

# OFFICERS' Pulse

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## Coverage.

The Hindu  
PIB  
Yojana  
Rajya Sabha TV  
All India Radio

## At a Glance & In Depth.

Polity and Social Issues  
Economy  
International Relations  
Environment  
Science and Tech  
Culture

**CURRENT AFFAIRS**  
**WEEKLY**  
THE PULSE OF UPSC AT  
YOUR FINGER TIPS.



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# News @ a glance

## **POLITY**

### **1) Municipal bodies Elections**

- GS Paper II – Constitution and Polity; State Election Commission, local bodies; third tier government

#### **Urban local bodies' elections**

- Members of the Municipal Corporations are elected by the people through direct elections.
- The serving period of a Municipal Corporation is five years, until it is dissolved before.
- Elections to the Municipal Corporations are conducted under the superintendence, direction and control of the State Election Commissions.
- The Municipal Corporation is divided into wards where people put up their candidature.
- Any person may be nominated as a candidate to fill a seat in any of the wards of the city, if he is qualified to be chosen to fill that seat under the provisions of the 74<sup>th</sup> amendment Act.
- Every political party recognized by the Election Commission of India as a National Party or as a State Party shall be a recognized political party for the purpose of election of the Corporation.

#### **Election Commission of India**

- The Election commission is entrusted to conduct election for the President, Vice President, Members of Parliament and Members of the legislative council.
- The President appoint the members of the ECI

#### **State Election commission**

- State election commission is entrusted to conduct election for the Municipal bodies and panchayats.
- The members of SEC are appointed by the respective state governors.

#### **The Constitution 74th Amendment Act 1992:**

- The Act seeks to provide a common framework for the structure and mandate of urban local bodies to enable them to function as effective democratic units of local Self Government.

#### **1. Article 243Q {Constitution of Municipalities} -**

- There shall be constituted in every State:
  - a Nagar Panchayat (by whatever name called) for a transitional area, that is to say, an area in transition from a rural area to an urban area;
  - a Municipal Council for a smaller urban area; and
  - a Municipal Corporation for a larger urban area, in accordance with the provisions of this Part

#### **2. Article 243R {Composition of Municipalities}**

- All the seats in a Municipality shall be filled by persons chosen by direct election from the territorial constituencies in the Municipal area and for this purpose each Municipal area shall be divided into territorial constituencies to be known as wards.

#### **3. Article 243ZA {Elections to the Municipalities}**

- The superintendence, direction and control of the preparation of electoral rolls for, and the conduct of all elections to the Municipalities shall be vested in the State Election Commission referred to in Article 243K.
- Subject to the provisions of the Constitution, the Legislature of a State may, by law, make provision with respect to all matters relating to, or in connection with, elections to the Municipalities.

#### **State Election Commission**

- The State Election Commission is an independent, autonomous constitutional authority formed under the Constitution of India as per the Provisions of the 73rd and 74th Amendments Acts of 1992 headed by the State Election

Commissioner. It is entrusted with the functions of conducting the elections to the Panchayati raj institutions and urban local bodies.

#### **Urban local bodies**

- It is the third tier of government and the institution which is the nearest point of contact for the public.
- Direct elections to this body are an effective tool of democracy which will ensure people's participation in local level and ensure decentralization.
- It is one of the mechanisms of good governance.

#### **Why in news?**

- The Tamil Nadu State Election Commission has notified the conduct of local body elections.

## **2) Money laundering act, 2002**

- GS Paper II & III – Polity and Governance; Internal security, black money; organized crime

#### **What is money laundering?**

- Money laundering is the process of making large amounts of money generated by a criminal activity, such as drug trafficking or terrorist funding, appear to have come from a legitimate source.
- The process of laundering money typically involves three steps: placement, layering, and integration.
- Placement - puts the "dirty money" into the legitimate financial system.
- Layering - conceals the source of the money through a series of transactions and bookkeeping tricks.
- Integration - the now-laundered money is withdrawn from the legitimate account to be used for whatever purposes the criminals have in mind for it.

#### **Objectives of Money Laundering Act:**

- to prevent and control money laundering,
- to confiscate and seize the property obtained from laundered money
- to deal with any other issue connected with money laundering in India
- It punishes those who engage in money laundering and activities and PMLA (Prevention of Money Laundering Act) identifies certain offences under the :

1. Indian Penal Code

2. The Narcotic Drugs and Psychotropic Substances Act

3. The Arms Act

4. The Wild Life (Protection) Act

5. The Immoral Traffic (Prevention) Act

6. The Prevention of Corruption Act and the proceeds of which would be covered under this Act.

#### **Enforcement agency:**

- The Enforcement Directorate is entrusted with the responsibilities of investigation, attachment of property/proceeds of crime relating to the scheduled offences under the Act and filing of complaints etc.
- The Directorate of Enforcement was established in the year 1956 for the enforcement of the Foreign Exchange Management Act, 1999 (FEMA) and certain provisions under the Prevention of Money Laundering Act.
- The Directorate is under the administrative control of the Department of Revenue.
- Operational aspects, the policy aspects of the FEMA, its legislation and its amendments are within the purview of the Department of Economic Affairs.
- Policy issues pertaining to PML Act are the responsibility of the Department of Revenue.

#### **Functions -**

- collect, develop and disseminate intelligence relating to violations of FEMA, 1999,
- To investigate suspected violations of the provisions of the FEMA, 1999 relating to activities such as "hawala" foreign exchange racketeering, non-realization of export proceeds, non-repatriation of foreign exchange and other forms of violations under FEMA, 1999.
- To adjudicate cases of violations of the erstwhile FERA, 1973 and FEMA, 1999.
- To realize penalties imposed on conclusion of adjudication proceedings.
- To process and recommend cases for preventive detention under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act (COFEPOSA)
- To undertake survey, search, seizure, arrest, prosecution action etc. against offender of PMLA offence.

- To provide and seek mutual legal assistance to/from contracting states in respect of attachment/confiscation of proceeds of crime as well as in respect of transfer of accused persons under PMLA.

#### Why in news?

- The former Union Minister Praful Patel has been summoned by the ED for connections with international drug dealers.

### 3) PM - JAY: Healthcare sector

- **GS Paper II - Governance, Social Issues; Health, poverty etc.**

#### Ayushman Bharat: Pradhan Mantri - Jan Arogya Abhiyan

- The Ayushman Bharat - Pradhan Mantri Jan Arogya Abhiyan (AB-PMJAY) is a flagship programme launched by the government in 2018 which aims at universal health coverage.
- Ayushman Bharat aims to holistically address health (covering prevention, promotion and ambulatory care), at primary, secondary and tertiary level.
- Ayushman Bharat adopts a continuum of care approach, comprising of two interrelated components, which are -

#### Health and Wellness Centres (HWCs)

- These centres would deliver Comprehensive Primary Health Care (CPHC) covering maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services. The government has planned to create 1.5 lakh centres by upgrading the existing Primary health centres and sub-centres.

#### Pradhan Mantri Jan Arogya Yojana (PM-JAY)

- Aims at providing health insurance cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization to over 10.74 crores poor and vulnerable families (approximately 50 crore beneficiaries).
- The households included are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011 (SECC 2011).

- PM-JAY is completely funded by the Government, and cost of implementation is shared between Central and State Governments. The states have the flexibility in adopting the insurance model either as Trust or insurance model or both.

- Benefits of the scheme are portable across the country i.e. a beneficiary can visit any empanelled public or private hospital for cashless treatment.

- Private sector participation is a major advantage of this scheme as it brings more technology and wider infrastructure accessible to the poor sections of the society.

#### Why in news?

- Gujarat, Tamil Nadu, Chhattisgarh, Kerala and Andhra Pradesh have emerged as the top performing States with free secondary and tertiary treatment worth nearly ₹7,901 crore availed under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY).

- More than 60% of the amount spent has been on tertiary care.

- Cardiology, Orthopaedics, Radiation Oncology, Cardio-thoracic and Vascular Surgery, and Urology have emerged as the top tertiary specialities.

### 4) Global Hunger index

- **GS Paper II - Social Issues; Hunger and Poverty**

- The Global Hunger Index is an annual score ranking countries of the world on hunger levels.

- It is prepared by NGO Welthungerhilfe and Concern Worldwide.

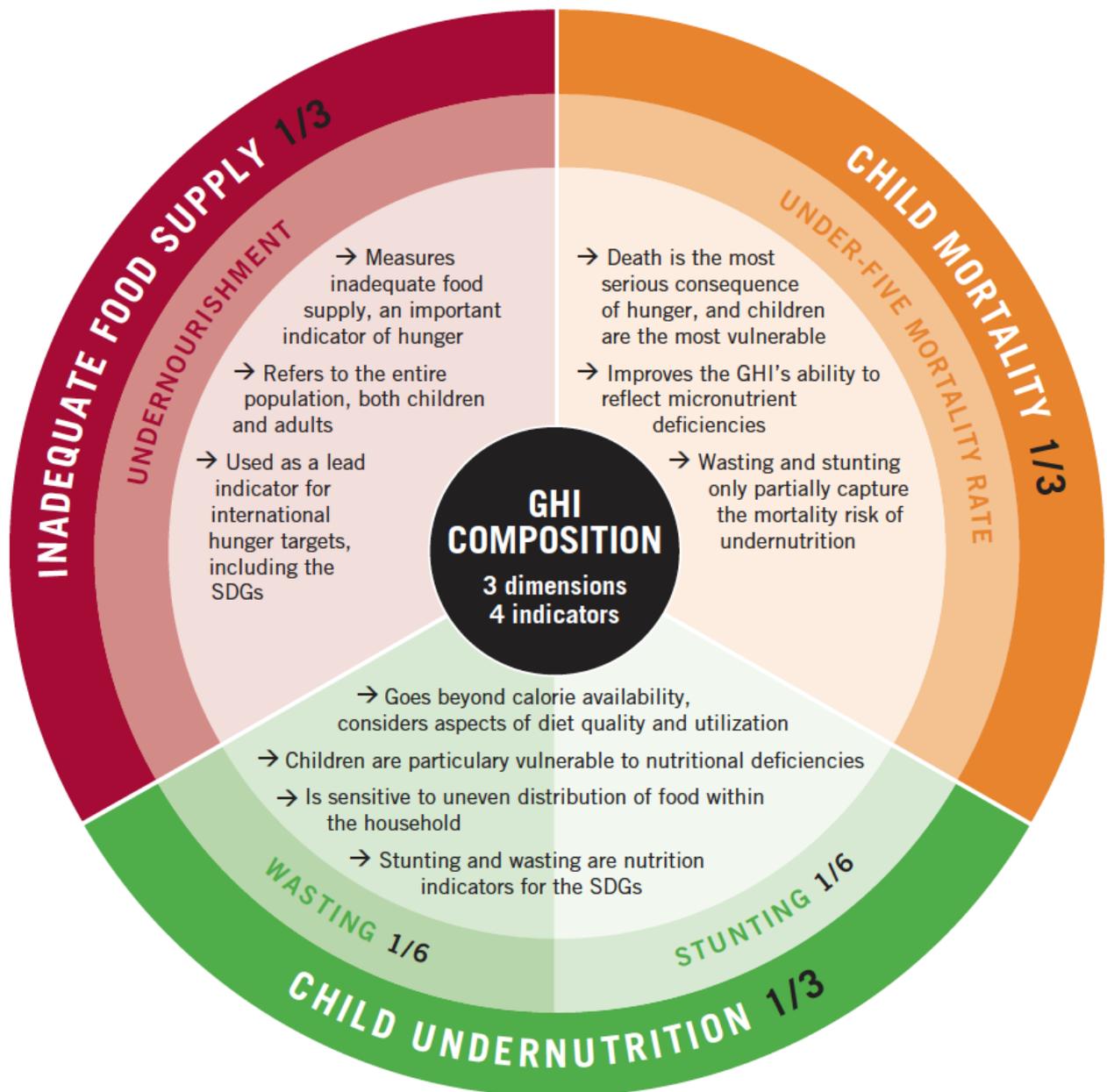
- It includes the following aspects:

- 1. Undernourishment

- 2. Child wasting - the share of children under the age of five who are wasted (that is, who have low weight for their height, reflecting acute undernutrition)

- 3. Child stunting - children under the age of five who have low height for their age, reflecting chronic undernutrition

- 4. Child mortality - the mortality rate of children under the age of five.



