in Parliament for provid-

ing the Central government more power over the data than was intended in the committee's draught.

- Following its deliberations on the Bill, the JPC presented its report in November 2021.
- Clause 35, which permits government agencies to ignore legal requirements by invoking public order, sovereignty, good relations with other countries, and security, was upheld by the JPC.
- Why was the bill withdrawn at this time?

The government has withdrawn the law even though it still has access to data

- The JPC's substantial number of revisions, recommendations, and corrections are identified as the cause.
- In its 542-page report, the JPC made 93 recommendations, 81 modifications, and 97 changes and improvements to the Bill.
- The main suggestion is to broaden the scope of the Personal Data Protection Bill, 2019 to include all data rather than just personal data, which would significantly distance it from its Puttaswamy roots.
- The government's official position is that it is preferable to introduce a new Bill in the face of such a significant reform.

What does the Bill have to say about localising data?

- Any distinctive trait, attribute, or other feature information that can be used to identify a person is referred to in the Bill as personal data.
- Additionally, a subcategory of sensitive personal data was mentioned in the bill.
- Information on a person's finances, health, sexual preferences and habits, caste, political and religious convictions, as well as biometric and genetic information, make up this type of information.
- Additionally, it established a Critical Personal Data Category that included any future "personal data as may be reported by the Central govern-

ment.”

- According to the Bill, although sensitive personal data can be processed abroad, a copy must be preserved in India.
- Only India is permitted to hold and process Critical Personal Data.

What worries did the tech sector have?

- Indian start-ups have complained that the infrastructure required to meet the localization requirements will be a significant financial burden.
- Additionally, startups frequently rely on foreign firms for services like customer management, analytics, and marketing, necessitating the export of consumer data.
- Data localization regulations would limit their options for such services and add to their compliance burden.
- The larger US-based tech corporations are also affected by the compliance requirements.
- According to reports, lobbying opposing the law was being done by US business umbrella organisations.

What should we do next?

- The government must take into account any new legislation that fits within the overall legal framework.
- One of the JPC’s suggestions, which attempted to elevate social media businesses from the status of online intermediaries to content providers, would have been of particular concern to them.
- They are now in charge of the post they host as a result.

Vivek Raj

INTEREST GROUPS

- Interest Groups, also called special interest group, advocacy group, or pressure group, any association of individuals or organizations, usually formally organized, that, on the basis of one or more shared concerns, attempts to influence public policy in its favor. All interest groups share a desire to affect government policy to benefit themselves or their causes. Their goal could be a policy that exclusively benefits group members or one segment of society (e.g., government subsidies for farmers) or a policy that advances a broader public purpose (e.g., improving air quality). They attempt to achieve their goals by lobbying that is, by attempting to bring pressure to bear on policy makers to gain policy outcomes in their favor.
- Furthermore, interest groups exist at all levels of government—national, state, provincial, and local—and increasingly they have occupied an important role in international affairs. The common goals and sources of interest groups obscure, however, the fact that they vary widely in their form and lobbying strategies both within and across political systems. This article provides a broad overview that explains these differences and the role that interest groups play in society.

THEIR CONTRIBUTION IN DIFFERENT FIELDS IN INDIA

- Business Groups – Federation of Indian Chamber of Commerce and Industry (FICCI), Associated Chamber of Commerce and Industry of India (ASSOCHAM) etc
- Trade Unions – Indian National Trade Union Congress (INTUC), Hind Mazdoor Sabha (HMS), Bharatiya Mazdoor Sangh (BMS)
- Educational Field :- PRATHAM
- Professional Groups – Indian Medical Association (IMA), Bar Council of India (BCI), All India Federation of University and College Teachers (AIFUCT)

- Agrarian Groups- All India Kisan Sabha, Bharatiya Kisan Union, etc
- Tribal Groups – National Socialist Council of Nagaland (NSCN), Tribal National Volunteers (TNU) in Tripura, League of Assam, etc.
- Ideology based Groups – Narmada Bachao Andolan, Chipko Movement, Women's Rights Organisation, India Against Corruption etc.
- Interest Groups may achieve their targets through various means- legal or illegal, peaceful or violent, honest or corrupt etc. That's why there are some issues with these groups which create problems in the society like narrow views regarding government programme and policies, lead the public against the government, riots, act as barriers in development work etc.
- Even the politicians and bureaucrats are themselves forming interest groups and try to maximize their own interests. These negative aspects should be checked by the state which has to play the role of referee and comes out with policies which benefit every group of the society.

Anoop Singh

National Judicial Appointment Committee (NJAC) – a case study of Judicial independence

It is argued that the appointment of judges should be with congruence between judiciary and executive. same was the philosophy of the constitution. however, over time judiciary vested the control of appointment out of the hands of executive (2nd and 3rd judges case). In this context the National Judicial Appointment Committee was established through 99th constitutional amendment act. This article aims to analyze the case of NJAC about what happened and

what should have happened.

Supreme Court Advocates on Record Association (SCAoRA) case/Fourth Judges case:

Supreme Court held the NJAC as ultra vires to constitution on 4:1 judgement. One judge objected to the understanding that the judiciary is the only constitutional organ protecting the liberties of the people.

Issues judiciary pointed in NJAC:

- Power of veto to any two persons including 2 eminent persons is plain “obnoxious.”
- Participation of the Prime Minister and Leader of Opposition in the selection of these “eminent persons.”
- Participation of law minister in the NJAC.

Analysis (Justice A. P. Shah, former Chief Justice Delhi HC):

- Lawyers like Prashant Bhushan and Ram Jethmalani has praised the judgement, while other jurists such as KTS Tulsi has opposed it.
- Though there were some legitimate concerns but striking down the whole Act was not warranted. They could have interpreted it according to the needs. For example, it could have read that the veto is meant for judicial persons only – both in NJAC and appointment committee for eminent persons.
- They should have given head to the will of the people.
- To say that neither the political class nor civil society can have a say in judicial appointments is against the system of checks and balances, which is also a part of the basic structure of the

Constitution.

- The executive, with vast administrative machinery under its control, is capable of making enormous and valuable contribution to the selection process.

Suggestions for NJAC judgement:

- The Court has announced for 'consequential hearings' to tackle deficiencies in the collegium. The government can use this venture to introduce the best elements of NJAC with the best elements of the collegium system.
- The Court has held that independence of the judiciary and the primacy of the judiciary in the appointments process is basic structure — not the collegium system. Thus the possibility of establishing another Commission is still there, which will comply with the principles set out in the judgment.

Improvement in collegium system:

- Clear selection rules and guidelines.
- Consultative body, which could include distinguished jurists, leading lawyers etc from outside the collegium, to assist the collegium in scrutinizing potential candidates.
- Provisional selections should be published to enable any material or adverse information to surface. Strict timelines for the entire process from shortlisting to recommendations.

Remarks:

- Parliamentary Standing Committee report in its recent report has accused the Supreme Court of distorting the original constitutional mandate and recommended that the original constitutional position on judicial appointments be brought back.

- Dr. B.R. Ambedkar, had also said that “after all, the Chief Justice is a man with all the failings which we as common people have”.

Procedure for appointment of CJI:

Memorandum of Procedure of Appointment of Supreme Court Judges provides following procedure:-

- It says “appointment to the office of the Chief Justice of India should be of the senior most Judge of the Supreme Court considered fit to hold the office”.
- The process begins with the Union Law Minister seeking the recommendation of the outgoing CJI about the next appointment at the appropriate time. The Memorandum does not elaborate or specify a timeline.
- After receipt of the recommendation for CJI office, the Union Minister of Law will put up the recommendation to the Prime Minister who will advise the President in the matter of appointment.

Thus it is evident from above discussion that judiciary has taken control out of the hands of executive, belying the constitutional mandate and asserting that judiciary is supreme, even over parliament. So keeping over discussion in mind, there is need of mechanism to ensure that not only executive but also civil society has a say in the appointment.

Vikas gupta

SSLV-D1/EOS-02 Mission

SSLV-D1/EOS-02 Mission

- ISRO launched its first Small Satellite Launch Vehicle (SSLV-D1) from Sriharikota.
- It launched Earth Observation Satellite-EOS-02 and a co-passenger student satellite 'Azaadi SAT' into low earth orbit (LEO).
- However, after a successful lift-off at initial stage and separation of its three stages, the rocket placed satellites into 356 km x 76 km elliptical orbit instead of the designated 356 km circular orbit, making satellites no longer usable.

Small Satellite Launch Vehicle (SSLV)

- ISRO developed SSLV is a rocket to launch satellites weighing less than 500kg in Low Earth Orbit and 300 kg to Sun Synchronous Orbit (SSO).
- It is a 3 stage Launch Vehicle configured with three Solid Propulsion Stages and liquid propulsion-based Velocity Trimming Module (VTM) as a terminal stage.
- SSLV is configured with three solid stages 87 t, 7.7 t and 4.5 t.
- SSLV is capable of launching Mini, Micro, or Nanosatellites (10 to 500 kg mass)
- It is the smallest vehicle at 110-ton mass at ISRO.
- It will take only 72 hours to integrate, unlike the 70 days taken now for a launch vehicle. Only six people will be required to do the job, instead of 60 people.
- The other features include: it will reduce the cost of launch missions (is likely to cost a fourth of the current PSLV), shift the bur-

den of commercial launch from PSLV, Launch on demand feasibility, etc.

TYPES OF ORBITS

NEO (Near Earth Orbit)

- It lies at a height of about 400 km above the surface of earth.
- It is the orbit closest to the earth, therefore the satellite orbiting in NEO has to overcome greater gravitational force of the earth.
- Usually experimental satellites are launched in the NEO.

LEO (Low Earth Orbit)

- It lies at a height of about 900 km above the surface of earth.
- Here both experimental and operational satellites are launched. E.g. Remote Sensing Satellite etc.

GSO (Geostationary Orbit)

- It lies at a height of 36,000 km above the equator of the earth.
- It orbits around the earth with a period equal to earth's average rotational period of 23 hours 56 min. 4.09 sec.
- Communication satellites and broadcast satellites operate in this orbit.
- Satellites like GSAT series etc.

Sun-synchronous Orbit (SSO)

- SSO is also called a heliosynchronous orbit .
- SSO is a particular kind of polar orbit. Satellites in SSO, traveling over the polar regions, are synchronous with the Sun.

- The SSO satellites rotate w.r.t earth from north to south.
- Altitude range :- 200- 1000 km.
- It is a nearly polar orbit around a planet, in which the satellite passes over any given point of the planet's surface at the same local mean solar time.
- More technically, it is an orbit arranged so that it processes through one complete revolution each year, so it always maintains the same relationship with the Sun.

Anoop

Electricity (Amendment) Bill, 2022

Electricity (Amendment) Bill, 2022

Why in the news?

1. Union power minister **R.K. Singh** tabled the Electricity Amendment Bill 2022 ignoring the opposition of the Samyukt Kisan Morcha.
2. **Delhi CM Arvind Kejriwal** objected to the proposed bill, as it can target the provision of free electricity in his state of Delhi.
3. Farmers and power sector employees (Eg. Telangana power employees) also protested against the bill.

Why this protest???

PROVISIONS	PROTEST
The Bill provides for the constitution of the Electricity Contract Enforcement Authority (ECEA). The ECEA will have sole authority to adjudicate upon specified contract-related disputes in the electricity sector. A common selection committee will be constituted to select the chairperson and members of the Appellate Tribunal (APTEL), the central and state regulatory commissions (CERC, SERCs), and ECEA	The proposed common selection committee will have chief secretaries of two states as members, by rotation. A concerned state may not have a representative in the committee when recommending appointments to its SERC. This can go against the federal structure.
Provisions vis-à-vis graded revision in tariff over a year besides mandatory fixing of maximum ceiling and minimum tariff by the appropriate commission.	Free power for farmers and <u>Below Poverty Line</u> population will go away eventually.
Only government discoms or distribution companies will have universal power supply obligations.	Hence it is likely that private licensees will prefer to supply the electricity in profit-making areas – to industrial and commercial consumers Therefore, profit-making areas will be snatched from government discoms and they will become loss-making companies
Converting the rate of punishment from imprisonment or fine to fine.	This will weaken the hold of the government on the culprits.

The amendment talks about the **participation of private players** along with state-authorized/owned power distribution companies for electricity distribution, given they get the license. It also says that **distribution licensees** can use the distribution systems of other licensees in the area of supply through a system of **non-discriminatory open access** on payment of wheeling charges.

This would eventually lead to the privatization of the power sector and hence the power sector employees are protesting.

What is the government's stand?

- This would eventually phase out free power political promises and make energy more equitable(PM Modi called this as the “**Revri Culture**”)
- No provision in the bill reduces the power of the state to regulate the power distribution sector , power or subsidy.
- The push for RPO(Renewable Purchase obligation) which is mentioned in the bill will fulfill India's power demand which is going to double in the next 8 years.
- It is considered to be done to end the “license raaj”.

Way forward.

The bill is currently sent to the standing committee in order to provide the scope of accommodation to the reservations of the protestors. Though the intent of the government of the day is to reform the debt laden power sector but any step in this direction must involve the opinions of all the stakeholders. This would uphold the spirit of democracy and participation in true letter and spirit.

Reference : PRS

Samarth singh

One District One Product Scheme

One District One Product Initiative

Why in News: The Central Government has initiated the One District One Product (ODOP) in different States/UTs of the country. ODOP is seen as a transformational step towards realizing the true potential of a district, fueling economic growth, generating employment and rural entrepreneurship, taking us to the goal of Aatmanirbhar Bharat.

ODOP initiative is operationally merged with 'Districts as Export Hub (DEH)' initiative of the DGFT, Department of Commerce, with the Department for Promotion of Industry and Internal Trade (DPIIT) as a major stakeholder.

Aim: The ODOP Initiative is aimed at fostering balanced regional development across all districts of the country enabling holistic socio-economic growth across all regions. The objective is to convert each District of the country into a manufacturing and Export Hub by identifying products with export potential in the District. Institutional mechanisms in the form of State Export Promotion Committees (SEPCs) and District Export Promotion Committees (DEPCs) have been constituted in 36 States/UTs to provide support for export promotion and address the bottlenecks for export growth in the districts.

Districts' Export Action Plans are prepared for identified products and services for overseas markets, which includes specific actions required to support local exporters /manufacturers in producing/manufacturing identified products in adequate quantity and with the requisite quality, for reaching potential buyers.

These plans also include identifying and addressing challenges for exports of such identified products/services, improving supply chains, market accessibility and handholding for increasing exports. So far, in about 557 districts, export plans have been prepared and in about 218 have been adopted by DEPCs.

Products have been identified under ODOP and DEH across each district in

the country. The range of the chosen products covers multiple sectors, Ministries and Departments, including products of farmers, weavers, artisans, other producers and sellers of districts.

ODOP/DEH initiatives contribute to the goal of Atma Nirbhar Bharat, Vocal for local and Make in India, by providing opportunities for employment, through significantly increasing the manufacturing and exports of identified products.

It was launched in January 2018, by the Uttar Pradesh Government, and due to its success, was later adopted by the Central Government.

Background: The ‘One District, One Product (ODOP)’ was launched by the Ministry of Food Processing Industries in 2018, to help districts reach their full potential, foster economic and socio-cultural growth, and create employment opportunities, especially in rural areas.

The initiative is carried out with the ‘Districts as Exports Hub’ initiative by the Directorate General of Foreign Trade (DGFT), Department of Commerce.

It is a centrally sponsored scheme to be shared by **the central government and states in 60:40 contributions.**

The ODOP initiative is aimed at manifesting the vision of the Hon’ble Prime Minister of India to foster balanced regional development across all districts of the country.

The idea is to select, brand, and promote One Product from each District of the country

- For enabling holistic socioeconomic growth across all regions
- To attract investment in the District to boost manufacturing and exports
- To generate employment in the District
- To provide an ecosystem for Innovation/ use of Technology at the District level to make them competitive with domestic as well as interna-

tional market

Advantages of the One District One Product (ODOP) initiative

- Numerous micro-enterprises will benefit through access to information, better exposure to the market, and formalization.
- It will enable them to formalize, grow and become competitive in national and global space.
- The project is likely to generate valuable skilled and semi-skilled jobs.
- The scheme envisages increased access to credit by existing micro food processing entrepreneurs, women entrepreneurs, and entrepreneurs in the **Aspirational Districts**.
- There will be better integration with organized markets, boosting the artisans and local vendors.
- Increased access to common services like sorting, grading, processing, packaging, storage, etc. will be an added advantage.

This information was given by the Minister of State in the Ministry of Commerce and Industry, Shri Som Parkash, in a written reply in the Lok Sabha

Puneet Bhatia

BHIMA KOREGAON CASE

Why in the news?

- The grant of bail to the 82 year old Telugu poet and activist, Varavara Rao, on medical grounds is being considered as a welcome step.
- Varavara Rao, is an accused in the Bhima Koregaon battle violence which took place in 2018.

About Bhima koregaon Battle:

- Bhima Koregaon Battle took place on 1st January 1818.

- Bhima Koregaon is a small village in the Pune district of Maharashtra.
- It is considered to be part of the 3rd Anglo Maratha war.
- The Battle of Bhima Koregaon was fought between the Peshwa faction of the Maratha Confederacy and the British East India Company.

Controversy regarding it:

Bhima Koregaon is considered to be the battle between the Upper caste and the Mahars who belonged to the backward caste. Let us analyse the scenario of that time:

BRITISH EAST INDIA COMPANY	MARATHAS
It was led by Captain Francis F Staunton	Peshwa Baji Rao II led the Army
Company had around 800 soldiers	Marathas had a strong force of around 28000
The army majorly constituted the people of Mahar caste, who were dalits and untouchables.	Here the army majorly constituted the upper caste people
They were victorious inspite of the smaller number	They were defeated even after a greater number.

The significance of the Bhima Koregaon battle:

- Dalits believed that this was a victory of the Mahar community against the caste injustices perpetrated by the Peshwas.
- In Koregaon, the British East India company installed an obelisk or Victory Pillar to commemorate those who fought for them.
- On 1st Jan 1927 , BR Ambedkar visited the site of Bhima Koregaon victory pillar.
- Every year thousands of his followers visits the victory pillar to commemorate his visit.

Conclusion:

- Caste consciousness is healthy for society only as long as it is a medium of binding it to your culture and coherent religious roots.
- It should not become a medium to divide people by using such caste centric events even centuries after its actual occurrence.

Samarth singh

TACTICAL LEADERSHIP PROGRAMME



Ministry of Defense

Why in News: In the month of July 2022, the Indian Air Force (IAF) carried out a one-month long engagement with the Egyptian Air Force (EAF) at the Egyptian Fighter Weapon School, located in Cairo West Air Force Base. This was a first of its kind interaction for both the air forces as it was conducted between their respective

Fighter Weapon Schools. On behalf of the IAF, Tactics and Air Combat Development Establishment (TACDE) participated in the programme with three Sukhoi-30 MKI aircraft and six Combat Instructor Pilots.

The interaction between the two air forces, under the aegis of the Tactical Leadership Program of EAF, saw a fruitful exchange of ideas in the domain of Large Force Engagements involving complex, multi-aircraft missions. During the interaction, IAF pilots flew alongside those of the EAF in missions of multiple complexities with the participants also sharing their experiences in the art and science of air combat, while also discussing their best practices. The induction and de-induction involved flights of over six hours with mid air refueling support from the IAF and UAE Air to Air refuellers.

