



# **UPSC MONTHLY MAGAZINE**

## **May -2019 (1<sup>st</sup> to 15<sup>th</sup>)**

# Art and Culture

## Bandhani

- The name of the saree is derived from the word, 'bandhan', which means ties.
- This refers to the process of tie and dye which makes this saree.
- Both Gujarat and Rajasthan are known for the Bandhani saree.
- However, the weavers of the Khatri community of Gujarat are known as the pioneers.

## Pattachitra

- Pattachitra style of painting is one of the oldest and most popular art forms of Odisha.
- "Patta" literally means "cloth" and "Chitra" means "picture". Most of these paintings depict stories of Hindu deities
- Some of the popular themes represented through this art form are Thia Badhia - depiction of the temple of Jagannath; Krishna Lila - enactment of Jagannath as Lord Krishna displaying his powers as a child; Dasabatara Patti - the ten incarnations of Lord Vishnu; Panchamukhi - depiction of Lord Ganesh as a five-headed deity.
- The astounding temples and architecture in Orissa is what lent its inspiration to all these creative craftsmen who narrated pictorial stories through their paintings and detailed work.
- Apart from paintings, patachitra artwork is also widely used on Cotton, Silk and Georgette saris.
- Making the patta is the first thing that comes in the agenda, and the painters, also called chitrakars,
- The brushes are crude made from animal hair. They directly draw from brush rather than using pencil or pen
- The master hand, mostly the male member, draws the initial line and gives the final finishing.
- The painting is held over a fire-place so that the back of the painting is exposed to heat.
- On the surface of the painting fine lacquer is applied. Natural colors are used. Tala Pattachitra is one variant of this form, drawn on palm leaf.

## Sanauli site yields OCP Culture coffins, burial goods

### Context

- A recent excavation by the Archaeological Survey of India (ASI) at Sanauli has unearthed these artifacts belonging to the Copper Hoard Culture and the Ochre Coloured Pottery (OCP) Culture

### Details

- Sanauli is located on the left bank of the Yamuna river, 68 km northeast of Delhi.
- ASI has unearthed underground "sacred chambers", decorated "legged coffins" as well as rice and dal in pots and animal bones buried with the bodies
- Three chariots, some coffins, shields, swords and helmets had been unearthed, pointing towards the existence of a "warrior class in the area around 2,000 BCE".

## ***Thrissur Pooram***

- It is an annual festival held in Kerala
- It is held at the Vadakkunnathan Temple (Lord Siva) in Thrissur every year
- It was the brainchild of Raja Rama Varma, famously known as Sakthan Thampuran, the Maharaja of Cochin
- The pooram signifies the meeting of deities of 10 temples in the region.
- The festival is synonymous with elephants

### *Kudamattom*

- It means changing of umbrellas during the 'pooram' in Thrissur
- The show involving colourful umbrellas is a key attraction of the annual festival

### *Ilanjithara Melam*

- It is an assembly of percussion artists who perform at Vadakkunnathan Temple during the Thrissur Pooram.
- It is considered as one of the best platforms for traditional Kerala music and the largest assembly of percussion artistes in any other Poorams.

### *Significance*

- It has an important place in the tourism map of India, as tourists enjoy the beauty and traditions of this pooram.
- Despite being a Hindu festival, the Thrissur Pooram is attended by different sections of Kerala society

## ***United Nations Day of Vesak***

- Vesak is celebrated to commemorate the birth of Buddha, his attainment of enlightenment and his passing away.
- "Vesak", the Day of the Full Moon in the month of May, is the most sacred day to millions of Buddhists around the world.
- The General Assembly, recognized internationally the Day of Vesak to acknowledge the contribution that Buddhism, one of the oldest religions in the world, has made for over two and a half millennia and continues to make to the spirituality of humanity.

## ***Vijaya Vittala Temple in Hampi***

- The temple is located in the northeastern part of Hampi near the banks of the river Tungabhadra.
- The structure was built during the rule of Devaraya II, who was one amongst the rulers of the Vijayanagara Empire.
- The structure was built in the 15th century. Many portions of the temple were expanded and enhanced by Krishnadevaraya, who was the most famous ruler of the Vijayanagara dynasty.
- Temple is dedicated to Vittala, an incarnation of Lord Vishnu.
- The temple is built in the Dravidian style of architecture, which speaks volumes about the grandeur of the south Indian temple architecture

- The stone chariot is a shrine which was designed in the shape of a chariot. This chariot shrine is dedicated to Garuda - the carrier of Lord Vishnu, and one can find an image of Garuda housed in its sanctum.
- The large Ranga Mantapa is well known for its 56 musical pillars. These pillars are also known as SaReGaMa pillars, which are attributed to the musical notes emerging out of them. The musical notes can be heard when the pillars are gently tapped

## *Vice President released a postage stamp*

### Context

- The Vice President released a postage stamp to commemorate the 750th birth anniversary of Sri Vedanta Desikan.

### Details

- Sri Vedanta Desikan (1268–1369) was a Sri Vaishnava guru/philosopher and one of the most brilliant stalwarts of Sri Vaishnavism in the post-Ramanuja period.
- He was a poet, devotee, philosopher and master-teacher (desikan). He was the disciple of Kidambi Appullar, also known as Aathreya Ramanujachariar, who himself was of a master-disciple lineage that began with Ramanuja.
- Swami Vedanta Desika is considered to be an avatar (incarnation) of the divine bell of Venkateswara of Tirumalai by the Vadakalai sect of Sri Vaishnavite. Vedanta Desika belongs to Vishwamitra gotra.

## *ASI identifies rare Indian artefacts seized from smuggler*

### Context:

- From idols dating back to the Gupta period (5th-6th Century AD) to terracotta objects of the Harappan culture, a range of Indian antiquities and arte facts that were smuggled have been identified by the Archaeological Survey of India (ASI) during a team's recent visit to the United States.

### Details:

- The ASI said a team visited the U.S. after receiving communication from the office of the Consulate General of India in New York about the seizure of artifacts by the Immigration and Customs Enforcement of U.S. Department of Homeland Security
- The ASI said the team identified close to 100 objects in total, including 17 objects that had been seized by the Department.
- The antiquities comprise beautiful bronzes from the Suttamalli and Sripurantan temples of Tamil Nadu and also a very significant image of Mahakoka Devata.
- Of these, four antiquities were stolen from protected monuments at Karitalai, district Katni in Madhya Pradesh.
- Also smuggled were the stone image of the Buddha of Mathura School, a terracotta image of the Buddha belonging to the Gupta period and a set of 10 copper plates engraved with Quranic verses of the late Mughal Period.

### Theft of Artifacts & Antiquities:

- According to Global Financial Integrity, a Washington-based advocacy group, illegal trade in paintings, sculptures, and other artifacts is one of the world's most lucrative criminal enterprises, estimated at \$6 billion a year.
- And India, with its cultural heritage, bureaucratic apathy, and tardy implementation of antiquities protection laws, offers smugglers fertile ground to plunder the past and spirit away artefacts for sale in the international market.
- This exploitation continues unabated despite the existence of The Antiquities and Art Treasures Act, 1972 whose aim is to protect "antiquities," an omnibus term that includes, among other items, sculptures in stone, shrines, terracotta, metals, jewelry, ivory, paintings in paper, wood, cloth, skin, and manuscripts over a hundred years old.

### Concerns:

- Even though India is a signatory to the 1970 UNESCO treaty, experts say it is extremely tough to retrieve antiquities that have left the country.
- Improper enforcement of law, and lack of punitive action on traders without licences.

### Antiquities and Art Treasure Act 1972:

- The Antiquities Act mandates that owners of such art pieces register them with the Archaeological Survey of India (ASI), the nodal agency responsible for archaeological excavations, conservation of monuments, and protection of heritage sites.
- The law also prohibits export of antiquities while permitting their sale within the country only under a license.
- Failure to comply with these rules can result in jail sentences of up to three years, a fine, or both.
- In what is seen as a blatantly unfair clause, the Act also empowers the State to compulsorily acquire an art object from its owner without any reliable assessment of a fair price.

### Other legal provisions available in India:

- Antiquities And Art Treasures Act 1972
- Indian Treasure Trove Act 1949
- National Mission On Monuments And Antiquities– it creates a National Register On Artifacts that are unprotected
- National Manuscript Mission for Documenting Heritage

### Archaeological Survey of India:

- The Archaeological Survey of India (ASI), is an attached office under the Department of Culture, Ministry of Tourism and Culture.
- It is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.
- It was founded in 1861 by Alexander Cunningham who also became its first Director-General.
- The most important of the society's achievements was the decipherment of the Brahmi script by James Prinsep in 1837. This successful decipherment inaugurated the study of Indian palaeography.

# **Disaster Management**

## **Global Facility for Disaster Reduction and Recovery (GFDRR)**

- GFDRR is a partnership of the International Strategy for Disaster Reduction (ISDR) system to support the implementation of the Hyogo Framework for Action (HFA).
- It would help developing countries better understand and reduce their vulnerability to natural hazards and climate change.
- GFDRR is a grant-funding mechanism, managed by the World Bank that supports disaster risk management projects worldwide.
- It is presently working on the ground with over 400 local, national, regional, and international partners and provides knowledge, funding, and technical assistance.
- GFDRR was established to help developing countries - particularly those identified as the most vulnerable natural disaster “hotspots” - enhance their capacity for disaster prevention, emergency preparedness, response, and recovery.

### India

- India became member of CG of GFDRR in 2015
- It will give India an opportunity to work with the member countries and organizations of GFDRR with a focused contribution towards advancing the disaster risk reduction agenda during the course of the year.

### Context

- India is unanimously chosen as co-chair of the Consultative Group (CG) of Global Facility for Disaster Reduction and Recovery (GFDRR) for the fiscal year 2020.

### Details

- This is the first time that the country has been afforded the opportunity of co-chairing the CG meeting of GFDRR.
- India would pursue a focused agenda and develop synergies with ongoing work streams of GFDRR.’
- Disaster Resilient Infrastructure (DRI) will be a central theme of engagement with the GFDRR partners and stakeholders.

## **Cyclone Fani**

- Name Fani was suggested by Bangladesh.
- The word Fani (pronounced as Foni) means snake.

### Details

- It was generating storms with wind speeds as high as 200 km per hour
- The last time such a powerful cyclonic storm had emerged in the Bay of Bengal at this time of the year, in 2008, it had killed more than 1.25 lakh people in Myanmar.

- But that was mainly because of the lack of a sophisticated warning system and enough logistical preparedness to evacuate people.
- Fani is not just a severe cyclone but an “extremely severe cyclone”.

*Tropical cyclones in the Bay of Bengal are graded according to maximum wind speeds at their center.*

- At the lower end are depressions that generate wind speeds of 30 to 60 km per hour,
- Followed by cyclonic storms (61 to 88 kph),
- Severe cyclonic storms (89 to 117 kph)
- Very severe cyclonic storms (118 to 166 kph).
- Extremely Severe Cyclonic Storms (167 to 221 kph)
- Super cyclones (222 kph or higher).

*Cyclone Fani in Odisha: In situ origins*

- There are two types of cyclones depending on period of occurrence and origination
  - April May- They originate in situ in the Bay of Bengal itself
  - October to December – They are usually remnants of cyclonic systems that emerge in the Pacific Ocean
    - They manage to come to the Bay of Bengal, considerably weakened after crossing the Southeast Asian landmass near the South China Sea
    - These systems already have some energy, and gather momentum as they traverse over the Bay of Bengal.
- April-May is not the season for typhoons in the west Pacific Ocean.
  - Most of the typhoons in west Pacific in northern hemisphere form between June and November.
  - That is why almost all the cyclones in the Bay of Bengal in April-May period are in situ systems

*How Cyclone Fani grew muscle?*

- The in situ cyclonic systems in the Bay of Bengal usually originate around latitude 10°, in line with Chennai or Thiruvananthapuram.
- Fani, on the other hand, originated quite close to the Equator, around latitude 2°, well below the Sri Lankan landmass.
- The forecast landfall on the Odisha coast is at a latitude of almost 20°.
- It has traversed a long way on the sea, thus gaining strength that is unusual for cyclones originating in the Bay of Bengal in this season.
- It was initially headed northwestwards, towards the Tamil Nadu coast, but changed course midway, and swerved northeast away from the coastline to reach Odisha. That has given it even more time on the sea.
- If it had remained on its original course, and made a landfall over the Tamil Nadu coastline, Fani would only have been a normal cyclone, not the extremely severe cyclone it has now become. The recurve it has taken gave it more time over the sea and has ensured that it has gathered unusual strength

*Stats*

- Cyclones emerging in April-May usually are much weaker than those during October-December.

- There have been only 14 instances of a “severe cyclone” forming in the Bay of Bengal region in April since 1891, and only one of them, which formed in 1956, touched the Indian mainland.
  - The others all swerved northeast to hit Bangladesh, Myanmar or other countries in the Southeast Asian region. Since 1990, there have been only four such cyclones in April.

#### How countries select names?

- While selecting names for cyclones, countries have to take care that the word is easily understood by people in the region, hence the names are generally familiar words.
- The main purpose of naming a tropical cyclone is basically for people to easily understand and remember the tropical cyclone in a region, thus to facilitate tropical cyclone disaster risk awareness, preparedness, management and reduction
- Another important reason why cyclones are named is to help authorities quickly identify storms and keep a track of them because it is easier to remember cyclones by their names than remembering them using technical information like longitude and latitude.

#### Surviving Fani

##### Context:

- Cyclone Fani has left a trail of destruction across a large part of coastal Odisha, but its management has emerged as a global example of how timely weather alerts, preparedness and informed public participation can dramatically reduce loss of life. The Odisha government has shown by example how to manage a natural disaster.

##### Details:

- There has been an extensive damage to the telecommunications and power infrastructure in Puri, Bhubaneswar and other areas due to the cyclone.
- However, due to advance precautionary measures taken and large-scale evacuation, the loss of human lives was minimal.
- In terms of material losses, several districts were battered, houses flattened and electricity and telecommunications infrastructure destroyed, but the relatively low mortality shows a dramatic transformation from the loss of over 10,000 lives in 1999 when super cyclone 05B struck.
- Odisha then worked to upgrade its preparedness, which was tested when very severe cyclonic storm Phailin struck in 2013.
- It was able to bring down the number of deaths to 44 then, in spite of a wide arc of destruction: 13 million people were hit and half a million houses destroyed.

##### The challenge:

- The Odisha government and the Centre now have the task of rebuilding infrastructure.
- They should use the opportunity to upgrade technology, achieve cost efficiencies and build resilience to extreme weather, all of which can minimise future losses.
- Given the vulnerability of Odisha and Andhra Pradesh to cyclones, the frequency and intensity of which may be influenced by a changing climate, the Centre should press for global environmental funding under the UN framework to help in the rebuilding.
- Both States have received funding from the World Bank in cyclone risk mitigation efforts since 2011.

- The priority in Odisha is to restore electricity and telecommunications, which will require massive manpower. This should be treated as a national mission.
- Public health interventions are paramount to avoid disease outbreaks.
- The State government has been able to restore some physical movement by opening up highways and district roads; the Centre has relieved tension among students by postponing the National Eligibility-cum-Entrance Test in Odisha.
- Overall, there is a sense of relief that in the midst of a national election the toll was effectively contained.

#### Way forward:

- Looking ahead, India must prepare for many more intense and frequent cyclones along the coastal States.
- Preparedness has to focus on building resilience and strengthening adaptation.
- Better-designed houses and cyclone shelters, good early warning systems, periodic drills and financial risk reduction through insurance is needed.
- Early weather warnings hold the key to better management, and during the Fani episode the India Meteorological Department played a crucial role. Its commendable performance has been recognised by the UN as well.
- Odisha's experience, which coincides with similar devastation along east Africa this year, will be keenly followed at the UN Disaster Risk Reduction conference at Geneva.

#### Ganjam District Disaster Response Forum (GDRF)

- It is a joint front of 47 NGOs, has continued to be a major relief force during natural calamities, like the recent cyclone Fani, in this district of Odisha.
- The GDRF has reach in all the 22 blocks of Ganjam district.
- Their volunteers have direct contact with people living in remote and vulnerable areas.
- They help the administration in evacuation of people to safe places before any cyclone.
- Since 2015, the GDRF has trained up over 400 volunteers in 27 villages that are prone to cyclones and floods.
- The volunteers are also trained to report about losses to the local revenue officials. In most cyclone prone coastal villages, literacy rate is low and inhabitants find it hard to report their losses to administration.
- Members of the GDRF also reach the vulnerable villages near the coast to urge fishermen and their families to leave their dwellings and shift to cyclone shelters.
- Members of the GDRF also monitor cyclone preparedness in slums of Berhampur city.
- GDRF had arranged its own dry food stock and was ready to reach out to affected people immediately if any major devastation would have occurred in any part of Ganjam district due to Cyclone Fani.

#### Fani's fury creates four new mouths in Odisha's Chilika Lake

##### Context:

- The extremely severe cyclone Fani has created four new mouths in Chilika Lake.

Details:

- Chilika lagoon had only two active mouths — the point where it meets the sea before Fani hit the Odisha coast.
- Four new mouths have opened due to wave energy with high tidal prism.
- In the meantime, a lot of sea water is entering Chilika Lake.
- If sea water ingression goes up, fish migration will increase and the biodiversity will get richer. But its long term impact is something that has to be kept a watch on.
- Earlier last year, the cyclonic storms Titli and Daye also opened up natural mouths at the Chilika lagoon.

Chilika Lake:

- Chilika Lake, Asia's largest brackish water lake.
- It is the second largest coastal lagoon in the world.
- It is the largest wintering ground for migratory birds on the Indian sub-continent. The lake is home to a number of threatened species of plants and animals.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- The Irrawaddy dolphin is the flagship species of Chilika Lake. Chilika is home to the only known population of Irrawaddy dolphins in India and one of only two lagoons in the world that are home to this species.

## *Kerala govt. readies new action plan to handle disasters*

Context:

- Picking up valuable lessons from the Cyclone Ockhi disaster and the 2018 floods, the Kerala State Disaster Management Authority (KSDMA) has updated standard operating procedures (SOP) and adopted new protocols for disaster management in the State.

Details:

- The State government has approved KSDMA's updated 'Orange book of disaster management — Kerala — SOP and emergency support functions plan' and a new, separate document, 'Monsoon preparedness and emergency response plan.'
- The revision is meant to enhance the capacity of government departments to handle emergencies effectively.
- Named so for its orange-coloured outer cover, the orange book was earlier known as the 'Handbook on disaster management — Volume 2, emergency operations centres and emergency support functions plan.' It describes incidence response mechanisms to be adopted at the State, district and taluk level.
- Containing information on emergency response assets available across the State, the orange book explains the SOP for rainfall, flood, cyclone, tsunami, high waves (swell waves, storm surges, 'kallakadal'), landslip, petrochemical accidents and even mishaps caused by space debris (meteorites, falling spacecraft parts, etc.).

Monsoon preparedness and emergency response plan:

- On the other hand, the 'Monsoon preparedness and emergency response plan' is season-specific.