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#### The current scenario

- India has secured 102nd rank in the hunger index in 2019.
- The Countries ranking has declined over years:
  - In 2018 - ranked 103 out of 119 countries.
  - In 2000 - ranked 83 out of 113 countries.
- Neighbouring countries like Nepal (73), Sri Lanka (66), Bangladesh (88), Myanmar (69) and Pakistan (94) are also in the 'serious' hunger category, but have fared better at feeding its citizens than India.
- Belarus has been ranked 1<sup>st</sup> with a score of <5.
- India's child wasting rate is extremely high at 20.8 %, the highest for any country.
- India has shown improvement in other indicators such as the under-5 mortality rate, prevalence of stunting among children and prevalence of undernourishment owing to inadequate food.

# ENVIRONMENT

## 1) Illegal pangolin trade on the rise

### What is Pangolin?

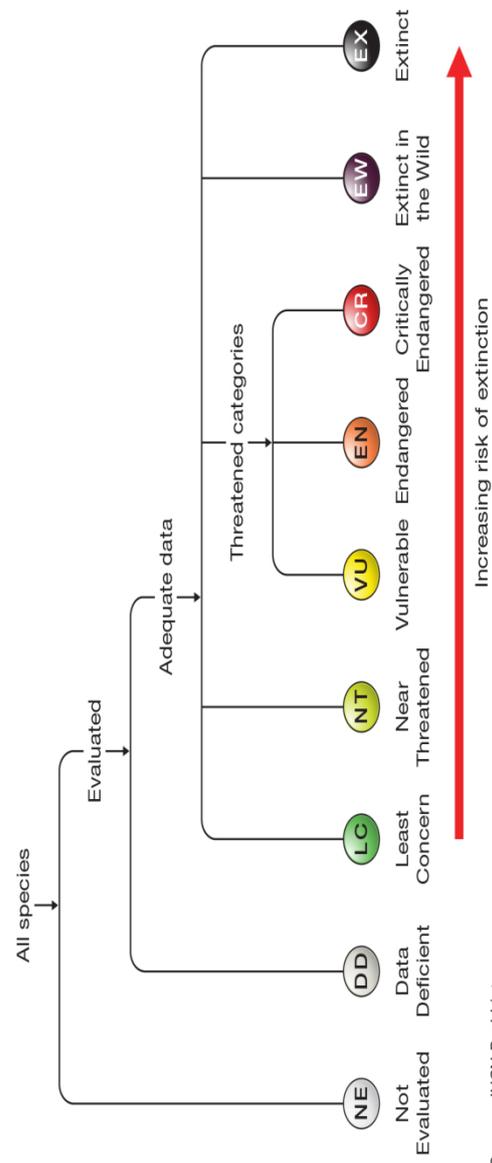
- Pangolins are **the only mammals** wholly-covered in scales and they use those scales to protect themselves from predators in the wild. If under threat, a pangolin will immediately curl into a tight ball and will use their sharp-scaled tails to defend themselves. They are nocturnal animals.
- Pangolins are in high demand in countries like China and Vietnam. Their meat is considered a delicacy and pangolin scales are used in traditional medicine and folk remedies.



- Social media is used as their trade platform. Tribals identify burrows and trap out the animals. They then dump them in boiling water to remove the scales. The meat of the animal is consumed or sold locally.
- There are 8 species of Pangolin in the world. 4 in Africa and 4 in Asia. 2 species (i.e, Chinese and Malayan Pangolins) are **critically endangered** (very high risk of extinction in the wild). **Indian Pangolins have endangered status.**
- Pangolin is placed in Schedule-I (absolute protection - offences under these are prescribed the highest penalties) of the Indian Wildlife (Protection) Act, 1972.

### IUCN conservation status:

- The International Union for Conservation of Nature (IUCN)'s conservation status of a group of organisms (for instance, a species) indicates whether the group still exists and how likely the group is to become extinct in the near future.



### About TRAFFIC:

- TRAFFIC is a **leading non-governmental organisation** working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.
- Their mission is to ensure that trade in wild plants and animals is not a threat to the conservation of nature
- TRAFFIC said the number of seizures of pangolin scales and meat in the border areas of Karnataka, Andhra Pradesh, and Jharkhand was “alarming” and going by the trend, the species may run the risk of extinction soon.

- According to a **2018 report** by TRAFFIC, despite being under WPA Schedule I, nearly **6000 pangolins** were poached in India between 2009 and 2017, with **Manipur and Tamil Nadu** emerging as hotspots for pangolin smuggling.
- To save them there needs to be better local intelligence in sensitive areas and recently a special cell at the airport in Chennai to keep a tab on the smuggling racket has been established.

#### Why in news?

- In Bengaluru, 4 kg of pangolin scales has been retrieved by police from 2 tribal men.

## 2) Sikkim sees surge in butterfly biodiversity

#### Why in news?

- In a recent study done by team of sikkim university has discovered that organic farming has positively affected the population of butterflies in the state.
- It is also seen that the diversity of butterflies was more in the agriculture fields than the near-by forests. 268 species of butterflies have been identified.
- According to the results, the team said that the hype of agriculture destroying the diversity was nullified and said that better protection of agroecosystems can lead to an increase in biodiversity.
- The study report says that the organic farming with traditional techniques is playing a complementary role to the protected areas in fostering biodiversity conservation.
- It is also observed that the small fragments of land and mosaic landscape in sikkim is affecting less to ecosystem and allowing the species to thrive.
- The team said following points need to be inculcated
- The synergy among all stakeholders like agriculture, horticulture, forest, farmers and rural management department must be brought.
- Since we have land shortage, the agroecosystems must be protected and given special focus.
- The Farmers must be encouraged to maintain diversity in their farmlands and

- The mixed cropping and variety of crops must be encouraged to conserve diversity.

- (Note: Candidates may use this example for sustainable development, nature vs development questions, etc.)

## 3) 'Foreign' plastic invades Great Nicobar Island

#### Why in news?

- A recent survey on the 5 beaches of the great Nicobar has revealed that the major portion of the litter, mainly plastics is coming from 'non-Indian' sources.
- 40.5 % of litter was from Malaysia, 23.9% was from Indonesia, and Thailand was 16.3%. It is important to notice that Indian origin litter share was just 2.2%.

#### About Great Nicobar Island:

- This place is 540 km by sea from Port Blair open for only Indian tourists.
- The Great Nicobar Island has an area of 400 Sq. miles.
- The southernmost tip of India, 'Indira Point' is in Great Nicobar Island.
- **Megapode**, a rare bird, is found in Great Nicobar. Great and Little Nicobar have the Giant Robber Crab.
- **Campbell bay** is the head quarter of Great Nicobar Island.
- The **only Bio-sphere Reserve** in A & N Islands –the **Great Nicobar Biosphere Reserve** is close to Campbell Bay.
- The Great Nicobar Biosphere Reserve (GNBR) is comprised of the Galathea National Park and the Campbell Bay National Park.
- It homes to **Shompen** tribal people (population around 200).

#### Why vulnerable to litter?

- Nearness to the Malacca Strait, which is one of the busiest shipping routes.
- Improper handling of the solid waste from fishing/mariculture activity and ship traffic.

- Due to lack of proper guidelines and inadequate staff to monitor the islands.



#### What is the composition of marine litter?

- Plastic represents 83% of the marine litter found. The remaining 17% is mainly textiles, paper, metal and wood.
- Plastic pollution has emerged as the largest threat. Its concentration has reached almost 5.8 lakh pieces per sq. kilometre

#### What can plastic pollution cause to oceans and coasts?

- **Marine Environment:** Marine wildlife such as seabirds, whales, fishes and turtles, mistake plastic waste for prey, and most die of starvation as their stomachs are filled with plastic debris. They also suffer from lacerations, infections, reduced ability to swim, and internal injuries. Floating plastics also contribute to the spread of invasive marine organisms and bacteria, which disrupt ecosystems
- **Food chain:** When marine organisms ingest plastic debris, these contaminants enter their digestive systems, and overtime accumulate in the food web.
- **Climate change:** Plastic, which is a petroleum product, also contributes to global warming. If plastic waste is incinerated, it releases carbon dioxide into the atmosphere, thereby increasing carbon emissions.
- **Tourism:** Plastic waste damages the aesthetic value of tourist destinations, leading to decreased tourism-related incomes and major economic costs

related to the cleaning and maintenance of the sites.

## 4) Indigenous breeds record marginal rise

### Why in news?

- The 20th Livestock Census recently released

### Who prepares Livestock Census?

- Livestock census actually covers the census of livestock, poultry, implements and machinery used for livestock rearing.
- It is prepared by Dept. of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture.
- Livestock Census in our country started in the year 1919 and since this process has been continuing on quinquennial (every 5 years) basis.

### What are the highlights?

- There are 4.85 crore desi (native) milch cows in the country.
- The milch population of exotic and crossbred cattle — including varieties such as **Jersey or Holsteins** which have much higher milk yields — saw a whopping growth of 32% over the last seven years, growing from 1.9 crore to 2.5 crore animals.
- Among cows kept for milking, foreign breeds now have a population that is more than half the population of desi breeds.
- The total population of native cattle — male and female together, milk-producing or not — **dropped** 6% to 14.2 crore animals, while exotic and crossbred cattle saw an overall growth of almost 27% to 5 crore animals.
- This is **in contrast** with the government's initiative of **Rashtriya Gokul Mission**.

### Rashtriya Gokul Mission

- Rashtriya Gokul Mission (RGM) has been launched in December 2014 with an outlay of Rs 2025 crore for development and conservation of indigenous breeds through selective breeding in the breeding tract and genetic upgradation of nondescript bovine population
- The scheme has two components namely **National Programme for Bovine Breeding (NPBB)**(to arrange quality Artificial Insemination services at farmers' doorstep) and **National Mission**

**on Bovine Productivity** (NMBP)(for enhancing milk production and productivity of bovine population in the country) .

**Objectives of RGM :**

- Development and conservation of indigenous breeds;
- Breed improvement programme for indigenous breeds so as to improve the genetic makeup and increase the stock;
- Enhancing milk production and productivity of bovine population by increasing disease free high genetic merit female population and check on the spread of diseases ;
- Upgrading non-descript cattle using elite indigenous breeds like **Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi ;**
- Distribution of disease free high genetic merit bulls for natural service;
- To bring all breedable females under organised breeding through AI or natural service using germ plasm of high genetic merits;
- To arrange quality Artificial Insemination (AI) services at farmers' doorstep;
- To create e-market portal for bovine germplasm for connecting breeders and farmers;
- To increase trade of livestock and livestock products by meeting out sanitary and phyto-sanitary (SPS) issues;
- To select breeding bulls of high genetic merit at a young age through application of genomics.

# ECONOMY

## 1) Economic Sciences Nobel Prize (or the Sveriges Riksbank Prize) 2019

### About

- In 1968, Sveriges Riksbank (Sweden's Central Bank) established The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.
- Although **not technically a Nobel Prize**, it is identified with the award; its winners are announced with the Nobel Prize recipients, and the Prize in Economic Sciences is **presented at the Nobel Prize Award Ceremony**.
- **Nobel Laureates** - Abhijit Banerjee, Esther Duflo and Michael Kremer

### Contribution - experimental approach to alleviating global poverty

- The research conducted by this year's laureates has considerably improved our ability to fight global poverty.
- The laureates have, since the mid-1990s, sought to introduce a new approach to obtaining reliable answers about the most effective ways to combat global poverty.
- In just two decades, their new experiment-based approach has **transformed development economics**, which is now a flourishing field of research.

#### ▪ **Development economics**

- It is a branch of economics that focuses on improving fiscal, economic, and social conditions in developing countries.
- Development economics considers factors such as health, education, working conditions, domestic and international policies, and market conditions with a focus on improving conditions in the world's poorest countries.

### New approach to alleviate global poverty

- Rather than focussing on big-picture questions, these economists divided the issue into smaller, more manageable and measurable questions.
- They then showed that these smaller questions could be best answered

through carefully designed experiments among the people who are most affected.

- This thought process has resulted in what are called **randomised control trials**, previously used in the pure sciences and in clinical drug trials, to be deployed in the social sciences.
- As a result, we now have a large number of concrete results on specific mechanisms behind poverty and specific interventions to alleviate it.

#### ▪ **Randomised Control Trials (RCT)** - in the field of medicine

- RCTs use the following insight: you select two groups that are similar and then randomly select one to receive the treatment (a drug, or a policy) being tested and then compare the outcome of this group (called the treatment group) with that of the other group (called the control group). If the difference is statistically significant, then that is attributed to the treatment.