This programme, involving synergistic air operations, has illustrated a high degree of professional trust that has developed between the two Air Forces. The bond between the two Air Forces dates back to the 1960s when Gp Capt Kapil Bhargava, an IAF Test Pilot, test flew the Egyptian prototype of the Helwan HA-300 with Test Pilots from the EAF. This was followed by Indian Qualified Flying Instructors training young Egyptian pilots – a programme that continued into the 1980s.

About the program-

- This was a first of its kind interaction for both the air forces as it was conducted between their respective Fighter Weapon Schools.
- On behalf of the IAF, Tactics and Air Combat Development Establishment (TACDE) participated in the programme with three Sukhoi-30 MKI aircraft and six Combat Instructor Pilots.
- The bond between the two Air Forces dates back to the 1960s when Gp Capt Kapil Bhargava, an IAF Test Pilot, test flew the Egyptian prototype of the Helwan HA-300 with Test Pilots from the EAF.

Tactics and Air Combat Development Establishment(TACDE)-

- TACDE is an Indian Air Force unit for training aerial combat to its top one per cent fighter pilots and is based in Gwalior.
- It was established in 1971 from previously formed Tactics and Combat Development and Training Squadron at Adampur, Punjab.
- It was awarded 'Battle Honors' by the President of India in 1995 for its role in

the Indo-Pak conflict of 1971.

The Indian Air Force (IAF): Is the air arm of the Indian armed forces . Its complement of personnel and aircraft assets ranks third amongst the air forces of the world.

Its primary mission is to secure Indian airspace and to conduct aerial warfare during armed conflict. It was officially established on 8 October 1932 as an auxiliary air force of the *British Empire* which honored India's aviation service during World War II with the prefix Royal.

After India gained independence from the *United Kingdom* in 1947, the name Royal Indian Air Force was kept and served in the name of Dominion of India. With the government's transition to a Republic in 1950, the prefix Royal was removed.

Since 1950, the IAF has been involved in four wars with neighboring Pakistan. Other major operations undertaken by the IAF include Operation Vijay, operation meghdoot, *Operation Cactus* and *Operation Poomalai* . The IAF's mission expands beyond engagement with hostile forces, with the IAF participating in united nations peacekeeping missions .

The President of India holds the rank of Supreme Commander of the IAF.

Puneet Bhatia

Electricity (Amendment) Bill 2022 – A Critical Analysis of Power Sector

- **GS Paper III**

It is widely known that India has now become a surplus state in terms of electricity but yet find it hard to take electricity to every corner of the country. Now the union parliament is pondering over a new bill. There is need to take a critical look at the Bill.

Provisions of the Bill:

- It allows **multiple Discoms in the same area** to boost the competition among power distributors.
- There will be “**mandatory**” **fixing of minimum as well as maximum tariff ceilings** by the “appropriate commission”. It aims to ensure graded and timely tariff revisions.
- The state government will set up **Cross-subsidy Balancing Fund**, in which the commercial consumers will subsidize the residents or farmers.
- Under the electricity act **SERCs (State Electricity Regulatory Commissions) specifies renewable purchase obligations (RPO)** for discoms. As per the Bill, the central government will provide a minimum value for RPO or DISCOMS may face a penalty.

About Electricity Act, 2003:

- It regulates the electricity sector in India by setting up the **Central and State Electricity Regulatory Commissions (CERC and SERCs)** to regulate interstate and intrastate matters, respectively.
- It does away with the requirement of approval or clearance from any authority for setting up a **captive power plant**. Moreover, any person setting up a captive power plant can also establish and maintain dedicated transmission lines.
- The **Open Access (OA) policy** allows consumers with electricity load above 1 MW to procure electricity directly from electricity markets. Thus, facilitating the discovery of a single market price for power around the country. In 2008, **power exchanges were set up** to operationalize OA. However, some states have imposed significant barriers to OA like cross-subsidy surcharge and additional surcharge.

Issues:

- According to WB report titled “the challenge of the distribution in India”:
 - **Weak distribution network** affects the overall performance of the India’s power sector.
 - The **state Discoms have been accumulating losses** majorly in UP, TN, Haryana and Rajasthan

- Even the **installed capacity is under-utilised** as plants have deficiency of raw material.
- **Private sector and foreign investors are yet to play their role** in a major way.
- There are **few Peaker plants**, since there isn't sufficient incentive for these.

WEF report – Power Sector at ‘inflection point’:

- Though, central government recognises the need of private investment and renewables in the energy mix but the problem persist as centre has devolved significant power to the states. Thus, the cooperation between federal and state government is critical.
- Even with huge investments in renewables, most of the electricity over the next 2 decades will be generated by burning fossil fuel and hence it is time for India to improve the efficiency of the existing power infrastructure.
- As per IEA's World Energy Outlook by 2040, China's net oil imports will be nearly 5 times those of the United States, while India's will easily exceed those of the EU.

Issues with the Bill:

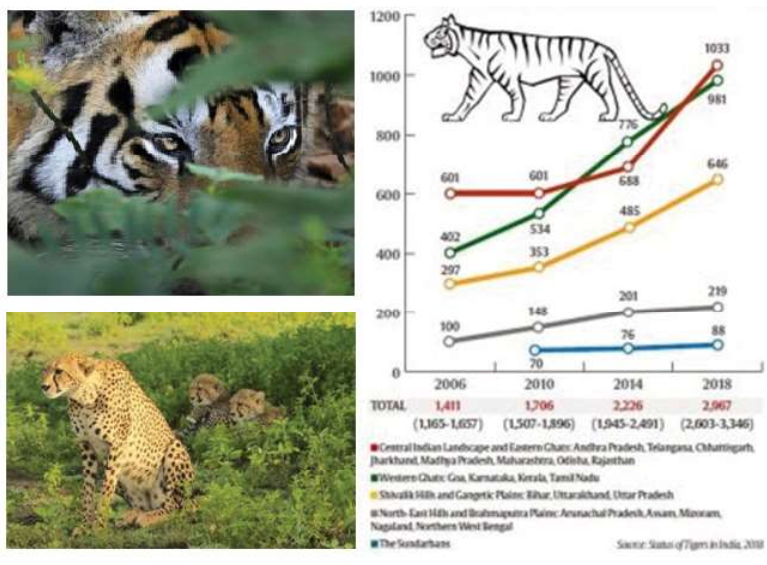
- **Electricity is a state subject.**
- Inequity due to **difference of purchasing power and political power** leading to more and better supply to urban areas, while losses to underserved areas.
- Fear of **end of subsidies by farmers.**
- There is fear of **privatization of distribution companies.**
- It may be **backdoor entry to monopoly companies** as happened with **telecom sector.**

Thus it appears that the bill aims to take care of certain issues with the power sector in India. However provided the withdrawal of government support, the private led electricity sector could not be very viable. Keeping the spirit of democracy alive, the bill needs a lot of enhancement.

Vikas Gupta

Action Plan for Introduction of Cheetah in India

Action Plan for Introduction of Cheetah in India



India plans to restore the only large carnivore, the Cheetah, that has become extinct in independent India.

This endeavor will achieve the following goals and objectives:

Goal

Establish viable cheetah metapopulation in India that allows the cheetah to perform its functional role as a top predator and provide space for the expansion of the cheetah within its historical range thereby contributing to its global conservation efforts.

Need for Tiger Conservation: Tigers are at the top of the food chain and are sometimes referred to as “umbrella species” that is their conservation also conserves many other species in the same area. The Tiger estimation exercise that includes habitat assessment and prey estimation reflects the success or failure of Tiger conservation efforts. More than 80% of the world’s wild tigers are in India,

and it's crucial to keep track of their numbers.

Objectives of the project are-

1. To establish breeding cheetah populations in safe habitats across its historical range and manage them as a metapopulation.
2. To use the cheetah as a charismatic flagship and umbrella species to garner resources for restoring open forest and savanna systems that will benefit biodiversity and ecosystem services from these ecosystems.
3. To enhance India's capacity to sequester carbon through ecosystem restoration activities in cheetah conservation areas and thereby contribute towards the global climate change mitigation goals.
4. To use the ensuing opportunity for eco-development and eco-tourism to enhance local community livelihoods.
5. To manage any conflict by cheetah or other wildlife with local communities within cheetah conservation areas expediently through compensation, awareness, and management actions to win community support.

The introduction of the cheetah is not only a species recovery program but an effort to restore ecosystems with a lost element that has played a significant role in their evolutionary history, allow ecosystems to provide services to their full potential, and use the cheetah as an umbrella species for conserving the biodiversity of grasslands, savanna and open forest systems.

The word Cheetah is of Sanskrit origin and the cheetah finds mention in the ancient texts such as the Vedas and Puranas; it is indeed ironic that the species is currently extinct in India. The original threats that resulted in the extinction of the cheetah have been abated and India now has the technical and financial ability to bring back its lost Natural Heritage for ethical, ecological, and economic considerations.

Successful conservation introductions are a blend of best science, technology, sociological aspects and commitment of financial resources. These aspects are integrated in this Action Plan based on the modern scientific approach recommended by the latest International Union for Conservation of Nature (IUCN) guidelines for reintroduction and other conservation translocations, providing the framework for bringing back the charismatic cheetah to India.

About Cheetahs

- The cheetah is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- The cheetah is also the world's fastest land mammal that lives in Africa and Asia.
- Cheetah is the only large carnivore to have become extinct in Independent India.
- Cheetah has been an integral part of Indian ecosystems, a major evolutionary force, and an important cultural heritage.
- Their restoration will likely result in better conservation of open forest, grassland, and scrub ecosystems for which they will serve as a flagship species.
- IUCN status:
 - African Cheetah: Vulnerable
 - Asiatic Cheetah: Critically Endangered.

About Tiger Census Report

- The **National Tiger Conservation Authority** (NTCA) in collaboration with the State Forest Departments, Conservation NGOs and coordinated by the Wildlife Institute of India (WII), conducts a National assessment for the "Status of Tigers, Co-predators, Prey and their Habitat" every four years since 2006
- In 2018 and 2019, the 4th cycle of Tiger Estimation was conducted in India. Before this, 3 other cycles of assessment have already been held, of which, 2006 report was peer-reviewed by International experts and the **International Union for Conservation of Nature** (IUCN)
- The main objective of reviewing the status of Tigers in the country every four years was to ensure that the balance between forest and wildlife is not disrupted. If Tigers were to extinguish it would severely affect the forest and cycle of nature
- The All India Tiger Estimation done quadrennially is steered by the National Tiger Conservation Authority with technical backstopping from the Wildlife

Status of Tigers in India – Findings Based on Census Report 2018

- **As of 2019, India's Tiger population stands at a total of 2967 which is 70 percent of the global tiger population**
- In 2006, the count of Tigers in the country was 1411 and with 2967 Tigers by 2019, **India successfully fulfilled its resolve of doubling tiger numbers, made at St. Petersburg in 2010, much before the target year of 2022**
- The states with the maximum Tiger population included:
 - Madhya Pradesh – 526
 - Karnataka – 524
 - Uttarakhand – 442
 - Maharashtra – 312
- It can also be assumed that **India has 75% of the global population of Tigers**
- While **Tamil Nadu's Sathyamangalam Tiger Reserve registered maximum improvement** since the 2014 census, **Dampa Reserve in Mizoram and Rajaji Reserve in Uttarakhand had the least Tiger count**
- **Madhya Pradesh's Pench Sanctuary and Kerala's Periyar sanctuary** emerged as the **best-managed tiger reserves in the country**
- **Andhra Pradesh, Mizoram and Chattisgarh saw a decline in the number of Tigers since 2014.** While the count of other states was either constant or showed a positive trend
- On comparing the data from all four cycles, there has been a constant increase in the count of these striped wildcats after every census. Given below is the total count from all the four Census Reports:
 - 2006 -1,411
 - 2010 – 1,706

- 2014 – 2,226
- 2018 – 2,967

Measures Taken for Tiger Conservation

India and other countries have taken various measures for the conservation of Tigers. Given below are a few such measures:

1. **Project Tiger** – This was launched on April 1, 1973 , and an important movement aimed at the Wildlife conservation of tiger in India.
2. **Global Tiger Initiative** – It was launched in 2008 as a global alliance of governments, international organizations, civil society, the conservation and scientific communities and the private sector, with the aim of working together to save wild tigers from extinction
3. Formation of the **Global Tiger Initiative Council (GTIC)** with two arms – the Global Tiger Forum (GTF) and the Global Snow Leopard and Ecosystem Protection Program (GSLEP)
4. More wildlife sanctuaries have been set up across the world to create a safe habitat for the striped wildcat

Puneet Bhatia

NAMASTE SCHEME



Why in the news?

- The Ministry of Social Justice and Empowerment is now preparing to undertake a nationwide survey to enumerate all people engaged in hazardous cleaning of sewers and septic tanks, **an activity that has led to at**

least 351 deaths since 2017.

- Ministry officials said that the enumeration exercise, soon to be conducted across 500 AMRUT (Atal Mission for Rejuvenation and Urban Transformation) cities, is part of the Union government's **National Action Plan for Mechanised Sanitation Ecosystem (NAMASTE)**, which will streamline the process of rehabilitating sanitation workers and eventually merge with and replace the Self-Employment Scheme for the Rehabilitation of Manual Scavengers (SRMS), which was started in 2007.

Features of the Scheme

The Government has formulated a scheme "National Action Plan for Mechanised Sanitation Ecosystem (NAMASTE)". The NAMASTE project is a joint project of **Ministry of Social Justice and Empowerment** and the **Ministry of Housing and Urban Affairs**.

The project aims to achieve the following outcomes:

- Zero fatalities in sanitation work in India.
- All sanitation work to be performed by skilled workers.
- No sanitation workers should come in direct contact with human fecal matter.
- Sanitation workers are to be collectivized into SHGs and are empowered to run sanitation enterprises.
- All Sewer and Septic tank sanitation workers (SSWs) have access to alternative livelihoods.
- Strengthened supervisory and monitoring systems at national, state and ULB levels to ensure enforcement and monitoring of safe sanitation work.
- Increased awareness amongst sanitation services seekers (individuals and institutions) to seek services from registered and skilled sanitation workers.

Other benefits:

- Capital subsidies of upto 5 lakh on sanitation machinery costing upto 15

lakh

- Interest subsidies on loans, where interest rates will be capped between 4-6% for beneficiaries.

The scheme might be a turning point for the fate of people who are employed in this industry and faces not just the physical exploitation, but also the social (in the form of caste) and economic exploitation.

Samarth singh





CURRENT AFFAIRS

AUGUST 2022

UK-India Relations

UK-India Relations

In News, why?

According to the Britain Meets India (BMI) Report by Grant Thornton Bharat in collaboration with The Confederation of Indian Industry, trade between India and the UK is expected to double by 2030 as a result of the proposed free trade agreement, investments in technology, diversification of global supply chains, and ease of doing business (CII).

The top industry that UK firms are looking to invest in in India is business services, with Maharashtra being the top state for investment followed by the National Capital Region and Karnataka.

What are our current understandings of the proposed free trade agreement?

About: The proposed FTA is anticipated to increase Indian exports in labor-intensive industries like education, pharmaceuticals, health care, and the production of leather, textiles, jewellery, processed agri-products, and marine products.

The UK is likely to consider lowering taxes on goods like apples, machinery, and medical devices made in the country.

Additionally, UK businesses anticipate India to take steps to strengthen data protection and uphold agreements.

India and the UK Trade:

With a total of almost USD 31.92 billion invested in India between FY 2000 and FY 22 by the UK, it remained the sixth largest investor in the country.

This made up around 5.4% of all the foreign direct investment (FDI) that India received.

In FY 2022, India's trade with the UK in goods and services totaled USD 31.34 billion,

up from USD 19.51 billion in 2015.

A total of 4.66 lakh people are employed by the 618 UK companies that have been located in India, and they generate a combined annual revenue of Rs 3,634.9 billion.

What recent changes have there been in India's relationship with the UK?

The conclusion of a Comprehensive Strategic Partnership in 2021 is evidence that the India-UK relationship has been improving despite the challenge given by the Ukraine conflict.

In addition, a 2030 Roadmap for India-UK relations was formed, which largely specifies the cooperation goals for the two-way relationship.

Both nations conducted discussions on expanding their defence and cyber security cooperation as well as on trade relating to the military.

In order to safeguard the online infrastructure in both India and the UK, a new cooperative cyber security programme is about to be announced.

The first Strategic Tech Dialogue, a ministerial-level forum on new technologies, will also be held by India and the UK.

The UK will join India's Indo-Pacific Oceans Initiative and become a significant partner on marine security problems in Southeast Asia, thereby strengthening the two countries' maritime relations.

India and the UK finished the first phase of negotiations for a free trade agreement in January 2022.

The discussions revealed common goals between the sixth-largest economy in the world (India) and the fifth-largest economy in the world (the UK).

A free trade agreement is what?

It is an agreement between two or more countries to lower import and export restrictions.

Under a free trade policy, there are little to no government tariffs, quotas, subsidies, or prohibitions that prevent the exchange of products and services across international borders.

The idea of free trade is the antithesis of economic or trade protectionism.

FTAs between India and Australia ECTA: Australia will grant India preferential market

access across all of its tariff lines.

Over 70% of India's tariff lines will grant Australia preferential access.

SAFTA, the South Asian Free Trade Area:

an FTA limited to products but not to any services, such as information technology.

By signing this agreement, all traded commodities will have zero customs fees by the year 2016.

What other trade agreements has India signed?

India-UAE CEPA: The Comprehensive Economic Partnership Agreement (CEPA) establishes a framework for promoting and enhancing commerce between the two nations.

India and Mauritius have a Comprehensive Economic Cooperation and Partnership Agreement (CECPA).

It is a form of free trade agreement that intends to offer a formal system for promoting and enhancing trade between the two nations.

Countries decrease or do away with the levies on the products under this agreement. To encourage the trade in services, the nations also ease their regulations.

The South Asia Preferential Trading Agreement (SAPTA), which went into effect in 1995, is a trade promotion agreement for the member nations of South Asia.

APTA: Asia-Pacific Trade Agreement

It was formerly known as the Bangkok Agreement and was a preferential tariff system designed to encourage intra-regional trade through the exchange of mutually acceptable concessions between member nations.

Vivek Raj

Council of Scientific and Industrial Research (CSIR)

- CSIR was established in September 1942 as an autonomous body.
- CSIR now has become the largest research and development organisation in India with over 38 laboratories/institutes, 39 outreach centers, 3 Innovation Centers and

5 units throughout the nation.

- Its parent institution is the Ministry of Science and Technology, but it operates as an autonomous body through the Societies Registration Act, 1860.
- Its research and development activities include life sciences, aerospace engineering, structural engineering, food, ocean sciences, metallurgy, petroleum, chemicals, mining, leather and environmental science.
- According to the Scimago Institutions Ranking World Report 2021. CSIR ranked 37th among 1587 government institutions worldwide and it is the only Indian organization among the top 100 global government institutions.
- CSIR also holds the 7th rank in Asia and leads the country at the first position.
- CSIR has put in place CSIR@80: Vision & Strategy 2022 – New CSIR for New India. Its mission is “to build a new CSIR for a new India”, and vision is to “Pursue science which strives for global impact, the technology that enables innovation-driven industry and nurtures trans-disciplinary leadership thereby catalyzing inclusive economic development for the people of India”.
- Shanti Swarup Bhatnagar (SSB) Prize for Science and Technology is named after the founder Director of the CSIR, the late Dr. Shanti Swarup Bhatnagar.