- It is meant to be strictly complied with by government departments, central agencies and district disaster management authorities during the south-west and north-east monsoon seasons (June to December).
- Earlier, directives on monsoon preparedness were issued in the form of government circulars.
- According to KSDMA, no single document spelt out the roles and responsibilities of individual government departments.
- The new document, published in Malayalam, lists the roles of the State emergency operations centre, central agencies, district disaster management authorities, and 29 departments.
- It was said that this plan would be updated every year after receiving the first Long Range Forecast of the India Meteorological Department.

# **Economy**

## **Anti-dumping duty put on saccharine**

### Context

- The Finance Ministry has, on the recommendations of the Commerce Ministry, imposed an anti-dumping duty of \$1,633.17 per tonne on the import of saccharine from Indonesia.

### Saccharine

- It is a compound most commonly used in sugar-substitute sweeteners.

### Why was Anti-Dumping imposed?

- The product under consideration has been exported to India from subject country below their normal values and consequently, the domestic industry has suffered material injury

### Stats

- Indonesia, until recently, accounted for a large chunk of India's saccharine imports.
- In 2017-18, India imported \$4.36 million worth of saccharine from Indonesia, which is 43% of the total imports of the sugar-substitute compound.
- However, imports from Indonesia have declined since then. In the April 2018 to February 2019 period, India imported only \$1.48 million worth of saccharine from Indonesia, about 20% of its total imports from around the world.

## **Competition Commission of India (CCI)**

- It is a statutory body of the Government of India responsible for enforcing The Competition Act, 2002 throughout India and to prevent activities that have an appreciable adverse effect on competition in India.
- It was established in 2003
- CCI consists of a Chairperson and 6 Members appointed by the Central Government.
- It is the duty of the Commission to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
- The Commission is also required to give an opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

### The Competition Act:

- The idea of Competition Commission was conceived and introduced in the form of The Competition Act, 2002.
- A need was felt to promote competition and private enterprise especially in the light of 1991 Indian economic liberalisation.

- The Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007, follows the philosophy of modern competition laws.
- The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and Merger and acquisition), which causes or likely to cause an appreciable adverse effect on competition within India.

### ***Ilkal Saree***

- It takes its name from the town of Ilkal in the Bagalkot district of Karnataka
- Ilkal saree has been accorded Geographical Indication (GI) tag

#### Context

- A good three years after demonetisation, the traditional weavers of Ilkal are yet to recover from its aftershock. They say that even now, business is down by about 40%.

### ***India and China sign protocol for Export of Indian Chilli Meal***

- Chilli meal is the residue left after oil is extracted from chillies
- It is widely used as an industry input in manufacturing chilli sauce and other similar products.

#### Context

- China announced that it will import chilli meals from India, providing a much needed export outlet to the product.
- A protocol has been signed with Chinese customs officials in this regard.

#### Stats on Chilli

- Chilli is the largest exported spice from India, and China has become one of the major buyers over the last few years.
- India is the world's largest producer, consumer and exporter of chillies

#### Where is it grown in India?

- Official statistics show that red chillies are grown across India on 792,000 hectares of land in Andhra Pradesh, Karnataka, Madhya Pradesh and Maharashtra.
- The crop is planted in August and September, and harvested in March and April.

### ***Potato IPR violation***

#### Context

- A tussle had broken out between potato farmers in Gujarat and multinational food giant PepsiCo India Holdings Pvt Ltd (PIH).
- The issue: alleged infringement of Intellectual Property Rights (IPR) of a plant variety registered under the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001.
- India has two laws for protecting agricultural IPRs.

- Genetically-modified (GM) traits like bollworm resistance and herbicide tolerance in cotton, for instance, being artificial nucleic acid sequences, are protected by the Indian Patent Act.
- India also has a unique law, enacted in 2001, which protects the rights of farmers and communities in plant varieties they have conserved over time.

#### Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPV&FR)

- In order to provide for the establishment of an effective system for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants it has been considered necessary to recognize and to protect the rights of the farmers in respect of their contributions made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties.
- The Govt. of India enacted "The Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001" adopting sui generis system.

#### Details

- PepsiCo sued four Gujarati farmers, asking them to pay ₹1.05 crore each as damages for 'infringing its rights' by growing the potato variety used in its Lays chips.
- They were growing a variety of Potato — FL 2027, also called FC5 — on which PepsiCo claimed exclusive rights by virtue of a Plant Variety Certificate (PVC) under the Act.
  - PepsiCo has a wafer-quality potato variety called FL-2027 registered in the United States.
  - FL stands for Frito-Lay, PepsiCo's snack foods subsidiary.
  - This variety has high dry matter (23 percent) and low levels of reducing sugars which make it ideal for frying. It also has the desired texture and appearance.
- PepsiCo has invoked Section 64 of the PPV&FR Act, 2001 to claim infringement of its rights.
- Farmers groups cite Section 39 of the same Act, which specifically says that a farmer is allowed "to save, use, sow, resow, exchange, share or sell his farm produce including seed of a variety protected under this Act" so long as he does not sell "branded seed".

#### Issue with the law

- Some provisions of the PPVFR Act diminish IPR protection. 'Brown bagging' allows a farmer to sell the produce or seed of a protected variety if they are not labelled as such.
  - The market for produce or seed sold in this manner cannot be large, because the transactions have to be based on trust.
- The Act's definition of "farmer" is wide. Even farmers with large holdings are included. Even farmers with large holdings and groups of farmers are included.
  - These provisions have fallen foul of the Convention of the International Union for the Protection of New Varieties of Plants, called the UPOV Convention.
  - India is not a member of the union, and has observer status.

#### Concerns for the farmers

- Once upon a (capitalism) time, transnational corporations were the biggest votaries of a free-market economy.

- They wanted a level playing field, wanted trade barriers to be removed so that every corporation, irrespective of their country of origin, could participate freely without being discriminated against.
- This is the kernel of the GATT agreement and the driving logic of the WTO. So, why can't the farmer be left free to cultivate a variety of potato that he considers as a profitable proposition? In this "free world", why is it that a PepsiCo India feels emboldened to take away this freedom from nine farmers?
- The dominant framework of international intellectual property (IP) law — TRIPS (Trade Related Aspects of Intellectual property Rights) and the UPOV (Union for the Protection of Plant Varieties) — gives plant breeders exclusive rights over the varieties they develop, and mostly disregards customary rights of indigenous and farming communities to their genetic resources and associated knowledges.
- This bias has percolated to various national laws, rendering ownership claims of farmers subordinate to corporate breeders' rights.

#### Have the laws been violated by farmers?

The answer is a clear NO.

- Recognising the bias in international law, the Indian PPV & FRA law (2001), entitles not just the breeder but also the farmer.
- The conjoining of the two rights, it was argued, would facilitate the growth of the seed industry, ensure the availability of high-quality seeds, as well as secure the livelihood and plant varieties of the farmers.
- Accommodating these twin purposes meant granting recognition of the proprietary claims of both the farmers and breeders, more accurately, of farmers as breeders (Section 2(c)). It gives the farmer the right to "save, use, sow, re-sow, exchange, share or sell" produce/seeds (S. 39 (1)(iv)).
- Importantly, the Indian farmer is permitted to even "brown bag seeds" — sell any variety of seed on the condition that they are sold in an unbranded form.
- This means that the nine farmers were well within their rights to cultivate the potato FL 2027 variety without entering into a licencing or technology agreement with PepsiCo.

#### EU Regulation on Organic Production and Labelling of Organic Products

- It was adopted in 2018
- It for the first time permits and encourages, inter alia, the use and marketing for organic agriculture, of "plant reproductive material of organic heterogenous material" without having to comply with most of the arduous registration and certification requirements under various EU laws.
- Accordingly, the regulation removes the legal bar on marketing of "heterogenous materials" and encourages its sale for organic agriculture, thus clearing the way to much more expansive use of indigenous varieties.
- Once the delegated acts under the EU regulation are formulated, they will support the creation of markets, especially markets and marketplaces facilitating trade of heterogenous seeds, including by small farmers who are currently the most active in maintaining and improving such seeds in situ.

#### Current Status

- National and international pressure swiftly mounted, and in short order a humbled PepsiCo backtracked, announcing its withdrawal of the lawsuit.

### Minimise harm, maximise gain

How can a biodiversity-rich nation like India shift its agriculture from a high-yield ideal to a high-value one, where the 'values' include striving to minimise environmental harm while maximising nutritional gains and farmer welfare?

- First, small farmers must be educated and encouraged with proper incentive structures, to engage with agriculture that conserves and improves traditional/desi (heterogenous) seeds in situ, rather than with "improved", proprietary varieties.
  - Currently, in the garb of protecting this diversity against biopiracy, India is preventing its effective use, management and monetisation for the benefit of its farmers.
- Second, an immutable record-keeping system, perhaps blockchain or DLT, is needed to break the link between the profitable and the proprietary.
  - Such a system would allow India and its rural communities to keep proper track of where and how their seeds/propagation materials and the genetic resources contained therein are being transferred and traded.
  - It would also ensure, through smart-contract facilitated micropayments, that monetary returns come in from users and buyers of these seeds, from around the globe.
  - These monetary returns would effectively incentivise continuous cultivation and improvement of indigenous seeds on the one hand, and ensure sustainable growth of agriculture and of rural communities on the other.
- Third, and as a key pre-requisite to the execution of the first two plans, India's invaluable traditional ecological knowledge systems need to be revived and made a part of mainstream agricultural research, education and extension services.
  - Know-how contained in ancient Indian treatises like the Vrikshayurveda and the Krishi Parashar falls within the scope of what international conventions such as the Convention on Biological Diversity refer to as 'indigenous and traditional technologies'.
  - The revival of these technologies is central to promoting sustainable 'high value' agriculture, not least because of the growing global demand for organic and Ayurvedic products.

### Conclusion

- The withdrawal of the lawsuit by PepsiCo may be a welcome relief to several farmers who can neither afford to defend themselves in court, nor to abandon the cultivation of proprietary varieties.
- It must, however, be a wake-up call to the government and policymakers who need to do much more to secure sustainable rural societies, protect soil health and promote seed sovereignty for the economic development of Indian farmers and of the entire nation.

## **Prepaid Payment Instruments (PPIs)**

### Context:

- The Reserve Bank of India has slapped monetary penalty on five pre-paid payment instrument issuers, for violating regulatory guidelines.

### Details:

- A penalty of Rs. 3.05 crore has been imposed on Vodafone m-pesa and Rs. 1 crore each on Mobile Payments, PhonePe and G.I. Technology Private Ltd.
- Also, a penalty of Rs. 5 lakh has been imposed on Y-Cash Software Solutions.
- In a separate statement, RBI said it had imposed a penalty on Western Union Financial Services Inc., USA., and MoneyGram Payment Systems Inc, USA, for non-compliance of regulatory guidelines.
- The penalties on Western Union and MoneyGram had been imposed by the central bank under the provisions of the Payment and Settlement Systems Act, 2007, for compounding of the contravention.
- RBI also imposed a penalty on private sector lender Yes Bank for violation of norms pertaining to issuance and operations of PPIs.

#### What are PPIs?

- PPIs are instruments that facilitate purchase of goods and services, including financial services, remittance facilities, etc., against the value stored on such instruments. PPIs that can be issued in the country are classified under three types viz. (i) Closed System PPIs, (ii) Semi-closed System PPIs, and (iii) Open System PPIs.

#### Who is an issuer of PPI?

- PPI issuer is an entity participating in a payment system for issuing PPIs to individuals or organisations. The money so collected is used by the entity to make payment to the merchants who are part of the acceptance arrangement and for facilitating funds transfer or remittance services.

#### Who is a holder of a PPI?

- A holder is an individual / organisation who purchases PPI from the PPI issuer and uses the same for purchase of goods and services, including financial services, remittance facilities, etc. However, in case of a Gift PPI, the targeted beneficiary (though not being a purchaser) can also be a holder.

#### Who can issue and operate PPIs in India?

- A company incorporated in India and registered under the Companies Act, 1956 / Companies Act, 2013 can issue and operate PPIs after receiving authorisation from RBI.

#### What are various types of PPIs?

- Closed System PPIs: These PPIs are issued by an entity for facilitating the purchase of goods and services from that entity only and do not permit cash withdrawal. As these instruments cannot be used for payments or settlement for third party services, the issuance and operation of such instruments is not classified as payment system requiring authorisation by the RBI.
- Semi-closed System PPIs: These PPIs are issued by banks (approved by RBI) and non-banks (authorized by RBI) for purchase of goods and services, including financial services, remittance facilities, etc., at a group of clearly identified merchant locations / establishments which have a specific contract with the issuer (or contract through a payment aggregator or payment gateway) to accept the PPIs as payment

instruments. These instruments do not permit cash withdrawal, irrespective of whether they are issued by banks or non-banks.

- Open System PPIs: These PPIs are issued only by banks (approved by RBI) and are used at any merchant for purchase of goods and services, including financial services, remittance facilities, etc. Cash withdrawal at ATMs / Points of Sale (PoS) terminals / Business Correspondents (BCs) are also allowed through such PPIs.

#### How can a PPI be loaded?

- PPIs can be loaded by cash, by debit to a bank account, by a credit / debit card, or from other PPIs. The loading / reloading of PPIs shall be through payment instruments issued by entities regulated in India and shall be in Indian Rupees (INR) only. Banks and non-banks are permitted to issue and reload such payment instruments through their authorised branches / ATMs or through their authorised agents.

### ***Services Trade Restrictiveness Index (STRI)***

- Launched in 2014, STRI is computed by the OECD
- It is a unique, evidence-based tool that provides information on regulations affecting trade in services in 22 sectors across all OECD member countries and Brazil, the People's Republic of China, Costa Rica, India, Indonesia, Malaysia, the Russian Federation, and South Africa (36 OECD and the rest non-OECD).
- The STRI toolkit can support policymakers to scope out reform options, benchmark them relative to global best practice, and assess their likely effects; for trade negotiators to clarify restrictions that most impede trade, and for businesses to shed light on the requirements that traders must comply with when entering foreign markets.

#### Issue Area

- According to a study commissioned by the Commerce Ministry it has found that the OECD index has a large number of problems associated with it, including some significant design issues that render it impractical for use
- For example, the index seems to show the Indian services sector as one of the most restrictive, particularly in policy areas like foreign entry but since 1991 this is one area that has seen maximum liberalisation in India is FDI
- The data seems to have been generated by rather arbitrary procedures and reflects a developed country bias

## **Environment and Ecology**

### **Arunachal Pit Viper (*Trimeresurus Arunachalensis*)**

- It is the second serpent to have been discovered after the Non-Venomous Crying Keelback in the State's Lepa-Rada district in 2018.
- The new species also makes Arunachal Pradesh the only Indian state to have a pit viper named after it.
- India had four brown pit vipers before the Arunachal Pradesh discovery.
- The other four — Malabar, horseshoe, hump-nosed and Himalayan — were discovered 70 years ago.

### **Basel Convention**

- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 by the Conference of Plenipotentiaries in Basel, Switzerland, in response to a public outcry following the discovery, in the 1980s, in Africa and other parts of the developing world of deposits of toxic wastes imported from abroad.
- It does not, address the movement of radioactive waste.
- Haiti and the United States have signed the Convention but not ratified it

#### Objective

- The objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes.
- Its scope of application covers a wide range of wastes defined as "hazardous wastes" based on their origin and/or composition and their characteristics, as well as two types of wastes defined as "other wastes" - household waste and incinerator ash.

#### The provisions of the Convention center around the following principal aims:

- The reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;
- the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and
  - hazardous wastes may not be exported to Antarctica, to a State not party to the Basel Convention, or to a party having banned the import of hazardous wastes
  - Parties may, however, enter into bilateral or multilateral agreements on hazardous waste management with other parties or with non-parties, provided that such agreements are "no less environmentally sound" than the Basel Convention
- A regulatory system applying to cases where transboundary movements are permissible.

#### Context

- Around 180 governments agreed on a new UN accord to regulate the export of plastic waste, some eight million tonnes of which ends up in the oceans each year
- The Geneva meeting amended the 1989 Basel Convention on the control of hazardous wastes to include plastic waste in a legally-binding framework.

- The meeting also undertook to eliminate two toxic chemical groups — Dicofol and Perfluorooctanoic Acid, plus related compounds.
  - The latter has been used in a wide variety of industrial and domestic applications including non-stick cookware and food processing equipment, as well as carpets, paper and paints.

### Significance

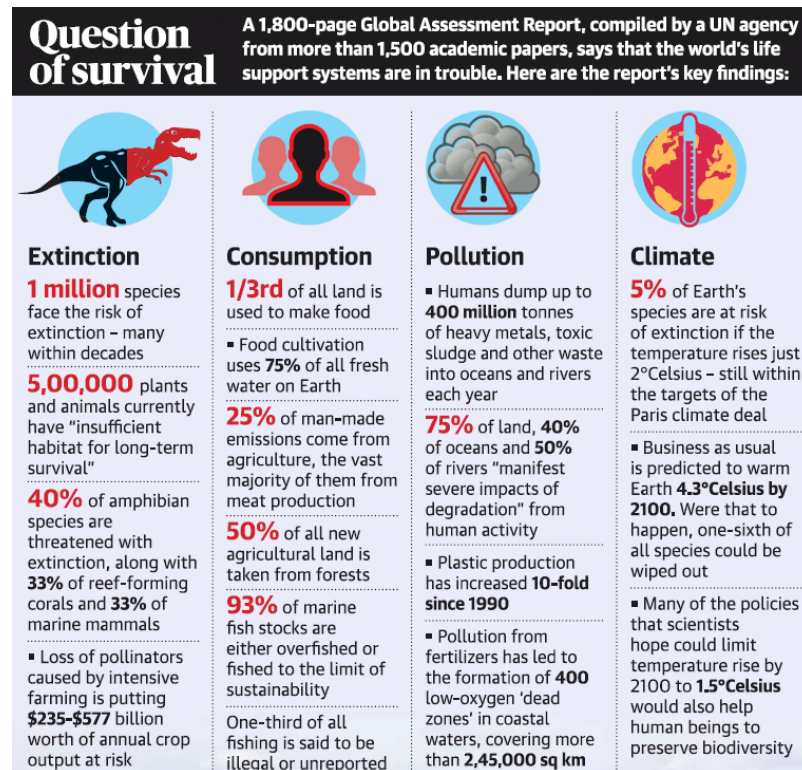
- The amendment will make the global trade in plastic waste more transparent and better regulated, protecting humans and the environment.

## Global Assessment report by UN

### Context

- This article speaks about how humanity's escalating growth is putting the world's biodiversity at perilous risk.
- It was produced by few scientists and researchers in the U.N. report

### Stats



### Extracts from Report

- This loss of species is a direct result of human activity and constitutes a direct threat to human well-being in all regions of the world.
- The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever

- Climate change caused by burning the coal, oil and gas produced by the fossil fuel industry is exacerbating the losses
- The essential, interconnected web of life on Earth is getting smaller and increasingly frayed

### Concerns

- Disappearance of insects vital for pollinating food crops,
- Destruction of coral reefs that support fish populations that sustain coastal communities
- The loss of medicinal plants.
- The report found that the average abundance of native species in most major land-based habitats has fallen by at least 20%, mostly since 1900.