### Examples of specific intervention to poverty alleviation

- On schooling, strong evidence now shows that the employment of contract teachers is generally a cost-effective way to improve student learning, while the impact of reduced class size is mixed, at best.
- On health, poor people's investment in preventive care has been shown to be very sensitive to the prices of health products or services, giving a strong argument for generous subsidies to such investments.
- On credit, growing evidence indicates that microfinance programmes do not have the development effects that many had thought when these programmes were introduced on a large scale.

## 2) India Mobile Congress

### Why in News?

- The **Department of Telecommunications (DoT)** and **Cellular Operator Association of India (COAI)** organized the **third edition** of India Mobile Congress 2019 from 14

October to 16 October 2019 at Aerocity, New Delhi.

#### About India Mobile Congress (IMC)

- IMC has established itself as a leading platform for bringing together the industry, Government, academia, and other ecosystem players, to discuss and display the latest in the technology world.
- Not only is India Mobile Congress the **largest digital technology forum in South Asia**, it is also the **biggest networking event in India** in the digital technology space.
- IMC comprises of India's biggest technology exhibition, an international conference on digital technology and Business-to-Business/Business-to-Government networking meets.

#### Objectives of the IMC platform

- Promoting start-ups, innovators and enterprises
- Promoting local manufacturing
- Driving investments from foreign and Indian investors in the Indian digital technology ecosystem
- Supporting the shift of India from a technology consumer to an exporter
- Encouraging the R&D efforts in the ICT and TMT (Technology, Media and Telecom) sectors
- Driving development of regulatory frameworks and policy decisions
- Enhanced cooperation within the South/South-East Asian Region

### 3) World Economic Outlook, October 2019 – IMF

#### About World Economic Outlook (WEO)

- The World Economic Outlook (WEO) is an **IMF report** (quarterly) that provides **analysis and forecasts of economic developments and policies** in its member countries.
- The report encapsulates state of the global economy and highlights risks and uncertainty that threaten growth.

#### About International Monetary Fund (IMF)

- The IMF was conceived in **1944** at the **United Nations Bretton Woods Conference** in New Hampshire, United States.
- It is called as **Bretton Woods twins** along with the World Bank.

- It is an organization of **189 countries**, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.
- The IMF's fundamental mission is to **ensure the stability of the international monetary system**—the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other.
- The Fund's mandate was updated in 2012 to include all macroeconomic and financial sector issues that bear on global stability.
- To ensure the stability of the international monetary system, the IMF performs the following:
  - 1.keeping track of the global economy and the economies of member countries;
  - 2.lending to countries with balance of payments difficulties;
  - 3.Giving practical help to members to strengthen their economy.

#### Key takeaways of WEO, October 2019

- Rising trade and geopolitical tensions have increased uncertainty about the future of the global trading system.
- Global growth is forecast at 3.0 percent for 2019, its lowest level since 2008–09 and a 0.3 percentage point downgrade from the April 2019 World Economic Outlook.
- Growth is projected to pick up to 3.4 percent in 2020.

#### Growth forecast of India

- India's growth forecast was reduced by 90 basis points to **6.1 per cent** (100 basis points mean one percentage point).
- The IMF has suggested that the monetary policy and broad-based structural reforms should be used to address cyclical weakness and strengthen confidence.
- Growth softened in 2019 as corporate and environmental regulatory uncertainty, together with concerns about the health of the non-bank financial sector, resulted in decreased demand.

### 4) FMCG industry sees worst rural growth in 7 years

### About Fast-Moving Consumers Goods (FMCG)

- These goods are **non-durable** products that are purchased frequently, are **consumed rapidly**, are **priced low**, and are **sold in large quantities**. These are also called **consumer packaged goods**.
- Fast-moving consumer goods are the largest segment of consumer goods.
- FMCGs have a **short shelf life** because of **high consumer demand** (e.g., soft drinks and confections) or because they are **perishable** (e.g., meat, dairy products, and baked goods).

▪ **Shelf Life** - Period during which a good remains effective and free from deterioration, and thus saleable

- Examples of FMCGs include milk, gum, fruit and vegetables, toilet paper, soda, beer, and over-the-counter drugs like aspirin.
- Sales of FMCG are often looked upon as a **barometer of overall economic growth** and consumption due to the range and reach of products across price points.
- **Slow-moving consumer goods** have a **longer shelf life** and are purchased over time, include items like furniture and appliances.

### About Consumer Goods

- Consumer goods are products **purchased for consumption** by the average consumer.
- They are divided into three different categories: **durable, nondurable goods**, and **services**.
- Durable goods have a shelf life of three years or more while nondurable goods have a shelf life of less than one year.

### Why in News?

- For the first time in seven years, rural growth has fallen below that of urban for the fast-moving consumer goods (FMCG)

industry, according to a latest study by Nielsen, a research company.

### News in Detail

- According to the study, rural India contributes 36% to the overall FMCG sales, and has historically been growing around 300 to 500 basis points faster than urban.
- But rural market grew at 5% in the quarter ended September 30, lower than the urban market's growth rate of 8%.
- Rural growth took a hit primarily due to high rural inflation, lowest annual wage hike since 2009 and floods in as many as 13 states leading to crop loss and thereby farm income.

## 5) Merchant Discount Rate (MDR)

### About MDR

- MDR is a fee charged from a merchant by a bank for accepting payments from customers through credit and debit cards in their establishments.
- MDR is distributed between the **card issuing bank**, the lender (bank) which puts the **point-of-sale (POS)** terminal and **payment gateways** such as Mastercard or Visa for their services.
- MDR charges are usually shared in pre-agreed proportion between the bank and a merchant and are expressed in percentage of transaction amount.

▪ A **point of sale terminal** (POS terminal) is an **electronic device** used to **process card payments** at retail locations.

### Why in News?

- The government said banks or system providers will not impose charges or Merchant Discount Rate on customers as well as merchants on digital payments made to establishments having turnover in excess of Rs 50 crore from November 1.

# International Relations

## 1) Nepal - China relations

### Recent Developments

- China and Nepal concluded **agreements for all-weather connectivity between Kathmandu and Keyrung in the Tibet Autonomous Region.**



- Both sides were set to intensify cooperation to realise “**trans-Himalayan multidimensional connectivity network**”.
- Both sides also gave the green signal for a feasibility study of the **trans-Himalayan rail connectivity** aimed at connecting the Nepal capital with major commercial centres of the Tibetan Autonomous Region and beyond in China.
- The connectivity agreement includes construction of Himalayan tunnels. The tunnel network will connect Tokha and Chhahare within Nepal that will ultimately reduce the road distance between Nepal and China.
- **Nepal agreed to allow Chinese banks to open branches** and other financial

services in Nepal and increase imports from China.

- Nepal also signed a treaty with China on **mutual legal assistance in criminal matters** which will allow China to investigate cases of crime that might target Nepal. An extradition treaty was also being worked upon.
- Nepal reiterated its “firm commitment” to the **One China policy**.
- Nepal also acknowledged that Taiwan was an “inalienable” part of China and promised not to allow any anti-China activities on Nepal territory

### ▪ 'One China' policy

- It is the diplomatic acknowledgement of China's position that there is only one Chinese government.
- Under the policy, Taiwan—a self-governed island—is claimed as a region of China.
- Although Taiwan's government claims it is an independent country officially called the "Republic of China", any country that wants diplomatic relations with mainland China (“People’s Republic of China”) must break official ties with Taipei.

- China will offer 100 training opportunities to the Nepalese law enforcement officers each year, increase exchange of visits of security personnel, joint exercises and training of personnel for disaster relief and prevention.
- China has agreed to **build the Madan Bhandari University for Science and Technology** as a mark of respect for the late leader of the Communist Party of Nepal.
- It also committed to build a **railway line connecting Kathmandu and Pokhara** with the birthplace of Lord Buddha at Lumbini.

### Background

- The connectivity between Kathmandu and Keyrung in Tibet has acquired greater significance since the blockade of 2015-16.
- The economic blockade that froze the movement of goods from India to Nepal

had strengthened the arguments in favour of securing an alternate connectivity option for Kathmandu.

- The trans-Himalayan project is estimated at \$2.75 billion and is considered to be one of the most ambitious infrastructure plans ever undertaken by the Chinese government.

#### Why in News?

- Chinese President Xi Jinping visited Nepal and signed more than 20 agreements with Nepalese Prime Minister K.P. Sharma Oli.

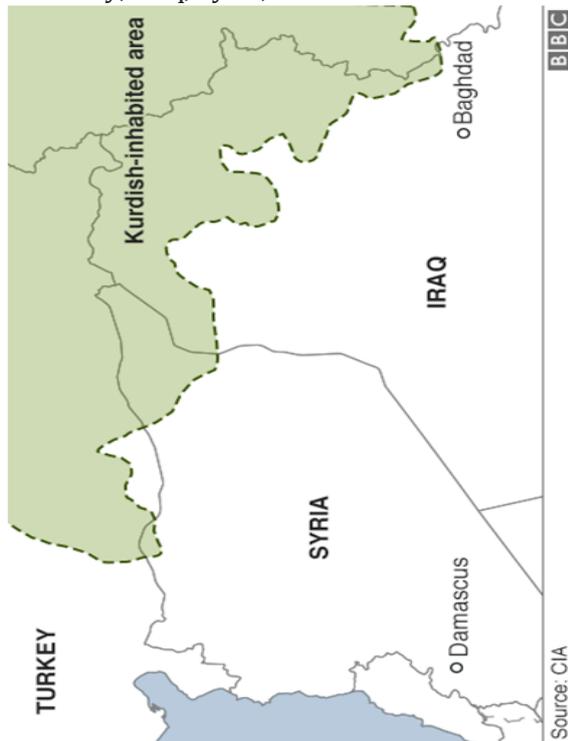
## 2) Operation Peace Spring

### About the operation

- It is an offensive military operation conducted by the **Turkish Armed Forces (TAF)** against **Kurdish-led forces** in **northeastern Syria**.

### Who are the Kurds?

- Kurds are an **ethnic and linguistic minority** of West Asia.
- Between 25 and 35 million ethnic Kurds inhabit a mountainous region comprising Taurus and Zagros mountains - straddling Turkey, Iraq, Syria, Iran and Armenia.



- Although most Kurds have conformed to their respective nationalities, **aspiration for a unified homeland, Kurdistan**, remains.

### Kurds in the war against Islamic State

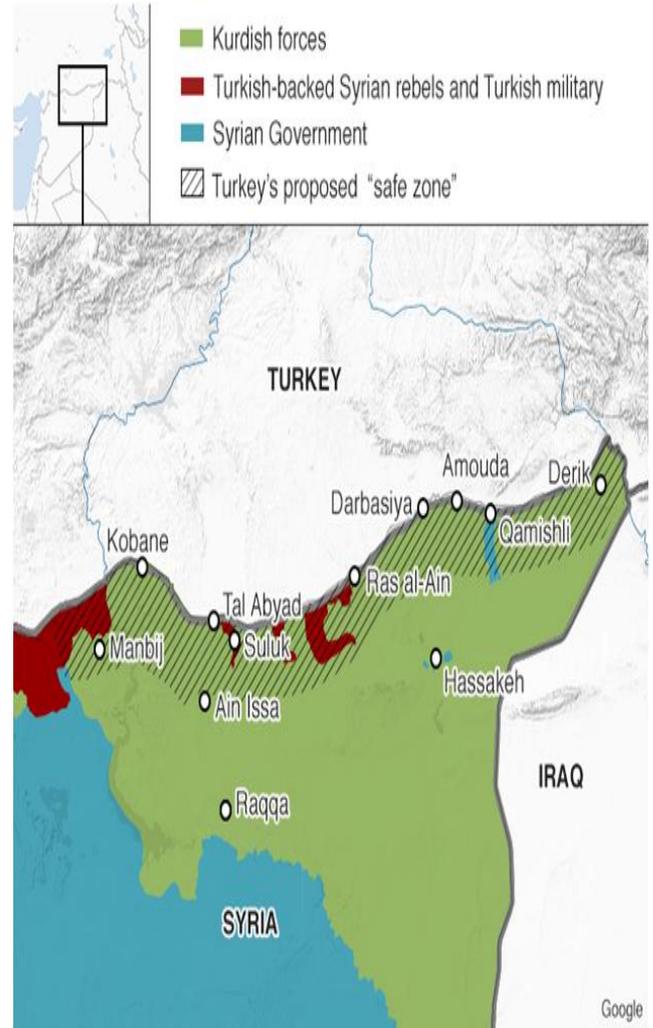
- Syrian Kurds have cobbled together a militia called **People's Protection Units**

(**YPG**), trained and equipped by the U.S. and its allies.