Organizational Structure

- **President:** Prime Minister (Ex-Officio)
- **Vice President:** Minister of Science & Technology, India (Ex-Officio)
- **Governing Body:** The Director General is the head of the governing body. The other ex-officio member is the finance secretary (expenditures). Other members' terms are three years.
- **CSIR Advisory Board:** 15-member body composed of prominent members from respective fields of science and technology. Its function is to provide S&T inputs to the governing body. Member terms are three years.

Vision

The changed R&D scenario has inspired CSIR towards:

- Science and Engineering leadership;
- Innovative technology solutions;
- Open innovation and crowdsourcing;
- Nurturing talent in transdisciplinary areas;

- Science-based entrepreneurship; and
- Socio-economic transformation through S&T intervention

Objectives:

- To promote scientific and industrial/applied research of national importance. It covers various areas like radio and space physics, nanotechnology, oceanography, biotechnology etc.
- To establish, maintain, and manage laboratories, institutions, workshops, and organizations to further scientific and industrial research.
- To provide significant technological intervention in different areas with regard to societal efforts which include the health, environment, energy, food, drinking water, housing, farm and non-farm sectors.

Notable achievements of CSIR over the years

- Developed India's first synthetic drug, methaqualone in 1950.
- Design of the first India Tractor – Swaraj – in 1967
- Developed Optical Glass for defense purposes.
- Developed a Bacterial Blight Resistant Rice i.e. Samba Mahsuri Rice Variety.
- Established 'Traditional Knowledge Digital Library' which can be accessed in five languages – English, German, French, Japanese and Spanish.
- Developed Solar Tree which occupies minimum space to produce clean power.
- Successfully completed the sequencing of the Human Genome in 2009.
- Designed India's first ever parallel processing computer, Flosolver.

Anoop Singh

PESA Act – A case of good governance or a hinderance to development

• GS Paper II

Gandhiji always said that India lives in its villages. He further argues that village republic is the solution for the independent India to become more prosperous. Keeping that in Mind parliament of India enacted the 73rd and 74th amendment to provide local

self-governance. Later on, PESA act was enacted to expand the scope of 73rd constitutional amendment act 1993 to the 5th schedule states.

PESA Act 1996

- It expands the Panchayats (Part IX of the constitution) to the Fifth Schedule Areas. There are many tribal people living in these locations.
- It guarantees **self-governance** for those residing in Scheduled Areas through **Gram Sabhas (village assemblies)**.

Powers provided to Gram Sabha under PESA:

- It is necessary to consult before the land acquisition, prior approval of all developmental projects and control over tribal sub-plan, maintenance of cultural identity and tradition, control over schemes affecting the tribals etc.
- It also gives gram sabhas judicial powers in form of dispute resolution as per traditional laws and customs.
- Ownership and management of natural resources: E.g. water, forest, common lands ('Jal, Jangal, and Zameen'), minor forest produce, minor minerals, etc.

Status of implementation of PESA:

- Out of 10 states (Andhra, Telangana, Chhattisgarh, Gujarat, HP, Jharkhand, MP, Maharashtra, Odisha, and Rajasthan) who have notified 5th Schedule Areas, only 7 states (including Chhattisgarh and Gujarat) have notified Rules to implement the PESA Act.

About 5th Schedule States:

- Every year, the President must receive a **report from the governor of each state with Scheduled Areas (SA)** on how those areas are managed there.
- It allows for the **creation of a Tribes Advisory Council (TAC)** in Scheduled Areas on the direction of the president.
- The Union Government shall have **executive powers to make directions to the States as to the management of the Scheduled Areas**.
 - It must consist of **not more than twenty members** of whom, three-fourths shall be the representatives of the Scheduled Tribes in the Legislative Assembly of the State.
 - If the MLAs of the STs in the Legislative Assembly of the State is less than the number of seats in the TAC, then the **remaining seats shall be filled by other**

members of those Tribes.

- The **Governor may enact regulations governing the Council.**
- The **TAC shall advise the Governor** on the welfare and advancement of the STs in the State.
- The Governor may direct that **any particular Act of Parliament or of the Legislature of the State shall or shall not apply** to a SA.
- The Governor may **enact regulations to maintain the peace and promote good governance** in any SA region, including restrictions on land transfers and rules governing money-lending activities. After receiving the President's approval, the Governor may repeal or modify any Act of the State Legislature or the Parliament.
- No regulations shall be made unless the Governor, in case a TAC exists, consults such TAC.

Issue with respect to PESA Act:

XAXA committee has found out following issues –

- Government notifies rural areas as urban areas to keep them out of PESA coverage.
- The PPP (Public private partnership) model, is simply a backdoor method of tribal land alienation.
- Government agencies acquire land for “public purpose” but later transfer it to private companies at throwaway prices.
- Government has signed such MoUs with companies, Government officials became “dealers and negotiators” of tribal land. “Neutrality of the State” is forgotten.
- In scheduled areas, tribal's land cannot be transferred to non-tribals. YET Cabinet Committee on Investment (CCI) sometimes hastens project files which directly/indirectly violate this provision.
- Development projects lead to influx of outsiders to tribal areas, thus harm tribal interests by money landing activities and pollution.
- They are being subjected to Predatory tourism.
- There are some tribes which do needs protection but are not covered under the three categories viz., ST, SC and OBC. Their population is dwindling fast.
- The creation of dams and subsequent submergence of the nearby tribal areas do account as alteration of boundary.

Thus, as can be seen from above analysis the PESA act was enacted with the intention of providing self-governance to the tribal regions of the country. However as highlighted by the XAXA committee it has been diluted by the government after government in name of development. Sometime this kind of development breeds separatism, Naxalism and radicalization.

Vikas Gupta

Criminal Procedure (Identification) Act, 2022

Why in the News?

Recently, the **Criminal Procedure (Identification) Act, 2022** has come into force after being passed by the Parliament in April 2022.

- It replaces the **Identification of Prisoners Act, 1920**, and authorizes **police officers to take measurements of people convicted, arrested or facing trial in criminal cases.**

What is the difference between **Identification of Prisoners Act 1920** and **Criminal Procedure Identification Act?**

Comparison of key provisions of the 1920 Act and the Criminal Procedure (Identification) Act, 2022

Identification of Prisoners Act, 1920,	Criminal Procedure (Identification) Act, 2022
Data permitted to be collected	
<ul style="list-style-type: none"> • Fingerprints, foot-print impressions, photographs 	Adds: <ul style="list-style-type: none"> (i) biological samples, and their analysis, (ii) behavioural attributes including signatures, handwriting, and (iii) examinations under sections 53 and 53A of CrPC (includes blood, semen, hair samples, and swabs, and analyses such as DNA profiling)

Identification of Prisoners Act, 1920,	Criminal Procedure (Identification) Act, 2022
Persons whose data may be collected	
<ul style="list-style-type: none"> • Convicted or arrested for offences punishable with rigorous imprisonment of one year or more • Persons ordered to give security for good behaviour or maintaining peace • Magistrate may order in other cases collection from any arrested person to aid criminal investigation 	<ul style="list-style-type: none"> • Convicted or arrested for any offence. However, biological samples may be taken forcibly only from persons arrested for offences against a woman or a child, or if the offence carries a minimum of seven years imprisonment • Persons detained under any preventive detention law • On the order of Magistrate, from any person (not just an arrested person) to aid investigation
Persons who may require/ direct collection of data	
<ul style="list-style-type: none"> • Investigating officer, officer in charge of a police station, or of rank Sub-Inspector or above 	<ul style="list-style-type: none"> • Officer in charge of a police station, or of rank Head Constable or above. In addition, a Head Warder of a prison
<ul style="list-style-type: none"> • Magistrate 	<ul style="list-style-type: none"> • Metropolitan Magistrate or Judicial Magistrate of first class. In case of persons required to maintain good behaviour or peace, the Executive Magistrate

Issues to be considered

• Issues of Privacy:

- The Bill permits the collection of certain identifiable information about individuals for the investigation of crime.
- The information specified under the Bill forms part of the personal data of individuals and is thus protected under the right to privacy of individuals.
- The right to privacy has been recognised as a fundamental right by the Supreme Court (2017).
- The Court laid out principles that should govern any law that restricts this right.
- These include a public purpose, a rational nexus of the law with such purpose, and

that this is the least intrusive way to achieve the purpose.

- **Issues of Equality:** The issue arises due to the fact that:

- (a) Data can be collected not just from convicted persons but also from persons arrested for any offense and from any other person to aid an investigation
- (b) The data collected does not need to have any relationship with evidence required for the case
- (c) The data is stored in a central database which can be accessed widely and not just in the case file
- (d) The data is stored for 75 years (effectively, for life)
- (e) Safeguards have been diluted by lowering the level of the official authorised to collect the data

What is the Significance of the Act?

1. **Modern Techniques are employed:** The Act makes **provisions for the use of modern techniques to capture and record** appropriate body measurements.

- While if we talk about the existing law, it allowed **taking only fingerprint and foot-print impressions** of a limited category of convicted persons.

Investigation will become more efficient:

- It provides legal sanction for taking appropriate body measurements of persons who are required to give such measurements and will **make the investigation of crime more efficient and expeditious** and will also help in increasing the conviction rate.

Investing Agencies will have a helping hand:

- It **seeks to expand the 'ambit of persons'** whose measurements can be taken as this will **help the investigating agencies to gather sufficient legally admissible evidence** and establish the crime of the accused person.

The way forward?

The above law may have serious repercussions on the privacy and equality of the people. But since it has now become the law of the land, therefore the efforts are needed from the side of the government that such efforts must align with the Right to privacy as well. This is because privacy is a fundamental right after KS PUTTASWAMY JUDGEMENT of the Supreme Court.

Samarth singh

UDAN Scheme

Ude Desh ka Aam Nagrik Scheme



Why in News: UDAN Scheme of Ministry of Civil Aviation completes 5 years of success.

More than one crore passengers have flown since the inception of the scheme. 425 New routes started under the scheme. 58 airports, 8 heliports and 2 water aerodromes have been connected. 1000 Routes and 220 airports are planned to be facilitated under the scheme by 2026

Ministry: Ministry of Civil Aviation's flagship program Regional Connectivity Scheme UDAN (UdeDeshkaAamNagrik) has completed 5 years of success since the launch of its first flight by the Prime Minister on **27th April 2017**.

Origin: The scheme was initiated on 21st October 2016 with the objective to fulfill the aspirations of the common citizen by following the vision of 'UdeDeshkaAamNagrik', with an enhanced aviation infrastructure and air connectivity in tier II and tier III cities.

In the last five years, UDAN has significantly increased the regional air-connectivity in the country. There were 74 operational airports in 2014. Because of the UDAN scheme this number has increased to 141 by now.

68 underserved/unserved destinations which include 58 Airports, 8 Heliports & 2 Water Aerodromes have been connected under UDAN scheme. With 425 new routes initiated under the scheme, UDAN has provided air connectivity to more than 29 States/UTs across the length and breadth of the country. More than one crore passengers have availed the benefits of this scheme as on 4th August 2022. The scheme has also provided a much-needed platform to the regional carriers to scale up their operations.

220 destinations (airports/heliports/water aerodromes) under UDAN are targeted to be completed by 2026 with 1000 routes to provide air connectivity to unconnected destinations in the country. Under UDAN, 954 routes have already been awarded to connect 156 airports.

On the occasion, Minister of Civil Aviation Shri Jyotiraditya M. Scindia said, "The Suc-

cess of RCS UDAN is a demonstration of the government's commitment to the Prime Minister's vision of 'Ude Desh ka Aam Nagrik'.

It has played a great role in the transformation of the Indian aviation industry. So far under this scheme, we have 425 routes aiming to go up to 1000 routes, 68 new airports aiming to touch 100 airports. In the next 4 years we are expecting 40 crore travelers through Civil Aviation in India.

That day is not far when along with rail transport and road transport Civil Aviation will become the bulwark of the transportation in India."

RCS-UDAN was formulated based on the review of The National Civil Aviation Policy (NCAP)-2016 and it was planned to remain in force for a period of 10 years. It has a self-financing mechanism with the development of Regional Connectivity Fund (RCF). Under this Scheme, RCF was created, which funds the VGF requirements of the scheme through a levy on certain domestic flights. This way, funds generated from the sector themselves stimulate the growth and development of the sector.

The UDAN Scheme has benefitted a diverse set of stakeholders. Passengers have got the benefits of air connectivity, airlines have received concessions for operating regional routes, unserved regions have received the direct and indirect benefits of air connectivity for their economic development.

UDAN created a framework based on the need and led to the formulation of:

- Lifeline UDAN (for transportation of medical cargo during pandemic).
- Krishi UDAN (value realization of agriculture products especially in Northeastern Region {NER} and tribal districts).
- International UDAN routes for NER to explore International Connectivity from / to Guwahati and Imphal.

Lifeline UDAN – Lifeline UDAN initiative commenced in March 2020 during COVID-19 period and it helped to operate 588 flights transporting almost 1000 Tones of voluminous cargo and essential medical services to various parts of the country.

RCS-UDAN was awarded the Prime Minister's Award for Excellence in Public Administration under Innovation Category for the year 2020.

Republic Day Tableau for 26th January 2022 on UDAN was adjudged as the Best Tableau by the Ministry of Defense.

Phases Under the Scheme:

UDAN 1.0 and 2.0: During RCS-UDAN version 1.0 & 2.0, 66 airports were identified and 31 heliports (28 unserved heliports and 3 unserved airports).

UDAN 3.0: During UDAN version 3.0, to increase the tourism potential at the coastal areas, Tourism routes in coordination with the Ministry of Tourism and Seaplanes for connecting Water Aerodromes were included.

UDAN 4.0: The focus of UDAN 4.0 is on priority areas like the NorthEast Region, Hilly States, Jammu and Kashmir, Ladakh and Islands.

Salient Features of UDAN Scheme

- The plan calls for the revival of existing airstrips and airports to provide connectivity to the country's underserved and unserved airports. The scheme is in place for a ten-year period.
- Airports that have fewer than one flight per day are considered **underserved**, while airports that have no operations are considered **unserved**.
- Selected airlines are given **financial incentives** from the central government, state governments, and airport operators.
- These incentives are given to encourage operations from unserved and under-served airports while keeping airfares low.
- Airlines are awarded routes through a bidding process and must offer airfares of 2,500 per hour of flight.
- A **minimum** of **50%** of an aircraft's total **seats** must be available at a **lower cost**.
- The government provides a **three-year subsidy** to airlines in order to enable them to offer low-cost flights.
- In the first three years, the government had set aside \$4,500 crore for the revival of 50 airports.
- A **competitive bidding** process is used to select the participating airlines.
- The maximum fare for the fixed-wing aircraft is Rs. 2500 per hour, which covers 50% of the seating capacity for unserved and under-developed regional airports.
- The **remaining 50%** of seating capacity is **charged at market rate**.
- The scheme was decided to be **updated quarterly** in accordance with the Consumer Price Index.
- The cargo flights will be provided with the same services as this scheme, but the VGP service will not be available.

Puneet Bhatia

WTO – Analysis in view of present economic crisis

The World Trade Organisation (WTO) is the primary body for establishing regulations for global trade. Over the course of its twenty years, it has assisted in lowering trade barriers for both commodities and services and developed a dispute settlement mechanism that has lessened the risk of trade wars.

The institution is, nevertheless, under a lot of pressure. The global economy is currently under pressure from protectionism, trade conflicts (such as those between the United States and China), the Russia-Ukraine wars and subsequent sanctions, Brexit etc. The functioning of the WTO has been hampered by disagreements over intellectual property rights and agricultural subsidies, as well as by other bilateral and regional free trade agreements..

Continuing Relevance of WTO due to its important mandate:

- Trade agreements: It oversees the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement and other current multilateral trade agreements.
- Dispute resolution: It uses its Dispute Settlement Mechanism to resolve conflicts among its members and avoid trade wars.
- New negotiations: It acts as a stage and coordinator for talks on fresh international trade accords.
- Establishes rule-based multilateral trading system: The World Trade Organisation (WTO) makes certain that international trade is governed by standards that are appropriate for and widely accepted.
- Facilitates growth: The removal of trade barriers opens up new markets for the world's resources, hence promoting global growth.
- Arbitration function: The WTO serves as an arbitrator between warring nations and seeks to establish uniformity in practices and rules.
- Promotes standardisation: The WTO and its members establish rules for the exchange of goods, services, and IP protection that close the quality gap between what is produced and what is desired.

Successes of WTO:

- A significant increase in cross-border economic activity has been made possible by binding laws for international trade in products and services. While the actual amount of global trade has increased by 2.7 times since 1995, its monetary worth has nearly quadrupled. This is much greater than the global GDP's two-fold increase during that time.
- Tariffs on average have decreased by almost 50%, from 10.5% to 6.4%. The dozens of economies that joined the WTO after it was founded were required to make extensive changes and commitments to open their markets, which, according to studies, have been linked to a long-lasting increase in national GDP.
- Global value chains have been made possible by the development of predictable market conditions encouraged by the WTO and better communications. Almost 70% of all merchandise commerce today occurs within these value chains.
- In recent years, WTO members have agreed to simplify border processes through a historic trade facilitation pact that is expected to increase trade by more than \$1 trillion annually.
- The trade in goods related to information technology has also been liberalised.
- For developing countries, COVID vaccination intellectual property rights were waived.
- An agreement to reduce fishing subsidies, which have supported overfishing and resulted in declining fish stocks has been reached. The agreement forbids WTO members from providing subsidies to any operator engaged in overfishing or fishing in waters that are illegal, unreported, or unregulated.

Issues faced by the WTO which reduce its relevance:

- **Increasing economic uncertainty:** In recent years, nations have imposed trade restrictions that affect a sizable portion of global trade. Businesses are delaying investments due to the increasing market uncertainty, which is reducing growth and our economies' potential going forward.

- **Ineffective appellate body:** Because of U.S. policy, the Appellate Body (AB) is crippled, giving nations an easy way to ignore the WTO panel's rulings by appealing into the void.
 - Dispute settlement cases continue to be filed for the time being and are being litigated.
- **Structural issues:** Technical functioning is currently completely insufficient to address the primary obstacles preventing the WTO from remaining strategically relevant in the 21st century. The organisation hasn't delivered in crucial areas, responded, or changed.
 - Its structures and operations are in parts fragile, creaky, and deteriorating.
- **Subsidy issue:** Agricultural and industrial subsidies have clogged the system and sparked protectionist responses in a number of WTO members.
- **Issue of public stockholding for food security purposes:** Despite a clear directive to do so at the 2015 Nairobi ministerial meeting, there has been no resolution to the public stockholding for food security purposes issue. For nations like India that rely on mechanisms supported by the Minimum Support Price (MSP) to purchase foodgrains, this is of the utmost importance.
- **Fragmentation of global governance due to plurilateral trade agreements:** The rise of large plurilateral trade accords like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and Regional Comprehensive Economic Partnership (RCEP) agreement, which push the multilateral order to the periphery, is a result of the impasse at the WTO.
- **Institutional imbalance:** The WTO missed the crucial balance between its role as an entity created to encourage, bind, and support economic transformation in order to counteract harmful protectionism and its role as an agency for litigation-based dispute settlement.
- **Tariff issue:** The unilateral tariffs that the United States and China have threatened to impose on one another in the impending trade war do not follow the WTO's established processes, eroding its authority.