### Windshield Phenomenon

- It is a term given to the anecdotal observation that people tend to find fewer insects smashed on the windscreens of their cars now compared to a decade or several decades ago.
  - When people drove their car at dusk 30 years ago, they experienced that insects used to smash on their windshield where they had to clean the windshield frequently
- This effect has been ascribed to major global declines in insect abundance

### Recommendation

- Protecting biodiversity amounts to protecting humanity
- The world may need to embrace a new “post-growth” form of economics if it is to avert the existential risks posed by the mutually-reinforcing consequences of pollution, habitat destruction and carbon emissions.

## ***Grizzled Giant Squirrel***

- IUCN: Near Threatened
- It is listed under Schedule I of the Wildlife Protection Act, 1972
- Found in hill forests of Karnataka, Tamil Nadu and Kerala states of southern India
  - The grizzled giant squirrel is usually known to nest in the Western Ghats in Southern India ranging from Chinnar Wildlife sanctuary in Kerala to Anamalai Tiger Reserve and Palani hills in Tamil Nadu
- It is also found in Sri Lanka

### Threats

- Habitat loss and poaching
  - Hunting for its fur and bush meat by the locals
- The Chinnar population is troubled by the increased predator pressure and the extremely low regeneration of its preferred food plant species due to heavy grazing by cattle.

### Context

- For the first time, researchers have sighted nests of the grizzled giant squirrel at Pakkamalai Reserve Forests near Gingee in the Eastern Ghats.

### *India CEO Forum on Climate Change*

- It was organized by Ministry of Environment, Forest and Climate Change (MoEFCC), as the pioneering initiative of the government, inviting industry representatives, exchanged views on climate change issues and discussed opportunities to collaborate in regard to fulfilling India's national as well as international climate change commitments.
- The forum was being conducted to create a mechanism for the government and businesses to formally talk about climate change issues and develop a common voice at global forums so that there is no disconnect between the stand of the government and that of the industries.
- The forum will help the government move from a language-based narrative on climate change to an action-based narrative and highlighted the important role that businesses play in dealing with global warming issues and a platform like this will help share best practices and facilitate cross-learning.

### *Importance*

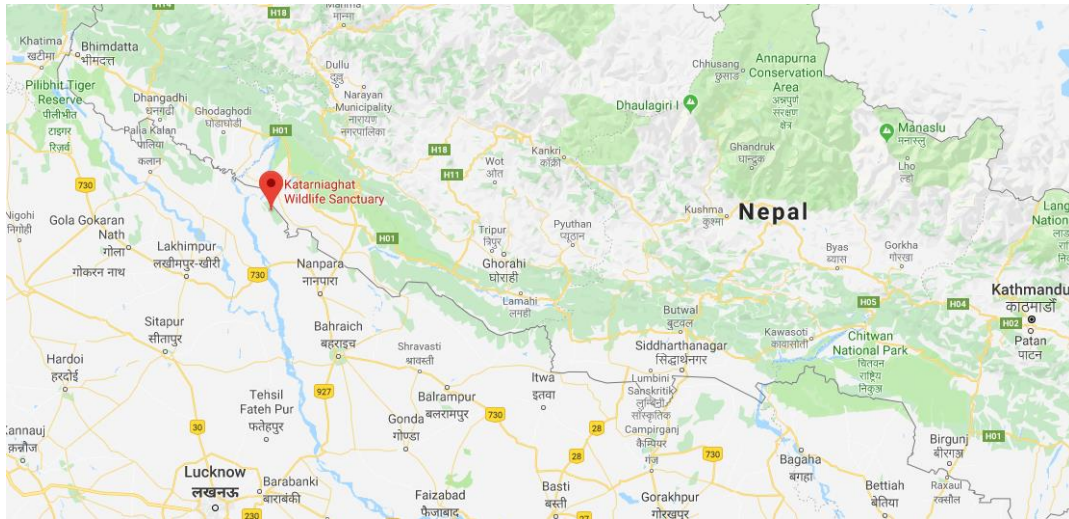
- Businesses are recognised as crucial to meeting global climate change goals and forum on Climate Change focused on driving transition to a low-carbon economy.

### *Indian Gaur/ Indian bison / Bos gaurus*

- It is native to South and Southeast Asia.
- IUCN: Vulnerable
- It is the largest extant bovine
- The gaur is the tallest of wild cattle species
- The domesticated form of the gaur is called gayal (*Bos frontalis*) or mithun

### *Katerniaghat Wildlife Sanctuary*

- It is along Indo – Nepal border, in the district of Behraich in Uttar Pradesh
- It forms a part of the Dudhwa Tiger Reserve along With Dudhwa National Park and Kishanpur Wildlife Sanctuary.
- The sanctuary also forms an important corridor of connectivity between the Dudhwa Tiger Reserve in India and the Bardia National Park in Nepal.
- It is On the banks of Sarayu river
- The Wildlife Sanctuary is a part of the terai landscape
- Girwa River runs through the reserve.



## ***Lecanorchis Taiwaniana***

- It is a variant of a Japanese orchid
- It is one of its smallest orchids in terms of size and duration of bloom to be recorded botanically in India.
- It is a mycoheterotroph, one of two types of parasitic plants that have abandoned photosynthesis.
- It has 90% similarity with the taiwaniana species named after Taiwan

### Stats

- Lecanorchis taiwaniana adds to the orchid wealth of northeast India, which has 800 of some 1,300 species in the country.
- About 300 species are found in the Western Ghats and 200 in the northwestern Himalayas.

### Other Plants

- Costus pictus or the insulin plant used in treating diabetes mellitus
- Ophiorrhiza mungos used in treating cancer because of the alkaloid Camptothecin present in it.

## ***Makalu Barun National Park***

- It is situated in the Himalayan region of Nepal.
- It is eastern extension of Sagarmatha National Park.

### Context

- The official Twitter handle of the Indian Army left netizens amused when it posted photos of what it called footprints of Yeti, the mythical Himalayan beast, in Nepal on a recent mountaineering expedition.

## ***Mizo Rain Snake (Smithophis Atemporalis)***

- It has been named after eminent British herpetologist, Malcom A Smith, for his contribution to Indian herpetology.

- Found in north-eastern state of Mizoram, they are locally referred to it as 'ruahlawmrul', a rain-loving snake
- The new species lacks temporal scales (specific enlarged scales in the temporal region of the head).

#### Why is it called so?

- This snake is aquatic and is commonly seen in human dominated landscapes and forests as well.
- In Aizawl, the capital of Mizoram, this snake is commonly seen during the monsoons and frequents streams and other wet places, close to human habitation and is seen after rain showers.

### **Mula River**

- It is a river in Pune
- It is dammed near the Western Ghats at the Mulshi Dam that forms the Mulshi Lake
- As it flows downstream it merges with the Pawana River on the left bank and Mutha River on the right bank to form the Mula-Mutha river, which later meets the Bhima River

#### Concerns

- Untreated domestic sewage, Industrial Wastes is being released into the river resulting in the formation of foam and also hyacinth
  - They develop dense mats on the surface of the water and becoming a major weed problem.
  - Water hyacinth causes enormous water loss due to evapotranspiration creating negative impact on water balance in the region.
- The same water is used by farmers downstream in Shirur tehsil for growing Vegetables which when consumed can result in Health issues.
- The fishing community which once had enough catch is now suffering to meet its livelihood

### **Painted Storks**

- Painted storks – large birds, along with Black, White and Grey Ibis, migrate from Southeast Asia to the Indian subcontinent in November-December
- The birds are distinct due to their colorful plumage and slightly bent yellow beaks with long legs that differentiate them other birds.
- It is found in the wetlands of the plains of tropical Asia south of the Himalayas in the Indian Subcontinent and extending into Southeast Asia.
- They nest colonially in trees, often along with other water birds.
- IUCN Conservation status: Near Threatened

#### Context:

- For six months in a year, the Veerapuram and Venkatapuram villages of Anantapur district turn home to beautiful Painted Storks who fly here from far-off places for their breeding season.

#### Issue:

- The number of migratory birds is on the decline, as availability of water and fish has become scarce.
- Though the village is known to be a destination for these migratory birds for over 100 years, it was only in 1982 that the Forest Department formally identified it for protection.

- No tangible efforts to protect the birds have been taken so far. Tourists and photographers too make a beeline here on the weekends as the place is close to the famous stone-carved Nandi of Lepakshi.
- Uric acid found in the droppings of these birds is causing damage to trees, with many people not taking any interest in planting new ones.

#### Proposals:

- Only the tamarind tree seems to be able to withstand the effects of the acidic droppings.
- District Forest Officer told that the department had sent a ₹80 lakh proposal to the State Government to plant two-meter tall trees around the dry tank, desilt it and begin a veterinary care service.
- Several small tanks recently developed in the 3-4 km range from Veerapuram have received good rain and the Fisheries Department had released small fish seedlings.
- There is a proposal to build some huts/guest houses around this place for the tourists and the District Collector was looking for a proper place to acquire land for the Tourism Department to develop the facility.
- A bird rehabilitation centre and an Awareness Creation Centre was proposed while a 30 m x 20 m water tank with a depth of 3 m has been built by the Forest Department close to Veerapuram tank.

### ***Rajaji National Park***

- It is an Indian national park and tiger reserve
- It encompasses the Shivaliks, near the foothills of the Himalayas.
- The park is spread three districts of Uttarakhand: Haridwar, Dehradun and Pauri Garhwal
- The Ganga and Song rivers flow through the park
- Rajaji National Park has been named after C. Rajagopalachari (Rajaji), a prominent leader of the Freedom Struggle

### ***DNA database coming up for Indian rhino***

#### Context

- The Union Environment Ministry has embarked on a project to create DNA profiles of all rhinos in the country.

#### Details

- The project is a subset of the Centre's larger, ongoing Rhino Conservation Programme.
- There are three species of rhinos, of which only one — the Indian rhino — is found in the country. The rhinos were once abundant and well-distributed in the country. However poaching reduced its numbers to about 200 wild animals by the end of the 20th century
- By 2021, the project's deadline, the Indian rhino could be the first wild animal species in India to have all its members DNA-sequenced.
- The project's proponents, include the World Wide Fund for Nature-India (WWF-India) and the Centre-funded Wildlife Institute of India (WII)

#### Significance

- The exercise would be useful in curbing poaching and gathering evidence in wildlife crimes involving rhinos.

*The National Rhino Conservation Strategy for India:*

- The National Rhino Conservation Strategy for India was launched in February 2019
- It called for an engagement between India and Nepal to conserve the greater one-horned Rhinoceros
- The plan said the single population of rhinos in Sukla-Phanta (Nepal), Valmiki tiger reserve (India) and Chitwan National Park (Nepal) and Dudhwa (India) is separated by the political boundary between the two countries. Instead of managing the two populations differently in the two countries, it needs to be managed with the same protocol.

*Indian Rhinoceros:*

- The Indian rhinoceros also called the greater one-horned rhinoceros and great Indian rhinoceros, is a rhinoceros native to the Indian subcontinent.
- It is listed as Vulnerable on the IUCN Red List.
- The Indian rhinoceros once ranged throughout the entire stretch of the Indo-Gangetic Plain, but excessive hunting and agricultural development reduced their range drastically to 11 sites in northern India and southern Nepal.
- The rhino's single horn is present in both males and females, but not on newborn young.
- The rich presence of blood vessels underneath the tissues in folds gives it the pinkish colour.
- The folds in the skin increase the surface area and help in regulating the body temperature.
- The thick skin does not protect against bloodsucking Tabanusflies, leeches and ticks.

# Geography

## Enhanced Fujita(EF) Scale

- It rates the intensity of tornadoes in some countries, including the United States and Canada, based on the damage they cause.
- When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DIs) and Degrees of Damage (DoD) which help estimate better the range of wind speeds the tornado likely produced.
- The Enhanced Fujita Scale classifies tornadoes based on their intensity on a 0 to 5 scale, with zero the weakest and 5 the strongest

Enhance Fujita Scale			
Scale	Damage	Wind Speed (mph)	Destruction
EF0	Minor	65 - 85	Some damage to roofs, siding and tree branches
EF1	Moderate	86 - 110	Roofs stripped, mobile homes overturned and exterior home damage
EF2	Considerable	111 - 135	Torn off roofs, mobile homes destroyed, large trees uprooted
EF3	Severe	136 - 165	Entire stories of homes & buildings destroyed, trains overturned, cars lifted off the ground
EF4	Extreme	166 - 200	Homes leveled, cars thrown around
EF5	Massive	> 200	Destruction of all infrastructure

## Ice calving- Brunt Ice Shelf

- Ice calving, also known as glacier calving or iceberg calving, is the breaking of ice chunks from the edge of a glacier
- The ice that breaks away can be classified as an iceberg

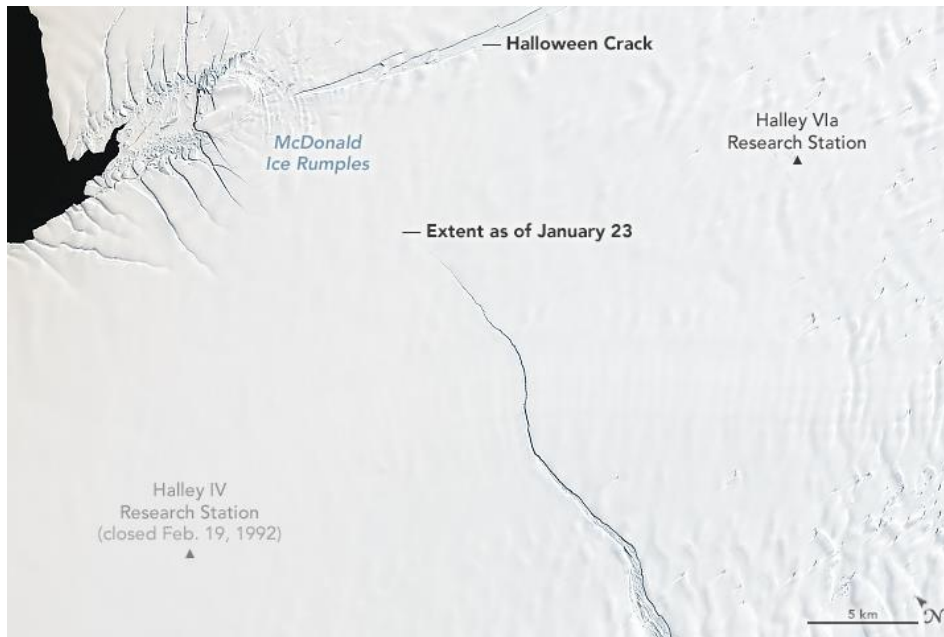
### Context

- Cracks growing across Antarctica's Brunt Ice Shelf are poised to release an iceberg with an area about twice the size of New York City.

### Details

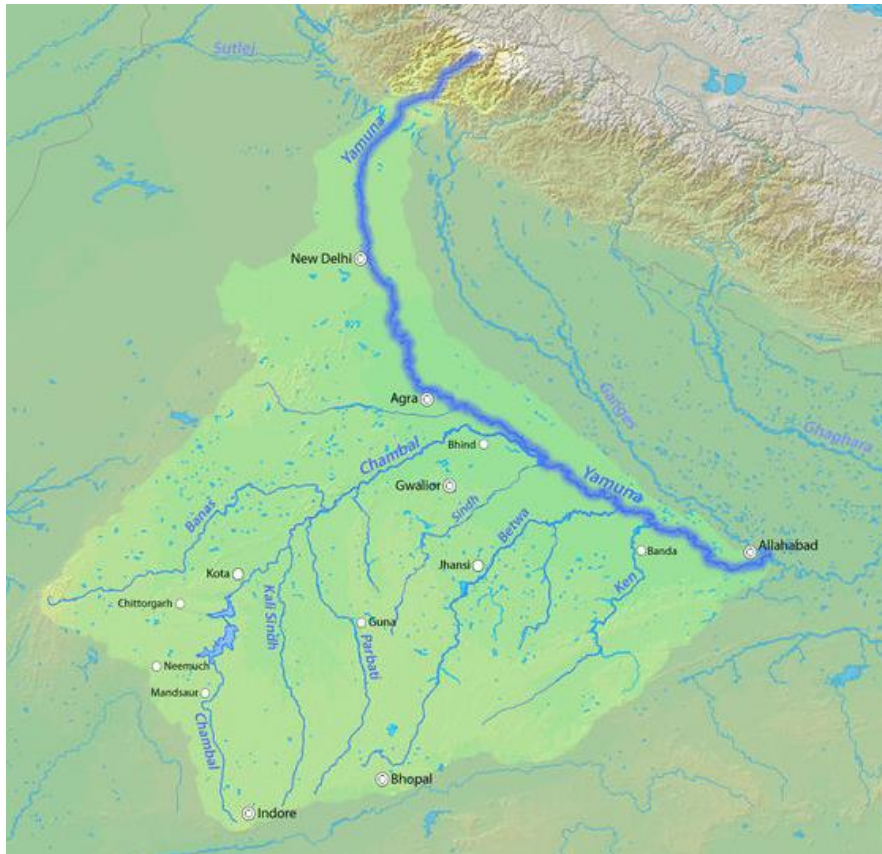
- The crack along the so-called Halloween crack—first appeared in October 2016 and continues to grow eastward from an area known as the McDonald Ice Rumples.
- The rumples are due to the way ice flows over an underwater formation, where the bedrock rises high enough to reach into the underside of the ice shelf. This rocky formation impedes the flow of ice and causes pressure waves, crevasses, and rifts to form at the surface.
- The more immediate concern is the rift visible in the center of the image. Previously stable for about 35 years, this crack recently started accelerating northward as fast as 4 kilometers per year

- The detailed view shows this northward expanding rift coming within a few kilometers of the McDonald Ice Rumples and the Halloween crack. When it cuts all the way across, the area of ice lost from the shelf will likely be at least 1700 square kilometers



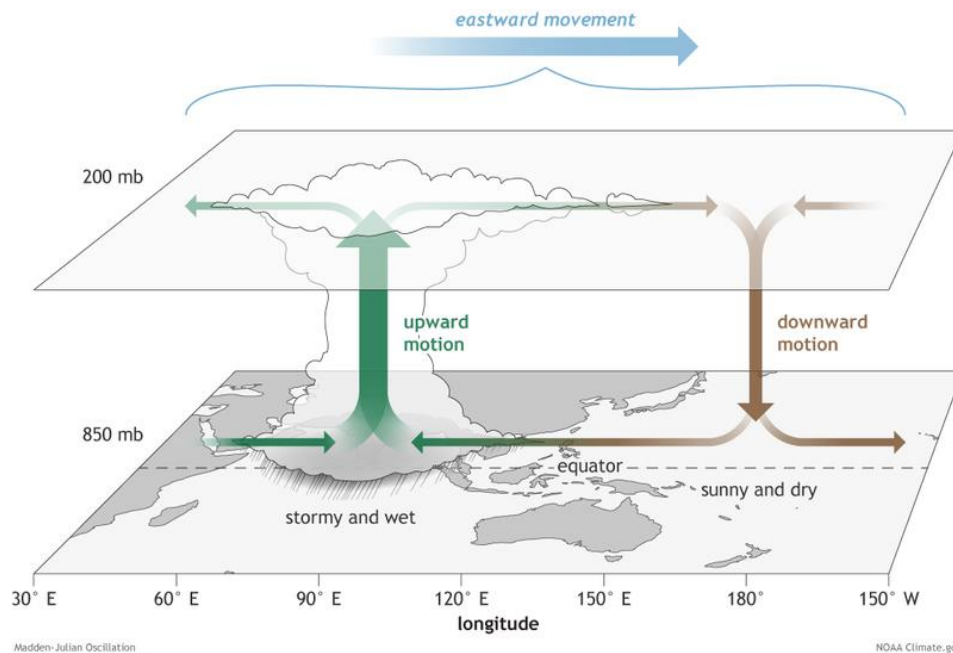
### ***Kali Sindh River***

- It is a river in the Malwa region of Madhya Pradesh
- The Kali Sindh originates from Bagli (District Dewas) in Madhya Pradesh.
- It joins the Chambal River at downstream of Sawai Madhopur in Rajasthan.
- The main tributaries of the Kali Sindh are Parwan, Niwaj and Ahu, Kuwari and Betwa Rivers



## ***Madden Julian Oscillation***

- The MJO was first discovered in the early 1970s by Dr. Roland Madden and Dr. Paul Julian when they were studying tropical wind and pressure patterns.
- It brings major fluctuation in tropical weather on weekly to monthly timescales.
- The MJO can be defined as an eastward moving 'pulse' of clouds, rainfall, winds and pressure near the equator that typically recurs every 30 to 60 days.
- It's a traversing phenomenon and is most prominent over the Indian and Pacific Oceans.
- The effect of the MJO is witnessed mainly in the tropical region, in the band between 30 degrees North and 30 degrees South of the equator, even though the mid-latitude regions in both hemispheres also feel its impact.
- The MJO consists of two parts, or phases: one is the enhanced rainfall phase and the other is the suppressed rainfall phase.