- YPG has become the backbone of the **Syrian Democratic Forces (SDF)**, which played a frontal role in decimating the Islamic State (IS) in Syria.

### Why did Turkey launch an offensive?

- Turkey had long threatened to launch an operation in SDF-held territory to create a 32km (20-mile) deep "safe zone" running for 480km (300 miles) along the Syrian side of the border.



Source: Conflict Monitor by IHS Markit, Reach, 14 October 2019

- It wants to push back members of the YPG, which it views as an extension of a Kurdish rebel group that has been fighting in Turkey for decades and is designated a terrorist organisation - the **Kurdistan Workers' Party (PKK)**.
- Turkey also hopes to resettle in the zone, up to two million of the 3.6 million Syrian refugees it is hosting.

### US withdrawal

- The US President Donald Trump's decision to pull dozens of troops from the north-east effectively paved the way for the Turkish operation against the Kurdish fighters.
- It is being considered as a **betrayal of the U.S.** as the YPG and SDF were instrumental in aiding U.S. troops in their decimation of the Islamic State caliphate.

### Concerns

- By 13 October, air strikes, shelling and fighting on the ground had reportedly killed dozens of civilians and forced more than 150,000 others to flee their homes resulting in a **humanitarian crisis**.
- The volatility created by this situation **might revive Islamic State terrorist organisation** in the region.

### Resisting Turkish invasion

- Kurds have reached a deal with Syrian army to resist Turkish invasion.
- The Syrian army would deploy along the entire length of the border to assist the SDF in countering this aggression and liberating the areas that the Turkish army and mercenaries had entered.
- The deal represents a significant shift in alliances for the Kurds who were so far fighting against the Syrian Government forces, after losing the military protection of their long-term US partners in the area.
- Russia has also moved its troops to the military bases vacated by the US in support of the Syrian Kurds against Turkish onslaught.

### India's response

- India described Turkey's military action in Syria as unilateral and asked Ankara to respect the territorial integrity and sovereignty of Syria.
- India also called upon Turkey to exercise restraint and rejected the Turkish notion of terrorism.
- Earlier, India issued a strong statement expressing "deep regret" after President Recep Tayyip Erdogan took up the Kashmir issue in his speech at the UN General Assembly.

## 3) Hagibis typhoon

### About

- Typhoon Hagibis - which means "speed" in the Philippine language Tagalog, made

landfall in Izu Peninsula, south-west of Tokyo.



- This super typhoon is said to have been the worst in the 6 decades Japan has experienced since 1958.
- As per recent reports Typhoon Hagibis death toll rose to 74 and thousands were left stranded in the cold without power.

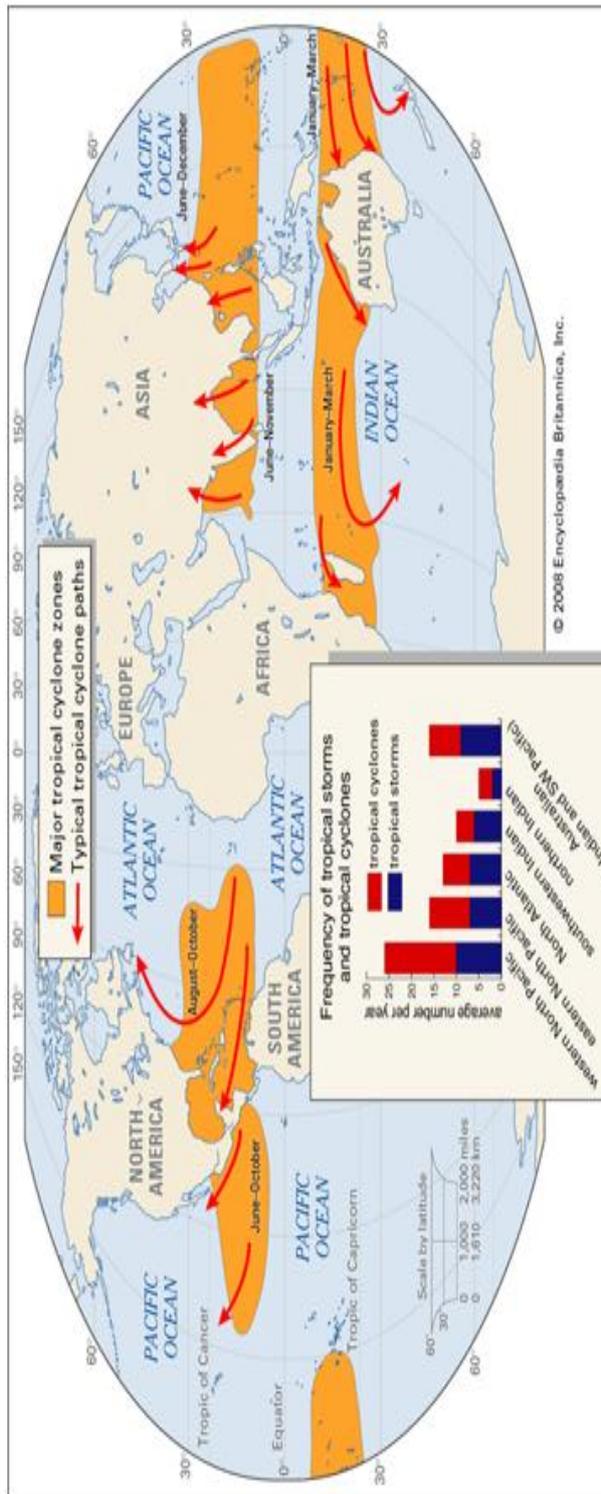
### India's response

- India sent two warships (INS Sahyadri and INS Kiltan) to Japan to help with relief and rescue efforts after one of the worst typhoons to hit the country in recent history caused floods.

### What are typhoons?

- A **typhoon** is a mature tropical cyclone that develops between 180° and 100°E in the Northern Hemisphere. This region is referred to as the Northwestern Pacific Basin, and is the most active tropical cyclone basin on Earth, accounting for almost one-third of the world's annual tropical cyclones.

### About Tropical cyclones



- Tropical cyclone, also called a typhoon or hurricane, an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.

- Drawing energy from the sea surface and maintaining its strength as long as it remains over warm water, a tropical cyclone generates winds that exceed 119 km (74 miles) per hour.
- Tropical cyclones are known by various names in different parts of the world. In the North Atlantic Ocean and the eastern North Pacific they are called hurricanes, and in the western North Pacific around the Philippines, Japan, and China the storms are referred to as typhoons. In the western South Pacific and Indian Ocean they are referred to as tropical cyclones, or simply cyclones.
- In the Northern Hemisphere, tropical cyclones rotate counterclockwise and in the Southern Hemisphere, tropical cyclones rotate clockwise.
- The weakest tropical cyclones are called tropical depressions.

#### What is Landfall?

- A Landfall is the intersection of the center of a tropical cyclone with a coastline, according to the US National Hurricane Center.
- Typically, in strong tropical cyclones, a landfall occurs when the eye of the cyclone moves over land.
- A landfall is often accompanied by strong winds, lashing rain and rising sea waves that could endanger people and cause damage to property in land.
- When a cyclone hits land, it starts to lose speed and energy as it loses its source of both from the warm ocean waters.

### 4) China reduces Taiwan's international presence

#### Luring Taiwan's allies

- Former allies of Taiwan, the **Solomon Islands** and **Kiribati** established diplomatic ties with China, in a sign of Beijing's growing influence in the Pacific.
- In line with the '**One China Policy**', the two island nations **severed their diplomatic ties with Taiwan** before establishing ties with China.



### Later Developments

- The Solomon's Central Province made a "strategic cooperation agreement" on Tulagi Island, which has the type of deep-water harbour coveted by the military, with the state-owned China Sam Group, a day after Solomon Island established ties with China.
- Tulagi, an island about two square kilometres (0.8 square miles) with a population of 1,200, is the site of a former Japanese naval base and was the scene of fierce fighting in World War II.
- The agreement with China Sam mentions developing a refinery on the island, but its potential for dual use as a Chinese military base is certain to raise concerns with the United States and Australia.

### What it means for Taiwan?

- Taiwan is now left with **formal relations with just 15 countries**, which includes Vatican City, and others mostly small and poor nations in Latin America, Caribbean and the Pacific.
- The South Pacific has been a traditional diplomatic stronghold for Taiwan, but following its most recent losses, it now only has Palau, Nauru, Tuvalu and the Marshall Islands as allies.
- Taiwan has accused Beijing of offering easy cash, loans and goods in return for

recognition— a claim the Chinese Government denies.

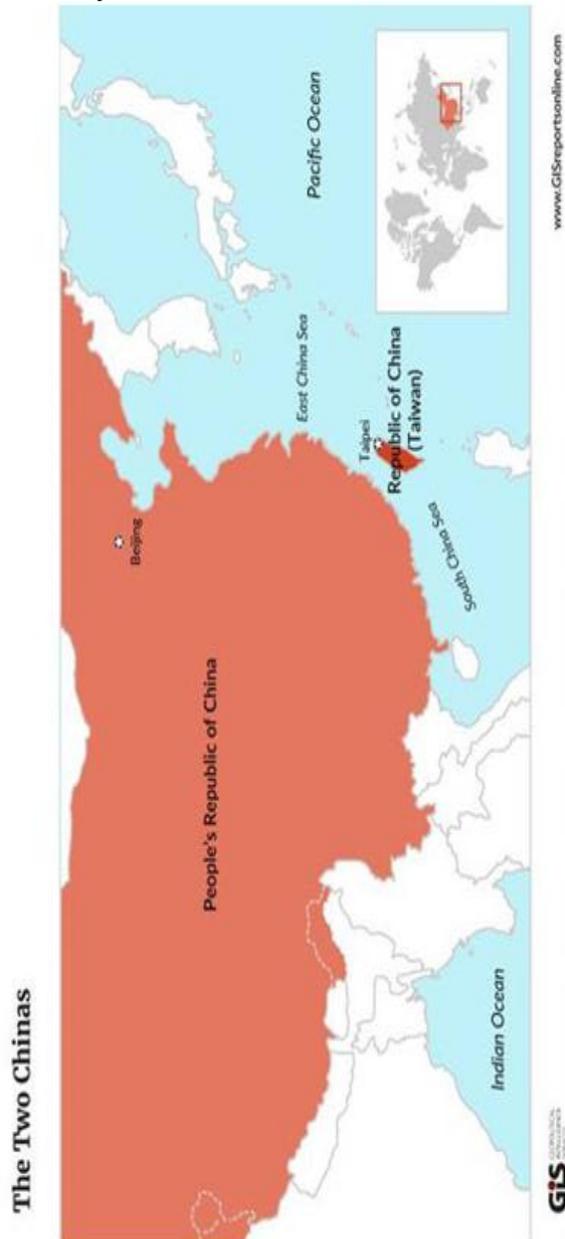
### About 'One China' policy

- It is the diplomatic acknowledgement of China's position that there is only one Chinese government.
- Under the policy, Taiwan—a self-governed island—is claimed as a region of China.
- Although Taiwan's government claims it is an independent country officially called the "**Republic of China**", any country that wants diplomatic relations with mainland China ("**People's Republic of China**") must break official ties with Taipei.
- Beijing has benefited the most from the policy, which has cast Taiwan out into the diplomatic wilderness.

### China-Taiwan background

- The split can be traced back to **1949** and the end of the **Chinese civil war**.
- The defeated Nationalists, also known as the **Kuomintang**, retreated to **Taiwan** and made it their seat of government while the victorious Communists began ruling the mainland as the People's Republic of China. Both sides claimed to represent all of China.
- Since then China's ruling Communist Party has threatened to use force if Taiwan ever formally declares

independence, but it has also pursued a softer diplomatic track with the island in recent years.



- Initially, many governments including the US recognised Taiwan as they shied away from Communist China.
- But the diplomatic winds shifted as China began to grow economically in 1970s-1980s, with the US and other countries cutting ties with Taipei in favour of Beijing.
- Many however still maintain informal relations with Taiwan through trade offices or cultural institutes, and the US remains Taiwan's most important security ally.

- Taiwan is not recognised as an independent country by much of the world nor even the United Nations.
- It undergoes extraordinary naming contortions (as **Chinese Taipei**) just to participate in events and institutions like the Olympic Games and the World Trade Organization.