Suggestions to increase effectiveness of the organization:

- Recognizing that worries about food security will not go away, begin

conversations to resolve the interrelated issues of agricultural subsidies and market access.

- It is important to encourage multilateral negotiations because members with similar political ideologies have a chance to form coalitions.
- It is necessary to remove political influence from the selection procedure for the dispute resolution body.
- Instead of being resolved by the WTO, the issue of the misuse of the national-security exemption to support trade restrictions should be addressed at the political level.
- For the purpose of reducing willful non-compliance, the WTO should be given sanctioning authority.
- A consensus-based dispute resolution process is essential for a reliable trading system.
- Engage in rigorous negotiations to balance the situation.
- In a number of areas, GATT/WTO rules need to be updated. To stay up with advancements in technology and the industry, new rules are necessary.
- Liberal multilateralism and non-discriminatory pillars will need to be the cornerstone of a reformed WTO.

Conclusion

The WTO's future function is crucial to maintaining the post-World War II global liberalised economic order. India and other emerging economies with expanding economies like Brazil, South Africa, and others can lay a solid foundation for a successful WTO while defending the interests of developing nations.

Vikas Gupta

ROHINGYA ISSUE

Why in the news?

- **Hardeep Puri** , the Union minister recently claimed that Government of India will be giving the EWS flats for the Rohingya's resettlement , till the time they are deported back to their home country i.e. Bangladesh.
- However this statement was later refuted by the Ministry Of Home Affairs.

Who are Rohingyas?

- Rohingyas are an ethnic group, mostly Muslims. They were not granted full citizenship by Myanmar.
- Rohingyas were classified as "resident foreigners or associate citizens".
- They fled from their native country after facing severe persecution from the Army of Myanmar , who considered this as a religious war of Muslims v/s Buddhist.
- They were described by UN Secretary-General Antonio Guterres as **"one of, if not the, most discriminated people in the world"**.

What is India's position?

- **India is not a party to the 1951 Refugee Convention or its 1967 Protocol and does not have a national refugee protection framework.**
- Because of this India is not bound to give refuge to the Rohingyas in our country.
- **Threat to National Security:** Because of the continuity in the illegal immigration of Rohingyas into our country and their continued stay here , it was found to be having serious national security ramifications, thus posing threat to national security.
- **Human trafficking:** Trafficking of females and human smuggling inside the border has become a rampant activity.
- **Rising Militancy:** Because of the persistent attacks against the Muslims perceived as illegal migrants have given way to radicalisation.
- **Clash of Interests:** It impacts the interests of local populations and giving rise to

the xenophobic tendencies.

- **Political Instability:** It increases the political instability when leaders start mobilizing the perception of the citizens of the country against the migrants by the elites to grab political power.
- **Disturbance in Law and Order:** The rule of law and integrity of the country are undermined by the illegal migrants who are engaged in illegal and anti-national activities.

Geopolitical Ramifications

- Rohingya issue has become a bone of contention between India and Bangladesh.
- Indian government at times have reiterated their stand that will deport the rohingyas back to Bangladesh.
- However , India don't have any agreement with Bangladesh regarding this.
- The population of Bangladesh has considered this as an anti Islamic stance which has enhanced the **ANTIINDIA** and **ANTIHINDU** sentiment in Bangladesh.

Way ahead

- India should maintain a healthy balance between the internal security and human rights requirements.
- Protecting the local population while at the same time maintaining the image of being a tolerant country is the need of the hour.
- This would be in line with India's "**Vasudhev Kutumbkam**" ideology and Prime Ministers call of "**SABKA SATH, SABKA VIKAS aur SABKA VISHWAS**"

Samarth singh

Pradhan Mantri Matsya Sampada Yojana

Pradhan Mantri Matsya Sampada Yojana, and Blue Revolution



Why in News: Inspired by Pradhan Mantri Matsya Sampada Yojana, and to bring 'Blue Revolution' TDB-DST (**Technology Development Board, a statutory body under Department of Science and Technology, Govt**) supports its first aquaculture project.

TDB-DST contributes to the 'Blue Revolution' through technology intervention, supporting sustainable & responsible development of the fisheries sector in India. TDB-DST enters a new domain, funds its first ever 'Aquaculture' project using 'state of the art' Israeli technology for production of Tilapia Fish.

TDB-DST supports M/s Fountainhead Agro Farms Private Limited, Navi Mumbai, Maharashtra for 'Advanced, Intensive, All Male Tilapia Aquaculture Project with Israeli Technology

Fisheries is one of the fastest growing sectors amongst the primary producing sectors. The sector plays a vital role in economic and overall development of the country, also referred as the "sunrise sector", it is poised to bring in immense potential through equitable and inclusive growth.

The sector is recognized as a powerful engine for providing employment to 14.5 million people and sustaining livelihood for the 28 million fishermen community of the country. Thus, the sector urges young entrepreneurs of the country to come forward and offer solutions, resolving on-ground challenges through technology interventions and innovative solutions.

To promote this, the cabinet under the chairmanship of Hon'ble Prime Minister, came up with 'Pradhan Mantri Matsya Sampada Yojana (PMMSY)' to bring about 'Blue Revolution' through sustainable and responsible development of the fisheries sector in India. The scheme targets to enhance fish production to 220 lakh metric tons by 2024-25, at an average annual growth rate of about 9%. The ambitious scheme also aims to double the export earnings to Rs.1,00,000 crore and generate about 55 lakhs direct and indirect employment opportunities in the fisheries sector over a period of next five years.

Realizing the potential of Fisheries sector, **Technology Development Board, a statutory body under Department of Science and Technology, Govt. of India** supports M/s Fountainhead Agro Farms Private Limited, Navi Mumbai, Maharashtra for 'Advanced, Intensive, All Male Tilapia Aquaculture Project with Israeli Technology'. The board has penned an mutual agreement, to provide loan assistance of Rs. 8.42 crores out of the total project cost of Rs. 29.78 crores to the company.

'Tilapia' has emerged to be one of the most productive and internationally traded food fish in the world. The culture of tilapia has become com-

mercially popular in many parts of the world and the fishery experts have dubbed the tilapia as “aquatic chicken” due to its quick growth and low maintenance cultivation. Today, if any fish that could be named as global fish, no better name can be thought of than Tilapia.

In order to facilitate the culture of Tilapia in India in a responsible manner, M/s Fountainhead Agro Farms Private Limited envisages setting up of a complete production line (from breeding to full fish) in Mudhol (Karnataka).

The company aims to produce 500 tons of Tilapia, to be grown from the imported parent broodstock ‘Hermon’ from Nir David Fish Breeding Farm, Israel.

Hermon is a hybrid of two selected strains of Tilapia, namely *Oreochromis Niloticus* (Male) and *Oreochromis Aureus* (Female), and is known for special characteristics such as high growth rate; resistance to low temperature; light (attractive) color; all hybrid fry progeny of males only, without the conventional system of usage of hormones.

The company has adopted advanced Israeli Technology from Aquaculture Production Technology Limited (APTIL), Israel (under Technology Service Agreement signed in October, 2020) for landlocked locations through closed loop farming for arid zone with seasonal water supply from rivers, which may be replicated throughout India in multiple arid landlocked locations with reasonable water sources.

In order to suit Indian conditions, the complete engineering of the facility is tuned as per the requirement of site conditions such as land availability, water availability, weather conditions, availability of the surrounding resources, soil conditions, topography.

Sh. Rajesh Kumar Pathak, IP&TAFS, Secretary, TDB said that, “The Govt. of India has placed special attention to the fisheries sector with a view to uplift the fishermen community of India economically through ‘Blue Revolution’.

The sector holds vast potential for export, especially the ‘Tilapia Fish’ considering its huge demand in the global market. Also, the imported technology being ‘one of its kind’ will be a great addition to Pradhan Mantri Matsya Sampada Yojana (PMMSY), the ambitious scheme of Hon’ble PM, which aims to double the export earnings to Rs.1,00,000 crore from fisheries sector.

Objectives

- PMMSY is designed to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability, establishing a robust fisheries management framework and fishers' welfare.

While aiming to consolidate the achievements of Blue Revolution Scheme, PMMSY envisages many new interventions such as

- fishing vessel insurance,
- support for new/up-gradation of fishing vessels/boats, Bio-toilets,
- Aquaculture in saline/alkaline areas, Sagar Mitras, FFPOs/Cs,
- Nucleus Breeding Centers,
- Fisheries and Aquaculture start-ups,
- Incubators,
- Integrated Aqua parks,
- Integrated coastal fishing villages development etc
- PMMSY scheme primarily focuses on adopting 'Cluster or Area based approaches' and creation of Fisheries clusters through backward and forward linkages.
- Special focus will be given for employment generation activities such as seaweed and ornamental fish cultivation.
- It emphasizes interventions for quality brood, seed and feed, special focus on species diversification, critical infrastructure, marketing networks etc.

The Blue Revolution

The Blue Revolution in India was launched during the 7th Five Year Plan (1985-1990) during the sponsorship of the Fish Farmers Development Agency (FFDA) by the Central Government of India. Later, during the 8th Five Year Plan (1992-97), the Intensive Marine Fisheries Program was launched, and eventually, the fishing harbors in Visakhapatnam, Kochi, Tuticorin, Porbandar,

and Port Blair were also established over the time.

The Ministry of Agriculture and Farmers Welfare along with the Department of Animal Husbandry, Dairying & Fisheries planned to restructure this scheme along with the other ongoing schemes by merging it under a single umbrella of 'Blue Revolution'. This scheme focused on the development and management of fisheries controlled by the National Fisheries Development Board (NFDB).

The components that are included under the Blue Revolution Schemes are :

- National Fisheries Development Board (NFDB) and its activities
- Strengthening of Database & Geographical Information System of the Fisheries Sector
- Development of Inland Fisheries and Aquaculture
- National Scheme of Welfare of Fishermen
- Development of Marine Fisheries, Infrastructure and Post-Harvest Operations
- Monitoring, Control and Surveillance (MCS) and other need-based Interventions
- Institutional Arrangement for the Fisheries Sector

Blue Revolution/Neel Kranti Mission

The Nili Kranti Mission aimed to enhance the economic condition of India through the augmentation of fisheries and thus contributing towards food and nutritional security. The utilization of the water resources for the development of fisheries was done by the Neel Kranti Mission in a sustainable manner.

The objectives of the Nili Kranti mission are:

1. Completely tapping the total fish potential of India on both islands as well as in the marine sector and to triple the production by the year 2020.

2. Transforming the fisheries sector into a modern industry through the utilization of new technologies and processes.
3. Doubling the income of the fishers through increased productivity and improving the post-harvest marketing infrastructure including e-commerce, technologies, and global best innovators.
4. To ensure the active participation of the fishers and the fish farmers in income enhancement.
5. Tripling the export earnings by the year 2020 with a major focus on the benefits covering the institutional mechanisms.
6. Developing the nutritional and food security of the nation.

Puneet Bhatia

Har Ghar Jal Utsav

The Har Ghar Jal Utsav under Jal Jeevan Mission



Why in News: The Prime Minister, Shri Narendra Modi addressed the Har Ghar Jal Utsav under Jal Jeevan Mission via a video message and Explained the Mission.

10 crore rural households of the country have been connected to piped clean water facilities. Goa becomes the first Har Ghar Jal certified state. Dadra Nagar Haveli and Daman and Diu become the first Union territories to achieve the feat.

One lakh villages in different states of the country have turned ODF plus. There cannot be a better beginning for Amrit Kaal.

7 crore rural households connected with piped water in just 3 years compared to just 3 crore households in 7 decades. This is an example of the same human-centered development.

Jal Jeevan Abhiyan is not just a government scheme, but it is a scheme run by the community, for the community. People's power, women power, and power of technology are powering the Jal Jeevan Mission

The Prime Minister, Shri Narendra Modi addressed the Har Ghar Jal Utsav under Jal Jeevan Mission via a video message. The event took place at Panaji Goa. Chief Minister of Goa Shri Pramod Sawant, Union Minister Shri Gajendra Singh Shekawat were among those present on the occasion. The Prime Minister greeted Shri Krishna devotees on the auspicious occasion of Janmashtami.

At the outset, the Prime Minister shared every Indian's pride in three important milestones related to the huge goals that India is working on in Amrit Kaal, that were accomplished.

He said “**Firstly**, today 10 crore rural households of the country have been connected to piped clean water facilities. This is a big success of the government's campaign to deliver water to every household. This is a great example of ‘Sabka Prayas’”.

Secondly, he congratulated Goa for becoming the first Har Ghar Jal certified state where every household is connected to piped water. He also acknowledged Dadra Nagar Haveli and Daman and Diu as first Union territories to achieve the feat.

The Prime Minister lauded the people, government and local self-government institutions for their efforts. He informed that many states are going to join the list very soon.

The third achievement, the Prime Minister informed, is that one lakh villages in different states of the country have turned ODF plus. After the country was

declared Open Defecation Free (ODF) a few years ago, the next resolution was to achieve ODF plus status for villages i.e. they should have community toilets, plastic waste management, grey water management and Gobardhan projects.

Underlining the water security challenge that the world is facing, the Prime Minister said that water scarcity can become a huge obstacle in accomplishing the resolution of Developed India – Viksit Bharat. “Our government has been working relentlessly for the last 8 years for the projects of water security”, he said. Reiterating the need for a long-term approach above selfish short-term approach, the Prime Minister emphasized “It is true that to form a government, one does not have to work that hard as one has to work to build a country. We have all chosen to work for nation building.

That is why we are working on the challenges of the present and the future. Those who do not care about the country, are not bothered about spoiling the present or future of the country. Such people can definitely talk big, but can never work with a big vision for water.”

Talking about the multi-pronged approach of the government to ensure water security, the Prime Minister listed initiatives like ‘Catch the Rain’, Atal Bhujal Scheme, 75 Amrit Sarovars in every district, river-linking and Jal Jeevan Mission. He said that the number of **Ramsar wetland Sites** in India has gone up to 75, out of which 50 were added in the last 8 years.

“There cannot be a better beginning of Amrit Kaal”, the Prime Minister said, lauding the feat of connecting 7 crore rural households with piped water in just 3 years whereas in 7 decades since Independence only 3 crore households had this facility. He said “There were about 16 crore rural households in the country, who had to depend on outside sources for water. We could not have left such a large population of the village fighting for this basic need.

That’s why 3 years ago I had announced from the Red Fort that every house would get piped water. 3 lakh 60 thousand crore rupees are being spent on this campaign. Despite the interruptions caused by the biggest epidemic of 100 years, the pace of this campaign did not slow down. The result of this continuous effort is that in just 3 years, the country has done more than double the work done in 7 decades. This is an example of the same human-centered development, which I talked about this time from the Red Fort”

The Prime Minister highlighted the benefit of Har Ghar Jal for the future generation and women. He said as the main sufferer of the problems related to water, women are at the center of the government's efforts. It is improving the ease of living for women and giving them a key role in water governance. "Jal Jeevan Abhiyan is not just a government scheme, but it is a scheme run by the community, for the community", he said.

The Prime Minister said that **four pillars are at the basis of the success of Jal Jeevan Mission** i.e. people's participation, stakeholder participation, political will and optimum utilization of Resources. Local people and Gram Sabhas and other institutions of local governance have been given an unprecedented role in the campaign.

Local women are trained for water testing and are members of 'Paani Samitis'. Stakeholder participation is evident in enthusiasm shown by panchayats, NGOs, educational institutions and all the ministries. Similarly, achieving much more in just 7 years than what was achieved in the last 7 decades indicates political will. Optimum utilization of resources is reflected in synergizing with schemes like **MGNREGA**.

Saturation of piped water will also eliminate possibility of any discrimination, he added.

Referring to use of technology like geo-tagging of water assets and Internet of things solutions for water supply and quality control, the Prime Minister pointed out that **people's power, women power, and power of technology are powering the Jal Jeevan Mission.**

Puneet Bhatia

Bilkis Bano Case and the mechanism of Remission

Why in the news?

Eleven convicts in 2002 Bilkis Bano case, sentenced to life imprisonment, were released from Godhra sub-jail on August 15 this year, under **Gujarat government's remission policy.**

What is Bilkis Bano Case?

- On February 27, 2002, Godhara riots erupted in Gujarat after Sabarmati train was burnt and over 50 karsevaks were killed on that train.
- Fearing the outbreak of this violence during that time, Bilkis fled from her village with her three year-old daughter and 15 other family members.
- Bilkis, her mother and her daughter were raped and brutally assaulted. Among the family members, only Bilkis, a man, and a three-year-old survived the attack.
- After the trial in 2008, the Special CBI Court sentenced 11 men to **life imprisonment** on the charges of conspiring to rape a pregnant woman, murder unlawful assembly under the Indian Penal Code.
- The court acquitted seven other accused for lack of evidence. One of the accused had died during the trial.

What is contemporary development?

- Gujarat government has recently granted **remission** to all the 11 accused.
- Premature release of 11 convicts in the Bilkis Bano case by the Gujarat Government has generated some critical reactions throughout the country.

What is mechanism of remission?

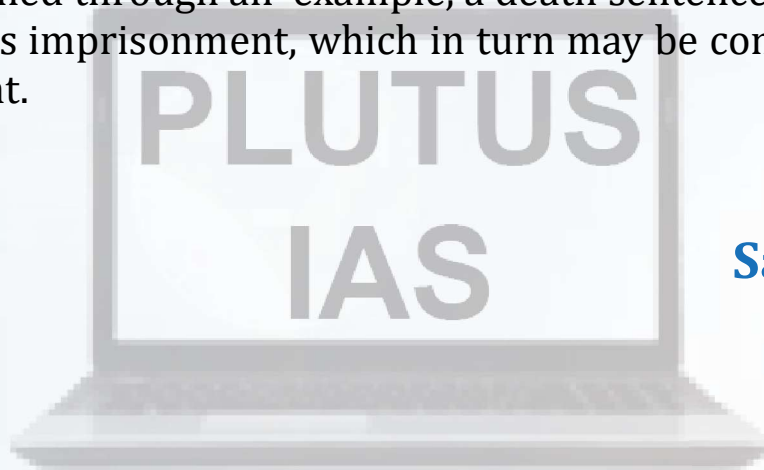
- The Constitution of India conferred the power on the President of India and the Governors of the States by **Articles 72** and **161** respectively.
- When the President or the state Governor chooses the pardoning power of Remission, he acts to reduce the period of the sentence but the character of the sentence remains the same. For example, a sentence of rigorous imprisonment for two years may be remitted to rigorous imprisonment for one year but the imprisonment remains rigorous.

Other pardoning powers

1. **Pardon**– When the President pardons, both the sentence and the conviction of the convict completely absolve the sentences, punishments and

disqualifications.