### Enhanced Phase

- In the enhanced phase, winds at the surface converge, and air is pushed up throughout the atmosphere.
- At the top of the atmosphere, the winds reverse (i.e., diverge).
- Such rising air motion in the atmosphere tends to increase condensation and rainfall.
- Active phase of MJO is responsible for precipitation and formation of tropical cyclones
- Ex: Cyclone Sagar and Mekunu

### Suppressed Phase

- In the suppressed phase, winds converge at the top of the atmosphere, forcing air to sink and, later, to diverge at the surface.
- As air sinks from high altitudes, it warms and dries, which suppresses rainfall.

### How Does MJO Affect Indian Monsoon?

- The Indian Ocean Dipole (IOD), El Nino and MJO are all oceanic and atmospheric phenomena, which affect weather on a large scale.
- IOD only pertains to the Indian Ocean, but the other two affect weather on a global scale, up to the mid-latitudes.
- IOD and El Nino remains over their respective positions, while MJO is a traversing phenomenon.
- The journey of MJO goes through eight phases. When it is over the Indian Ocean during the Monsoon season, it brings good rainfall over the Indian subcontinent.
- On the other hand, when it witnesses a longer cycle and stays over the Pacific Ocean, MJO brings bad news for the Indian Monsoon.
- It has also been established that if the periodicity of MJO is nearly 30 days then it brings good rainfall during the Monsoon season.

- If it is above 40 days then MJO doesn't give good showers and could even lead to a dry Monsoon. Shorter the cycle of MJO, better the Indian Monsoon. Simply because, it then visits the Indian Ocean more often during the four month-long period.
- Because of this Indian monsoon for 2018 was one day early.

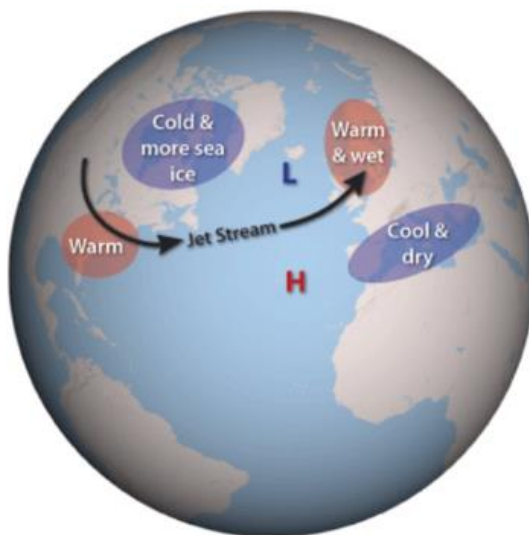
### Mulshi Dam

- It is a major dam on the Mula River in Pune district of Maharashtra
- Water from the dam is used for irrigation as well as for producing electricity at the Bhira hydroelectric power plant, operated by Tata Power.

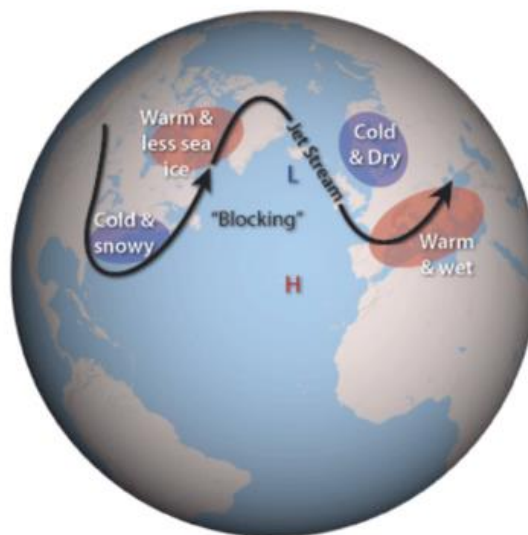
### North Atlantic Oscillation (NAO)

- The North Atlantic Oscillation is a large-scale atmospheric pressure see-saw in the North Atlantic region
- The common pressure features seen in the North Atlantic Ocean are for large regions of relatively high pressure centred over the Azores islands (west of Portugal, known as the sub-tropical or Azores high) and low pressure centred over Iceland (the sub-polar or Icelandic low).
- The NAO describes the relative changes in pressure between these two regions

Positive NAO phase



Negative NAO phase



- When the NAO is “positive” – and the pressure difference is stronger than usual – storm tracks shift towards the poles, bringing milder air to North American and Eurasian winters and leaving the Arctic very cold.
- When it is “negative” – and the pressure difference weakens – storm tracks shift towards the equator, and winters in northern Eurasia and eastern US tend to be more severe, while the Arctic is relatively mild.
- This is often referred to as the “warm Arctic-cold continents” (WACC) pattern.

## ***Pacific Decadal Oscillation (PDO)***

### Background

- Northeast India is one of the wettest places on the Earth that has been experiencing rapid drying, especially in the last 30 years.
- Some places which used to get as high as 3,000 mm of rain during the monsoon season have seen a drop of about 25-30%.

### Context

- Why is northeast India drying up rapidly?
- A team of researchers from the Indian Institute of Tropical Meteorology, Pune, and Assam University set out to understand whether this decline is caused by anthropogenic activity or is it part of natural changes.
- The results published recently in JGR-Atmospheres show that the decreasing monsoon rainfall is associated with natural changes in the subtropical Pacific Ocean.

### Pacific Decadal Oscillation (PDO)

- It is variation of Sea Surface Temperature (SST) in the North Pacific basin north of 20°N. These are climate events that cover vast areas of Pacific Ocean over the periods of 20 to 30 Years.
- During a "warm", or "positive", phase, the West Pacific becomes cooler and part of the eastern ocean warms
  - It is similar to El Nino
- The Negative Phase the temperatures get cooler in the Eastern Pacific which is reverse of Positive
  - It is similar to La Nina

### Results of Study

- This pattern of fluctuations in the ocean, particularly over the North Pacific Basin is associated with declined rainfall
- Just like El Nino/La Nina in the tropical Pacific, PDO has a signature for a longer time (on the decadal scale) in the sea surface temperatures and its interaction with the atmosphere, which in turn affects the northeast Indian summer monsoon.

### Stats

- The team used observed rainfall and Sea Surface Temperature data for the period 1901-2014 for the study.
- The results show out that the reduction in rainfall during a major part of the last 114 years may be associated with global man-made factors, while the trend during the last 36 years is associated with natural phenomena.

### Recommendations by Researchers

- Change in land cover and deforestation could potentially result in more natural disasters, for example, flash flood, landslides from torrential rains, and damage to crops and biodiversity
- Policymakers should take these long-term predictions into account while planning construction of dams, power plants, etc. to prevent loss of property

## ***Pandoh Dam***

- The Pandoh Dam is an embankment dam on the Beas River in Mandi district of Himachal Pradesh
- Under the Beas Project, the dam was completed in 1977 and its primary purpose is hydroelectric power generation.

## ***Polar Amplification***

- “Polar amplification” usually refers to greater climate change near the pole compared to the rest of the hemisphere or globe in response to a change in global climate forcing, such as the concentration of greenhouse gases (GHGs) or solar output
- Arctic amplification is polar amplification of the Earth's North Pole only; Antarctic amplification is that of the South Pole.

### ***Arctic Amplification***

- The Arctic is warming more than twice as quickly than the global surface average. This phenomenon is known as “Arctic amplification”.
- It stems predominantly from the rapid loss of sea ice cover in the region.
- As Arctic sea ice diminishes, energy from the sun that would have been reflected away (Albedo) by the bright white ice is instead absorbed by the ocean, causing further warming.

# **Governance**

## **Non-Functional Upgradation (NFU)**

- NFU entitles all officers of a batch who are not promoted to draw the salary and grade pay that the senior most officer of their batch after certain seniority.

### **Context**

- The government has announced the setting up of a high-level expert committee to examine the recommendations of 7th Central Pay Commission (CPC) on Non-Functional Upgradation (NFU).

### **Current Conditions**

- Group A services in the government already enjoy the NFU status and it was recently granted for the Central Armed Police Forces (CAPFs) as well.
- So it is only the armed forces, who really need NFU due to the steep pyramidal structure, who are left out

### **Concerns voiced by Army**

- There is discrepancies in equivalence and parity between armed forces and their civilian counterparts due to the lack of NFU despite military personnel having long service.
- The Sixth Pay Commission had granted NFU to most Group 'A' officers but not the military. Since then, armed forces had been demanding a one-time notional NFU to ensure parity.
- However, the 7th CPC gave a mixed verdict on it and the issue has since been referred to the anomalies committee following strong objection from the three Services.

### **Background**

- Earlier the Department of Personnel and Training had announced the setting up of a seven-member high-level expert committee headed by Ratan P. Watal, IAS (retd.) and former Finance Secretary and principal adviser NITI Aayog to "examine various aspects of the recommendation of 7th CPC on NFU."
- Separately, a case regarding granting NFU to the Services is currently pending in the Supreme Court.

### **Terms of reference**

- Among the terms of reference, the committee is tasked to examine the administrative issues pertaining to NFU, which is presently admissible to the IPS/Indian Forest Service and OGAS and come out with a "comprehensive solution" keeping in view the recommendations of pay commission, "various judicial pronouncements and administrative and financial exigencies of the government" among other factors.
- The other aspect is to suggest a "clear definition of OGAS (Organised Group A Service), to make clear distinction in the processes of cadre review and the procedure for grant of OGAS."

## ***Health Issues***

### ***Chlorpyrifos***

- It is a pesticide used on almonds, citrus, cotton, grapes, walnuts and other crops
- The chemical causes serious health effects in children, including impaired brain and neurological development
- Pregnant women living near fields and farms that use the chemical have an increased risk of having a child with autism
- Exposures to low to moderate levels of chlorpyrifos during pregnancy have also been associated with lower IQs and memory problems.

#### Context

- California is banning a widely used pesticide that has been linked to brain damage in children

### ***Doctors appearing in ads for hospitals may face action***

#### Context:

- A group of doctors working in a prominent corporate hospital in Kochi may be penalised after their photographs and details were featured prominently in a newspaper advertisement of the hospital. The matter has been brought to the attention of the Registrar of Travancore Cochin Council of Modern Medicine, for appropriate action.

#### Background:

- Previously, Medical Council of India (MCI) took punitive action against a group of doctors, who were featured prominently in an advertisement of the hospital they were then working in, by removing their names from the Indian Medical Register/State Medical Register for 15 days.
- In 2013 the MCI took disciplinary action against nine doctors who were featured prominently in an advertisement of Saxena Multispeciality Hospital, Pvt. Ltd., Sonapat, Haryana.
- The MCI took this decisive action because doctor promoting themselves through advertisements with photographs is a violation of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002.

#### What does the code say?

- Section 6.1 of the Code of Ethics states that “...a physician shall not make use of him/her (or his/her name) as subject of any form or manner of advertising or publicity through any mode either alone or in conjunction with others ... as to invite attention to him or to his professional position, skill, qualification ...”
- “Corporate hospitals are free to advertise their facilities and services but they cannot advertise their services making use of the photographs and details of the doctors under their employment.

#### Council's mandate:

- The Travancore Cochin Council of Modern Medicine, which met in May last year, brought out a circular that the council would be forced to take suo motu action against doctors if they displayed their photographs in any hospital billboards or advertisements in violation of the Code of Ethics.
- It had asked doctors to remove their names and photographs from such publicity material immediately or to face punitive action, including removal of their names from the State Medical Register.
- The MCI's Code of Ethics is binding on the doctors and not the hospital.
- The MCI has jurisdiction only over doctors. So, even if it is the hospital that is putting out the advertisements featuring doctors' photographs, the latter alone will be held liable for the violation of medical ethics.

## ***Telangana addresses maternal mortality***

### Context:

- Thirty nurses trained in midwifery would be posted in 12 government healthcare facilities in Telangana that have recorded a high number of deliveries. The move is expected to bring down C-Section deliveries and Maternal Mortality Rate (MMR) in the State.
- Midwifery is the health science and health profession that deals with pregnancy, childbirth, and the postpartum period (including care of the newborn), in addition to the sexual and reproductive health of women throughout their lives.
- It is claimed that Telangana is the first State to have certified midwives.

### MMR data:

- According to the Sample Registration System's special bulletin on 'Maternal Mortality in India 2014-16', MMR across India was 130 per 1,00,000 live births.
- It is 81 per 1,00,000 live births in Telangana, the fifth lowest State.
- The lowest MMR of 46 was recorded in Kerala, followed by 61 in Maharashtra.

### How did Telangana bring down its MMR through sustained campaign?

- The infrastructure which was implemented, largely focused on making healthcare accessible to all women and also incentivized institutional deliveries which helped attract more women to institutional deliveries.
- The government undertook the gargantuan task of improving public health care facilities, starting with the Public Health Centres (PHCs).
- The state implemented a 24-hour call centre as part of a government initiative.
- The PHCs worked with Accredited Social Health Activists (ASHAs) and collected the expected delivery dates of women in a particular locality and passed it on through the call centres.
- The call centres were set up in conjunction with the government's 'Amma Vodi' (Mother's Lap) programme.
- Under 'Amma Vodi' a few initiatives were taken to ensure that pregnant women were getting regular antenatal check-ups as well as institutional deliveries.
- The call centres helped authorities to keep track of pregnant women and were able to make sure that they were getting regular check-ups.
- The government also introduced the 102 number for women who required transport to and from their check-ups.

- Institutional deliveries were incentivised by providing financial incentives. Women are given Rs 13,000 for girl children and Rs 12,000 for boys which are given in installments.

#### Significance:

- According to World Health Organisation's (WHO) 'Global Strategic Directions for Strengthening Nursing and Midwifery 2016-2020', there is demonstrable evidence substantiating the contribution of the nursing and midwifery workforce to health improvements, such as increased patient satisfaction, decrease in patient morbidity and mortality, stabilisation of financial systems through decreased hospital readmissions, length of stay, and other hospital-related conditions, including hospital-acquired infections, which consequently contributes to patient well-being and safety.

#### Conclusion:

- According to data released by the Sample Registration System (SRS), Telangana state went from an MMR of 92 in the 2011 to 2013 period to a rate of 81 between 2014 and 2016. The effort of the state government to reduce its MMR has resulted in the entire nation's MMR reducing to 130 from 167. In fact, Telangana is now close to the 70 mark, the Sustainable Development Goal (SDG) set for the country.

### ***Kerala to de-link ICU care from organ donation***

#### Context:

- Kerala is moving towards the mandatory certification of brain death at intensive care units in all medical facilities in the State, irrespective of whether organ donation takes place or not.

#### What is brain death?

- Brain death is the complete loss of brain function.
- When someone is brain dead, it means that the brain is no longer working in any capacity and never will again.
- Other organs, such as the heart, kidneys or liver, can still work for a short time if the breathing machine is left in place, but when brain death is declared, it means the person has died.

#### Current Scenario in India:

- At present, there is lack of clarity on how clinicians should proceed if there is a brain-dead patient in the ICU and the family has refused consent for organ donation.
- In India, brain death has been defined only in connection with organ donation, in the Transplantation of Human Organs Act, 1994.
- The Act does not specify whether ventilation and ICU care may be withdrawn if a patient is brain-dead but organ donation has not been proposed.
- Lack of clarity in the law had been posing a lot of problems for clinicians.

#### What is the Standard practice followed across the globe?

- Once brain death declaration becomes a standard ICU procedure (after performing the first apnea test as specified under the THO Act), treatment can be terminated post discussion with the families.

- Any new therapeutic ventilatory strategies would only be adopted for preserving organs for organ donation, which is the standard practice all over the world.

### Brain death determination



- **Kerala moves** for uniform institutional policies
- **Training programmes** for a panel of physicians
  - They **will be given** credentials, empanelled by State
- **Investment in research** on brain death knowledge base, accuracy of brain death diagnosis
- Enhancing professional and public education on **brain death**

**Periodic review of brain death certification norms and procedures by an independent expert committee**

#### Details:

- The government, after legal consultations, will soon issue executive orders delinking brain death certification and organ donation, so that there is more clarity as to how clinicians should proceed with intensive care unit (ICU) care in the case of a patient who has been declared brain-dead, but whose family has refused consent for organ donation.
- Once brain death is diagnosed as per the existing legal and clinical requirements and the certification process is completed, ICU care will be continued only if organs are to be retrieved for possible donation.
- If organ donation is not a possibility, then all care will be stopped so that the much valuable ICU resources are not wasted and may be utilised for a salvageable person.
- The decisions were taken at a meeting of senior health administrators, transplant surgeons, neurologists, and critical care specialists on developing parameters for universal brain death certification.

### ***Quick, cheap diagnostic test for Haemophilia A***

#### Context:

- Medical body Indian Council for Medical Research (ICMR) develops affordable test kit to diagnose blood disorders.

#### Details:

- The ICMR's National Institute of Immunohaematology, Mumbai, has developed a cost-effective Point-of-Care (POC) rapid diagnostic test for severe Haemophilia A and Von Willebrand Disease (VWD)
- This is the first in the world POC test for specific diagnosis of any common bleeding disorder.
- Working cost of these kits is less than ₹50 in comparison to existing conventional test for the diseases that costs around ₹4,000 to ₹10,000,

- Patients with severe Haemophilia A or VWD can have life threatening spontaneous or post-traumatic bleeding like brain haemorrhage and gastrointestinal bleed or they may have bleeding into joints or superficial bleeding from the nose or gums.