## 5) India-Pakistan Kartarpur corridor



### About the corridor

- India and Pakistan are building a corridor to connect Dera Baba Nanak in Gurdaspur and Gurdwara Darbar Sahib at Kartarpur in Pakistan, the final resting place of Guru Nanak, to commemorate the 550th birth anniversary celebrations of the Sikh founder on November 12.
- It will facilitate visa-free movement of Indian pilgrims, who will have to obtain a permit to visit Kartarpur Sahib, which was established in 1522 by Guru Nanak Dev.
- Pakistan is building the corridor from the Indian border to the Gurdwara Darbar Sahib in Kartarpur, while the other part from Dera Baba Nanak in Punjab's

Gurdaspur district up to the border will be constructed by India.

### Concerns for India

- India had earlier expressed concern that the corridor could be used by Pakistan to generate “anti-India propaganda” like espousing the Khalistani cause, a separate land for the Sikhs.
- There are also apprehensions that Pakistan might push small weapons or narcotics through the pilgrims.

### Security arrangements in India

- Pilgrims visiting the Kartarpur shrine in Pakistan will have to undergo a thorough security check upon their return amid the above concerns.
- Sikh pilgrims will be allowed to carry kirpans (daggers), one of the five articles of faith worn by Sikhs, but mobile phones will be strictly not allowed.
- Under the Land Ports Authority of India Act, 2010, the Border Security Force (BSF) is the designated force for guarding the border gates through which pilgrims will cross over to Pakistan.
- The passport will be the valid travel document for the pilgrims, and they will have to return on the same day after visiting the shrine, which is 3.5 km from the border gates.
- The BSF will mount high-powered surveillance cameras, metal detectors and other security gadgets at the border gates.

### Why in News?

- Pakistan insists on levying a fee of \$20 (about Rs. 1,420) on all pilgrims. We have urged Pakistan not to do so in the interests of devotees, and also because this is a people-to-people initiative.

## 6) Britain clinches Brexit deal with EU

### About European Union (EU)

- The European Union is a unique **economic and political union** between **28 countries** that together cover much of Europe.
- The EU was created by the **Maastricht Treaty, 1993**.
- The treaty was designed to enhance European political and economic integration by creating a **single currency (the euro)**, a unified foreign and security policy, and common citizenship rights and

by advancing cooperation in the areas of immigration, asylum, and judicial affairs.

- In **2012**, the EU was awarded the **Nobel Peace Prize** for advancing the causes of peace, reconciliation, democracy and human rights in Europe.



### About Brexit

- Brexit is an abbreviation for "British exit," referring to the U.K.'s decision in a June 23, 2016 referendum to leave the European Union (EU).
- Britain is slated to leave the EU by October 31, 2019. The government has so far extended the negotiating period twice to avoid leaving without ratifying a deal with the EU or a "hard Brexit."

### What Is Article 50?

- Article 50 is a clause in the European Union's (EU) **Lisbon Treaty, 2007** that outlines the steps to be taken by a country seeking to leave the bloc voluntarily.
- Invoking Article 50 kick-starts the **formal exit process** and serves as a way for countries to officially declare their intention to leave the EU.
- British Prime Minister Theresa May became the first leader to invoke Article 50 on March 29, 2017, following British voters' decision to pursue Brexit – the UK's exit from the EU.

### Why in News?

- British and EU negotiators agreed on a new divorce deal on October 17. The agreement will now be put before the

British and EU Parliaments to be approved or rejected.

### About the new agreement

- The agreement will keep Northern Ireland in the U.K. customs area, but EU tariffs will apply to goods crossing from mainland Britain to Northern Ireland if they are headed to Ireland and into the bloc's single market.
- The agreement scraps the “backstop”, a mechanism envisaged earlier to prevent a hard border being introduced on the island of Ireland, and would have bound Britain to some EU rules.



### 7) FATF retains Pakistan on grey list

#### About FATF

- The Financial Action Task Force (FATF) is an **inter-governmental body** of **39 members** established in **1989**, headquartered in Paris, France.
- The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and

other related threats to the integrity of the international financial system.

- The FATF is therefore a “**policy-making body**” which works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.
- The FATF has developed a series of Recommendations that are recognised as the international standard for combating of money laundering and the financing of terrorism and proliferation of weapons of mass destruction.
- The FATF monitors the progress of its members in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally.



- The FATF's decision making body, the **FATF Plenary, meets three times per year.**

#### What is FATF 'grey list' and 'blacklist'?

- FATF has 2 types of lists:
- **Grey List:** Countries having **deficiencies in their anti-money laundering and counter terrorist financing (AML/CTF) regimes** but are committed to an action plan to address these loopholes are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.
- **Black List:** Countries that are not doing enough to curb the loopholes in their AML/CTF regimes are termed as **Non-Cooperative Countries or Territories (NCCTs)** and are put in the blacklist (also known as **call for action**). These countries support terror funding and money laundering activities. Only **Iran** and **North Korea** are put under blacklist.

#### Consequences of being in the FATF grey list:

- Considered in the grey list may face
- Economic sanctions from IMF, World Bank, ADB
- Problem in getting loans from IMF, World Bank, ADB and other countries
- Reduction in international trade
- International boycott
- 12 countries - The Bahamas, Botswana, Cambodia, Ghana, Iceland, Mongolia, Pakistan, Panama, Syria, Trinidad and Tobago, Yemen and Zimbabwe are currently being monitored under grey list.

#### Why in News?

- The Financial Action Task Force (FATF) **retained Pakistan on the “grey list”** and gave a stern warning that it will be

blacklisted if it does not fulfill the global standards criteria on combating terrorist financing by February 2020.

#### News in Detail

- The terror financing watchdog discussed Pakistan's actions for countering terror financing and anti-money laundering at the International Co-operation Review Group (ICRG) plenary in Paris that concluded on 18/10/2019.
- Pakistan has been under the **enhanced monitoring process** or **grey list since June 2018** and has not made sufficient progress.
- Since Pakistan continues to be in the FATF 'Grey List', it would be difficult for the country to get financial aid from the IMF, the World Bank, ADB and the European Union.
- According to a statement, the Task Force noted that Pakistan addressed only five out of the 27 tasks given to it in controlling funding to terror groups like the Lashkar-e-Taiba, Jaish-e-Mohammad and Hizbul Mujahideen, responsible for a series of attacks in India.

#### Background

- Pakistan was placed on the grey list by the FATF in June last year and was given a plan of action to complete by October 2019, or face the risk of being placed on the black list.
- Pakistan was previously placed on the FATF's grey list in February 2012, and had been removed from the grey list in February 2015 after it passed a National Action Plan (NAP) to deal with terrorism after the Peshawar School massacre in December 2014.

# SCIENCE & TECHNOLOGY

## 1) GM cotton seeds approved as food by US regulators

### About Genetic Modification (GM)

- GM refers to making changes to a living thing's genetic information that would otherwise not occur by natural mating or reproduction.
- This involves using methods of biotechnology, such as "recombinant DNA," "gene targeting", or "genome editing" to add, delete or otherwise change an organism's DNA.
- Genetic modification can also involve moving genetic material between species.
- Plants produced from genetic engineering techniques are called Genetically Modified (GM) crops.

### GM crops in India

- The **Genetic Engineering Appraisal Committee (GEAC)**, functioning in the Ministry of Environment, Forest and Climate Change (MoEF&CC) is responsible for appraisal of proposals relating to release of genetically engineered (GE) organisms and products into the environment including experimental field trials.
- In India, **Bt cotton** is the only GM crop that is cultivated.
- The GEAC cleared Bt brinjal for commercialization on 14 October 2009. However the Environment Ministry deferred its introduction in India.
- Similarly, the GEAC initially cleared Dhara Mustard Hybrid-11 (DMH - 11) for commercial cultivation, however, they retracted their approval upon deciding that more tests, and additional data concerning the effect of DMH - 11 on insect pollinators and on soil microbial diversity was needed prior to commercialisation.

### Why in News?

- The **U.S. Food and Drug Administration** gave approval for genetically modified cotton to be used for human consumption.

### News in Detail

- The GM cotton plant was developed by a team of scientists from **Texas A&M AgriLife Research**.

- Ordinary cottonseed is unfit for humans and many animals to eat because it contains high levels of **gossypol, a toxic chemical**.
- The scientists used so-called RNAi, or RNA interference, technology to "silence" a gene, virtually eliminating gossypol from cottonseed.
- Gossypol was left at natural levels in the rest of the plant because it guards against insects and disease.

### RNA interference (RNAi)

- It is regulatory system occurring within eukaryotic cells (cells with a clearly defined nucleus) that controls the activity of genes. RNAi functions specifically to silence, or deactivate, genes.
- RNAi is being explored as a form of treatment for a variety of diseases, including macular degeneration, hepatitis, AIDS, Huntington's disease, and cancer.

### Gene silencing

- It is defined as an epigenetic modification (heritable modifications of DNA and its associated proteins that do not involve alterations in the DNA sequence itself) of gene expression leading to inactivation of previously active genes.
- Gene silencing is used in the course of normal development and differentiation to repress genes whose products are not required in specific cell types or tissues.

### Significance

- It paves the way for a **protein-packed new food source** — edible cottonseed.
- Its developers claim that it could help **tackle global malnutrition**.
- The genetic modification does not affect the plant's fibre for use in textiles.

## 2) Army gets precision ammunition

### Why in News?

- The Army has inducted the **155-mm Excalibur precision-guided ammunition** from the U.S.

### Background

- After the Balakot air strikes in February, the Army fast-tracked procurement of

155-mm Excalibur precision-guided ammunition.

- The fast-track proposal and acquisition were facilitated by the delegation of financial powers to the Service Headquarters and of emergency powers to the Vice-Chiefs of the Service Headquarters.

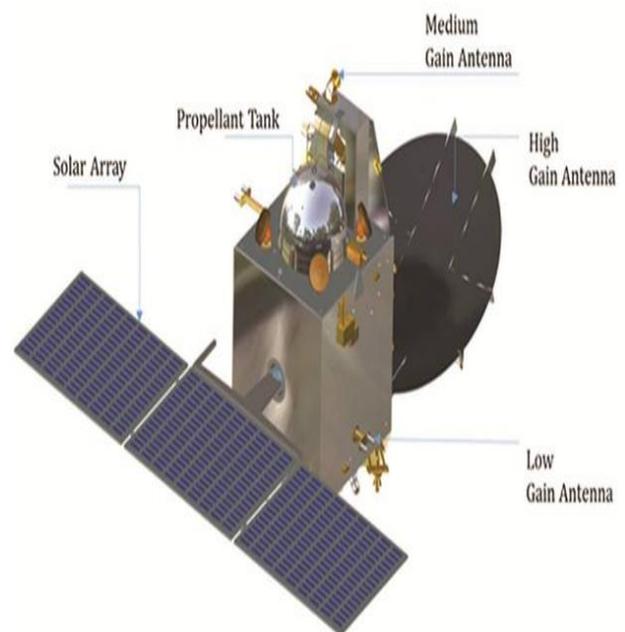
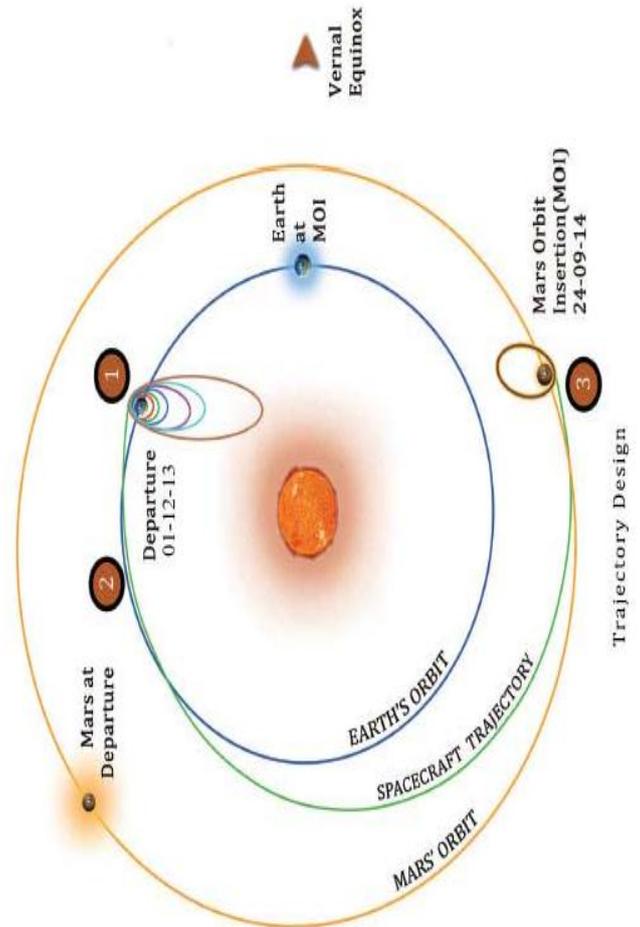
#### About the ammunition

- The ammunition will be used in all 155-mm artillery guns with the Army.
- The Excalibur projectile is developed by Raytheon and BAE Systems Bofors.
- It provides accurate “first-round effects” at all ranges in all weather conditions and “extends the reach of .39-calibre artillery to 40 km and .52-calibre artillery to more than 50 km”.
- **Artillery guns with Indian Army**
- After a gap of three decades, the Army inducted its first modern artillery guns in November 2018: **M-777 Ultra-Light Howitzers (ULHs)** from the U.S. and **K9 Vajra-T self-propelled guns** from South Korea.
- The Army has the older battle-proven **Bofors 155-mm guns** in service, and is inducting the **155-mm Dhanush towed gun**.