2. **Reprieve**– When the President chooses the pardoning power of ‘Reprieve’; he stays the execution of a sentence (especially that of death) for a temporary period. By doing this, he enables the convict to have time to seek pardon or commutation from him
3. **Respite**– When the President uses the pardoning power of ‘Respite’, he chooses to award a lesser sentence in place of one originally awarded to the convict. For example, due to some special fact, such as the physical disability of a convict or the pregnancy of a woman offender, the President can use this power.
4. **Commute**– When the President chooses to use this pardoning power of ‘Commute’; he substitutes one form of punishment for a lighter form. It can be explained through an example, a death sentence may be commuted to rigorous imprisonment, which in turn may be commuted to simple imprisonment.



Samarth singh



CURRENT AFFAIRS

AUGUST 2022

Sovereign Gold Bond

What is the Sovereign Gold Bond?

If we buy gold bars and gold coins as an investment, then we are buying physical gold. But if we invest in these gold bonds floated in the market, which allow us to capture the price movement and also pay a fixed interest just like bank fixed deposits, then it will give great returns. A sovereign gold bond is a simple and a superior alternative to buying physical gold.

Sovereign Gold Bond Scheme 2022-23

- Government is in consultation with the Reserve Bank of India and decided to issue Sovereign Gold Bonds in tranches for 2022-23. These Gold Bonds are issued as Government of India Stock under the Government Securities (GS) Act, 2006
- In November-2015, the SGB scheme was also launched. Its main objectives are:- to reduce the demand for physical gold, shift a part of the domestic savings which is used for the purchase of physical gold into financial savings.
- SGB are issued by the Reserve Bank of India (RBI) on behalf of the GOI.
- SGB are sold through Commercial banks, post offices, Stock Holding Corporation of India Limited (SHCIL), and recognised stock exchanges, NSE and BSE, either directly or through agents.
- These bonds are restricted for sale to resident individuals, Hindu Undivided Families (HUFs), trusts and charitable institutions.
- SGB prices are linked to the price of gold of 999 purity (24 carats) published by India Bullion and Jewelers Association (IBJA), Mumbai.

- A fixed rate of 2.5% per annum is applicable on the scheme, payable semi-annually.
- The interest on Gold Bonds is taxable as per the provision of Income Tax Act, 1961.
- The capital gains tax arising on redemption of SGB to an individual has been exempted.
- Gold bonds can be purchased in the multiples of one unit, up to certain thresholds limit for different investors. Minimum permissible investment is 1 gram and maximum limit for retail (individual) investors and HUFs is 4 kilograms (4,000 units) each per financial year. For trusts and similar entities, an upper limit of 20 kilograms per financial year is applicable.
- Maturity period of gold bonds is of eight years, with an option to exit the investment after the first five years.

SOVEREIGN GOLD BOND ADVANTAGES OVER PHYSICAL GOLD

- SGB allows you to get a lower price than physical gold when applied online.
- It gives a fixed interest rate.
- It has no holding or storage cost.
- These bonds carry a sovereign guarantee since they are issued by the government.
- There is no capital gains tax at maturity or redemption for individual investors.
- There is an indexation benefit if the same is transferred before maturity for non-individual investors.
- These bonds are highly liquid. This is because the investment can be used as collateral for loans

Source :- PIB.Gov

Puneet Bhatia

CLOUDBURSTS- A THREAT

CONTEXT: In this season of the monsoon rainfall HILLY STATES have witnessed the consistent incidences of the cloudbusting phenomenon. These led to consequent flash floods and landslides in those regions leading to discontinuity in regular mode of life.

IN-DEPTH

India being a monsoonal country and a land with diverse topography has also occurrences of the various climatic phenomenon. The cloudbursts is one such major issue, particularly in the hilly and mountainous states where its occurrence is most frequent and common in the rainy season.

WHAT ARE CLOUDBURSTS?

Cloudbursts, as defined by the IMD, is so intense rainfall in any region which is 10cm or above in an hour and over a spread of 10km * 10 km. This definition makes the identification of it easier. However, in many regions, due to lack of gauging and measuring mechanism sometimes only higher rainfall can be termed as cloudbursts. But we need to consider that it essentially involves a high rainfall in a short time and also a localized phenomenon.

THE REASONS FOR ITS OCCURRENCE ?

The cloudbursts is, as mentioned , a localized phenomenon and hence effective reasons to generalize are difficult. But, still most commonly it occurs when over in the region has high cloud cover and high relative humidity. However the cloud failed to condensate timely and gathered more humidity. When those clouds get uplifted by the mountain or any obstruction, it leads to condensation immediately. This led to intense rain in a very short time as happened in a well known cloudburst event in 2013 in Kedarnath.

WHERE DO THEY OCCUR ?

In India, the occurrence of it is so common in the hilly region as it offers upliftment and condensation. States as Himachal Pradesh, Uttarakhand and Jammu and Kashmir union territory are more prone to it. Some incidents in Arunachal Pradesh, Meghalaya also noted. The Himalayan states are, thus more prone to it than other mountainous region as conditions of high relative humidity and mighty height of the Himalayas makes it possible to happen.

WHAT ARE THE AFTER RESULTS?

Cloudbursts as severe climatic condition and hence leads to after ripple effects as

- Flash floods
- Landslides
- Mudslides
- Mass movements

Which lead to significant impact on socio-economic activities of the region as road blockage, death toll (Kedarnath, Himachal Pradesh), migration and rehabilitation etc.

ARE THEY PREDICTABLE ?

Cloudbursts are difficult to predict well in advance like monsoon forecasting. As it is mainly driven by localized conditions, predictions require many data inputs and detailed analysis.

DOES IT INVOLVE ANY ROLE OF CLIMATE CHANGE?

According to Down to Earth, as like any other climatic phenomenon, the occurrence of the cloudbursts also has a role of climate change. The Oceans are warming more which boosts the moisture content of the clouds and their potential for intense rain. Thus, climate change has direct and indirect bearing on this phenomenon.

PREVENTION AND MITIGATION MEASURES

Well in advance weather forecasting is the best strategy to deal with. Use of local weather data collection and analysis is needed. Doppler radar can be an effective information provider.

Identifying the possible hotspots and zone of frequent occurrences can help to manage the disaster. The management strategy as given by NDMA plan and formulation of local disaster management committee to deal with such localised disasters must be ensured.

Cloudburst as a climatic extremity has a huge impact on the development and stability of the hilly region. Effective weather forecasting and prevention and mitigation strategies can avoid significant damage led by cloudbursts.

Akshay gurubhaiye

Undertrials – A case study of denial of justice

Recently in *Satender Kumar Antil v. CBI* case, the SC has asserted mandatory compliance with Sections 41 and 41A of the Criminal Procedure Code (CrPC) to give primacy to bail for undertrials. This has again reignited the debate on the rights of undertrials and the denial of justice.

- Previously in a 2014 judgement, SC has asked not to arrest the accused automatically when the offence is punishable with imprisonment for a term which may be less than seven years.
- On the contrary, SC (in *Vijay Madanlal Chaudhary v. Union of India* (PMLA case)) upheld the arbitrary conditions of bail under Section 45 of the Prevention of Money Laundering Act, thus discarding the “presumption of innocence” principle.

Right of Speedy Trials:

SC in *Husain ara Khatoon* case has held that under Art. 21 a person has the right to speedy trial and justice.

Undertrials in India:

According to the ‘Prison Statistics India 2015’ report, released by the National Crime Records Bureau (NCRB), 67% of the people in Indian jails are under trials (people not convicted of any crime and currently on trial in a court of law). In which Bihar had the highest proportion of under trials, followed by Jammu & Kashmir. The occupancy rate at the all-India level at the end of 2015 was around 114%.

Reasons for the delay in justice:

- Overburdened and understaffed judiciary as according to the Law Ministry (2016) there are only 18 judges per million population, while the Law Commission has recommended a minimum of 50 judges per million.
- According to “Access to Justice survey”, legal system in India is too expensive for most of the citizens. About 90% of the litigants earn less than Rs. 3 lakh/ annum.
- Most of the people don’t use govt. legal aid because of the lack of communication and accountability.

- There are a smaller number of Prison officials, who have to regularly review the legal status of under trials to determine whether they have spent enough time in custody to warrant release under Section 436 A of Cr.P.C.

Laws in this regard:

The Cr.P.C was amended to introduce Section 436A, to reduce overcrowding of prisons. Under this section, an undertrial prisoner shall be released on personal bond if he or she has undergone detention for a period extending to half of the maximum period of imprisonment s/he likely to get.

What needs to be done?

- Keeping in view the human rights of the prisoners, it is essential that they are given reasonable space and facilities in jails. [US Multi story building model can be used].
- An undertrial review committee, as asked by the SC to review the status of under trails.
- The Legal Services Authorities, Lok Adalat and ADRs must be popularized to be used.

Alternatives:

- Open Prisons: Supreme Court has directed the Centre to consider setting up of open prisons, also called as minimum-security prison under Prisons Act, 1900. There are around 69 open prisons in India but only convicts can come here, not the under- Trails. It has various benefits like reduced overcrowding, Psychological benefits and skill enhancement.
- Justice Roy Committee: Free phone call a day to his family members, trial through video-conferencing, at least 1 lawyer for every 30 prisoners and Special fast-track courts.
- Currently, there are no laws in India that expressly allow conjugal visits to inmates.

Efforts:

- National Legal Services Authority (NALSA) has launched a Web Application for free Legal Services to Prisoners.
 - It will show data regarding the status of representation through a barrister

(pvt. or govt. or not represented), among inmates languishing in jails.

- Thus, this will be useful for all the relevant authorities to monitor the grant of legal aid to the prisoners in order to ensure that absolutely no prisoner goes unrepresented right from the first day of his production in the court.
- **Project Progress Monitoring System (PPMS)/E-courts mission project:**
 - The project implements ICT in Indian judiciary from filing of appeal to execution level. It also provides regional languages support.
 - It will increase transparency, accountability & cost-effectiveness.

Thus, from above debate it can be seen that the denial of justice is indeed a problem in case of undertrials. The blame for the same lies not only at government but also at judiciary. For this the suggestions mentioned above must be implemented.

Vikas gupta

Non Fungible Tokens (NFTs)

- NFTs are tokens that we can use to represent ownership of unique items.
- Items like videos, photos, drawings, GIFs, music, selfies, art, collectibles, real estate and even a tweet can be turned into an NFT, which can then be traded online by using cryptocurrency.
- “Tokenizing” these real-world tangible assets makes buying, selling, and trading them more efficient while reducing the probability of fraud.
- NFTs can also function to represent individuals’ property rights, identities and more.
- They can only have one official owner at a time and they’re secured by the blockchain.
- NFT stands for non-fungible token. Non-fungible is an economic term that you could use to describe things like your art, song, furniture etc. These things are not interchangeable for other items because they have unique properties.
- NFTs are cryptographic assets on a blockchain with unique identification codes and metadata.

- In early March 2021, a group of NFTs by digital artist Beeple sold for over \$69 million. The sale set a precedent and a record for the most expensive pieces of digital art sold thus far. The artwork was a collage of Beeple's first 5,000 days of work.
- **Currently, popular NFT marketplaces are: OpenSea.io, Rarible, Foundation.**
- Although these NFTs platforms are host to thousands of NFT creators and collectors, before buying them, proper research should be done. Some artists have fallen victim to impersonators who have listed and sold their work without their permission.
- Unlike cryptocurrencies, they cannot be traded or exchanged at equivalency. This differs from fungible tokens like cryptocurrencies, which are identical to each other and, therefore, can serve as a medium for commercial transactions.

How Is an NFT Different from Cryptocurrency?

- NFT stands for non-fungible token. It's generally built using the same kind of programming as cryptocurrency, like Bitcoin or Ethereum and both being built on Blockchain but still both are different from each other
- Cryptocurrencies are "fungible," it means they can be traded or exchanged for one another. They're also equal in value— one Bitcoin is always equal to another Bitcoin. Crypto's fungibility makes it a more trusted means of transactions on the blockchain.
- NFTs are non-fungible. Each has a digital signature that makes it impossible for NFTs to be exchanged for or equal to one another. Non Fungible means NFTs aren't mutually interchangeable.

NFTs are used for the following cases

- Investments and collateral
- Digital content
- Physical items
- Gaming items
- Domain names

Risks associated with buying NFTs

- Several incidents of NFT scams have been reported including the emergence of fake marketplaces, unverified sellers.
- Unverified sellers also impact real artists and sell copies of their artworks for half prices.
- Hacking of the NFT collections.
- Ownership issues
- Environment issues, for validation of transactions require crypto mining, as a result high powered computers that run at a very high capacity, affecting the environment

Anoop singh

Cheetah from Namibia set to reach in sept: union minister

GS paper 3, conservation

Prelims: kuno palpur national park, NTCA

Mains: specification of cheetah,

Why is it in the news?

India is reintroduction 6 to 8 cheetah to the kuno-palpur in Madhya Pradesh, translocating from Namibia, these are African cheetah

Recently, the Union Minister for Environment, Forests, and Climate Change launched the 'Action Plan for Introduction of Cheetah in India' under which 50 of these big cats will be introduced in the next five years.

Background of the news

The Asiatic cheetah become extinct in India in 1948. Why so?



Cheetahs are the only carnivore to have gone extinct in India. The main reason for the extinction of cheetahs is hunting and habitat loss due to the rapid growth of industrialization in that era by the British government.

It is being recorded that the last three cheetahs were killed by the maharajah Ramanuja Pratap Singh Deo of Surgunja state, Koriya district now in Chhattisgarh in 1948

And in 1952, the Indian government officially declared the extinction of cheetahs in the country. It was also found in the book of historians of the medieval era, that the Mughal emperor Akbar, who reigned from 1556 to 1605, collected 9000 cheetahs for coursing.



Even some British policies were responsible for the extinction of the cheetah in India.

The Asiatic cheetahs are extinct in India, Iran, Central Asia, Afghanistan, and Pakistan. African cheetahs are vulnerable Asiatic is critically endangered with Iran having left with only 12 Asiatic Cheetahs in the Country.

The state wildlife board of Andhra Pradesh was the 1st who suggested the Indian government reintroduce cheetahs in India in 1955 on an experimental basis.

But, the attempt to bring cheetahs to India was revived once more in 2009, after a number of sites were checked and at last, Kuno-palpur was chosen as the most suitable for the reintroduction of cheetahs in India.

However, in 2010, the supreme court stayed the order to introduce cheetahs to Kuno-palpur. In January 2020 the supreme court passed the approval.

Finally, after 70 years, the cheetah will be welcomed by the Kuno-palpur of Madhya Pradesh, India which will be the only wildlife protected area in the world to host all four major cat species, i.e.

lion, tiger, cheetah, and leopard.

On their arrival, the cheetah will be kept at the enclosure in Mukundara Reserve in Rajasthan. Keeping, and breeding cheetahs in captivity is against the law in Namibia, so they can hunt in the wild.



The other sites recommended for holding and conservation breeding of cheetah in India, in controlled wild conditions are:

1. Nauradehi Wildlife Sanctuary (1,197 sq. km, habitat 5,500 sq.km), Madhya Pradesh
2. Gandhi Sagar Wildlife Sanctuary – Bhainsrorgarh Wildlife Sanctuary complex (~2500 sq.km), Madhya Pradesh
3. Shahgarh bulge in Jaisalmer, Rajasthan (4,220 sq.km)
4. Mukundara Tiger Reserve as fenced enclosure (~80 sq.km), Rajasthan

The animals will be maintained in 3-4 metapopulations with Kuno-palpur getting 6-8 cheetahs. The male cheetahs will be released prior to the female cheetah. This will prevent males from wandering away. Over 3 -4 years, we will acquire 50 cheetahs from South Africa and Namibia.

What is the national tiger conservation authority (NTCA)?

The National Tiger Conservation Authority (NTCA) has been constituted under section 38 L (1) of the Wildlife (Protection) Act, 1972.

The authority is consist of

the Chairperson, Vice-Chairperson, and members.

the authority is structured as the Minister in charge of the Ministry of Environment and Forests (as Chairperson),

the Minister of State in the Ministry of Environment and Forests (as Vice-Chairperson),
three members of Parliament, the Secretary,

Ministry of Environment and Forests and other members.

The National Tiger Conservation Authority (NTCA) inked a memorandum of understanding (MoU) with Indian Oil Corporation to relocate cheetahs from Africa to India, under Project Cheetah.

NTCA is the nodal agency authorized by MoEF&CC for funding, supervision and hand holding. Indian Oil will contribute its CSR funds to NTCA, which shall coordinate with the State Govt. of Madhya Pradesh and other agencies involved in the project.

What will be the benefits of the reintroduction of cheetahs in India?

There will be higher protection status in the Kuno-palpur national park as the whole world keeps an eye on it.

There will be a boost in the entire ecology

Resources brought in the protection will enhance livelihood options for locals of the Kuno-palpur national park

The project will create tremendous opportunities for ecotourism.

farhin

Anganwadi Scheme

Anganwadi Scheme

Why in news?

The Anganwadi scheme, created to assist children under the age of six, has not yet reached its full potential.

The Integrated Child Development Scheme (ICDS):

- One of the Government of India's major programmes, the initiative was introduced on October 2, 1975.
- It stands for one of the biggest and most distinctive early childhood care and development programmes in the entire globe.
- It is the most important representation of the nation's dedication to its children and nursing moms.
- The programme is a solution to the conflict between stopping the cycle of hunger, illness, diminished learning capacity, and mortality on the one hand and providing non-formal pre-school education on the other.
- The Scheme's beneficiaries include pregnant women, breastfeeding mothers, and children between the ages of 0 and 6.
- The government's Integrated Child Development Scheme (ICDS), which serves approximately 30 million children in the age range of 3-6 in 1.3 million centres nationwide, includes the Anganwadi system.

What role do parents play in the Anganwadi system?

- Parents are frequently referred to in ICDS reports as beneficiaries, passive recipients of rations, immunisation clinics, and more recently, schooling.
- Parents, on the other hand, do not see themselves or their kids in this way.
- For them, education is a method to achieve their goals and a route to social mobility so that their offspring can benefit from the possibilities they didn't get.
- Primary enrollment rates above 90% are a direct result of parents believing that education provides prospects for a better life.
- needs for their kids' math, writing, and English language abilities.
- It's simple to accomplish this.
- introducing young children to the English language in a comfortable, age-appropriate manner
- The greatest method to become fluent in any other language is to realise that it is the language that is spoken at home.

- A fantastic technique to encourage fine motor skills and future writing is to give them a pencil to scribble with for a few minutes each day, obviously without making them write letters and numbers constantly.
- By showing the wonder of math through enjoyable tasks like estimating, comparison, sorting, and seriation, math might be made simple.
- This lessens their aversion to arithmetic and the paralysis by analysis that prevents them from succeeding in STEM fields.

Way Forward

- Anganwadi centres might adhere to regular daily schedules that divide time between teacher-led and self-directed activities aimed at fostering the development of cognitive, literacy, and numeracy abilities.
- They can also have frequent Shiksha Choupals (parent-teacher gatherings) to show the parent community what learning is taking place in the Anganwadi and to increase their confidence in this organisation.
- In the next five years, it will be critical to launch a widespread awareness campaign about age-appropriate ECCE that includes parents as stakeholders.
- To activate Anganwadi 2.0 in the ECCE ecosystem, it is vital to embrace the power of “abhibhavaak-bhagidari” (parent participation).