#### Haemophilia:

- Haemophilia is a mostly inherited genetic disorder that impairs the body's ability to make blood clots, a process needed to stop bleeding.
- This results in people bleeding longer after an injury, easy bruising, and an increased risk of bleeding inside joints or the brain.
- There are two main types of haemophilia: haemophilia A, which occurs due to not enough clotting factor VIII, and haemophilia B, which occurs due to not enough clotting factor IX.
- They are typically inherited from one's parents through an X chromosome with a non-functional gene.
- Other types include haemophilia C, which occurs due to not enough factor XI, and parahaemophilia, which occurs due to not enough factor V.
- Acquired haemophilia is associated with cancers, autoimmune disorders.
- As haemophilia A and B are both X-linked recessive disorders, females are rarely severely affected.
- Some females with a non-functional gene on one of the X chromosomes may be mildly symptomatic.
- Haemophilia C occurs equally in both sexes

#### Von Willebrand Disease (VWD):

- VWD is a genetic disorder caused by missing or defective Von Willebrand factor (VWF), a clotting protein.

# ***International Relations***

## ***Coastal Radar Surveillance System***

- The radar chain—will link up with systems in India, Sri Lanka, Mauritius and Seychelles—will provide a comprehensive live feed of ship movements in the Indian Ocean Region that can be used by friendly navies.
  - The project evolved primarily looking at the non-state threat that India was facing in the maritime domain.
  - However, it has grown into a project that is now about the larger issues of structural change in the region; it is about maritime domain awareness, and it is about the potential role that India can play in the Indian ocean region.
  - The radar systems that we have installed would be able to see very long distances and would be able to transfer images; all images would be transported onto satellite systems through which it would be downlinked to the central server. It would be available to all these countries. Search and surveillance can be mounted if there are any suspicious movements.
- The part of the plan is to increase maritime domain awareness in the wake of the 26/11 Mumbai attack, coastal surveillance radars have been set up in Sri Lanka (6), Mauritius (8) and Seychelles (1).
- India also set up an Information Fusion Centre – Indian Ocean Region (IFC-IOR) that will share real-time maritime information with friendly nations in the region.
- With this India is trying to emerge as a net-security provider in the Indian Ocean Region (IOR).

### Background

- The total number of radars which will be part of the system on the Maldives is ten.
- Of these, three were already functional but were only able to send out AIS (Automatic Identification System) data, and presently undergoing upgrades by technicians from Bharat Electronics Limited.
- Once the upgrades are implemented, the system can be integrated into the wider Coastal Surveillance Radar System.

### How is it working currently?

- We have a Fusion Centre where all the pictures actually gets into a big database. The feed also comes from our aircraft, our ships and submarines which are patrolling in various parts of the Indian Ocean.
- All this feed is synthesized together in the fusion center and it is passed on to the commands which take action in case there is a requirement to intervene.

### Significance

- The Mumbai terror attack was carried out by sea, and this enhanced surveillance system would be able to monitor the movement of even small boats. So, incidents like the Mumbai terror attack can be prevented.
- China's project of the One Belt, One Road (OBOR), has been impacting India's security. China has setup projects in Pakistan, Sri Lanka, and Bangladesh.

- In that sense, the recognition of the Maldives of the importance and value of India, in their development, stands out and their decision, to restart the project of putting the coastal surveillance radars in the Maldives is very significant.

#### *The Players in the Region and what's at stake for them?*

- China's policy in the Indian Ocean and Pacific Region, has caused concern to many countries including the United States, Australia, New Zealand, the countries of south-east Asia and Japan.
  - There have been indications by many of these countries to work more closely with India in regard to ensuring everybody's maritime security as well as securing the safety of the maritime routes.
- There are vital sea lanes of communication passing through the Maldives and these sea lanes are of interest to most countries which have trade going through this particular area.
  - By promising an aid package of 1.4 Billion dollars, the Government of India, has indicated that it would do everything possible to help the Maldives to pursue their developmental programmes.
- It is important to note that the Maldives are not pulling away entirely from the Chinese- this is in line with what President Solih has said- mentioning that he would like to strengthen old friendships while developing new ones.
- Further, the spate of terror attacks that Sri Lanka has witnessed recently also raises concerns over a small island nation like the Maldives as well.
- It is there that intelligence sharing with the government of the Maldives would be very important. The coastal surveillance radar system would help not only India, but also, the government of Maldives in this regard.

### ***IN Ships undertake Group Sail***

#### *Context*

- IN Ships Kolkata and Shakti carried out Group Sail with naval ships of Japan, Philippines and the United States of America in the South China Sea
- IN Ships also took part in Maritime Security (MS) Field Training Exercise (FTX) under the aegis of ADMM-PLUS.

#### *ADMM-Plus*

- The ADMM-Plus is a platform for ASEAN and its eight Dialogue Partners to strengthen security and defence cooperation for peace, stability, and development in the region.
- The ADMM-Plus countries include ten ASEAN Member States, namely,
- Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.
- Eight Plus countries – dialogue partners, namely Australia, China, India, Japan, New Zealand, ROK, Russian Federation, and the United States.
- The ADMM-Plus has become an effective platform for practical cooperation among the participating countries' defence establishments.

#### *Objectives of ADMM-Plus*

- To benefit ASEAN member countries in building capacity to address shared security challenges, while cognisant of the differing capacities of various ASEAN countries;
- To promote mutual trust and confidence between defence establishments through greater dialogue and transparency;
- To enhance regional peace and stability through cooperation in defence and security, in view of the transnational security challenges the region faces;
- To contribute to the realisation of an ASEAN Security Community which, as stipulated in the Bali Concord II, embodies ASEAN's aspiration to achieve peace, stability, democracy and prosperity in the region where ASEAN member countries live at peace with one another and with the world at large;
- To facilitate the implementation of the Vientiane Action Programme, this calls for ASEAN to build a peaceful, secure and prosperous ASEAN, and to adopt greater outward-looking external relation strategies with our friends and Dialogue Partners.

## ***Jaish-e-Mohammad chief Masood Azhar listed as global terrorist by UN***

### Context

- In a major diplomatic victory for India, Jaish-e-Mohammed founder Masood Azhar was finally declared a global terrorist by the UN Security Council after China lifted its technical hold.

### Background

- The P-3 or group of three permanent UNSC members, the U.S., the U.K. and France, had co-sponsored a listing request at the Committee to declare Masood Azhar as a terrorist, weeks after the Pulwama attack that killed over 40 security personnel.

### Details

- After careful study of the revised materials and taking into consideration the opinions of relevant parties concerned, China said it has no objection to the listing proposal
- The reasons for designating Azhar as a terrorist as per the listing included his support for the JeM since its founding, being associated with the al-Qaeda by recruiting for them and "participating in the financing, planning, facilitating, preparing, or perpetrating of acts or activities or supplying, selling or transferring arms and related material".
- It also pointed to his role in recruiting fighters in Afghanistan.

### Why did China change its position now?

1. The Azhar issue has cast shadows on China's commitment to fighting terrorism.

- Jaish, which Azhar leads, has been an internationally designated terrorist outfit. And its role in multiple terrorist attacks in India has been well established. China's continued hold on his listing had weakened internationally its position against terror.
- After all, China has its own terror problem. The "deradicalisation" camps it is running in Xinjiang has triggered international criticisms, particularly from the U.S. Its Secretary of State Mike Pompeo has slammed China's "shameful hypocrisy", saying it's abusing over a million Muslims at home while protecting "violent Islamic terrorist groups from sanctions at the U.N."

2. After it used its hold on Azhar following the Pulwama terror attack, the U.S. distributed a draft resolution at the U.N. Security Council (outside the 1267 Committee) to ban Azhar.

- If the resolution is put to vote, China would be left with an awkward choice — either to back it or use its precious veto power, further isolating itself among global peers.
- This appeared to have put China in a fix.

3. China didn't have to completely abandon Pakistan, its "all-weather friend".

- The original listing application, which France, the U.K., and the U.S. had moved had a reference to the Pulwama terror attack.
- But that reference was removed from the application, apparently at China's insistence.
- This is in line with Pakistan's Kashmir narrative that terror activities in the Valley are an indigenous uprising, and not controlled by any foreign player.
- The official listing talks about Azhar's ties with Jaish and al-Qaeda, but has no reference to his role in Kashmir violence.

#### Implications

- The global terrorist tag will subject Azhar to an assets freeze, travel ban and an arms embargo.
- With Assets Freeze states freeze without delay the funds and other financial assets or economic resources of designated individuals and entities.
- Azhar's designation as a global terrorist will force Pakistan to act against him and individuals and entities associated with him.
  - This will effectively mean total immobilisation of Azhar and shutdown of his organisation and its institutions such as terror camps and madrasas.

#### India's Response

- Welcoming the decision, India called it a "step in the right direction", which demonstrated the international community's resolve to fight against terrorism and "its enablers".
- India will continue with its efforts through international forums to ensure that terrorist organisations and their leaders who cause harm to our citizens are brought to justice
- The government has done well to approach Beijing with what the Ministry of External Affairs called "patience and persistence".

#### Issue Area

- There is much disappointment, however, over the final listing released by the Security Council, with no mention of Mr. Azhar's role in any of the attacks against India, or directing the insurgency in Jammu and Kashmir.
- A specific reference to Pulwama, which was in the original proposal, was also dropped, presumably to effect China's change of mind on the issue.
- Pakistan's actions against others on the 1267 list have been far from effective, and in many cases obstructionist. Hafiz Saeed, the 26/11 mastermind and Lashkar-e-Toiba chief, roams free, addresses rallies, and runs a political party and several NGOs without any government restrictions.
- LeT's operations commander Zaki Ur Rahman Lakhvi was granted bail some years ago despite the UNSC sanctions mandating that funds and assets to the sanctioned individuals must be frozen.

### Conclusion

- Masood Azhar is one of about twenty 1267-sanctioned terrorists who have Pakistani nationality, and more are based there
- The focus must now move to ensuring its full implementation in Pakistan.
- It will take constant focus from New Delhi, and a push from the global community, to ensure that Masood Azhar is not just starved of funds, arms and ammunition as mandated, but that he is prosecuted in Pakistan for the acts of terror he is responsible for.
- Both financial and political pressure should be maintained on Islamabad to bring the hard-fought designation of Masood Azhar to its logical conclusion.

## ***Muslim Brotherhood***

### Context

- President Donald Trump wants to designate the Muslim Brotherhood, an international Islamist movement, as a terrorist organization.
- The designation would impose sanctions on the group and those who do business with it.

### What is the Muslim Brotherhood?

- The Muslim Brotherhood is a missionary movement founded in Egypt in 1928 by Hassan al-Banna, a schoolteacher working in the town of Ismailia, near the Suez Canal.
- He argued that an Islamic religious revival would enable the Muslim world to catch up to the West and shake off colonial rule.
- His teachings spread far beyond Egypt, and today widely varying Islamist political movements — including missionary, charitable and advocacy organizations as well as political parties in many countries — trace their roots to the Egyptian Muslim Brotherhood.
- But he was sweeping and contradictory about the mission of the group, and largely avoided spelling out what an Islamic government might look like.

### Examples of Violence

- Under the British-backed monarchy in the 1940s, the Egyptian Brotherhood was one of several factions to create paramilitary wings.
- In 1948, a 23-year-old veterinary student who belonged to the group assassinated the prime minister.
- Two weeks later, another member of the outfit was arrested for attempting to bomb a courthouse.
- Al-Banna denounced the perpetrators and their actions. “They are neither Brothers nor are they Muslims,” he said.

Experts critical of the Brotherhood agree that the organization does not meet the criteria for a terrorist group.

### Egypt has classified them as terrorist Organisation

- The government of President Abdel-Fattah el-Sissi has classified the Brotherhood as a terrorist organization and routinely accuses it of being behind terrorist attacks.
- The Brotherhood has consistently denied any involvement.

- Since the military takeover of Egypt's government in 2013, some members of the Brotherhood have broken off to form organizations that carry out acts of violence against the military-backed government.
- Two of those groups, Hasm and Liwa al-Thawra, have been designated as terrorist organizations by the United States government.

Have branches of the Muslim Brotherhood outside Egypt engaged in terrorism?

- Yes. The Militant Palestinian Islamist Movement Hamas, for one, is an offshoot of the Muslim Brotherhood. Hamas has carried out kidnappings, suicide bombings and rocket attacks on civilian targets, which the Muslim Brotherhood considers legitimate resistance to Israeli occupation.
- The United States has designated Hamas a terrorist organization.
- Beyond that, the many Brotherhood affiliates around the world operate independently and identify only loosely with the Egyptian original, so it is difficult to speak categorically.

Is the Muslim Brotherhood related to groups like al-Qaida?

- Many people who are frustrated with the Muslim Brotherhood's nonviolence have quit the group for more militant organizations such as al-Qaida.
- Ayman al-Zawahri, the Egyptian who helped found and now leads al-Qaida, is a former Brotherhood member.

Does the Muslim Brotherhood support democracy?

- Calls for democratic elections are now a hallmark of Muslim Brotherhood movements across the Arab world, putting them at odds with the authoritarian governments of the region as well as with more militant Islamists.

What is the argument for labeling the Muslim Brotherhood terrorist?

- The main international advocates for the designation are el-Sissi of Egypt and his authoritarian allies in Saudi Arabia and the United Arab Emirates.
- Alarmed that Muslim Brotherhood parties might rise to power through elections, all three governments have cracked down on the Islamists and pressed their allies to do the same.
- They argue that the Brotherhood's Islamic ideology makes it a threat to the idea of the nation-state and thus a threat to the region's stability.
- They also argue that the Brotherhood and al-Qaida are essentially part of the same movement since both envision societies grounded in Islam.

Can Trump simply declare the Muslim Brotherhood terrorist?

- No. The administration must show that the Muslim Brotherhood engages in terrorist activity that threatens the United States or its interests.
- After counterterrorism agencies prepare written evidence, the secretary of state must consult with the attorney general and the treasury secretary before making a designation.
- Congress would have seven days to block it, and then the Muslim Brotherhood would have 30 days to appeal to a federal court in Washington.

## ***Varuna exercise***

- It is Indo-French joint naval exercise
- The bilateral naval exercise initiated in 1983 and named as 'Varuna' in 2001, form a vital part of the Indo-French strategic partnership.
- The Varuna exercise aims at developing interoperability between the two navies and fostering mutual cooperation by learning from each other's best practices to conduct joint operations.
- The exercise underscores the shared interests and commitment of both nations in promoting maritime security.

### Context

- The Indian and French navies began the 17th edition of their annually-held bilateral naval warfare exercise, designated Varuna 19.1/19.2

### Details

- The upcoming 17th edition includes participation of the French Navy's aircraft carrier FNS Charles de Gaulle, two destroyers, FNS Forbin and FNS Provence, the frigate FNS Latouche-Treville, the tanker FNS Marne and a nuclear submarine.
- From the Indian side, the aircraft carrier INS Vikramaditya, destroyer INS Mumbai, the Teg-class frigate, INS Tarkash, the Shishumar- class submarine, INS Shankul, and the Deepak- class fleet tanker, INS Deepak, will be participating in this exercise.
- Varuna 19.1 will be conducted off the Goa coast
- Varuna 19.2, is scheduled to be held at the end of May in Djibouti.

## ***Beyond Khalistan***

### Introduction

- India has often accused Canada of sheltering Sikh separatists
- Due to this, India-Canada ties have deteriorated in recent years

### Details

- Sikhs in Canada form a voting bloc for Justin Trudeau, so much so that he even attended a Khalsa Day parade organized by a radical individuals in Gurudwara in Toronto.
  - Members of Mr. Trudeau's Cabinet, especially Defence Minister Harjit Singh Sajjan, have been accused of having links with Sikh separatists.
  - Justin Trudeau administration is soft on individuals and organisations that support the demand for Khalistan, a separate Sikh homeland.
  - When Mr. Sajjan visited India in April 2017, Punjab Chief Minister Captain Amarinder Singh refused to meet him for this reason.
- Similarly, Mr. Trudeau received the cold shoulder during his India visit in February 2018.
  - When Mr. Singh met Mr. Trudeau, their discussion was on the Khalistan issue, rather than on areas of mutual cooperation.
- Recently, Mr. Trudeau drew the ire of the Indian government when a report on terror threats avoided the words 'Khalistani extremism'.

### Views of Sikh Diaspora

- The Indian media, the government and even politicians in Punjab need to realise that Sikhs based in Canada, the U.K. and the U.S. may have different political views. The Canadian govt in fact views it as Freedom of expression.
- Similarly, non-violent support for a cause cannot be labelled as a militant activity.

### Canadian relationship should be seen in compartments

Critics of the Canadian government must also bear in mind that like all relationships, this is a multi-layered one.

- While New Delhi may be uncomfortable with the Canadian government's approach towards the activities of certain Sikh hard-liners, it is important to bear in mind that for the year 2017, Indian students received well over 25% (over 80,000) of the available study permits.
- In 2017, well over 40% of the 86,022 people who received invitations for permanent residency were Indians.
- During 2018, this rose by a staggering 13% to 41,000.

### What should be done?

- If there is evidence of support for any violent activity, New Delhi and Canada must work together to tackle the problem.
- By focusing only on the Khalistan issue, New Delhi risks alienating the Sikh diaspora.
- India should instead reach out to the Sikh diaspora in a year when Sikhs and all other followers of Guru Nanak will be commemorating his 550th birth anniversary.

### Conclusion

It is important to handle ties with Canada with nuance.

- First, members of the Sikh diaspora and Sikh politicians who are vocal on human rights issues shouldn't be labelled Khalistani sympathisers.
- Second, it should be remembered that the New Delhi-Ottawa relationship goes well beyond the Khalistan issue.

## ***Initiatives by Commerce Ministry to Boost Trade with African Countries***

### Context

- Commerce Ministry and Indian High Commissions and Embassies of eleven African countries arranged an interaction over Digital Video Conference (DVC) with the Indian business community in Africa
- This initiative was held in order to build an effective engagement with the Indian Diaspora in Africa in order to further deepen and strengthen India-Africa trade ties.

### Stats

- India's total trade with the African region during 2017-18 was USD 62.69 billion (8.15% of India's total trade with the World).
- India's share of exports to African countries as a percentage of India's total exports to the world was of the order of 8.21% in 2017-18.
- Africa region's share in India's total imports from the World accounted for 8.12% in 2017-18.