### 3) Mars Orbiter Mission (MOM) or Mangalyaan

#### About MOM

- Mars Orbiter Mission (MOM), the **maiden interplanetary mission of ISRO**, launched on November 5, 2013 by PSLV-C25 got inserted into Martian orbit on September 24, 2014 in its first attempt.
- The scientific objectives are to explore Mars' surface features, morphology, mineralogy, and atmosphere.
- MOM has following **five payloads**:
  - Mars Colour Camera (MCC)
  - Thermal Infrared Imaging Spectrometer (TIS)
  - Methane Sensor for Mars (MSM)
  - Mars Exospheric Neutral Composition Analyser (MENCA)
  - Lyman Alpha Photometer (LAP)



#### Why in News?

- The Mangalyaan mission, which was **initially meant to last six months, completed five years** of orbiting Mars recently and is likely to continue for some more time.

### Achievements of MOM so far

- In the past five years, the MOM orbiter helped India's space agency prepare a **Martian Atlas** based on the images provided by the orbiter.
- **Phobos and Deimos**, the **two moons of Mars**, were also imaged from close distances by Mars Colour Camera (MCC).
- The MOM is the **only Martian artificial satellite** that **could image the full disc of Mars** in one view frame and also image the far side of Deimos.
- An important conclusion of the mission has been the finding that dust storms on the Martian can raise up to hundreds of kilometres.

### How does the Mars mission outlive its planned duration?

- One life-limiting parameter of a spacecraft, under nominal orbital conditions, is the availability of fuel, necessary to maintain the spacecraft's orbit and orientation.
- In the case of the MOM, scientists said there is some reserve propellant and the orbiter can go on for another year.
- Though "non-nominal performance" for various segments were accounted for while planning the mission, the launch was perfect. Thus the mission got the full advantage of the "segments of fuel".
- Previously, Cartosat-1 (launched in 2005), the first Indian remote sensing satellite capable of providing in-orbit stereo images, was planned for three years but kept performing for 10 years.

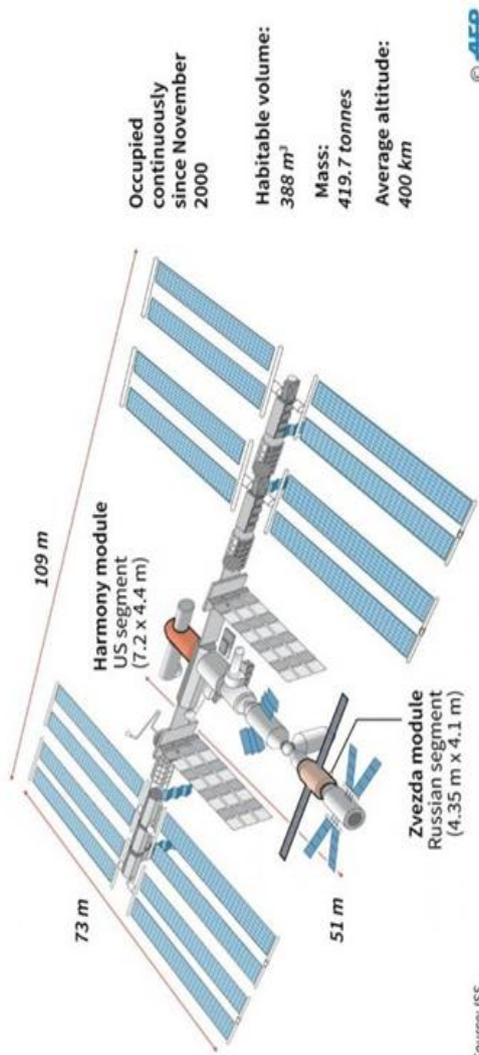
## 4) ISS- World's first female spacewalking team makes history

### About the International Space Station (ISS)

- The International Space Station (ISS) is the **largest single structure humans ever put into space**.
- Its main construction was completed between 1998 and 2011, although the station continually evolves to include new missions and experiments.
- It has been **continuously occupied** since Nov. 2, 2000.

### International Space Station

Six astronauts can live and work in the station, which orbits the earth every 90 minutes



- The ISS includes contributions from 15 nations. **NASA** (United States), **Roscosmos** (Russia) and the **European Space Agency** are the major partners of the space station who contribute most of the funding; the other partners are the **Japanese Aerospace Exploration Agency** and the **Canadian Space Agency**.
- The ISS serves as a **microgravity and space environment research laboratory** in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields.
- Astronauts spend most of their time on the ISS performing experiments and maintenance. Sometimes, this requires that they venture on spacewalks to perform repairs.
- The station is divided into **two sections**, the **Russian Orbital Segment (ROS)**, which is operated by Russia, and the

**United States Orbital Segment (USOS),**  
which is shared by many nations.

**Why in News?**

- World's **first female spacewalking team** made history.

- As NASA astronauts **Christina Koch** and **Jessica Meir** fixed a broken part of the power network of the ISS, it marked the first time in a half-century of spacewalking that a woman floated out without a male crewmate.

# PIB ANALYSIS

## 1) India and Sierra Leone seek to expand bilateral ties

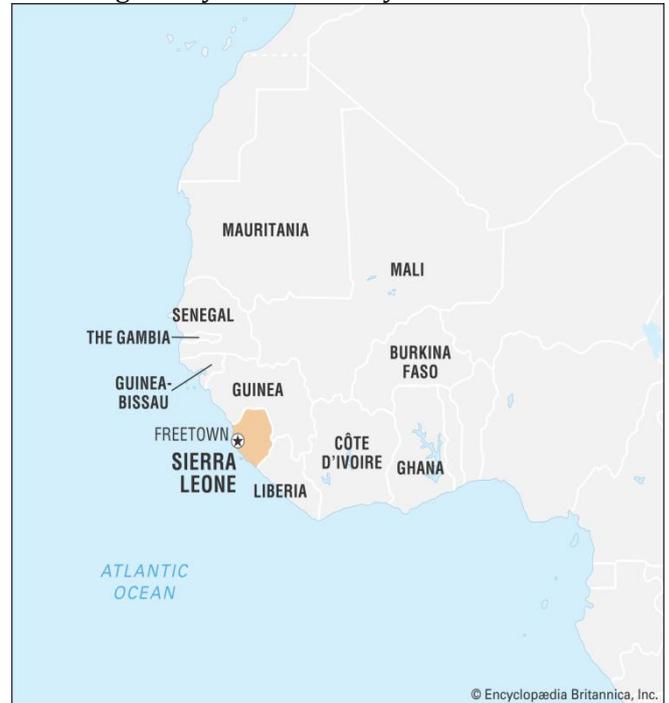
### News in detail

- India and Sierra Leone signed **6 agreements** to expand bilateral relations in various fields like agriculture, food processing, information technology, infrastructure development and capacity building.
- Both the countries agreed to push for United Nations Security Council (UNSC) reforms so that one-third of mankind residing in Africa and India can occupy their rightful place in decision making bodies of the UN.
- India was among the first countries to contribute to the UN Mission in Sierra Leone (UNAMSIL) with the deployment of 4000 strong Indian Military contingent.
- Vice President announced **Line of Credit of US\$ 30 million for Irrigation development** in Tomabum to achieve self-sufficiency in rice production. An agreement was also signed today with the **EXIM Bank of India**.
- Sierra Leone has agreed to participate in the **e-VBAB** project and that MoU with TCIL was signed.
- Vice President reiterated India's offer to conduct a **"Jaipur Foot"** camp in Sierra Leone under the **"India for Humanity"** initiative for fitting of artificial prosthetic limbs for the disabled. This is an initiative undertaken in the context of 150<sup>th</sup> birth anniversary of Mahatma Gandhi. He also thanked President Bio for releasing a postage stamp on Mahatma Gandhi.
- **Vice President announces the opening of a High Commission in Sierra Leone**

### About Line of Credit (LOC)

- A line of credit (LOC) is an arrangement between a financial institution usually a bank and a customer that establishes the maximum loan amount the customer can borrow.
- The borrower can access funds from the line of credit at any time as long as they do not exceed the maximum amount (or credit limit) set in the agreement and

meet any other requirements such as making timely minimum Payments.



### About e-VidyaBharati and e-Arogya Bharati (e-VBAB) Network Project

- e-VBAB is implemented by the **Ministry of External Affairs (MEA)** and the Telecommunications Consultants India Ltd (TCIL) which aims to bring in a digital bridge of knowledge and health between India and Africa.
- e-VBAB Network Project is primarily a technological upgrade and extension of the Pan-African e-Network Project (Phase 1) which was successfully implemented in 48 partner countries across Africa from 2009 till 2017.
- In order to operationalise the e-VBAB Network Project, a Data Centre and Disaster Recovery Centre will be established in India along with Learning Centres in various African countries which decide to be part of the Project.
- There are two separate platforms for e-VidyaBharati (tele-education) and e-Arogya Bharati (tele-medicine) which will link, through a web-based technology, to various educational institutions and hospitals in India and the participating African countries.

- The e-VBAB Network Project will be completely funded by the Government of India for its entire duration and will be open for participation to all our partner countries in Africa.
- The Project will act as an important milestone in our development partnership with Africa.

#### About India for humanity initiative

- 'India for Humanity' was formally launched by late Smt. Sushma Swaraj, **External Affairs Minister**, in New Delhi on October 2018.
- The Ministry of External Affairs has launched the 'India for Humanity' initiative in honour of Mahatma Gandhi's service to humanity.
- With its focus on Mahatma Gandhi's philosophy of compassion, caring and service to humanity, 'India for Humanity' features a year long series of artificial limb fitment camps in a number of countries spanning the globe, for which the Ministry is collaborating with the renowned charitable organization "**Bhagwan Mahaveer Viklang Sahayata Samiti**" (BMVSS).
- Founded in 1975 and better known by its trademark limb "Jaipur Foot", BMVSS is among the world's largest organisations for the fitment of artificial limbs and till date has served over 1.73 million amputees.

#### Why in news?

- As a part of Vice Presidents tour of African nations, he visited Sierra Leone.

## 2) 'Rashtriya Sanskriti Mahotsav'

#### News in detail

- 'Rashtriya Sanskriti Mahotsav', under **Ek Bharat Shreshtha Bharat Matrix** is being celebrated in October 2019.
- Rashtriya Sanskriti Mahotsav was conceived in the year 2015 and after the grand success of the First Rashtriya Sanskriti Mahotsav in November-2015, the Ministry of Culture decided to organize it with an intent to showcase the **rich cultural heritage of the Country** in all its rich and varied dimensions, viz Handicrafts, Cuisine, Painting, Sculpture

and Performing Arts-Folk, Tribal, Classical and Contemporary- all in one place.

- The Rashtriya Sanskriti Mahotsav will cover a profusion of folk art forms from 22 States and it would offer the chance to experience the best in established and emerging virtuosity.
- The RSM will reconnect the people- especially the youth- with their indigenous culture, its multifaceted nature, magnificence, opulence and historical importance in the context of India as a Nation over the millennia.

#### About Ek Bharat Shreshtha Bharat Matrix

- The idea of a sustained and structured cultural connect between denizens of different regions was mooted by Prime Minister during the Rashtriya Ekta Diwas held on October, 2015, to commemorate the birth anniversary of Sardar Vallabhbhai Patel.
- The broad **objectives** of the initiative are as follows
  1. **To CELEBRATE** the Unity in Diversity of our Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our Country;
  2. **To PROMOTE** the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between States;
  3. **To SHOWCASE** the rich heritage and culture, customs and traditions of either State for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity
  4. **TO ESTABLISH** long-term engagements and,
  5. **TO CREATE** an environment which promotes learning between States by sharing best practices and experiences.