Puneet Bhatia

‘SEEING THE UNSEEN: THE VALUE OF WATER’

August 23 to September 01 in the year 2022, is the week where the water experts, enthusiasts and environmentalists will gather in Stockholm, Sweden. The reason being the WORLD WATER WEEK CONFERENCE which invites all stakeholders to participate and deliberate on the status of the water and its related issues. The theme is **‘Seeing the unseen: The value of water’**.

DETAILS OF THE CONFERENCE

The conference has been organised by the Stockholm International water Institute(SIWI) since 1991 to bring all stakeholders at common place and discuss the

ways to deal with water issues. It brings out the participation of NGOs, water activists, research scientists, business enthusiasts and various international organisations.

WATER AND ITS UNSEEN VALUE

The Earth is possibly the only known planet which hosts a significant amount of the water. Surface has **71%** area occupied by the water leaving **29%** space for the continental landmass. The water distribution is highly uneven in the world and thus makes it more significant.

WATER AND LIFE

Of overall water on the surface hardly **2.5%** is drinkable freshwater in different forms and thus involves use by the living. It is possibly the mutual relation of the solar radiation and the water which makes life on the surface possible. In fact, of the living body it forms a significant proportion like for example the human body is made up of almost 60-70% water which can be tagged as '**water body**'. Water by means of hydrological cycle re-circulates and maintains its balance over the globe.

WATER AND CULTURE

Water is the most important determinant of the civilisation of humans. Even in ancient times, the preference of humans to settle was in the periphery of the lake, well and river which gives circular, semi-circular patterns of settlements. It is no wonder that the most ancient and enriching civilisations flourished on the banks of the rivers. The best example is **Indus valley civilisation** at the banks of the Indus, **Egyptian** at the Nile and **Mesopotamian** at the Euphrates-Tigris. Even in technology bombarded civilisation of modern times the preference for sea facing apartments and lake view houses shows the affinity of man towards water.

Many festivals of the world are water related and depend on the nature of water. As **Songkran** in

Thailand, Thingyan in Myanmar are a few examples. The water sports are also common and promote tourism as in **Kerala's snake boat race**.

WATER AND ECONOMY

Water dependent economy is the major thrust behind the current civilisation. Almost all major industries are dependent on the availability of water, for example the steel industry in Jamshedpur. Also the water as a means of transportation actually drives our economic growth. In the world, almost **80%** of world trade by volume is by marine routes and additionally supported by the inland navigational channels. Also booming water exporting industry, meat and processing, fishing and canning and tourism are major parts of the water economy.

WATER AND POLITICS

Water is a **major driver** of politics in the world and with incremental development of mankind the importance of water as a political tool will, no doubt, increase. The world can trace many political disputes originating from the water as it negatively impacts the federal character in India. Almost 10 water dispute tribunals are formed till date and many more demands are in the pipelines. Even internationally, there are numerous examples of countries fighting for water but rare examples of cooperation like **the Sankosh river treaty** between India- Bhutan.

WATER AND ECOSYSTEM

Water is the most important abiotic component of an ecosystem. It activates all major ecosystems phenomena and makes them enriching the earth. Water is an important biological resource which when utilised to the fullest potential can bring degrading ecosystem balance backtrack.

Thus water is **“life”** and everyone of us has to take his own part to make it more equitably and sustainably available to everyone (flora and fauna). Governments are taking their part seriously now with few exceptions and conferences like this are real breeding ground for water changes. The need is also to promote individual responsibility as problems like water scarcity can only be solved by it.

Akshay gurubhaiye

Tomato Flu/Fever

Tomato Flu

- Tomato flu/fever is a rare contagious disease of viral nature in humans.
- It is caused by Coxsackievirus A 16. It belongs to the Enterovirus family.
- It has been called tomato virus because the symptoms include small grape-like blisters that can actually grow as big as a tomato and are red like a tomato.
- Its symptoms are similar to dengue fever and Chikungunya virus.
- The flu is said to affect children below five years of age and infected children have skin irritation and severe dehydration issues.

Tomato Flu in India

Tomato flu is an unexplainable viral disease spreading in some states of India. It is a clinical variant of the Hand, Foot and Mouth Disease (HFMD), which was first reported in Kollam district in Kerala on May-6-2022, has now spread to three other states – Tamil Nadu, Haryana, and Odisha.

Symptoms of Tomato Flu

The symptoms of tomato flu are similar to chikungunya or dengue infection. The chief identified symptoms of this infectious disease are the following:

- Large, red-colored, and spherical blisters on multiple body parts.
- Body pain
- Tiredness and fatigue
- Rashes and irritation
- Nausea and vomiting
- Dehydration
- High-grade fever
- Swollen and painful joints
- Frequent coughing

- Patches and discoloration on various body areas: – hands, buttocks, and knees
- Runny nose and sneezing
- Abdominal pain and cramps

Cause of Tomato Flu

Presently, the exact cause of the infection is still undisclosed. Many researchers are still investigating the causative organism responsible for tomato flu. And it is a transmissible disease, the healthcare providers advise taking precautionary measures to avoid infection.

Is tomato flu a contagious infection?

Yes, Tomato flu is a contagious disease that spreads through direct contact. It is common among children due to lack of hygiene maintenance. The infectious virus remains in a child's body for many weeks after the infection subsides, making them favorable carriers. Adults can also transmit the virus while handling children without showing any signs and symptoms of the disease.

Treatment of Tomato Flu

- Tomato flu is a self-limiting infectious disease as the signs and symptoms resolve after a few days. It is a rare disease and has recently emerged, so no disease-specific medications are available.
- But still treatment of tomato flu is similar to diseases like chikungunya and dengue— isolation, rest, plenty of fluids, and hot water sponge for the relief of irritation and rashes.
- The doctors provide symptomatic care according to the infected child's needs and prescribe antipyretic and pain-relievers to subside symptoms.

Prevention of Tomato Flu

As we all know, prevention is the best treatment in a sudden unknown disease outbreak. That's why following are some preventive measures we should keep in mind:

- Avoid close & immediate contact with the infected person.
- Aware the children about the signs, symptoms and its side effects.

- Encourage children about hygiene maintenance and stopping thumb or finger sucking habits.
- Encourage the children to use a handkerchief in case of a runny nose or coughing.
- Fluid (water, milk or juice) intake should be increased to counter dehydration.
- Balanced & nutrition-rich diet to boost immunity.
- Isolate the infected patient.
- Good & sufficient rest and sleep to promote healing.
- Use warm water to clean skin or for bathing

Anoop Singh

India's Refugee Crisis

Current Affairs

India's Refugee Crisis

By the beginning of 2010, the nation had taken in close to 450,000 refugees from both within and beyond the area. The refugee flood started with the partition of India in 1947.

India did not ratify either the 1967 Protocol on the Reputation of Refugees or the 1951 Refugee Conference. India has no laws governing refugees, therefore there is no standard way to treat refugees there.

However, the greater issue of human rights and humanitarian law, as well as other areas of international law, like State responsibility and peacekeeping, have grown to be inextricably interwoven with refugee law.

What is India's current legal framework for handling refugees?

- All foreigners, including those who enter the country illegally, seek asylum, or overstay their visas, are treated equally in India.
- The Central government is authorised to find, arrest, and deport unauthorised foreign people under Section 3 of the Foreigners Act of 1946.
- Article 258(1) of the Indian Constitution allows for the removal of an illegal

foreigner by force, according to Section 5 of the Passport (Entry into India) Act, 1920.

- All foreign nationals (except Indian citizens living abroad) entering India on a long-term visa (more than 180 days) are required by law to register with a registration officer within 14 days of their arrival. This is in accordance with the Registration of Foreigners Act of 1939.
- 1955's Citizenship Act included provisions for citizenship renunciation, termination, and deprivation.
- Additionally, the Citizenship Amendment Act, 2019 (CAA) aims to offer citizenship solely to immigrants who were persecuted in Bangladesh, Pakistan, and Afghanistan who are Hindu, Christian, Jain, Parsi, Sikh, or Buddhist.
- India published a Standard Operating Procedure (SOP) that all relevant authorities must adhere to when interacting with foreign nationals who make refugee claims.
- Additionally, the life, liberty, and dignity of every human being are respected by the Indian Constitution.
- In *National Human Rights Commission v. State of Arunachal Pradesh* (1996), the Supreme Court ruled that while all rights are available to residents, everyone has the right to equality and the right to life. This includes foreign nationals.

How are refugees faring in India?

- Since gaining its independence, India has taken in many different refugee groups from its neighbours, including: Pakistani Partition refugees in 1947.
- Tibetan migrants who came in 1959.
- Early 1960s: Chakma and Hajong from modern-day Bangladesh.
- In 1965 and 1971, further Bangladeshi refugees.
- Tamils from Sri Lanka who fled during the 1980s.
- The most recent refugees from Myanmar were Rohingya in 2022.

Why does India not sign the 1951 Convention on Refugees?

- Problem with the Refugee Definition: The 1951 agreement defines refugees as those who have been denied their economic rights, but not their civil or

political rights.

- It is obvious that the developed world would bear a heavy burden if the violation of economic rights were to be considered a refugee.
- India believes that the 1951 treaty is mostly eurocentric and pays little attention to the South Asian nations. It will also have an impact on India's domestic laws and safety.

What difficulties do refugees in India face?

- **Fear and Uncertainty:** In society, refugees are not given much weight. They experience poor treatment from the locals and grow fearful and uneasy as a result.
- Because they do not share the same soil as the locals, they are frequently physically and emotionally abused by them.
- **Lack of Basic Amenities:** They struggle to obtain needs of life including food, housing, and job.
- They are compelled to work for meagre pay with no special rights or status.
- **Lack of a Clear Plan for Their Protection:** India's Ad Hoc Administrative Policy on Refugees has Produced a Confusion of Environment.
- Insecurity and exclusivity are caused by ignorance and misinformation within the refugee groups.
- **Time-consuming Identification Process:** The United Nations High Commissioner for Refugees issues a refugee card after determining the person's refugee status, however this procedure is laborious and can take up to 20 months to complete.
- If someone is apprehended by the police during that time, they will be imprisoned, arrested, and deported without even having access to the UNHCR.
- **Mislabeled as Immigrants:** Over the past few decades, a large number of residents of nearby nations have entered India illegally, not as a result of government persecution but rather to benefit from the country's better economic conditions.

What should be the next step?

- **Equitable and Effective Registration Procedure:** Procedures for determining

status should be made more equitable and effective while strengthening or maintaining standards in registration and identification.

- **Enhancing Basic Facilities:** It is important to provide access to necessities and services.
- These include expanding educational opportunities, supporting special needs programmes, and sustaining healthcare infrastructure.
- **Making local residents aware of the need to provide housing for refugees and increase their ability to rely on themselves by giving them a temporary source of income.**
- **Providing for the Safety of Women and Children:** In accordance with the Fundamental Duty contained in our Constitution, we must protect women and children who are refugees from violence and harassment on the part of locals or authorities.
- Every citizen is required by Article 51A (e) to disavow actions that are disrespectful to women's dignity.
- **Support in Emotions:** A person becomes a refugee due to events that are out of their control.
- He or she runs away because of political, socioeconomic, and human rights violations that make them fearful of being persecuted. In this case, in addition to financial support, we should strive to offer inclusivity and emotional support.

Vivek Raj

DRDO tested indigenous missile VL- SRSAM

Current Affairs

GS Paper 3

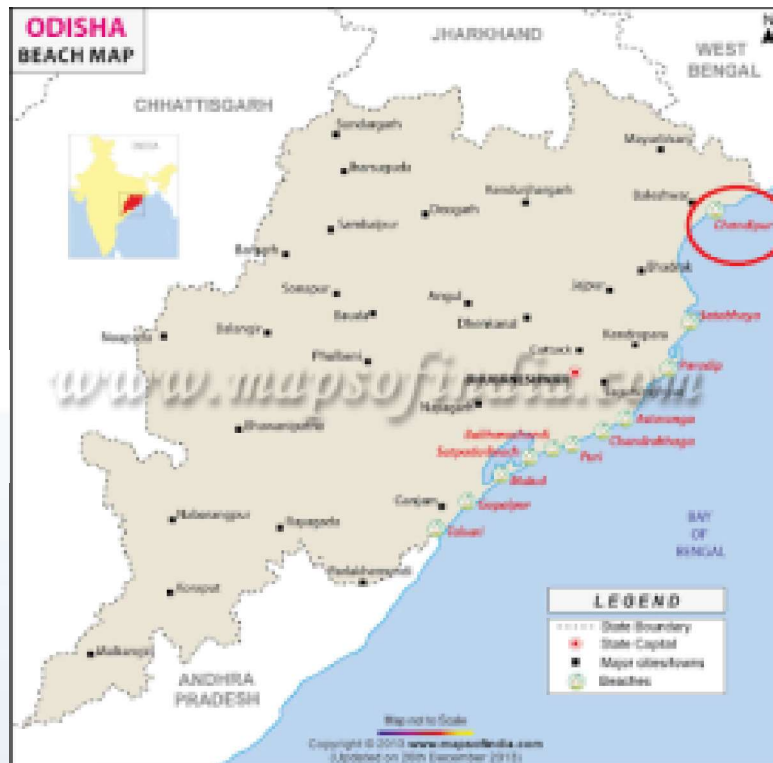
Prelims: About VL- SRSAM, DRDO

Mains: capabilities of VL- SRSAM

Why is it in the news?

The Defence Research and Development Organisation (DRDO) and the Indian

Navy on Tuesday successfully flight-tested the indigenously developed Vertical Launch Short Range Surface-to-Air Missile (VL-SRSAM) from the Integrated Test Range (ITR) at **Chandipur off the coast of Odisha**.



About VL- SRSAM

- **VL-SRSAM** stands for Vertical Launch – **Short Range Surface to Air Missile**.
- It is a quick reaction **surface-to-air missile** developed by Defence Research and Development Organisation (DRDO)

(A **surface-to-air missile** (SAM), also known as a ground-to-air missile (GTAM) or surface-to-air guided weapon (SAGW), is a missile designed to be launched from the ground to destroy aircraft or other missiles.)

- It has been designed and developed jointly by three facilities of the Defence Research and Development Organisation for the deployment of Indian Naval warships.
- It has **been designed in a way to neutralise various aerial threats** at close ranges including sea-skimming targets.

(**Sea skimming** is a technique many anti-ship missiles and some fighter or strike aircraft use **to avoid radar and infrared detection**.)



Design of VL-SRSAM

The design of VL-SRSAM is based on the Astra **missile, which is a Beyond Visual Range Air to Air missile**

- (Astra (“weapon”) is India’s first air-to-air all-weather beyond-visual-range active radar homing air-to-air missile, developed by the Defence Research and Development Organisation.)
- (A Beyond-Visual-Range missile (BVR) is an air-to-air missile that is capable of engaging at ranges of 20 nautical miles or beyond.)

VL-SRSAM is designed in such a way that it will be able to strike high-speed airborne targets at the range of 40 to 50 km and at an altitude of around 15 km.

What are the features of VL-SRSAM?

- **Cruciform wings:** they are four small wings arranged like a cross on four sides and give the projective a stable aerodynamic posture.
- **Thrust Vectoring:** thrust vectoring is an ability to change the direction of the thrust from its engine to control the angular velocity and the attitude of the missile, an official said. (**Thrust** is the force that moves an aircraft through the air.)
- It is a **canisters system**, which means it is stored and operated from specially designed compartments.
- the canister controls the environment inside, thus making its transport and storage easier and improving the shelf life of weapons.

Significance

This favourable result will further intensify the defence capability of Indian Naval Ships against aerial threats.

Defence Mechanism:

Chaffs(originally called Window):

- It is a radar countermeasure in which aircraft or other targets spread a cloud of small, thin pieces of aluminium, metallized glass fibre or plastic, which either appears as a cluster of primary targets on radar screens or swamps the screen with multiple returns, in order to confuse and distract, developed in the 2nd world war
- Missiles to counter Anti-Ship missiles:
- These systems have to have a swift detection mechanism and quick response to warships.

What is DRDO?

- DRDO is the R&D wing of the Ministry of Defence, under the government of India with a perception to empower India with cutting-edge defence technologies and a mission to achieve self-reliance in critical defence technologies and systems, while equipping our armed forces with state-of-the-art weapon systems and equipment in accordance with requirements laid down by the three Services.
- The tag line of DRDO says “**Balasya Mulam Vigyanam**” which says the source of strength is science-drives the nation in peace and war. DRDO has a firm determination to make the nation strong and self-reliant in terms of science and technology, especially in the field of military technologies.
- DRDO was formed in 1958 from the amalgamation of the then already functioning Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO). DRDO was then a small organisation with 10 establishments or laboratories. Over the years, it has grown multi-directionally in terms of the variety of subject disciplines, number of laboratories, achievements and stature.
- Today the headquarter of DRDO is in New Delhi, with a network of more than 50 laboratories which are deeply engaged in developing defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing and simulation, special materials, naval systems, life sciences, training, information systems and agriculture.

Farhin

Jupiter's new image

Gs paper 3

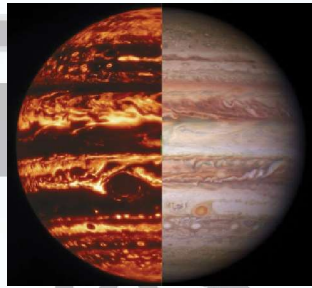
Prelims: about Jupiter, James Webb telescope

Mains: technological development in telescope and space study,

Why it is in news?

NASA has clicked new images of Jupiter, with the help of The JAMES Webb space telescope, the most powerful telescope till now.

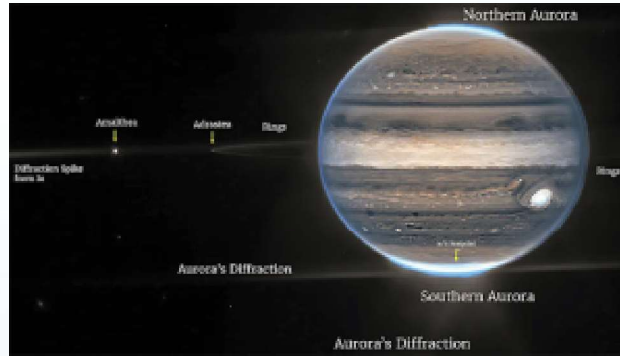
Things to know about Jupiter



- Jupiter is the 5th planet in our solar system, it is, by far, the largest planet in the solar system – more than twice as big as all the other planets combined. Jupiter, Saturn, Uranus, and Neptune are also known as Jovian or Gas Giant Planets. These are covered with a thick atmosphere, mostly consisting of helium and hydrogen.
- Jupiter's iconic Great Red Spot is a giant storm bigger than Earth that has raged for hundreds of years.
- Jupiter completes its single day in 10 hours called a Jovian day, however, takes about 12 Earth years to complete one orbit of the Sun called a Jovian year. Jupiter has a maximum number of moons i.e natural satellite, more than 75 moons.
- Jupiter's four largest moons are called the Galilean satellites named after Italian astronomer Galileo Galilei, who first observed them in 1610. These large moons, named Io, Europa, Ganymede, and Callisto, are each distinctive world.