### Diaspora relationship

As per the latest available estimates the current strength of the Indian Diaspora in the African countries is 2.8 million out of those 2.5 million are PIOs and rest 220967 are NRIs

- The inherent strength of India in Africa is its rich and vast Diaspora which has established strong links with the political, economic and social fabric of the African continent.
- In order to formulate a strategy to boost India-Africa Trade & Investment, the Indian Diaspora in Africa has to be leveraged further in order to ensure that the strategy is effective

### The major issues highlighted by the Indian Business Community in these 11 countries are:

- Improving the Line of Credit system and developing a facility for an affordable and competitive funding.
- Setting up of Indian Banks/financial institutions in Africa
- Enhanced Buyers' Credit facility for promotion of trade between the two regions
- Reviewing and liberalizing visa policies from both sides
- Need for direct flights between the India and African countries
- Exploring the possibility of rupee trade to address the issue of shortage of dollars in region.
- Creation of common database of buyer-suppliers in the two regions for facilitating matchmaking for enhancement of bilateral trade.
- Development of a robust trade dispute settlement mechanism
- More frequent and structured country/sector specific trade exhibitions in Africa
- Establishment of country chapters of FICCI or CII in Africa
- Frequent visits of policy makers, chamber of commerce and investors for familiarization with local business and investment regime for informed decisions

### Way forward

- This initiative of the Commerce Ministry emphasizes the need for a multipronged strategy for further enhancing trade and investment ties between the two regions.
- Commerce Ministry recognizes that for formulating an effective export strategy it is imperative to engage the Indian business community in Africa for mutual gain for both sides as trade relations between the people of same origin instills greater confidence amongst trade partners.

# Polity

## Election Visitors Programme

### Context

- An international delegation of 11 members from Australia, South Korea, Bosnia, Bhutan and Bangladesh visited India to analyse the nitty-gritty of the election management system.

### Details

- It received a demonstration and first-hand experience of the working of the Electronic Voting Machine and the Voter Verifiable Paper Audit Trail (VVPAT)
- ECI's quarterly magazine "My Vote Matters" was also released on this occasion by the Commission.
- The Magazine presents a comprehensive glimpse of preparatory initiatives in different States for the ongoing elections.

## India International Institute of Democracy and Election Management (IIIDEM)

- IIIDEM is envisaged as an advanced resource centre of learning, research, training and extension for participatory democracy and election management.
- The Institute has been developed in collaboration with the Government of India, United Nations, the Commonwealth and inter-governmental organisations like Sweden based International Institute of Democracy and Electoral Assistance (IDEA).
- The Institute will be a national and international hub for exchange of good practices in election management.
- The Institute will direct its efforts to enhance the potential and capacity of the Election Commission and its officials in carrying out their mandate and functions in a more effective and professional manner.
- IIIDEM will work for promoting democratic values and practices, enhancing voter education and awareness and developing human resource and capacities for efficient conduct of free and fair elections in India and for developing mutually beneficial partnership as well as collaborations with other countries.
- Goal
  - To train the electoral machinery in the delivery of free, fair and flawless elections. To orient stakeholders of the democratic and electoral systems toward possibilities of better and more productive delivery therein. To explore and expand the horizons of intellectual know-how in these fields.

## Lottery in elections

- According to Section 102 of the Representation of the People Act 1951, if there is equality of votes and if one additional vote would entitle either of them to win, and if no decision has been made by the Returning Officer under the provisions of the Act, then the High Court decides by a lot.
- The candidate who wins the lottery wins the election.

- In 2017, for instance, in the election to ward number 220 of the Brihanmumbai Municipal Corporation, Shiv Sena's Surendra Bagalkar and the BJP's Atul Shah got the same number of votes. The result was decided by lottery, and Mr. Shah won.

#### What if it's a triple tie?

- While the law has provision to hold a toss of coin or a lot to decide a tie between two candidates, it is a grey area as to what will happen if three candidates end up winning the same number of votes.

## ***Redactive pricing audit and the CAG's duties***

### Introduction

- In a democracy it is the will of the people, people elect representatives, then these representatives holding power and positions of responsibility must be answerable for their action.
- The democratic state has a Social Contract, between the people and the state and functions on behalf of the people.
- To ensure that this contract is respected, a democracy provides for several institutional mechanisms like the Judiciary, Vigilance bodies and an independent Supreme Audit Institution (SAI).
- In the Indian polity, the Comptroller and Auditor General of India (CAG) and the Indian Audit and Accounts Department (IAAD) functioning under it, constitute the Supreme Audit Institution of India, which is an instrument for ensuring accountability

### CAG constitutional provisions

The constitutional provisions relating to the CAG are mentioned in four Articles —148 to 151.

- Article 148 deals with the appointment of CAG by the President and safeguards his position and service conditions by stating that 'he shall only be removed from office in like manner and on like grounds as a Judge of the Supreme Court'.
  - His salary and other conditions of service shall be determined by Parliament and shall be protected.
  - It is explicitly stated that the CAG 'shall not be eligible for further office either under the Government of India or under the Government of any State after he has ceased to hold his office'.

### Functions

- In the Indian system of governance, policies and programmes are translated into outcomes and implemented by various departments of the government to be achieved through public spending.
- For this, the Parliament sanctions the budget which prescribes how Government will collect money through taxes and how much and for which purposes it shall spend.
- There are financial rules which the Government departments and other public bodies must follow when they receive and spend public money. The spending departments are accountable to the Parliament for both the quantity and quality of their expenditure.
- Article 148 to 151 of the Constitution prescribe a unique role for the Comptroller and Auditor General of India in assisting the Parliament to enforce the said accountability of the Government departments.
- The CAG's (Duties, Powers and Conditions of Service) Act, 1971 with amendments 1976, 1984, 1987 and 1994 specify the CAG's duties and powers pertaining to government accounts, audit of receipts

and expenditures of three tiers of the governments at the union, states and urban and rural local bodies.

- CAG duties include audit of public companies, autonomous bodies, regulatory bodies and other public entities, where there is a specific legislative provision to make CAG audit mandatory in the acts by which these bodies were created.
- Therefore, While performing his duties, the CAG acts as the financial 'watchdog' and exercises oversight functions over the receipts and expenditure to and from the public exchequer.
  - The main objective of the CAG reports is to truthfully report to the legislature to help it exercise effective parliamentary oversight and control over the executive's accountability and use of resources as per the laws and rules of the land.
  - CAG is mandated to report to the legislature to ensure that tax payers' money voted by Parliament is spent as per financial rules and the standards of financial propriety.

### Examples

CAG's reports have since independence exposed varied genres of political, financial, bureaucratic and corporate scandals.

- Some of the recent ones cover different spheres of government activities. They range from fodder, allocation of 2G Spectrum, coal blocks, scams relating to Commonwealth games, arms deal, food, health, housing, banks, construction of infrastructural projects, procurement and centrally sponsored schemes
- CAG plays a vital role to help deter, detect, and take remedial and preventive action. It helps prevent public sector corruption and provide good governance.
- The reports become credible, authentic and reliable source material for legislative committees, courts, anticorruption and investigating agencies such as the Central Vigilance Commission, Central Bureau of Investigation, Chief Information Commissioner, Enforcement Directorate.

### Redaction

- It is the selection or adaption by 'obscuring or removing sensitive information' from a document prior to publication.
- In the preface of the audit report, the CAG stated that redactive pricing was unprecedented but had to be accepted due to the Ministry's insistence citing security concerns.
- Consequently, the full commercial details were withheld and the figures on the procurement deal were blackened
- Whether the Ministry's insistence citing security concerns could have been accepted by the CAG can be examined only by the Supreme Court in the light of the constitutional provisions on the CAG's duties and parliamentary privileges and prerogatives

### Concerns

- Redactive pricing is nowhere used in SAI audit reports. It does not seem to have been used in a government audit by any SAI of any country.
- For example, in the Rafale deal, Parliament, its committees, the media and other stakeholders of the CAG's reports cannot obtain complete, accurate and reliable information due to redactive pricing.

- CAG's audit to pinpoint inaccuracies, non-compliance of essential procurement procedures, conditions and pricing errors which may have a negative financial impact and cause potential damage to the country's interests.

### Conclusion

- In case the CAG's office lacks expertise to conduct a performance audit, expertise can be sought from the pool of resources or credible organisations to be coopted in the audit team.
- Pricing decisions must be subjected to detailed analysis, without resorting to redactive pricing. Parliament is constitutionally privileged to know what the executive had done and how and under what conditions a procurement was decided. The CAG's audit is expected to highlight value for money in purchase decisions.
- A performance audit is done to establish whether the procurement activity was executed keeping in mind economy, efficiency, effectiveness, ethics and equity.
- Only a thorough pricing audit can bring out the credibility and integrity of a purchase decision, thereby achieving an SA's constitutionally mandated responsibilities.

## ***Returning Officer***

- A Returning Officer is responsible for overseeing the election in a constituency, or sometimes in two constituencies, as directed by the Election Commission (EC).
- The EC appoints the Returning Officer and Assistant Returning Officer for a constituency in consultation with the governments of the State or Union Territory as the case may be.
- The Returning Officer's duties include accepting and scrutinizing nomination forms, publishing the affidavits of candidates, allotting symbols to the contesting candidates, preparing the list of contesting candidates, preparing the EVMs and VVPATs, training polling personnel, designating counting centres, and counting the votes and declaring the result.

### Context

- Tej Bahadur Yadav's nomination papers from Varanasi Lok Sabha constituency was rejected by Returning Officer (RO)
- It was rejected on the ground that the petitioner was dismissed from the government service

### Section 9 of the Representation of the People Act, 1951.

- Disqualification for dismissal for corruption or disloyalty.
- While rejecting the nomination papers of Yadav, the RO had observed that "the nomination paper is neither accompanied by certificate issued in the prescribed manner by the Election Commission to the effect that he has not been dismissed for corruption or disloyalty to the state".

## ***Madras High Court curbs L-G role in Puducherry administration***

### Context

- The Madras High Court ruled that the Lieutenant-Governor (L-G) of Puducherry could not interfere with the day-to-day administration of the Union Territory when an elected government was in place.
- The court said continuous interference from the L-G would amount to running a "parallel government."

### Details

- Justice R. Mahadevan said: “The Central government as well as the Administrator [the term used in the Constitution to refer to the L-G] should be true to the concept of democratic principles. Otherwise, the constitutional scheme of the country of being democratic and republic would be defeated.”
- The judge made it clear that Government Secretaries were bound to take instructions from the Ministers and the Council of Ministers, headed by the Chief Minister.
  - He also disapproved of the alleged practice of government officials being part of social media groups through which the L-G was issuing instructions to them for redress of public grievances and reminded them that as per rules, they were bound to use only authorised medium of communication when it came to issues related to administration.

### Important Articles

Article 239 {Administration of Union territories}

Article 239A {Creation of local Legislatures or Council of Ministers or both for certain Union territories}

Parliament may by law create for the Union territory of Pondicherry -

- a body, whether elected or partly nominated and partly elected, to function as a Legislature for the Union territory, or
- a Council of Ministers, or both with such constitution, powers and functions, in each case, as may be specified in the law.

Article 239AA {Special provisions with respect to Delhi}

- As from the date of commencement of the Constitution (Sixty ninth Amendment) Act, 1991, the Union territory of Delhi shall be called the National Capital Territory of Delhi (hereafter in this Part referred to as the National Capital Territory) and the administrator thereof appointed under article 239 shall be designated as the Lieutenant Governor.

### Difference between Delhi and Puducherry

- The Puducherry legislature is the creation of a parliamentary law, based on an enabling provision in Article 239A of the Constitution,
  - Whereas the NCT legislature has been created by the Constitution itself under Article 239AA.
  - Justice Mahadevan said though Article 239AA imposes several restrictions on the legislature of Delhi, no such restrictions had been imposed explicitly in the case of Puducherry under Article 239A.
    - The NCT Assembly is limited in the extent of its legislative powers, as it is barred from dealing with the subjects of public order, police and land.
- However, looking at the Business Rules as well as other statutory provisions on Puducherry, the judge has sought to give greater credence to the concept of a representative government.

### Section 44, Government of Union Territories Act, 1963

- Referring to the provisions of the Government of Union Territories Act, 1963, the judge said Section 44 of the Act states that there shall be a Council of Ministers in each Union Territory to aid and advice

the Administrator who shall act in his/her discretion only in so far as any special responsibilities were concerned.

- However, since the Act does not specify the 'special responsibilities' in relation to which the L-G could apply his/her discretion, "it is the bounden duty of the Administrator and the Council of Ministers to avoid logjam and facilitate the smooth functioning of the government in public interest, leaving the political differences apart," the judge said.

He also dealt with the provisions of Rules of Business of the Government of Pondicherry, of 1963, the Delegation of Financial Powers Rules, 1978, the Government of Puducherry (Custody of Public Money) Rules, 2006, the Government of Puducherry Accounting Rules, 2006, and the periodical orders issued by the Central government before deciding the case.

#### SC on Delhi

- The judgment is based mainly on the principles that were laid down in last year's Constitution Bench decision on the conflict between the elected regime in the National Capital Territory (NCT) and its Lt.Governor.
- The five-judge Bench had ruled that the L-G has to either act on the 'aid and advice' of the Council of Ministers, or refer to the President for a decision any matter on which there is a difference with the Ministry, but has no independent decision-making powers.
- The High Court also says the Administrator is bound by the 'aid and advice' clause in matters over which the Assembly is competent to enact laws. The L-G's power to refer any matter to the President to resolve differences should not mean "every matter", the court has cautioned.

### ***Justice Bobde panel gives clean chit to CJI in sexual harassment probe***

#### Context

- The Justice S.A. Bobde in-house committee appointed by SC has found "no substance" in the sexual harassment allegations levelled by a former Supreme Court staff member against Chief Justice of India Ranjan Gogoi.

#### Background

The complaint made by the victim of sexual harassment to the judges of the Supreme Court had two equally serious facets.

- One related to sexual harassment, a very serious charge.
- The other related to the victimisation of the complainant and her family "at the hands of the Chief Justice of India [CJI]"
  - Meanwhile her husband, and the latter's brother, also a constable with the Delhi Police, were suspended over telephone, and the orders followed

#### Details

- As part of the in-house procedure, the report would not be placed in the public domain
  - The Supreme Court quoted its reported decision of 2003 in Indira Jaising versus Supreme Court of India, which had held that an in-house inquiry report was "discreet" and "not for the purpose of disclosure to any other person".

- The 2003 decision, however, does not contemplate a situation when the Chief Justice of India is himself under inquiry as in this case.
- This can also be seen otherwise, because the inquiry in the present case was into the allegations made against the CJI, the report has advisedly been given to the next seniormost judge (next in seniority to Justice S.A. Bobde and Justice N.V. Ramana).
- It said copies of the report were given to Chief Justice Gogoi and the “next senior judge competent to receive the report” that is Justice Arun Mishra who is the fourth seniormost judge.

#### Why delay in filing the case?

- Those who have doubts about the so-called delay in the complaint must be prepared to put themselves in the shoes of the victim, a Class III employee pitted against the Chief Justice of India, one of the highest and the most powerful constitutional functionaries.
- Her approaching lawyers who are widely respected as human rights activists was natural and cannot be viewed with suspicion under any circumstances.

#### Series of flaws

- The first reaction was by the court’s Secretary General quickly discarding the complaint as one by “mischievous forces”.
- The second was unprecedented in the constitutional history of India. The CJI himself constituted an extraordinary hearing in the Supreme Court, along with two other judges, on a non-working day in a case titled “Matter of great public importance touching upon the independence of the judiciary”.
- The third development was the constitution of an “in-house” panel comprising three judges of the Supreme Court. It did not seem to be of concern that to ensure independence of the inquiry and check for bias, members other than judges should have constituted the committee. How can judges inquire into allegations against a colleague, no less the CJI, who is the ‘master of roster’ assigning cases to fellow judges and, most significantly, the highest judicial authority in the country, wielding an enormous amount of power and influence?

#### Supreme Court cases about Administrative procedures

- The Constitution Bench of the Supreme Court in *Olga Tellis v. Bombay Municipal Corporation* recognised procedural safeguards as necessary
  - This institutional check on arbitrary action on the part of public authorities is missing in this case.
- In *Uma Shankar Sistani v. Commissioner of Police, Delhi* (1996), the Supreme Court ordered the Central Bureau of Investigation to investigate the circumstances under which a false complaint was registered against the petitioner, leading to his arrest.
  - The FIR against the victim in this case needs the same treatment.
- Equally, the punishment of dismissal imposed on her is grossly disproportionate, even assuming that the charges against her were proved.
  - The Supreme Court has consistently frowned upon such punishments. In *Ranjit Thakur v. UOI* (1987), the court interpreted the doctrine of proportionality “as part of the concept of judicial review” to ensure that if the sentence is an outrageous defiance of logic, then it can be corrected.

### Grounds for judicial review

- Irrationality and perversity are recognised grounds of judicial review. The court has held that if the punishment is outrageously disproportionate and the court considers it arbitrary in that it is wholly irrational or “a punishment is so excessive or disproportionate to the offence as to shock the conscience of the Court the same can be interfered with”.
- On each one of these counts the punishment of dismissal imposed upon the victim is completely arbitrary and perverse. It must go.

### What should be done?

- It matters not that the respondent is the head of the judiciary. He or she must be held to the same standard that is used in all other such cases. The independence of the judiciary and constitutional protections given to judges should not transform into an immunity shield
- Justice needs not only to be done, but needs to be seen as manifestly done.
- Members of the Bar, the staff of the court registry and the general public have enough of a stake in an independent judicial system to say, “It is my court too.”

### Conclusion

- What matters today is that the Supreme Court was called upon to do justice in a case involving claims of sexual harassment. And it has failed, in every possible way, to do that.

### Doctrine of proportionality

- It is a principle that is prominently used as a ground for judicial review in cases of administrative action.
- The doctrine essentially signifies that the punishment should not be disproportionate to the offence committed or
  - The means that are used by administration to obtain a particular objective or result should not be more restrictive than that are required to achieve it.

### Details

- We live in an age where administrative authorities have been empowered to exercise discretionary powers, the position holders in the administration exercise wide discretionary powers and these powers cannot be used arbitrarily, therefore to keep a check on them, the doctrine of proportionality is used.
  - This power is however, fettered by restraints.
  - It is to be exercised in public interest and for the public good.
- While exercising administrative action, the body should keep in mind the purpose it seeks to obtain and the means it is using to achieve it, and if its actions deviate from the object or are discriminatory or disproportionate then they would be quashed by the court by using the doctrine of proportionality.
- In the test of Proportionality the “courts will quash exercise of discretionary powers in which there is no reasonable relation between the objective which is sought to be achieved and the means used to that end, or where punishments imposed by administrative bodies or inferior courts are wholly out of proportion to the relevant misconduct”.

- The implication of the principle of proportionality is that the court will weigh for itself the advantages and disadvantages of an administrative action and such an action will be upheld as valid if and only if the balance is advantages

#### Foundation case

- In India the doctrine of proportionality was adopted by the Supreme Court of India in the case of *Om Kumar v. Union of India*
- In this case the Apex court observed that Indian courts have been using this doctrine since 1950, in cases of legislations violating fundamental rights enshrined in Article 19(1) of the constitution.

Justice Bhagwati has read the Principle of Reasonableness in Article 14 by the words:

“Article 14 strikes at arbitrariness in State action and ensures fairness and equality of treatment. The principle of reasonableness, which logically as well as philosophically, is an essential element of equality or non-arbitrariness pervades Article 14 like a brooding omnipresence.”

## ***The Realities of Voting in India***

### Introduction

- A large scale internal migration in India has deprived the voting rights of many especially those working in the informal sector.
- There is no law or any policy initiative looking at this issue.