#### Why in news?

- 10th edition of 'Rashtriya Sanskriti Mahotsav' under the Ministry of Culture was inaugurated in Jabalpur

## 3) DPIIT launches website and mobile app for IPR

#### News in detail

- The website and app has been developed by Cell for IPR Promotion and

Management (CIPAM)-DPIIT in collaboration with Qualcomm and National Law University (NLU), Delhi.

- On the threshold of the fourth industrial revolution the interface between technology and law is growing and therefore it is very essential that a specialised website and app is available to help startups with the Intellectual property (IP) process, added Secretary DPIIT.

- The modules to help start-ups with the IP process is available in 2 platforms

#### 1. L2Pro India IP e-learning Platform

#### 2. L2Pro India Mobile App

- This will aid and enable youth, innovators, entrepreneurs and small and medium industries (SMEs) in understanding IPRs for their ownership and protection, integrate IP into business models and obtain value for their R&D efforts.

- The L2Pro has been successfully implemented in **Germany, United Kingdom, Italy and France**, benefiting immensely from close collaboration with respective IP organizations and public research institutions.

- The learning app has been customized for India in order to ensure that innovation which is fundamental to startups are protected, managed and commercialised.

- The L2Pro India IP e-learning platform will have 11 modules for three different levels:

1. Basic
2. Intermediate
3. Advanced.

- Each module comprises of e-text for understanding concepts, short animated videos of the concepts, links to additional resources on the subject and quizzes for assessment and grading the learner's knowledge and understanding of the subject.

- Learners will access the L2Pro IP e-learning platform through their desktop, laptop, mobile browser and mobile application (available on Android & iOS), and will be provided e-certificates by CIPAM-DPIIT and NLU Delhi and Qualcomm on successful completion of the e-learning modules.

#### Why in news ?

- Secretary Department for Promotion of Industry and Internal Trade (DPIIT), Guruprasad Mohapatra launched the website and mobile application [Learn to Protect, Secure and Maximize Your Innovation] on Intellectual Property Rights (IPRs) today in New Delhi.

## 4) Celebration of 60th 'World Standard Day' by the Bureau of Indian Standards

### News in detail

- Celebrations of 'World Standard Day' were on the theme of "**Video Standards create a global stage**".

- The theme is highly relevant in the Indian context as India is the fastest growing entertainment and media market globally and is expected to keep up the momentum by growing at a compounded annual growth rate of more than 11%.

- The theme of the 60<sup>th</sup> World Standards Day is very relevant as mobile phones and other electronic devices and IT has boosted video production and it is estimated that by 2020, **80% of all internet traffic will be consumed by 'Video Streaming Data'**.

### World Standard Day:

- Each year on 14 October, **the members of the IEC, ISO and ITU celebrate World Standards Day**, which is a means of paying tribute to the collaborative efforts of thousands of experts worldwide who develop the voluntary technical agreements that are published as International Standards.

- Aiming high-level collaboration between the **IEC**(International Electro technical Commission),**ISO**(International Organization for Standardization) and **ITU**(International Telecommunication Union). Under this banner, the three organizations preserve their common interests in strengthening and advancing the voluntary consensus-based International Standards system.

- World Standards Day was initially launched in 1970, and is now recognized and celebrated by nations around the globe.

### Bureau of Indian Standards (BIS) :

- The erstwhile Indian Standards Institution (ISI) was established in year

1947 (now Bureau of Indian Standards) with the objective of harmonious development of standardization activity in India. Under the Bureau of Indian Standards Act, 2016, Bureau establishes Indian Standards in relation to any article or process and amends, revises or cancels the standards so established as may be necessary, by a process of consultation involving consumers, manufacturers, Government and regulatory bodies, technologists, scientists and testing laboratories through duly constituted committees.

- The Bureau of Indian Standards (BIS) was established under the BIS Act, 1986 for the harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto.
- A new Bureau of Indian Standards Act, 2016 which reinforces the activities of BIS in respect to standardization and certification of goods, articles, processes, systems and services.
- Formulation of Indian Standards is one of the core activities of BIS. The activity is done through 14 Division Councils representing diverse areas of economy and technology.

#### Why in News?

- Union Minister of Consumer Affairs, Food and Public Distribution Shri Ram Vilas Paswan inaugurated the celebrations of 'World Standard Day' by the Bureau of Indian Standards (BIS) on the theme "Video Standards create a global stage" in New Delhi

### 5) LOTUS-HR (Local Treatment of Urban Sewage streams for Healthy Reuseplant)

#### News in detail

- The project was initiated in July 2017 and aims to demonstrate a **novel holistic (waste) water management** approach that will produce clean water which can be **reused** for various purposes.
- The innovative pilot scale modular plant upon commissioning will treat 10,000 L sewage water per day and will showcase a self-sustaining model for the end user.

- This pilot scale facility will employ multiple technologies so that the data generated at the pilot scale becomes a tool-box of treatment technologies for replication at other sites in Delhi as well as other parts of India where similar drains exist.
- The rationale is that the mixing and matching of technologies from this tool-box will depend on the quantity (flow rate) and quality (pollutant load) of drain water, land availability, site accessibility as well as topography.
- The LOTUS-HR project is jointly supported by **Department of Biotechnology, Ministry of Science and Technology, Government of India and the Netherlands Organization for Scientific Research /STW, Government of the Netherlands.**

#### Why in News ?

- India and Netherlands launched the second phase of the LOTUS-HR (Local Treatment of Urban Sewage streams for Healthy Reuse plant ) as a part of joint collaboration.

### 6) North East Expo 2019

#### News In Detail

- The All India Women's Education Fund Association (AIWEFA) organized the event. To celebrate Mahatma Gandhi's 150<sup>th</sup> birth anniversary, 100 years of his association with Khadi and 91 years of AIWEFA's service to women and communities, the campaign '*Khadi Goes Global*' has been initiated. As part of the event, the campaign '**Khadi Goes Global**' has been initiated.
- It brings together all the eight states of northeast India to create a platform with the North East handloom, handicrafts and the farm sector, at this North East Expo.
- The North East Expo, 2019, will provide a cumulative platform for entrepreneurs from the eight northeast states to open up trade and commerce with ASEAN and BIMSTEC nations through Tea Diplomacy and Khadi Diplomacy.
- It will include panel discussions, back-to-back meetings, art, culture, food stalls, and stalls on northeast handlooms and handicrafts. This event also aims to identify and carry out preservation of the

distinctive arts of the different tribes of the North East.

- The objective of panel discussions is to analyse the current state of unique food products, Handlooms and Handicrafts from the North East region.
- The panel will further look to understand its contribution to the local economy, identify issues and challenges concerning their sustainability and outline measures needed for strengthening and promoting the unique ecosystem globally.
- At the expo, AIWEFA will also introduce two awards—The Prime Minister’s Award for Master Weaver and the other for the Master Craftsperson for the year 2018–19.

#### **AIWEFA:**

- In 1929 with an objective of helping women to empower themselves, a group of visionary women including Rajkumari Amrit Kaur, Sarojini Naidu, ArunaAsaf Ali and Lady Irwin founded the All India Women’s Education Fund Association (AIWEFA).
- AIWEFA focused its attention on embellishing the facilities in the college to raise it to the level of a premier institution of learning for women.
- The association established, Lady Irwin College in New Delhi in 1932 which later got affiliated with the University of Delhi in 1950
- The association is crowned with the Special Consultative Status (ECOSOC) by the UN and thereby obtained observer status with UNFCCC.
- AIWEFA aspires to demystify research in educational materials, by providing housing for women teachers in rural areas, encouraging publication of textbooks, initiating schemes for vocational training, increasing awareness on social, legal, political and economic matters.

#### **Why in News?**

- The Union Minister of State for Ministry of Development of North Eastern Region presided over as the chief guest for the **North East Expo 2019** organised in New Delhi.

### **7) Diagnostic kits developed by ICAR and IVRI**

#### **News in Details:**

- This indigenous technology will not just help save foreign exchange as the newly developed kits cost ten times less than the imported ones but also have the potential to earn foreign exchange.
- **Japanese encephalitis (JE)** is an infection of the brain caused by the **Japanese encephalitis virus (JEV)**. While most infections result in little or no symptoms, occasional inflammation of the brain occurs. In these cases, symptoms may include headache, vomiting, fever, confusion and seizures. Enzyme-linked immunosorbent assay (**ELISA**) assay system is used for the detection of **Immunoglobulin M(IgM)** antibodies in human serum to JEV-derived recombinant antigen. This test is to aid in the diagnosis of human exposure to the **Japanese Encephalitis Virus (JEV)**.
- **Bluetongue disease** is a non contagious, insect-borne, **viral disease** of ruminants, mainly sheep and less frequently cattle, goats, buffalo, deer, dromedaries, and antelope. It is caused by **Bluetongue virus (BTV)**. The **virus** is transmitted by the midges *Culicoides imicola*, *Culicoides variipennis*, and other culicoids. A polyclonal antibody-based sandwich enzyme-linked immunosorbent assay (**s-ELISA**) was developed for the detection of **bluetongue virus (BTV)**.

#### **ICAR – IVRI:**

- The Indian Council of Agricultural Research (ICAR) is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India. Formerly known as Imperial Council of Agricultural Research, it was **established on 16 July 1929** as a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture.
- Established in 1889, the Indian Veterinary Research Institute (IVRI) is one of the premier research institutions dedicated to livestock research and development of the region.’

#### **Mandate of IVRI**

- 1.To conduct research, provide postgraduate education and transfer of

technology in all areas of animal sciences with emphasis on animal health and production.

2. To act as national referral centre for veterinary type cultures, disease diagnosis, biology, immunodiagnosics, etc.

#### Why in News?

- Two diagnostic kits developed by Indian Council of Agricultural Research (ICAR) - Indian Veterinary Research Institute (IVRI) under the 'Make in India' initiative, namely the Bluetongue sandwich ELISA (sELISA) and the Japanese Encephalitis IgM ELISA kit for the control of Swine and Detection of Antigen.

### 8) 35th Raising Day Ceremony of National Security Guard (NSG)

#### About the NSG:

- The **National Security Guard (NSG)** is a counter terrorism unit under the Indian Ministry of Home Affairs (MHA). It was raised in 15th October 1984, following Operation Blue Star, Akshardham Temple attack and the assassination of Indira Gandhi, "for combating terrorist activities with a view to protect states against internal disturbances"
- NSG is under the authority of Ministry of Home Affairs. However it is not categorised under the uniform nomenclature of Central Armed Police Forces.

#### Origins:

- By National Security Guard Act, 1986, NSG came into existence.
- It was raised in 15th October 1984, following Operation Blue Star, Akshardham Temple attack and the assassination of Indira Gandhi.
- The Director General is the highest deputation in NSG, who is by mandate an IPS officer.
- It has two subsidiary elements:
  1. Special Action Group (SAG)
  2. Special Ranger Group (SRG)
- NSG Motto: "Sarvatra Sarvottam Suraksha".

#### Why in News?

- Union Home Minister Shri Amit Shah presides over as Chief Guest on the 35th Raising Day Ceremony of National

Security Guard (NSG) held at its headquarters in Manesar in Gurugram, Haryana.

### 9) 17th Meeting of Maritime States Development Council (MSDC)

#### New in Detail:

- The Ministry of Shipping is working on a plan to develop a National Grid for Ports based on synergy between the Major and Minor ports in the country.

#### MSDC :

- MSDC is an apex advisory body for the development of the maritime sector and aims to ensure integrated development of major and non-major ports. (The Major Ports are under the Union List hence under the administrative control of Government of India while the Non Major Ports are under the Concurrent List of the Constitution of India which are governed by the respective Maritime State/ Governments.)
- The MSDC was constituted in May 1997 to assess in consultation with State Governments, the future development of existing and new minor ports by the respective maritime states either directly or through captive users and private participation.
- MSDC is also planning **expansion of port capacity** through the implementation of well-conceived infrastructure development projects, increasing the efficiency of port operations through the implementation of a package of recommendations to cut time and cost, digitization of processes to reduce and finally eliminate human interface and to strongly address environment related concerns.

#### Why in News?

- The Ministry Of Shipping Organizes the 17<sup>th</sup> Meeting of Maritime States Development Council to develop a National Grid for Ports based on synergy between the Major and Minor ports in the country.