- the Voyager mission, in 1979, discovered Jupiter's faint ring system. the most recent spacecraft arrived at Jupiter in 2016, there are nine spacecraft that have visited Jupiter till now. 7 of them flew by and 2 of them orbited the gas giant. Juno,

The new image of Jupiter



- Till now the image of Jupiter has always been the same, a yellowish-orange giant sphere. But, the latest images of Jupiter captured by NASA's newest James Webb telescope show the planet in a very different avatar.
- A greenish blue view of Jupiter can be seen in the latest infrared images of the planet reported by NASA.
- Earlier images of Jupiter's stormy Great Red Spot, Ring, Aurora, and Aurora at the North and South Poles were not clearly visible in any photo taken to date.
- The famous Great Red Spot of Jupiter, a storm so big that it could swallow Earth, appeared bright white in the image since it was reflecting a lot of sunlight, the space agency stated.
- Apart from this, all the parts of this planet are visible in a single line in a wide field picture. Its dim rings, its two satellites i.e. the moons Amalthea and Adrastea, and the bright stars are visible in the Milky Way behind them. The format of the picture was infrared. The infrared images were artificially tinted blue, white, green, yellow, and orange.

What is the James Webb telescope.?

- The James Webb Space Telescope is a large infrared telescope. It is designed in a way that it can study every phase in the history of the universe. This includes the formation of the solar system, the Big Bang, and other theories that support life on other planets.
- It has the capability to look at the past such as the first galaxies formed in the

early universe through its longer wavelengths. These wavelengths will help the telescope peer inside dust clouds from where the planets and stars are formed. NASA developed the James Webb Telescope worth \$10 billion with the assistance of the European Space Agency and the Canadian Space Agency.

- The telescope was launched to space on December 25, 2021, in Ariane 5 ECA rocket from French Guiana in South America. and is currently observing from Lagrange point 2, approximately 1.5 million km beyond Earth's orbit around the Sun. The telescope released its first image on July 11, 2022.

What are the main objectives of the James Webb Space Telescope?

- It is to find the first galaxies formed after Big Bang.
- It is to calculate and determine how galaxies evolved from their earlier formation
- It is also to observe the formation of stars from the first stages
- And To measure the physical and chemical properties of planetary systems

National Aeronautics and Space Administration (NASA)

The National Aeronautics and Space Administration is America's civil space program and the global leader in space exploration.

Established under the National Aeronautics and Space Act 1958

Headquarters: Washington, DC, USA

the main objectives of NASA

- To expand human knowledge of space
- To lead the world in space-related technological innovation
- To develop vehicles that can carry both equipment and living organisms into space
- To coordinate with international space agencies to achieve the greatest possible scientific advancements.

Farhin

Nepal Citizenship Amendment Act

Why in the news?

Nepali President Bidhya Devi Bhandari had sent back the Citizenship Amendment Act, 2006 back to the Pratinidhi Sabha i.e. the House of Representatives or the lower house of the Nepal Parliament, urging the members to reconsider the Act, which is claimed to be violating the principles of gender justices.

Why is this citizenship act needed?

1. Nepal was earlier a monarchy but it transitioned into a democracy beginning with the fall of the monarchy in 2006 and thus subsequent election of the Maoist government in 2008.
2. After the emergence of the multiparty system there was an adoption of the new constitution on 20 September 2015
3. All the Nepali citizens who were born before 20 September 2015 got citizenship through naturalization but their children remained without citizenship as for that there was need of a federal law which by that time had not been framed.
4. This amendment Act is expected to pave the way to citizenship for many such stateless youth as well as their parents.

What are the issues with Nepal Citizenship Amendment Act?

1. **GENDER INJUSTICES**: It has been criticized on the fact that it goes against the parameters of Gender injustices. It is described as follows:
 - **Article 11(2b)**: According to this, a person born to a father or a mother with Nepalese citizenship can get citizenship by descent.
 - **Article 11(5)**: According to this a person who is born to a Nepalese mother (who has lived in the country) and an unidentified father will also get citizenship by descent but this section is **humiliating for a mother as she has to declare that her husband is unidentified**, for the child to be eligible for citizenship.
 - But in this case the Nepali father, he will not have to make such declaration.

- It places a condition of permanent residency on the mother (and the child) which will determine the grant of citizenship for the child.

2. **CONTRAVENTION WITH THE PRESENT LAW:**

- **Article 11(7)** : According to this , a child born to a Nepalese mother and a father holding a foreign citizenship can get “naturalized citizenship” in accordance with the laws of Nepal which appears to contradict Article 11(2b).

Why has the amendment been framed?

- **Undermining of the culture:** There is always a concern among the orthodox sections of Nepal that Nepalese men, particularly from the Terai region that if continue to marry women from northern India then Nepalese cultural and social identity would be undermined because of this “Roti-Beti Ka Rishta” i.e Nepalese men marrying Indian women .
- **Cooling of period:** Many women could not become citizens of Nepal as they were legally subjected to the seven-year cooling off period before they could apply for citizenship in Nepal.
- As such women were stateless, children of such families were also often found to be without Nepalese citizenship.
- The new amendments have done away with the cooling off period for these stateless women.
- This will not only benefit the children of such families where the mother and children remained stateless for years but would also ensure a social egalitarian society.

Way Forward

- The reconsideration in the act is needed at this point of the hour but a real balance is to be required to maintained with the cultural identity as well. This will ensure both the goal of culture and social justice.

Samarth singh

'MISSING' SCIENTIFIC TEMPER IN INDIA

On the 75th independence day PM gave us the mantra to be a developed country by 2047. He also emphasised on the scientific temper and inculcation of that attitude in the society.

Scientific temper is not a new term to Indians as well to our highest law of the land i.e., the Constitution. It forms the very psyche of the rational and modern value based society which believes in science and its potential. The term holds much significance in the prevalence of some unscientific practices like witch hunting, irrational treatment of the disease and others. In this article I will try to explore more.

WHAT IS SCIENTIFIC TEMPER?

The term is also difficult to define as like to follow. It is a modest temper which is ready **to accept** new values, ideas and practices based on scientific clarity **even if** they are against the established norms and culture. It is a broad term which **demands** analytical inquiry of the facts and then putting them on the burner of the science to test. The result is, no doubt, a more rational and humanistic approach.

Former PM Nehru famously said “scientific approach or temper and, or should be, **a way of life, a process of thinking, a way of acting and associating** with our fellowmen”.



DOES CONSTITUTION RECOGNISE IT?

Indian constitution being a '**Living document**' has ample space for rational and scientific society. It was added by **42nd** constitutional amendment as the **Part IVA** of the constitution. Part IVA deals with the citizenry duties and to make the Indian state an active citizen participating society.

There it mentions , in article 51A, *"It shall be the duty of every citizen of India to develop the scientific temper, humanism and the spirit of inquiry and reform."* Thus it shall be the duty of every citizen to follow it in every sphere of life.

ARE WE FOLLOWING THIS DUTY?

Indian society as a mix of various cultures and values, practices inherently holds the value of scientific temper and humanism. The societal values of equality, rights, donation and other practices are indicative of duty bound citizens. Our school books and even religious textbooks also promote the spirit of inquiry and value of reform on which our child builds a culture of scientific achievements such as IPRs, various tech inventions and many supertech officers are Indians.

BUT,

Any duty is partially corrupt. Though we follow scientific temper by laws and on its face value, the following in its spirit still seems a distant dream. Take for example, even in the Government offices we still do 'Pooja' of the instruments and infrastructure which does not have any scientific rationality as such. Even in elections some jinx's are famous as Noida Jinx. Such a state promoted irrationality in the affairs which citizens considered then legitimate.

Even lack of scientific temperament is still prevalent by the untouchability (against Art 17), discrimination based on religion and work and social boycott for inter-caste marriage and witch hunting are examples of societal violations of the duty.

On an individual level we still think of ourselves as more rational and full of scientific temper. But here also seems some discrepancy as it's common family practice to keep menstruating women isolated though science says against it. We still change the root if black cat cuts in between. Even we see our results on specific PC or in a café or on mobile as if the result would change on others. Don't we do it?

HOW TO FIND – A MISSING ?

The scientific temper is **not the need but the necessity**. Active efforts are needed to put rational temperament in the society. Short term and long term measures can be put in place. As laws and regulations act against superstitions in states like Maharashtra and awareness in the society for rational values. State also needs to rectify its approach that should send the correct signal.

In the long run, **education is the best tool to change the world (Nelson Mandela)**. Our Gen Z and generations to come must be value based and scientifically oriented to contribute positively towards national development. Thus, it is our legal as well as humanly duty to follow scientific temper, humanism and continue the ignited flame of inquiry to make this great nation great again.

Akshay gurubhaiye

SGB Scheme 2022

SGB Scheme Series-II 2022-23

Why in News: SGB Scheme 2022-23 (Series II). In terms of Government of India Notification dated June 15, 2022, SGB 2022-23 (Series II) will be opened for subscription during the period August 22-26, 2022 with Settlement date August 30, 2022.

Sovereign gold bond scheme (SGB Series-II): The issue price of the Bond during the subscription period shall be Rs 5,197 (Rupees five thousand one hundred ninety seven only) per gram, as also published by RBI in their Press Release dated August 19, 2022.

Government of India in consultation with the Reserve Bank of India has decided to allow a discount of Rs 50 (Rupees Fifty only) per gram from the issue price to those investors who apply online and the payment is made through digital mode.

For such investors the issue price of Gold Bond will be Rs 5,147 (Rupees five thousand one hundred forty seven only) per gram of gold.

New issue of the government-backed gold bond scheme has opened and the scheme will remain open for subscription till 26th August 2022. The Reserve

Bank of India ((RBI) on behalf of the center has fixed issue price at ₹5,197 per gram. The bonds will be sold through banks, Stock Holding Corporation of India Limited (SHCIL), designated post offices and recognized stock exchanges — NSE and BSE. The tenor of the bond will be for a period of 8 years with an exit option after the 5th year to be exercised on the next interest payment dates.

According to market experts, one should subscribe to the second tranche of the sovereign gold bond scheme as it provided an alternative to gold investment giving an additional return in the form of interest income. They said that is opportune for the investors as the outlook for gold price is positive in the wake of rising global inflation.

Advising gold investors to subscribe to the new tranche of sovereign gold bond scheme 2022, Sugandha Sachdeva, Vice President — Commodity & Currency Research at Religare Broking said, “The latest and the second tranche of Sovereign Gold Bond Scheme 2022-23 is open for subscription from today onwards and would last for five days till August 26. SGB is a great alternative to investing in gold as it not only provides additional returns in the form of interest income, but is also free from default risk, and issues like maintenance, security, and purity. So yes, SGB would be the right choice for investors, who look for steady and hassle-free investment in gold.”

Echoing Sugandha Sachdeva’s views, Megh Mody, Commodities & Currencies Research Analyst at Prabhudas Lilladher said, “Gold is considered a hedge against inflation and in India, demand for gold is going to stay. Long term investors will buy gold whether it is physical or sovereign gold bond. With geopolitical worries and inflation still not controlled across the globe, one can subscribe to the new tranche of sovereign gold bond scheme 2022.”

Sovereign gold bond scheme benefits

Giving ‘subscribe’ tag to sovereign gold bond scheme, Nirpendra Yadav, Sr. Analyst — Commodity Research at Swastika Investmart listed out the following benefits of the gold bond scheme:

- 1] You will receive 2.5 per cent interest rate every year;
- 2] No expenses or other charges like ETF and Mutual funds; and
- 3] Guaranteed by the Government of India.

“Apart from the above-mentioned benefits, Sovereign Gold Bond prices are linked with Gold prices which most of the time rise on uncertainty, War, Pandemic, or

any natural calamity. So investors get the benefit of Gold prices along with interest on their investment,” said Nirpendra Yadav of Swastika Investmart.

“It is an opportune time to invest in Sovereign Gold Bonds, as the overall outlook for gold is positive with elevated inflationary pressures worldwide working as a key tailwind for the precious metal. Besides, worries about a global economic slowdown and lingering geopolitical risks will keep gold in demand for its safe haven status. Even as there may be short-term volatility in prices owing to the concerns about the monetary tightening path of the US Fed, the US central bank is likely to slow down the pace of rate hikes, considering its impact on the economic growth that will underpin gold prices.

Rising central bank gold purchases and upcoming festival demand will further support gold prices,” said Sugandha Sachdeva of Religare Broking adding, “Considering the macro-economic backdrop, gold is a safe and steady investment and a great tool to diversify one’s portfolio for better risk-adjusted returns over the long run.”

On gold price outlook, Megh Mody of Prabhudas Lilladher said, “MCX Gold has an overhead supply placed at ₹52,500, the yellow metal can plunge below ₹50,000 and reach in the zone of ₹48,500 levels. In the next one year it is likely to remain in the range of ₹48,500 to ₹52,500 levels. Comex Gold has a crucial support placed at \$1,680 per ounce levels. Breaching of this level can sink prices near to \$1,560 levels. For a couple of years it will be below \$1,700 and can remain in a range of \$1,450 to \$1,550 levels.”

Sovereign gold bond scheme details:

The minimum permissible investment limit in sovereign gold bond schemes is 1 gm of gold whereas maximum limit of subscription is 4 KG for individuals, 4 Kg for HUF and 20 Kg for trusts and similar entities per fiscal (April-March).

The central government, in consultation with the Reserve Bank of India, has decided to offer a discount of ₹50 per gram, less than the nominal value, to those investors applying online and the payment against the application is made through digital mode.

The price of the bond is fixed in Indian currency on the basis of a simple average closing price of gold of 999 purity, published by the India Bullion and Jewelers Association Limited for the last 3 working days of the week preceding the subscription period.

Sovereign Gold Bond Scheme: Was launched by Govt in November 2015, un-

der Gold Monetization Scheme. Under the scheme, the issues are made open for subscription in tranches by RBI in consultation with GOI. RBI Notifies the terms and conditions for the scheme from time to time. The subscription for SGB will be open as per the following calendar. The rate of SGB will be declared by RBI before every new tranche by issuing a Press Release.

As per RBI instructions “Every application must be accompanied by the ‘PAN Number’ issued by the Income Tax Department to the investor(s)” as the PAN number of the first/ sole applicant is mandatory.

Features

- To be issued by Reserve Bank India on behalf of the Government of India.
- The Bonds will be denominated in multiples of gram(s) of gold with a basic unit of 1 gram.
- The tenor of the Bond will be for a period of 8 years with exit option in 5th, 6th and 7th year, to be exercised on the interest payment dates.
- Minimum permissible investment will be 1 gram of gold.
- The maximum limit of subscribed shall be 4 KG for individuals, 4 Kg for HUF and 20 Kg for trusts and similar entities per fiscal year (April-March) notified by the Government from time to time. A self-declaration to this effect will be obtained. The annual ceiling will include bonds subscribed under different tranches during initial issuance by the Government and those purchased from the Secondary Market.
- In case of joint holding, the investment limit of 4 KG will be applied to the first applicant only.
- RBI will issue a Press Release stating issue price of the Bond before new Issue. Price of Bond will be fixed in Indian Rupees on the basis of simple average of closing price of gold of 999 purity published by the India Bullion and Jewelers Association Limited (IBJA) for the last 3 business days of the week preceding the subscription period.
- Payment for the Bonds will be through cash payment (up to a maximum of Rs. 20,000/-) or demand draft or cheque or electronic banking.
- The Gold Bonds will be issued as Government of India Stocks under Government Security Act, 2006. The investors will be issued a Holding Certificate for the same. The Bonds are eligible for conversion into Demat form.

- The redemption price will be in Indian Rupees based on the simple average of closing price of gold of 999 purity of previous 3 working days published by IBJA.
- All the branches of the State Bank of India are authorized to accept the subscription
- The investors will be compensated at a fixed rate of 2.50 per cent per annum payable semi-annually on the nominal value.
- Bonds can be used as collateral for loans. The loan-to-value (LTV) ratio is to be set equal to ordinary gold loans mandated by the Reserve Bank from time to time. The lien on the bond shall be marked in the depository by the authorized banks.

Note: The loan against SGBs would be subject to the decision of the bank/financing agency and cannot be inferred as a matter of right.

- Bonds will be tradable on stock exchanges within a fortnight of the issuance on a date as notified by the RBI.

Puneet Bhatia

Aadhaar and voter ID linking

Aadhaar and voter ID linking

Why in news?

The Election Commission has stated that filling out Form 6B's Aadhaar and Voter ID connection is entirely optional.

What past attempts have been made in this regard?

In the districts of Nizamabad and Hyderabad in 2014, the Election Commission of India (ECI) ran two pilot projects to integrate voter identification with Aadhaar.

The National Electoral Roll Purification and Authentication Programme (NER-PAP) was introduced by the ECI in April 2015.

However, the initiative was stopped by a Supreme Court decision in August 2015.

Why is Aadhaar linked to voter identification?

The Election Laws (Amendment) Bill, 2021, which aims to connect the Aadhaar to voter ID, was approved by the Lok Sabha.

The primary goal of the linkage is to prevent mistakes like duplicate voters on the electoral roster.

It is required to clean up the voting records due to the rise in migrant populations in urban sprawls, demographic changes brought on by the arrival of more eligible voters, and the death of elderly persons.

If the citizen has an Aadhaar ID card, the Ministry of Law and Justice modified Form 6 to make providing an Aadhaar number mandatory. Form 6 is used to authenticate the electoral roll.

But the Government has claimed that this process will be optional, as have later ECI authorities.

What objections have been raised to the linking?

- **Unconstitutional:** Activists point out that since an Indian citizen just needs to show proof of citizenship in order to receive a voter identification card, the rule may be deemed unconstitutional.
- **Given the proportionality requirements** that had to be completed in order to limit the right to privacy, linking Aadhaar and voter IDs may also infringe citizens' basic rights.
- **Not necessary**—only adult citizens who reside in India are eligible to vote, but Aadhaar is intended to be provided to residents.
- **Linking Aadhaar is useless** because voters can register using documents attesting to their age and present address.
- **A recent study** by the comptroller and auditor general noted that about 5 lakh Aadhaar cards were removed for being duplicates, which has led to an increase in fraud instances.
- **Voter profiling:** By connecting Aadhaar to voter IDs, organisations may abuse their access to create voter profiles based on collected data, which may then be used to drive more focused campaigning.
- **Security issues** – This potential is also made more likely by the lack of a data

protection regulation.

- Issues with data quality: Linking Aadhaar might compromise the integrity of the voter ID database.
- Data from the Internet Freedom Foundation demonstrate that the Aadhaar database has more self-reported mistakes than the electoral database does.
- Disenfranchisement: After voter IDs in Telangana and Andhra Pradesh were linked to Aadhaar numbers, nearly 55 lakh voters had their names removed from the voter list.
- According to Article 326 of the Constitution, the right to vote cannot be curtailed unless in cases of ineligibility, insanity, crime, or corrupt or illegal activity.
- Utilizing data for elections will be made simpler for political parties in power by online trends on election day and voter microtargeting using their data.

Vivek Raj

Flood Forecasting and Early Warning System

Flood Forecasting and Early Warning System

Forecasting system is essential to predict the likely increase in water level in rivers.

Central Water Commission (CWC) provides statistical methodology (gauge to gauge correlation) based short range flood forecast. Presently, flood forecasts are issued by CWC at 332 stations (133 Inflow Forecast Stations and 199 Level Forecast Stations). Annually, about 10,000 flood forecasts are issued by CWC.