### India's Electoral Process

- India as a federal republic and as the largest participatory democracy in the world ensures all its citizens the right to universal adult franchise.
- This entails that every citizen of India aged 18 or above has the freedom to vote in any election in the country.
- However, each citizen of India is tied to a specific place to cast their vote, that is, their vote is not portable across regions. This is where the issue of migrant voting rights comes in.

### Stats

- Economic Survey, 2017, provided an estimate of internal work-related migration using railways data for the period 2011–16 (GOI 2017).
  - The results showed an average interstate migration of almost nine million people a year.
- While migrants from the Hindi heartland of Uttar Pradesh, Bihar, and Madhya Pradesh largely move to Delhi, Maharashtra, Tamil Nadu, and Gujarat, those from the eastern states of Jharkhand and Odisha travel not only to Kolkata in West Bengal, but also to Kerala, in increasing numbers.
- According to the 2011 Census, 51 million migrants moved within India for economic reasons, constituting nearly 10% of the labour force. This gives rise to a concern about the political voicelessness of these migrant workers who are unable to practise their voting rights because of economic migration.
- There are no statistics available on how many migrant workers have changed their constituency to vote at their current work location.

### Nature of Migration and Voting

- There is a preponderance of informal sector employment among the economic migrants. Most of them are employed in the informal segments within larger sectors like construction and manufacturing, on a rotational basis.
  - A lot of these workers are seasonal migrants who look for work during the off seasons of agriculture.
  - As a result, their migration is temporary, and as such it makes no sense for them to change their voting areas to their place of work
- Moreover, even if they did decide to vote in the destination, the lack of knowledge of local politics and larger agendas leads them to stay away from local politics.
- The incidence of low daily wages constrains both the decisions and the feasibility of any impromptu movement of these migrant workers, even if it is for executing their voting rights.
  - The main issue faced by workers is the economic strain of quitting even a day's work to go back to their hometown and vote.
- Besides sending remittances, there is also the pressure of expectations from family and peers that the migrants will bring back gifts from the cities during their home visits.
  - While such gifts are signs of prestige to the families, to the migrant worker these are economic dampeners of their decision to travel to their home constituencies for voting.

### Response of the State

- Answering to a Lok Sabha question in 2016 the ruling government had admitted of the lack of data on migrants at a nation-wide level, with the numbers given in the Economic Survey 2016–17 being the very first estimates of the number of internal migrants in the country (GOI 2016). Consequentially, the issue of voting of the internal migrants also gets ignored.
- In another response the Govt said apart from the Interstate Migrant Workers Act, 1979, there is no central policy or legislation that looks into the issues of internal migration, nor has there been widespread studies on the various social dimensions of this phenomenon
- Again, in responding to a Rajya Sabha question in 2018 on the provision of proxy votes for overseas voters and internal migrants, the government had stated that while an amendment to the Representation of the People Act, 1951 is underway to allow proxy voting for overseas voters, no such provisions are in place for the internal migrants

### Conclusion

- While these migrant workers might be interested in casting their votes, the reality of their work lives and the various socio-economic hurdles that they need to overcome act as barriers to achieve it.
- Given the large number of workers who stay away from their hometowns and registration centres, this puts into question the very essence of participatory democracy, where every vote from every citizen should carry equal importance.
- This there is a growing need to look into these issues, policy mechanism addressing them taken up and ultimately a voice of every citizen is heard in Participatory democracy

***Post-Fani, Naveen seeks special category status***

Context:

- Odisha Chief Minister has demanded special category status from the Centre for his disaster-prone State, saying it faces natural calamities almost every year.

Details:

- In his first interview since Cyclone Fani ravaged the coastal districts killing 41 people, he said a special category status was the need of the hour due to the massive loss to infrastructure which may stall growth of the State.
- The demand was raised stating that the assistance that the state gets from the Centre is mostly for temporary restoration of infrastructure. And a lot has to be spent from State's own funds to work for the long-term.
- In the last five years we had Phailin, Hudhud, Titli and now Fani. In addition to this, the state experiences massive floods.

Current scenario in the state:

- Fani has left the Power infrastructure completely destroyed, especially in Puri and parts of Khurda districts where we complete re-electrification is necessary.
- Lakhs of houses have been destroyed.
- Serious damage has been caused to tree cover and plantation crops.

Special Category status:

States which are granted special category status enjoy several benefits. These include

- preferential treatment in getting central funds
- concession on excise duty to attract industries to the state
- a significant 30% of the Centre's gross budget also goes special category states
- These states can avail the benefit of debt-swapping and debt relief schemes
- In the case of Centrally Sponsored Schemes and external aid, Special Category States get it in the ratio of 90% as grant, and 10% as loans. Other states, however, get 30% of their funds as grants
- Special Category States also get tax breaks to attract investment

A Special Category Status catalyses the inflow of private investments and generates employment and additional revenue for the state. Besides, the State can create more welfare-based schemes from the new savings since the Center bears 90% of the expenditure on all Centrally Sponsored Schemes. Further, more grants from the Center helps in building state infrastructure and social-sector projects.

- The Constitution of India does not include any provision for the categorization of any state as a Special Category Status state.
- However, in the past, Central Planned Assistance were given to certain states on the ground that they are historically disadvantaged in comparison to others.

Criteria for Special Category Status:

The erstwhile Planning Commission body, the National Development Council (NDC), granted Special Category Status to states based on a number of features, which included:

- Hilly and difficult terrain
- Low population density
- Presence of a sizeable tribal population
- Strategic location along international borders
- Economic and infrastructural backwardness
- Non-viable nature of state finances

Jammu and Kashmir was the first state to get Special Category Status and another 10 states were added over the years, with Uttarakhand being the last in 2010.

# Security and Defense

## Abhyas

- It is a High-Speed Expendable Aerial Target (HEAT), which offers a realistic threat scenario for practice of weapon systems.
- It was tracked by various radars and electro-optic systems and proved its performance in fully autonomous waypoint navigation mode
- It is designed for autonomous flying with the help of an autopilot.

### Configuration

- The configuration of 'Abhyas' is designed on an in-line small gas turbine engine and it uses indigenously developed micro-electro-mechanical systems-based system for navigation and guidance.
- A Luneburg lens in the nose cone improves the radar cross-section of the target for weapons practice.
- It also has an Acoustic Miss Distance Indicator (AMD) to indicate the missed distance.

## AH-64E Apache attack helicopter

### Context

- The first AH-64E Apache attack helicopter built for India was formally handed over to the Indian Air Force (IAF) at the Boeing production facility in Mesa, Arizona in the U.S.

### What was the need?

- At present India is equipped with Russian origin MI-35 helicopters
  - The Russian attack helicopters, stationed in Pathankot in Punjab and Suratgarh in Rajasthan, are now on the verge of retirement and, thus, IAF needed an urgent augmentation of capabilities.
- The introduction of Apache will lead to the modernisation of the IAF's attack helicopter fleet

### What are the weapon systems that the AH64E (I) Guardian comes equipped with?

- The Apache comes with Hellfire precision strike missiles, 70 mm rockets and a 30mm chin-mounted automatic cannon which is cued by the pilot's helmet system.
- It will also come with Stinger missiles and Longbow fire control radar system.
  - The latter gives the helicopter the capability to make precision attacks from a distance.
- The helicopter is powered by two high-performance turboshaft engines with a maximum cruise speed of 284 km per hour or 152 knots.

### Significance

- The helicopter has the capability to carry out precision attacks at standoff ranges (so that we can evade the enemy ) and operate in hostile airspace with threats from ground
- The helicopter also has the unique capacity to transmit and receive battlefield picture through data uplinking and networking.
- It can engage both air and ground targets with relative stealth

## ***Border Roads Organisation (BRO)***

- BRO is a leading road construction agency under the Ministry of Defence with a primary role of providing road connectivity in border areas.
- It executes road construction and maintenance works along the Northern and Western frontiers primarily to meet the strategic requirements of the Army and is responsible for over 53,000 Km roads.
- The BRO has also constructed roads in friendly foreign countries like Bhutan, Myanmar, Afghanistan etc. thus contributing towards our strategic objectives in the region.

### Context

- Border Roads Organisation (BRO) is celebrating its 59th Raising Day

## ***Deradicalization***

### Definitions

- “Deradicalization,” refers to the process of divorcing a person, voluntarily, emotionally though the family or otherwise, from their extreme views.
- “Disengagement” refers to the process of moving a person away from their extreme group’s activities, without necessarily deradicalizing that person or changing their views.
- “Counter radicalization,” are those measures taken to prevent a new generation of extremists

### Why people get radicalized?

- The victims of extremism who fall prey are “spiritually hungry” and dedicated to their faith, but having limited knowledge of their religion; and being desperate, naïve, or simply in need of money.
- This is when the person closer to this individual through some channel get to know and make use of the gullibility
- Those seeking to recruit such people try to cater to their needs and interests and also by pressure tactics
- The victim then gets indoctrinated, starts trusting this person already involved with a radical group

### Approaches

- “Hard” Approaches to counterterrorism are more militaristic in approach—involving targeted assassinations or even warfare
- “Soft” Counterterrorism programs seek to undo the radicalization process by engineering the individual’s return to moderate society, usually by providing them with a stable support network, probing their original reasons for radicalizing, and divorcing them from their extreme beliefs and social contacts.

### Measures taken to Prevent radicalization

- At present, if the law enforcement agencies in the country find an individual to be a highly radicalised person, they determine whether the person can be referred for de-radicalisation.

- The person receives counselling either by the police or scholars of the ideological or religious affiliation to which the individual belongs.
- The person's activities are monitored to prevent backsliding.
- These measures are currently being pursued with diligence in the states of Maharashtra and Telangana.
- The media campaigns of the ISIS in social networks to attract supporters are also being analysed and public relations programmes are on anvil for the propagation of 'moderate' interpretations of the religion to counter the ISIS ideology of violent extremism.
- Indian anti-terrorist squads continue to prevent people from travelling to Iraq and Syria in an attempt to join the ISIS.

#### Austria's 'counselling centre for extremism'

- The counselling centre is aimed at family members, teachers and friends who fear that someone close to them is in danger of becoming radicalized.
- There is set up of hotline, with a group of advisers who have been trained in crisis intervention, who can visit worried families or friends quickly.
- The Deradicalization center also conducts educational lectures
- The advice is free and anonymous

#### Significance of deradicalization

- It will yield valuable intelligence and evidence against active terrorist groups.
- These programs are for the most part cheaper than other approaches to counterterrorism
- There will be growing sense of animosity generated due to hard power approach since it may involve loss of lives but deradicalisation helps in addressing the root cause
  - While military and other "hard" counterterrorism programs aren't themselves an answer, neither are deradicalization programs.
  - Indeed, many participants described deradicalization as just one part of a holistic counterterrorism approach; deradicalization will meet with only limited success when deployed in isolation

#### Conclusion

- Radicalization is a reality of the contemporary world that will not disappear any time soon. Indeed, some radicals may never leave behind their extreme views, but, if most can be persuaded to, and if more still can disengage from violence, deradicalization programs represent the best means of achieving such progress via soft counterterrorism.

## ***Gadchiroli Maoist attack***

#### Context

- As per the current data 15 security personnel and a civilian were killed in an IED explosion triggered by Naxals in Gadchiroli, Maharashtra.

#### Details

- The incident took place when a Quick Response Team (QRT) of the state police were headed to Dadpur village where the naxals had torched 36 vehicles meant to assist the Road Construction Work
- With disturbance of Peace, break of law and order in this village, the QRT team were on their way to provide reinforcements to the police station

### Stats

- According to South Asia Terrorism Portal (SATP) data, at least 107 persons have been killed in Left Wing Extremism (LWE)-linked violence across the country in 2019
  - During the corresponding period of 2018, such fatalities stood at 96
- The incident comes weeks after Maoists targeted a convoy in Chhattisgarh, killing BJP's Dantewada MLA Bhima Mandavi and four others travelling with him — minutes before campaigning ended in Bastar for the Lok Sabha polls

### Gadchiroli



- Gadchiroli district is situated in the southeastern corner of Maharashtra, and is bounded by Chandrapur district to the west, Gondia district to the north, Chhattisgarh state to the east, and Telangana state to the south and southwest.
- It has dense forests and rivers and sparse population, has long been a difficult terrain for security personnel to control and operate in
- What adds to the forces' difficulty is the ability of the Maoists to cross borders at will, given Gadchiroli's location at the trijunction of Maharashtra (of which it is part), Chhattisgarh, and Telanagana.
  - With the coordination among state forces not always at optimal levels, Gadchiroli offers both a corridor for passage, as well as a mostly safe holding area for Maoists.

### Maharashtra Govt's Control over the region

- Maharashtra has reached out to local adivasis and built local intelligence
- This has contributed to reducing Maoist hold in Gadchiroli
- The state has asserted control over the district, which has manifested in the huge success in the April 2018 encounter that left 38 alleged Maoists dead.

### Current Scenario

- After the setback of April 2018, the Maoists would have felt the need to register their presence.

- The delay of a year in carrying out the attack suggests it took them some effort to get the logistics in place.
- So they choose the path of IED attack which is a low-cost strike;
  - All it requires is one person sitting next to the road with either a command wire or a remote control
- The ambush on police seems to be in retaliation for the killing of two senior women cadre of the Maoists by the anti-naxal forces during an encounter in the forests of Etapalli taluka, South Gadchiroli, on April 27.

*Some important questions must be asked of the state police.*

- First, the attack took place after a group of Maoists committed burning on construction vehicles close to the encounter spot.
  - Given that the presence of Maoists in the area had already been confirmed, and with the police apparently having the advantage of active intelligence networks, it is odd that they were unable to identify a threat, or that an IED had been planted
- Second, the 15 personnel who were killed were travelling together in a private vehicle, a way of travel that is strongly discouraged under Standard Operating Procedures.
  - Ideally they should send an area domination unit to explore the road ahead — which is the usual practice —
    - Area domination is a strategy used by the army as well as paramilitary forces, to deprive ground to anti-state elements and instill a sense of security in the local population.
  - The QRT unit did not also wait for an anti-landmine vehicle to arrive before deciding to travel in a private vehicle.

*What could have been done?*

- For instance, in Maoist areas, forces are encouraged to travel on foot — and when they are travelling by road, a separate road opening party sanitises the area first.
- If a place has to be reached quickly, motorcycles being ridden by two people, with a gap between two bikes, is the standard procedure adopted to minimise the effect of an IED attack.
- There could have used of drones to see activity which is not normal and then continue the journey.

*Reaction*

- Prime Minister Narendra Modi condemned the attack and said that the perpetrators will not be spared. “Strongly condemn the despicable attack on our security personnel in Gadchiroli, Maharashtra. I salute all the brave personnel. Their sacrifices will never be forgotten. My thoughts and solidarity are with the bereaved families. The perpetrators of such violence will not be spared,”

## ***Vela- Scorpene-Class Submarine***

*Context*

- The fourth of six underwater warships being built in India with French collaboration, was launched in Mumbai with an aim to boost Indian capability to defend and secure the strategic sea lanes.
- The State-owned Mazagon Dock Shipbuilders Limited has entered into a contract for construction and transfer of technology for six Scorpene-class submarines with French collaborator Ms Naval Group (formerly DCNS).

#### Scorpene class

- The Scorpène-class submarines are a class of diesel-electric attack submarines. It features diesel propulsion and additional air-independent propulsion.
- Jointly developed by the French Direction des Constructions Navales (DCN) and the Spanish company Navantia, and now by Naval Group.
- These submarines can undertake multifarious tasks typically undertaken by any modern submarine which include anti-surface as well as anti-submarine warfare.
- In 2005, India chose the Scorpène design; purchasing six submarines. The first Scorpène submarine, named INS Kalvari, was undocked for the purpose of starting sea trials in April 2015 and will be delivered in September 2016.
- The transfer of technology involves appropriate technical support by Naval Group to MDL in the field of construction, integration and tests of the submarines in India
- This will be done by transfer of technical data package to MDL through information system as well as on job training to MDL's personnel on critical technologies.

### ***Ban on LTTE extended by five more years***

#### Context:

- The Union government extended the ban on the Liberation Tigers of Tamil Eelam (LTTE) for violent and disruptive activities that are prejudicial to the integrity and sovereignty of the country.

#### LTTE:

- The LTTE, a terror outfit based in Sri Lanka but having its supporters, sympathisers and agents in India.
- Founded in May 1976 by Velupillai Prabhakaran, it was involved in armed clashes against the Sri Lankan state forces and by the late 1980s was the dominant Tamil militant group in Sri Lanka
- The LTTE which started out as a guerrilla force, over time, increasingly came to resemble that of a conventional fighting force with a well-developed military wing that included a navy, an airborne unit, an intelligence wing, and a specialized suicide attack unit.
- The LTTE was designated as a terrorist organisation by 32 countries, including the European Union, Canada, the United States, and India.
- The LTTE is recognized for having carried out a number of high-profile assassinations, including the assassination of Sri Lankan President Ranasinghe Premadasa in 1993 and the former Indian Prime Minister Rajiv Gandhi in 1991.

#### Background:

- India had banned the LTTE after the assassination of Gandhi in 1991.

- Even after its military defeat in May 2009 in Sri Lanka, the LTTE had not abandoned the concept of 'Eelam' (separate land for Tamils) and had been clandestinely working towards the cause by undertaking fund-raising and propaganda activities.
- The remnant LTTE leaders or cadres have also initiated efforts to regroup the scattered activists and resurrect the outfit locally and internationally.
- The ban on the group was last extended for five years in 2014.

Details:

- The MHA said the LTTE "continues to adopt a strong anti-India posture as also continues to pose a grave threat to the security of Indian nationals, it is necessary to declare LTTE as an unlawful association with immediate effect".
- The ban has been extended under the Unlawful Activities (Prevention) Act, 1967.
- It's objective for a separate homeland (Tamil Eelam) for all Tamils threatens the sovereignty and territorial integrity of India, and amounts to cession and secession of a part of the territory of India from the Union and thus falls within the ambit of unlawful activities, the notification said.
- The Home Ministry said that the cases were registered under the Unlawful Activities (Prevention) Act 1967, against LTTE, pro-LTTE elements and chauvinist groups between May 2014 and May 2019 besides cases under the provisions of Explosive Substances Act 1908 and Indian Penal Code, etc.

# Science and Technology

## Endobot

- It is a robot to be marketed by an IIT Madras incubated startup, Solinas Integrity, founded by the researchers.
- It will check pipelines for leaks and other faults

### Why was this project initiated?

- Quite often, pipes that transport water suffer from low maintenance and neglect which causes them to develop leakages.
- These often go unnoticed except when the water seeps to the surface.
- Periodically, water pipelines are dug up, and this may bring leaks to notice, but this is left to chance and is a costly process at best. Water is also lost through connections that have not been sanctioned officially.
- Endobot is presented as a solution that can identify these faults and stealthy connections, at a low cost.

### How does it work?

- Endobot is about 6 inches high and can study any pipe having a diameter more than 8 inches
- The electrically-powered robot looks like a small tank, runs within the pipe on four wheels connected using a conveyor belt.
- As the robot, which is electrically powered, runs through the pipes at about 15 cm per second, it captures videos and transmits a live feed to the base at the entry point.
- It also uses laser-based techniques to examine the pipes as it move
- These feeds are conveyed to the user's computer and may be analysed later using software developed by the team.