CWC is currently providing a near real time five-day advisory flood forecast on its web portal <https://aff.india-water.gov.in/> for 20 major river basins of the country. The five day advance forecast is generated using various available rainfall data products like forecast rainfall data GFS (Global Forecast System) and WRF (Weather Research and Forecasting) provided by IMD (Indian Meteorological Department), rainfall estimates namely GsMaP (Global Satellite Mapping of Precipitation) & GPM (Global Precipitation Measurement), as a major input into the model system.

The system is developed in-house using modeling software for flood forecasting

which is updated every three hours for all the stations simultaneously in automatic mode during monsoon season.

CWC has also taken up the work of development of near real time Inundation Forecast for Ganga Basin through consultancy under National Hydrology Project (NHP) using High Resolution Digital Elevation Model (DEM) received from NRSC/ Survey of India / State Govt.

The data collected from field stations is transmitted from the site to the concerned Flood Forecasting Center of CWC through wireless and/or telephone/mobile and satellite based telemetry system & VSAT. The Central Water Commission maintains Wireless Stations for near real-time data communication.

These wireless sets work on pre-fixed schedules for receiving the vital hydro-meteorological data immediately after its observation. Now under the modernization program, a satellite based Telemetry System has been installed at various stations for sensor based automatic data collection and satellite based communication.

The data is transmitted to the Earth Receiving Station through Satellite and then to various Modeling Centers through VSAT Systems. The nodal officer of the dam/reservoir shares reservoir related data with CWC through uploading on Water Information Management System (WIMS) or sending through email/SMS/Phone/Wireless etc.

Dissemination of flood forecasts has also been modernized by having a dedicated website <https://ffs.india-water.gov.in>. In addition, telephone/mobile phone, fax and internet are used for dissemination of flood forecasts to user agencies. Daily Flood Situation Reports cum Advisories are shared with all stakeholders as well as the general public using social media platforms.

This information was given by the Minister of State for Jal Shakti, Shri Bishweswar Tudu in a written reply in Rajya Sabha.

This tool is designed to provide a practical, step-by-step guide to developing and operating the total flood warning system to agencies responsible for creating and communicating flood warnings. It covers predicting flood levels and the likely impacts of a flood, designing and disseminating warning messages, as well as the means of reviewing the system's effectiveness following an event.

It has been prepared to guide flood managers and can be used before, during and after emergencies. It is intended to help decision-makers establish an effective overview of the situation and find answers to their questions quickly. Many countries have already begun to incorporate flood forecasting and early warning in local and national emergency planning systems, and this tool is meant to provide

information on developing flood forecasting and early warning schemes to help with this.

In particular, the tool aims to: (i) provide basic information about flood forecasting and early warning, focusing specifically on riverine floods; (ii) identify flood forecasting and early warning components necessary to address flood risks; (iii) provide perspectives on flood forecasting and early warning strategies that are important for planning flood management activities; and (iv) provide guidance for involving local communities and individuals in flood forecasting and early warning.

Current Issue: As the 2022 monsoon season spreads across India, triggering devastating floods in Assam and other parts of northeast India, and with climate change exacerbating extreme weather events, we take stock of India's early warning systems in preventing loss of lives, property, crops and infrastructure.

The Indian government says it has modern, sophisticated early warning systems for floods and cyclones. But the lack of impact-based forecasts that identify risks, poor dissemination of information to people, lack of scientific data on the effectiveness of warning systems and lack of localized action plans to follow warnings, are some issues that plague India's Early Warning Systems (EWS), we found.

India experienced two of the world's 10 most financially devastating climate events in 2021.

Both events, Cyclone Tauktae and Cyclone Yaas, caused financial losses worth more than \$1 billion each, apart from the loss of lives.

Between 2010 and 2021, the number of people dying due to cyclonic storms has increased, and floods and heavy rains have killed around 1,000 every year from 2013 onwards.

We wrote to the Ministry of Earth Sciences (MoES) for the reasons behind this increase in mortality, especially with early warning systems. The story will be updated when they respond.

Why early flood warning systems do not work

Floods can be riverine, such as the ones seen frequently in Assam or Bihar, or they can be urban floods largely caused by extremely heavy rainfall coupled with poor stormwater drainage systems. In India, heavy rainfall that causes urban floods is monitored by the India Meteorological Department (IMD), while rising water levels in rivers are monitored by the Central Water Commission (CWC).

Presently, they are operated 1,600 hydro meteorological sites by the CWC across the country, covering 20 river basins. Many of these stations are used as flood

monitoring stations for formulating flood forecasts.

Flood forecasting comprises level forecasting and inflow forecasting. Level forecasts help the disaster management agencies in deciding mitigating measures like evacuation, shifting people and their movable property to safer locations. Inflow forecasting is used by various dam authorities to optimize the operation of reservoirs and ensure safe passage of floodwaters downstream. It also helps ensure adequate storage in the reservoirs for meeting the demand of water during the non-monsoon period.

Flood forecasts are issued by CWC at 325 stations (132 Inflow Forecast Stations + 199 Level Forecast Stations), as per a standard operating procedure, and it annually issues over 10,000 flood forecasts. CWC has tied up with Google for dissemination of alerts regarding inundation.

For urban floods, among other things, IMD has a doppler weather radar network of 33 stations to support monitoring and forecast of severe weather, such as thunderstorms and cyclones.

The IMD also operates Flood Meteorological Offices(FMOs) at 14 locations (Agra, Ahmedabad, Asansol, Bhubaneshwar, Bengaluru, Chennai, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, Patna, Srinagar and Thiruvananthapuram).

But flash floods also pose a challenge to planning agencies, as they cause widespread destruction in a short span. A 2021 NITI Aayog report recommended a “focus on scientific research in development of a model-based system to forecast flash flood (sic) with sufficient lead time”.

Puneet Bhatia

COMPETITION AMENDMENT BILL 2022

Why in the news?

The Competition (Amendment) Bill, 2022 was introduced in Lok Sabha on August 5, 2022. It seeks to amend the Competition Act, 2002. The bill has currently been referred to the standing committee for further discussion and analysis.

Difference between the Competition Act 2002 and Competition Amendment Bill 2022

ASPECT	COMPETITION Act 2002	COMPETITION AMMENDMENT BILL 2022
Regulation of combinations based on transaction value	<p>The Act prohibits any person or enterprise from entering into a combination which may cause an appreciable adverse effect on competition. Combinations imply mergers, acquisitions, or amalgamation of enterprises. The prohibition applies to transactions where parties involved have:</p> <p>(i) cumulative assets of more than Rs 1,000 crore, or</p> <p>(ii) cumulative turnover of more than Rs 3,000 crore, subject to certain other conditions</p>	The Bill expands the definition of combinations to include transactions with a value above Rs 2,000 crore.
Definition of control for classification of combination:	For classification of combinations, the Act defines control as control over the affairs or management by one or more enterprises over another enterprise or group	The Bill modifies the definition of control as the ability to exercise material influence over the management, affairs, or strategic commercial decisions.
Time limit for approval of combinations	The Act specifies that any combination shall not come into effect until the CCI has passed an order or 210 days have passed from the day when an application for approval was filed, whichever is earlier.	The Bill reduces the time limit in the latter case to 150 days.

<p>Anti-competitive agreements</p>	<p>Under the Act, anti-competitive agreements include any agreement related to production, supply, storage, or control of goods or services, which can cause an appreciable adverse effect on competition in India. Any agreement between enterprises or persons, engaged in identical or similar businesses, will have such adverse effect on competition if it meets certain criteria. These include:</p> <ul style="list-style-type: none"> (i) directly or indirectly determining purchase or sale prices, (ii) controlling production, supply, markets, or provision of services, or (iii) directly or indirectly leading to collusive bidding. 	<p>The Bill adds that enterprises or persons not engaged in identical or similar businesses shall be presumed to be part of such agreements, if they actively participate in the furtherance of such agreements.</p>
<p>Settlement and Commitment in anti-competitive proceedings:</p>	<p>Under the Act, CCI may initiate proceedings against enterprises on grounds of:</p> <ul style="list-style-type: none"> (i) entering into anticompetitive agreements, or (ii) abuse of dominant position. Abuse of dominant position includes: <ul style="list-style-type: none"> discriminatory conditions in the purchase or sale of goods or services restricting production of goods or services, or indulging in practices leading to the denial of market access. 	<p>The Bill permits CCI to close inquiry proceedings if the enterprise offers:</p> <ul style="list-style-type: none"> (i) settlement (may involve payment), or (ii) commitments (may be structural or behavioural in nature). The manner and implementation of settlement and commitment may be specified by CCI through regulations.

Relevant product market	The Act defines relevant product market as products and services which are considered substitutable by the consumer.	The Bill widens this to include the production or supply of products and services considered substitutable by the suppliers.
Appointment of Director General	The Act empowers the central government to appoint a Director General to CCI. The Director General assists in conducting inquiries into contraventions of any provisions of the Act.	The Bill amends this to empower the CCI to appoint the Director General, with prior approval of the government.
Qualification of members of CCI	As per the Act, the chairperson and members of CCI should have professional experience of at least 15 years in fields such as: (i) economics (ii) competition matters (iii) Law (iv) management (v) business.	The Bill expands this to include experience in the field of technology.
Decriminalisation of certain offences	Act has several criminal provisions for the violation.	The Bill changes the nature of punishment for certain offences from imposition of fine to penalty. These offences include failure to comply with orders of CCI and directions of Director General with regard to anti-competitive agreements and abuse of dominant position.

Way forward

The bill is currently at a very nascent stage. Further amendments will have to be based keeping in mind the the administrative fluidity and corporate autonomy.

References:

PRS India

Samarth Singh

Aircraft carrier: INS Vikrant

Context :

The carrier is set to be commissioned on September 2 in the presence of Prime Minister Narendra Modi.

About the aircraft carrier Vikrant



- INS Vikrant is India's first Indigenous aircraft carrier (IAC-1), a part of **Atmanirbhar Bharat**, It is a shining example in the nation's quest for 'Atma Nirbhar Bharat' and 'Make in India Initiative,' with more than 76 percent indigenous content.”.
- INS Vikrant was named after the warship that played a crucial role in the 1971 war.
- It is designed: By the Indian Navy's Directorate of Naval Design (DND), the carrier was built at Cochin Shipyard Limited, a public sector shipyard under the Ministry of Shipping.
- Vikrant will be the fourth aircraft carrier to be operated by the Indian Navy – the first Vikrant (British origin) from 1961 to 1997.
- INS Viraat (British origin) from 1987 to 2016 and INS Vikramaditya (Russian origin) from 2013 onwards.

- It is the largest and most complex warship ever to be designed and built in India.

What are the features of INS Vikrant?

- It has expected to have a top speed of around 28 knots and a cruising speed of 18 knots with an endurance of about 7,500 nautical miles.
- The ship can accommodate an assortment of fixed-wing and rotary aircraft.
- It has over 2,300 compartments, designed for a crew of around 1,700 people, including specialised cabins to accommodate women officers.
- The ship includes Barak LR SAM and AK-630, while it has MFSTAR and RAN-40L 3D radars as sensors. The vessel has a Shakti EW (Electronic Warfare) Suite.

How it will help?

- INS-Vikrant will inflate peace, security and stability in the Indian Ocean and Indo-Pacific Region.
- The combat capability, reach and versatility of the aircraft carrier will add formidable capabilities in the defence of the country and help secure India's interests in the maritime domain.
- It would offer an incomparable military instrument with its ability to project air power over long distances, including air interdiction, anti-surface warfare, offensive and defensive counter-air, airborne anti-submarine warfare and airborne

Farhin

De-Silting of Rivers

De-Silting of Rivers

Why in News: Inland Waterways Authority of India (IWAI), on the basis of analysis of 25 years of data of river Yamuna has informed that, in general, there has been bed level changes in deep channels in the range of 1 to 2 meter which include erosion as well as deposition.

Major changes in bed profile have been observed in the years of high floods. Based on a Detailed Project Report completed in January 2020, IWAI has assessed the minimum depth of river Yamuna from Jagatpur in Delhi to the confluence of the

Ganga and Yamuna rivers at Sangam, Prayagraj (1,089 km)

Erosion and deposition of silt is a natural process in alluvial rivers. Rivers pickup, carry and drop silt load as per their regime conditions i.e. discharge in the river slope, morphology, nature of silt etc.

The issue of desilting of rivers has been considered by the Government since long and in this context a multi-disciplinary **Committee headed by former Chairman, Central Water Commission in 2002 (Mittal Committee) had studied the siltation pattern in few rivers in India.**

The Committee has opined that large scale desilting of rivers, in general, is not feasible technically due to several reasons like non-sustainability, non-availability of vast land required for the disposal of dredged material etc.

Desilting of rivers in vulnerable reaches may be undertaken based on model study, if it is found techno-economically viable. Cost effective measures for removal of drainage congestion in specific reaches of rivers for channel capacity improvement and navigation purposes are formulated and implemented by concerned States/ agencies as per requirement. The Union Government renders assistance to States which is technical, advisory, catalytic and promotional in nature.

The Ministry of Environment, Forest and Climate Change has issued Sustainable Sand Mining Guidelines, 2016 and Enforcement & Monitoring Guidelines for Sand Mining, 2020 for matters related to sand mining.

This information was given by the Minister of State for Jal Shakti, Shri Bishweswar Tudu in a written reply in Rajya Sabha.

Guidelines for works on De-siltation of river Ganga

- **An Expert Committee (Chair: Dr. M.A. Chitale) submitted its report on 'Preparation of Guidelines for Works on De-siltation** from Bhimgauda (Uttarakhand) to Farakka (West Bengal) of river Ganga' to the Ministry of Water Resources, River Development and Ganga Rejuvenation in May 2017.
- The terms of reference of the Committee included: (i) establishing the need for desilting for ecology and flow of river Ganga, and (ii) forming guidelines for works on de-siltation of river Ganga. Key observations and recommendations of the Committee include:
- De-siltation and ecology: The Committee noted that siltation is a natural phenomenon in rivers. However, factors such as heavy rainfall, deforestation, structural interventions and enclosure of water in reservoirs increases the rate

of siltation in rivers. Siltation results in the reduction in the carrying capacity of rivers and results in floods and loss of created useful storage. Desilting is the removal of fine silt and sediment that has collected in a river in order to restore its natural capacity, without widening or deepening of the river. De-siltation works have the potential to improve the hydraulic performance of a river. However, indiscriminate desilting can cause adverse impacts on a river's ecology and flow.

- Principles for de-siltation works: The Committee proposed basic principles for planning and execution of de-siltation works in rivers. These include:
- Catchment area treatment and watershed development activities, along with suitable agricultural practices and river bank protection/anti-erosion activities are necessary to reduce silt inflow into the river system and must be undertaken in a comprehensive manner;
- Erosion, movement and deposition of sediment in a river occur naturally. Arrangements should be made to pass the incoming sediment into a river to downstream of the dams/ barrage structures to maintain the sediment equilibrium;
- Dredging (desilting) should generally be avoided. The de-siltation quantity should not exceed the deposition rate, i.e., the amount of boulders, pebbles, and sand deposited in river bed minus the amount transported downstream each year;
- Rivers should be provided with sufficient corridor for meandering without any hindrance to their flow; and
- Precautions must be taken to avoid deposition of sediment loads within the river, and instead they should be deposited on other suitable land.
- Guidelines for de-siltation works: For better assessment and management of de-siltation works, the Committee recommended some measures that should be undertaken:
- Sediment transport (sediment transported through the basin of the river) processes must be studied along with establishing annual sediment budgets to guide desilting activities; and
- A technical institute must be entrusted to prepare the sediment budget, and flood routing studies to substantiate the necessity of undertaking desilting activities.
- De-siltation works in river Ganga: With regard to river Ganga, some of the guide-

lines suggested by the Committee include:

- The river should be provided with sufficient area for flood plain and lakes along it to moderate the flood level. Any encroachment of flood plain, and reclamation of lakes should be avoided. Instead, adjoining lakes should be desilted to increase their storage capacities.
- In cases when constriction works (e.g., barrages/bridges) cause large scale siltation, de-siltation along a pre-selected channel can be undertaken to deepen the river flow, thus guiding its main course of flow. The dredged material can be dumped along an alternate channel.

What is De-siltation?

- Silts are earthy matter, fine sand, or the like carried by moving or running water and deposited as a sediment, removal of such silts for the proper flow of river is known as desilting.
- The basic reasons given for the necessity of desilting are **increasing the storage capacity and checking eutrophic conditions**.
- What is done in the name of desilting is practically digging or excavation of lake bed.
- Increasing storage capacity by digging lake bed is the most costly proposal when compared to other alternatives.
- Desilting, if not done in a planned way, **creates isolated pits of considerable size** in the submergence area which may have lower bottom levels than the main storage.
- Thus, desilting said to be carried out for increasing storage capacity, practically reduces the actual utilizable storage in most of the cases.

What are the key findings of the report?

- The committee in its report says erosion, sediment transport and siltation are very complex phenomena.
- It is **impossible to apply a one-size-fits-all approach** to sediment management and control, because the issues involved are frequently very regionally-specific.
- Local factors such as topography, river control structures, soil and water conservation measures, tree cover, and riparian land-use or land disturbance can have a large impact on sediment loads in rivers.

- River control structures (such as reservoirs), soil conservation measures and sediment control programmes can cause downstream sediment loads to decrease, while factors such as land disturbance or agricultural practices can cause increased sediment loads.

Puneet Bhatia

LUMPY SKIN DISEASE



WHY IN THE NEWS?

There has been a recent spread of the infectious Lumpy Skin Disease among the cattle which is spreading to a more wider areas with several regions getting affected by it. It has already taken the lives of around 5000 cattle's in the last one month.

What is Lumpy Skin Disease?

1. Lumpy Skin disease is a viral disease of domestic cattle, water buffalo and certain wild ruminants.
2. Incubation of LSD period is around 28 days but experimentally affected cattle may develop clinical signs in 6 to 9 days.
3. It heavily impacts animal health and welfare and can lead to severe economic losses to the farmers in affected farms.

WHAT COULD BE THE SOURCES OF TRANSMISSION

- Lumpy skin disease is primarily spread between animals by biting insects (vectors) such as biting flies and mosquitoes.

SYMPTOMS OF LUMPY SKIN DISEASE

- The animal stops eating and faces several problems while eating or chewing which results in reduced milk production.
- It primarily consists of fever, fluid excretion from eyes and nose, dribbling of saliva from the mouth and blisters on the body.

CAUSES OF LUMPY SKIN DISEASE:

1. LSD is caused by infection of the water buffalo or cattle with the poxvirus Lumpy Skin Disease Virus (LSDV).
2. Lumpy skin disease was first seen as an epidemic in Zambia in 1929.
3. According to the FAO the mortality rate is less than 10%.

WHAT ARE THE PREVENTIVE AND TREATMENT MEASURES

1. Vaccination of the Lumpy Skin Disease is covered under the Livestock Health and Disease Control Programme of India.
2. Vaccination could be done through the indigenous vaccines like Lumpi-ProVaxInd.
3. Anti-inflammatory painkillers can also be used in order to keep the appetite of the affected animal high.
4. The supportive care of the cattle is needed because there are no anti-viral drugs which are available.
5. This can include treatment of skin lesions using wound care sprays and the use of antibiotics to prevent secondary skin infections and pneumonia.

Samarth Singh