## "YUva VIgyani KAryakram" (Yuvika)

- The Indian Space Research Organisation (ISRO) has launched a special programme for School Children called "Young Scientist Programme"
- The Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the younger ones with the intent of arousing their interest in the emerging areas of Space activities.
- The residential training programme will be of around two weeks duration during summer holidays and it is proposed to select 3 students each from each State/ Union Territory to participate in this programme covering state, CBSE, and ICSE syllabus.
- Those who have just finished 9th standard (in the academic year 2018-19) and waiting to join 10th standard (or those who have started 10th Std just now) will be eligible for the programme.
- The selection is based on the academic performance and extracurricular activities. Students belonging to the rural area have been given special weightage in the selection criteria.

## *Should Big Tech's dominance be checked?*

### Introduction

- Elizabeth Warren, Massachusetts senator and Democrat presidential contender for 2020, shared her plan to break up the big technology companies, which dominate the world from their base in the U.S

### What is the criticism against Big Tech?

American tech companies have built dominance because of two strategies.

- One involves purchase of potential competitors.
  - Facebook's acquisition of Instagram and WhatsApp
  - Google's purchase of mapping service Waze and ad company DoubleClick.
- The second strategy is the use of "proprietary marketplaces to limit competition".
  - There is prevalence of Gig Economy which has models on temporary economic activity with no permanent employment putting commitments of family under a lot of stress
  - They are destroying local economies, driving down workers' wages, shackling growth, depressing entrepreneurship and increasing the inequality that's ripping our country apart.
  - "Amazon crushes small companies by copying the goods they sell on the Amazon Marketplace and then selling its own branded version."

### Other issues

- Big Tech has way too much power to silence Free Speech.
- Discontentment with tech companies has increased following incidents such as the Cambridge Analytica scandal, where control of democracy and state by changing views and opinions by manufacturing content accordingly
- There are issues of tax evasion, where corporates operate companies in tax havens and evade tax by parking money in these countries, violating the obligation to pay taxes for the services enjoyed in the country.

Big Tech has bulldozed competition, used our private information for profit, tilted the playing field against everyone else. And in the process, they have hurt small businesses and stifled innovation.

### Market Capitalization

The five largest tech companies are collectively worth more than the entire economy of the United Kingdom. Investors value these companies at \$3.5 trillion; the Gross Domestic Product of the U.K. was \$2.6 trillion in 2017

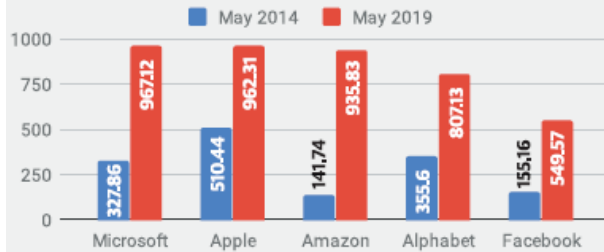
- Many of Google's properties — including the video platform YouTube, the Android platform, Play Store, Maps, the Chrome browser, the search site, as also Gmail — each have a billion plus users. Facebook has over 2 billion users and its arms Messenger and WhatsApp have more than a billion users each.
- Google and Facebook control about 60% of the digital ad spending in the U.S.
- More than 70% of all Internet traffic goes through sites owned or operated by Google or Facebook

# Through the roof

While the market capitalisation of all technology giants has surged, Google remains the leader in revenue advertisements

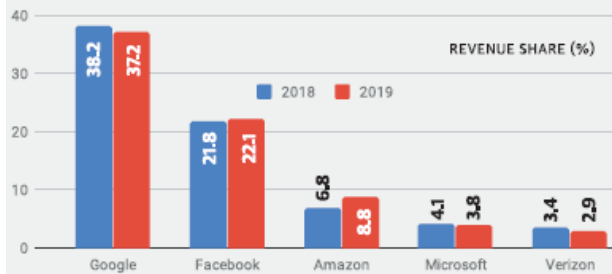
## Market cap in \$ billion

■ The market capitalisation of technology giants in \$ billion has grown phenomenally in the past five years



## Advertising revenue

■ Google still dominates the advertisement space with a revenue share of more than 37%, though there has been a slight dip, while Facebook and Amazon has seen a marginal increase



## Steps to overcome this dominance

- One involves legislating to ensure companies don't end up being both a platform and a player.
  - This pertains to companies with annual global revenues of at least \$25 billion.
- The second step involves "reversing illegal and anti-competitive mergers".
  - Acquisitions of Whole Foods and Zappos by Amazon, of WhatsApp and Instagram by Facebook, and of Waze, Nest and DoubleClick by Google come under that category and need to be unwound.

## Examples from the world

- The EU in recent years has imposed antitrust fines to the tune of over \$9 billion on Google.
  - The latest one was a result of, as the E.U. antitrust agency put it, Google's abuse of its dominance "to stop website using brokers other than the AdSense platform".
  - Regulations on data privacy and copyright standards have also been tightened in the EU.
- Japan's Fair Trade Commission is looking to examine Google, Apple, Facebook, and Amazon for possible abuse of market dominance.

## **Social Issues**

### **Kolam Tribe**

- Kolam are a designated Scheduled Tribe in the Indian states of Andhra Pradesh, Chhattisgarh, Madhya Pradesh and Maharashtra.
- They belong to the sub-category Particularly vulnerable tribal group, one of the three belonging to this sub-category.
- The others being Katkari and Madia Gond.
- They have a high rate of returning positive to the Naked eye single tube red cell osmotic fragility test (NESTROFT) test, making them prone to high incidence of Thalassaemia.

#### **Particularly Vulnerable Tribal Groups:**

- PVTGs are more vulnerable among the tribal groups.
- Some basic features are common among PVTGs. They are mostly homogeneous, with a small population, relatively physically isolated, slow rate of change etc.
- Due to these factors, more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development.
- In this context, in 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups, while 1993 additional 23 groups were added to the category.

### **Pre-conception and Pre-natal Diagnostic Techniques Act of 1994**

- It is an Act of the Parliament of India enacted to stop female feticides and arrest the declining sex ratio in India.
- The main purpose of enacting the act is to ban the use of sex selection techniques after conception and prevent the misuse of prenatal diagnostic technique for sex selective abortions.
- Sex selection is any act of identifying the sex of the foetus and elimination of the foetus if it is of the unwanted sex.

#### **Features**

- The Act mandates Compulsory Registration of all diagnostic laboratories, all genetic counselling centres, genetic laboratories, genetic clinics and ultrasound clinics
- No laboratory or centre or clinic will conduct any test including ultrasonography for the purpose of determining the sex of the foetus.
- No person, including the one who is conducting the procedure as per the law, will communicate the sex of the foetus to the pregnant woman or her relatives by words, signs or any other method.
- Any person who puts an advertisement for pre-natal and pre-conception sex determination facilities in the form of a notice, circular, label, wrapper or any document, or advertises through interior or other media in electronic or print form or engages in any visible representation made by means of hoarding, wall painting, signal, light, sound, smoke or gas, can be imprisoned for up to three years and fined Rs. 10,000.

### Exemptions

It regulates the use of pre-natal diagnostic techniques, like ultrasound and amniocentesis by allowing them their use only to detect:

- Genetic abnormalities
- Metabolic disorders
- Chromosomal abnormalities
- Certain congenital malformations
- Haemoglobinopathies
- Sex linked disorders.

### Views of SC from Past

- Female child is entitled to enjoy equal rights that a male child is allowed to have
- The menace of female foeticide corroded human values and the constitutional identity of a girl child “cannot be mortgaged to any kind of social or other concept that has developed or is thought of.”
- “When a female foetus is destroyed through artificial means, which is legally impermissible, the dignity of life of a woman to be born is extinguished. It corrodes the human values,”

### Not keeping record of pre-natal tests is criminal: SC

#### Context

- The Supreme Court has upheld provisions in the anti-pre-natal sex determination law which ‘criminalises’ non-maintenance of medical records by obstetricians and gynaecologists and suspend their medical licence indefinitely. This was necessary to prevent female foeticide in the country.

### Views of Doctors

- The doctors had said that the provisions in the law criminalise even the smallest anomaly in paperwork which is in fact an inadvertent and unintentional error.
- The sections have made obstetricians and gynaecologists vulnerable to prosecution all over the country.

### What did SC say?

- There are only 586 convictions out of 4202 cases registered even after 24 years of existence. It reflects the challenges being faced in implementing this social legislation.
- Any dilution of the provisions of the Act or the Rules would only defeat the purpose of the Act to prevent female foeticide, and relegate the right to life of the girl child under Article 21 of the Constitution, to a mere formality.
- The Supreme Court observed that giving preference to male child is violative of Article 39A of the constitution and against mandate of Article 51A (e) which casts a Constitutional duty on citizens to renounce practices derogatory to the dignity of women.

- The court also observed that skewed sex-ratio is likely to lead to greater incidences of violence against women and increase in practices of trafficking, 'bride-buying' etc. The rigorous implementation of the Act is an edifice on which rests the task of saving the girl child

#### *Voluntary Health Association Vs State of Punjab (Supreme Court)*

- All the States and the Union Territories in India shall maintain a centralised database of civil registration records from all registration units so that information can be made available from the website regarding the number of boys and girls being born.
  - The information that shall be displayed on the website shall contain birth information for each district, municipality, corporation or gram panchayat so that a visual comparison of boys and girls born can be immediately seen
- It directed that States and Union Territories, which do not have any incentive schemes for the girl child, shall frame the same.
- Fast track court- Noting that courts hearing cases of female foeticide should expedite hearing, the court requested the Chief Justices of High Courts to constitute a committee of three judges to periodically oversee the progress of these cases.
- The awareness campaigns with regard to the provisions of the Act as well as the social awareness shall be undertaken
  - The State Legal Services Authorities of the States shall give emphasis on this campaign during the spread of legal aid and involve the para-legal volunteers.
  - The Union of India and the States shall see to it that appropriate directions are issued to the authorities of All India Radio and Doordarshan functioning in various States to give wide publicity pertaining to the saving of the girl child and the grave dangers the society shall face because of female foeticide.

#### *Sahariya Tribe*

- They are one among the 75 tribes declared Particularly Vulnerable Tribal Groups by the Ministry of Home Affairs.
- Most of the Sahariya live in the state of Madhya Pradesh. They are also present in small numbers in Rajasthan.
- Sahariya means jungle dwellers.
- The Sahariya tribe follows the Hindu traditions; celebrates all fairs, festivals and customs.

#### *Economic Activity*

- Due to their low educational levels, patchy land ownership, and reduced farming opportunities, Sahariya are forced to seek manual labour in nearby states and cities.
- Most of the Sahariya are landless labours, working in stone mines and in farms of others.

#### *Health Concerns*

- Poverty and malnutrition impede the tribal people. Their health condition remains poor. Lacking in healthcare facilities/centres further accelerate it.
  - They have to walk miles to get medical facilities as they live in the jungle and isolated areas.

- The people mainly suffer from the respiration disease such as asthma, as most of them are working in stone mining

## *The gender ladder to socio-economic transformation*

### Introduction

- India is in the middle of a historical election which is noteworthy in many respects, one of them being the unprecedented focus on women's employment.
- The major national parties, the Bharatiya Janata Party and the Congress, have reached out to women, and their respective manifestos talk of measures to create more livelihood opportunities in rural and urban areas, which include incentives to businesses for employing more women.

### Stats

- Currently, the participation of women in the workforce in India is one of the lowest globally.
- The female Labour Force Participation Rate (LFPR) in India fell from 31.2% in 2011-2012 to 23.3% in 2017-2018.
  - Labour force participation rate is defined as the section of working population in the age group of 16-64 in the economy currently employed or seeking employment.
  - People who are still undergoing studies, housewives and persons above the age of 64 are not reckoned in the labour force.
- This decline has been sharper in rural areas, where the female LFPR fell by more than 11 percentage points in 2017-2018.

### Structural and social Problems

- The answers can be found in a complex set of factors including low social acceptability of women working outside the household, lack of access to safe and secure workspaces, widespread prevalence of poor and unequal wages, and a dearth of decent and suitable jobs.
- Most women in India are engaged in subsistence-level work in agriculture in rural areas, and in low-paying jobs such as domestic service and petty home-based manufacturing in urban areas.
- On the contrary, time-use surveys have found that they devote a substantial amount of their time to work which is not considered as work, but an extension of their duties, and is largely unpaid. The incidence and drudgery of this unpaid labour is growing.
- This includes unpaid care work such as childcare, elderly care, and household work such as collecting water.
- The burden of these activities falls disproportionately on women, especially in the absence of adequately available or accessible public services

### Education and work

A recent study observed a strong negative relationship between a woman's education level and her participation in agricultural and non-agricultural wage work and in family farms.

- Essentially, women with moderately high levels of education do not want to do manual labour outside the household which would be perceived to be below their educational qualifications.

- The study also showed a preference among women for salaried jobs as their educational attainment increases; but such jobs remain extremely limited for women.
- It is estimated that among people (25 to 59 years) working as farmers, farm labourers and service workers, nearly a third are women, while the proportion of women among professionals, managers and clerical workers is only about 15% (NSSO, 2011-2012).

### Role of Govt in Empowerment

Any government which is serious about ensuring women's economic empowerment and equal access to livelihoods must address the numerous challenges that exist along this highly gendered continuum of unpaid, underpaid and paid work.

- A two-pronged approach must entail facilitating women's access to decent work by providing public services, eliminating discrimination in hiring, ensuring equal and decent wages, and improving women's security in public spaces.
- On the question of work, women's demands include gender-responsive public services such as free and accessible public toilets, household water connections, safe and secure public transport, and adequate lighting and CCTV cameras to prevent violence against women in public spaces and to increase their mobility.
- Women have also expressed the need for policies which ensure safe and dignified working and living conditions for migrant workers.
  - For example, in cities, governments must set up migration facilitation and crisis centres (temporary shelter facility, helpline, legal aid, and medical and counselling facilities).
  - They must also allocate social housing spaces for women workers, which include rental housing and hostels.
  - They must ensure spaces for women shopkeepers and hawkers in all markets and vending zones
- In addition, women have strongly articulated the need to enumerate and remunerate the unpaid and underpaid work they undertake in sectors such as agriculture and fisheries.
  - Their fundamental demand is that women must be recognised as farmers in accordance with the National Policy for Farmers; this should include cultivators, agricultural labourers, pastoralists, livestock rearers, forest workers, fish-workers, and salt pan workers.
  - Thereafter, their equal rights and entitlements over land and access to inputs, credit, markets, and extension services must be ensured.

Chilean President Michelle Bachelet, who is former head of UN Women very beautifully once said " "When women are empowered and can claim their rights and access to land, leadership, opportunities and choices, economies grow, food security is enhanced and prospects are improved for current and future generations,"

### Conclusion

- Unless policymakers correctly assess and address the structural issues which keep women from entering and staying in the workforce, promising more jobs — while a welcome step — is unlikely to lead to the socio-economic transformation India needs.

## *Challenges for Transgender-inclusive Sanitation in India*

### Introduction

- India has made important strides in improving access to toilets for households and communities in the past few decades.
- There has been an increasing recognition that effective sanitation for all needs to reflect the requirements of not only women and girls, but also, disabled, elderly and transgender persons
- In recent years, the discrimination and violence faced by transgender persons have slowly been recognised outside of academic circles.
- However, the inclusiveness of the policies and their implementation remain low, and more needs to be done in terms of research and actual application.

### Steps taken to address issues with respect to Transgender

- There have been incremental increases in the legal recognition of the need to provide transgender persons with legal rights to access public infrastructures, education, housing, etc.
- The Transgender Persons (Protection of Rights) Bill, 2016, provides visibility to transgender persons and their legal rights.

### Issue Area

- As an outcome, transgender persons in India currently live under a legal, policy, and social framework where they are recognised, but have not been fully integrated into society.
- As a consequence of the underlying discrimination against the transgender community, toilets remain as sites of social exclusion and violence in their day-to-day lives.
- Transgender persons are exposed to sexual harassment and violence if they use the men's toilets and are unwelcome in both women and men's toilets as "it is widely believed that they are seeking sex work when they visit the toilets"
- This leaves them with few options and many of them continue to practice open defecation, or wait to find a safe time to use the toilets.
- Currently, the transgender community faces dangers of infection, violence, humiliation, and corruption in their daily lives as they manage their sanitation needs.

### Areas that need introspection

- Moreover, the definition of transgender sanitation requires to expand and include the needs of transgender persons who menstruate, are disabled, or are post-operative.
- For example, countries in the West such as the United Kingdom now use the term "menstruator" to indicate that other genders and not just women menstruate.
- In India, menstrual hygiene or even childcare is rarely bought up while designing sanitation solutions for the transgender community—indicating the scope of the knowledge gap between what transgender persons need and what is being offered through the sanitation programmes.

### A look at numbers

- As per the 2011 Census, there are 4.88 lakh transgender persons in India and over 55,000 children under the ages of six who are identified as transgender.

- Under the Swachh Bharat Mission (SBA), a total of 1,04,802 toilet seats in community toilets have been built and another 1,29,809 toilet seats are under construction
- While the data on how many of these seats are designed for transgender persons are not easily decipherable, a simple internet search of public toilets in India for transgender persons reveals that such toilets continue to be a rare exception.

#### Some Notable examples

- In states like Tamil Nadu and Mizoram, there are instances of the transgender community's sanitation needs and concerns being recognised and translated into some form of public toilets.
  - However, these exercises have been exceptions and not a commonplace practice.
- The Government of Manipur along with Non-Governmental Organisations (NGOs) and leaders from the transgender community came together as a part of a larger initiative towards economic and social inclusion of transgender persons into the mainstream society. As a part of the initiative, the Manipur government has introduced separate toilets for transgender persons during various festivals and in some parts of Imphal, a step that was appreciated by the transgender community.
  - However, these toilets have not addressed the issue of their safety and dignity

#### Conclusion

- Therefore, to design inclusive sanitation, recognition of the sanitation needs of adolescents and minors who identify as transgender is necessary. This requires a rethinking of not only public toilets but also toilets in schools and colleges
- To really achieve sustainable and safe sanitation, there is a need to examine, more deeply, the obvious and the nuanced barriers to safe sanitation for transgender persons.
- Toilets, either earmarked for transgender persons, or gender-neutral toilets, satisfy some of the basic needs of the transgender community but can leave them exposed to violence and harassment. This violence and harassment experienced by them while using toilets is an extension of the violence they face in other spheres of their everyday lives. Therefore, to have transgender-inclusive sanitation, it is essential to recognise the need for tackling transphobia through policy, law, employment, and social integration.
- Moreover, having a toilet that explicitly broadcasts a transgender person's identity to others may not be desirable to all transgender persons, as the underlying transphobia can make them vulnerable to violence.
- Finally, there is a need to expand the meaning of sanitation for transgender persons to include menstrual hygiene and reproductive care. In short, transgender-inclusive sanitation requires a deeper understanding of their social, cultural, biological needs through various life stages.