### 10) Authorized World Skills India Training Centres

## **(AWSITC) in Media & Entertainment Sector**

### **About the AWSITC:**

- The new institutes are being set up for advanced skill training of candidates in the media and entertainment sector, not just to compete in the WorldSkills and IndiaSkills competitions but also to further develop the skilling eco-system for training candidates for the international market..
- The state of the art AWSITCs, set up in partnership with the MESC (Media & Entertainment Skill Council), will help the candidates to enhance their skills as per the global standards and the training programs will be designed as per the NSFQ level, which will be industry linked.
- The certification courses of 9 months to 36 months duration on graphic design technology, 3D Digital Game and Print Media technology will be offered at the centres.

### **Why in News?**

- The Union Minister of Skill Development and Entrepreneurship (MSDE), announced the launch of 14 authorize World Skills India Training Centers (AWSITC) across 9 cities in India, for the Media and Entertainment sector.

## **11) Skill India's RozgarMela 2019**

### **News in Details:**

- The two-day RozgarMela also included a 'KaushalMela' where young aspirants can gain knowledge of the various skilling initiatives of the government.
- The aspirants have the opportunity to register for the myriad trainings under Pradhan MantriKaushalVikasYojana (PMKVY) and Pradhan MantriKaushal Kendra (PMKK) across key sectors including manufacturing and services.

### **About the RozgarMela:**

- One of the largest job fairs organized by the National Skill Development Corporation (NSDC) under the aegis of the Ministry of Skill Development and Entrepreneurship (MSDE), the **RozgarMela** witnessed overwhelming participation from over 100 companies across more than ten high economic growth sectors.

- The RozgarMela program is one of the NSDC's key initiatives for providing vocational training and job opportunities to youth in the country.
- NSDC works with various stakeholders including industry, institutions, training providers and state governments to organise RozgarMelas to link job seekers with job providers. .

### **Why in News?**

- Close to 7500 youth visit Skill India's RozgarMela in Bikaner; More than 2000 aspirants get shortlisted for jobs.

## **12) Sporting Infrastructure Accessible to All**

### **News in Details:**

- The sporting facilities will also be accessible free of cost to coaches training athletes who are not part of camps organised in Sports Authority of India centres.
- The decision was taken with the view that people must have access to playfields and sporting infrastructure so that the culture of playing sport and therefore of fitness, becomes a way of life for Indians.
- In the first phase, stadiums in Delhi including Jawaharlal Nehru Stadium, Indira Gandhi Stadium, Major Dhyanchand Stadium and Karni Singh Shooting Range will be opened up for state and national federations to host competitions, tournaments and leagues of all sporting disciplines.
- The new policy will also allow non-SAI coaches to train their athletes at the stadia without any charge, provided that the coach has a minimum of at least 10 wards under his or her training.
- To ensure focussed use of the available infrastructure, each stadium is being earmarked for a specific sport.

### **About the Fit India Movement:**

- The Fit India Movement aims in encouraging Indians to include fitness activities and sports in their daily routine for a healthy and fit lifestyle.
- The Rate of Lifestyle diseases, have increased over the past decade in India.
- The movement is not just central government's but of all state governments, panchayats and local bodies.

- The birth anniversary of Major Dhyanchand, hockey icon from India has been the foundation stone for “Fit India Movement”.

#### **Why in News?**

- Ministry of Youth Affairs & Sports has decided to allow national and state sports federations, leagues and clubs to organise sports events in all sporting facilities owned by the government, free of cost in order to further the Fit India Movement and to make playfields and sporting infrastructure accessible, without fee, to all sports persons across the country from 1st November 2019.

### **13) Defence of Andaman and Nicobar Islands exercise 2019**

#### **About Danx - 19:**

- Andaman and Nicobar Command (ANC) have conducted the second edition of Defence of Andaman & Nicobar Islands 2019 (DANX-19), a large scale 5 days joint services exercise.
- Spanning over a period of five days, components of the Indian Army, Navy, Air Force and Coast Guard carried out mobilisation and field manoeuvres to validate defensive plans of Headquarters ANC towards pursuance of the Command’s responsibility, namely ensuring territorial integrity of the A&N Islands.
- In addition to internal forces from ANC, accretional forces from Mainland comprising ships and aircraft, Special Forces from the newly formed Armed

Forces Special Operations Division (AFSOD), also participated in this edition.

#### **About the Andaman and Nicobar Command (ANC):**

- The **Andaman and Nicobar Command** is the first and only Tri-service theater command of the Indian Armed Forces, based at Port Blair in the Andaman and Nicobar Islands, a Union Territory of India.
- It was created in 2001 to safeguard India’s strategic interests in Southeast Asia and the Strait of Malacca by increasing rapid deployment of military assets in the region.
- It provides logistical and administrative support to naval ships which are sent on deployment to East Asia and the Pacific Ocean.
- The Andaman and Nicobar Command is commanded by a Three-star officer (rank of Lieutenant General of the Indian Army or equivalent) who reports directly to the Chairman of the Chiefs of Staff Committee in New Delhi. The Chief of Staff of the command is a two-star officer; each component (sea, land, air) is commanded by a one-star officer.
- The Command also patrols India’s exclusive economic zone to suppress gun running, narcotics smuggling, piracy, and poaching, and conducts maritime surveillance, humanitarian assistance and disaster relief.

#### **Why in news?**

- Defence of Andaman and Nicobar Islands exercise 2019 (Danx-19) was conducted in October 2019.

# News in Depth

## AIR NEWS

### 1) MSME sector

- A micro small and medium enterprise (MSME) is the key driver towards goal of achieving 5 trillion dollar economy.
- There are about 63.5 million MSME units in India which contribute 29% of India's GDP.
- In regards to the registration of entities in the GST network, overwhelmingly large percentage of the unit is from MSME which have already registered under GST. MSME have moved from informal to a formal framework of the economy. Gradually they are becoming more and more visible and are building their credit history.
- Huge potential needs to be harnessed from the MSME by:
- Providing easy and timely credit flow thereby reducing the cost of credit.
- Ensuring the market access for all the products.
- Increasing the Quality of standard with better technology and easy access.
- Country needs an equitable growth and inclusive growth for which spot light must be upon MSME, since they are spread all around the country.

#### Five key aspects to facilitate the MSME sector

- 1. Access to credit,
- 2. Access to market,
- 3. Technology upgradation,
- 4. Ease of doing business,
- 5. Social security for employees.

#### 12 Key Initiatives

- The Prime Minister announced the following 12 key initiatives which will help the growth, expansion and facilitation of MSMEs across the country.
- Access to Credit
- 59 minute loan portal to enable easy access to credit for MSMEs. Loans upto Rs.

1 crore can be granted in-principle approval through this portal, in just 59 minutes. A link to this portal will be made available through the GST portal as no one should be compelled to visit a bank branch repeatedly.

- A 2 percent interest subvention for all GST registered MSMEs, on fresh or incremental loans. For exporters who receive loans in the pre-shipment and post-shipment period, an increase in interest rebate from 3 percent to 5 percent.
- All companies with a turnover more than Rs. 500 crore, must now compulsorily be brought on the Trade Receivables e-Discounting System (TReDS). Joining this portal will enable entrepreneurs to access credit from banks, based on their upcoming receivables. This will resolve their problems of cash cycle.
- Access to Markets
- On access to markets for entrepreneurs, the Union Government has taken a number of steps already. In this context, public sector companies have now been asked to compulsorily procure 25 percent, instead of 20 percent of their total purchases from MSMEs.
- Out of the 25 percent procurement mandated from MSMEs, 3 percent must now be reserved for women entrepreneurs.
- More than 1.5 lakh suppliers have now registered with GeM, out of which 40,000 are MSMEs. Transactions worth more than Rs. 14,000 crore have been made so far through GeM. All public sector undertakings of the Union Government must now compulsorily be a part of GeM. They should also get all their vendors registered on GeM.
- Technology Upgradation

- Tool rooms across the country are a vital part of product design. Extension of 20 technological hubs will be formed across the country, and 100 spokes in the form of tool rooms will be established.
- Ease of Doing Business
- On Ease of Doing Business, clusters will be formed of pharma MSMEs. 70 percent of the cost of establishing these clusters will be borne by the Union Government.
- On simplification of government procedures, the return under 8 labour laws and 10 Union regulations must now be filed only once a year.
- The establishments to be visited by an Inspector will be decided through a computerised random allotment.
- As part of establishing a unit, an entrepreneur needs two clearances namely, environmental clearance and consent to establish. Air pollution and water pollution laws, both these have been merged as a single consent. The return will be accepted through self-certification.
- An Ordinance has been brought, under which, for minor violations under the Companies Act, the entrepreneur will no longer have to approach the Courts, but can correct them through simple procedures.
- Social Security for MSME Sector Employees
- A mission will be launched to ensure that they have Jan Dhan Accounts, provident fund and insurance.
- The implementation of this outreach programme will be intensively monitored over the next 100 days.

### **Empowering Khadi Celebrating 150 years of Mahatma**

- Focus on employment generation through promotion of Khadi and related products rather than on profits. The PMEGP scheme is implemented by Khadi and Village Industries Commission (KVIC) functioning as the nodal agency at the national level.
- Entrepreneurs can apply for financial assistance through the online portal for the PMEGP Scheme
- To promote the fabric further, Khadi and Village Industries Commission (KVIC) has itself been tapping corporate tie-ups.
- It has signed an agreement with Raymond for designer khadi apparel's production and sale. Raymond will source khadi from KVIC-approved weavers and produce designer clothes under the title of "Khadi by Raymond". Both KVIC and Raymond will sell at their retail counters.
- The Khadi Village Industries Commission (KVIC) has signed an agreement with Aditya Birla Fashion & Retail to take the hand-woven khadi fabric closer to discerning consumers.

### **Why in news?**

- Micro small and medium enterprises (MSME) are the key driver towards goal of achieving 5 trillion dollar economy.

## **2) Clean and Fit India**

### **Plogging- An initiative of Swachh Bharat and Fit India movement**

- Plogging is a combination of jogging with picking up litter.
- It started as an organised activity in **Sweden** and spread to other countries, following increased concern about plastic pollution. As a workout, it provides variation in body movements by adding bending, squatting and stretching to the main action of running, hiking, or walking.
- In India, honourable Prime Minister, recently plogged to lead as an example for Swachh Bharat mission to clean up India and Fit India Movement at Mamallapuram beach during his visit to Tamil Nadu.
- Swachh Bharat Mission is a nation-wide campaign in India for the period 2014 to 2019 that aims to clean up the streets, roads and infrastructure of India's cities, towns, urban and rural areas.
- Fit India Movement, is a nation-wide movement in India to encourage people to remain healthy and fit by including physical activities and sports in their daily lives.

### **Global and National Awakening towards plastic pollution**

- Researchers estimate that more than 8.3 billion tonnes of plastic has been produced since the
- early 1950s. About 60% of that plastic has ended up in either a landfill or the natural environment.
- There is a huge shift away from the production of durable plastic, and

towards plastics that are meant for single-use purpose.

- Only 9% of all plastic waste ever produced has been recycled. About 12% has been incinerated, while the rest — 79% — has accumulated in landfills, dumps or the natural environment.
- India's ambitious intent to phase out single-use plastic like straws and cups by 2022 was announced by Prime Minister Narendra Modi on World Environment.

### **Creating awareness on Clean and Fit India**

- Fit India Movement is a nation-wide campaign aiming to encourage people for including sports and physical activities in their everyday lives.
- A 28-member that include government officials, members of Indian Olympic Association (IOA), national sports federations, private bodies and fitness promoters was constituted to advise the government on the Fit India Movement.
- To encourage this fitness drive, UGC (University Grants Commission) also asked higher education institutes to make arrangements to show address of PM's Fitness pledge to create mass awareness.
- It has urged the NSS (National Service Schemes) of the colleges to organize a run for fitness. It has also urged every citizen of the country to walk 10000 steps every day at least.
- Swachh Bharat Mission was initiated with the ideology of "A clean India would be the best tribute India could pay to Mahatma Gandhi on his 150 birth anniversary in 2019".

- People from different sections of the society have come forward and joined this mass movement of cleanliness. From government officials to Jawans, Bollywood actors to the sportspersons, industrialists to spiritual leaders, all have lined up for the noble work.
- Millions of people across the country have been day after day joining the cleanliness initiatives of the government departments, NGOs and local community centers to make India clean.
- Organizing frequent cleanliness campaigns to spread awareness about hygiene through plays and music is also being widely carried out across the nation.

### **Government Initiative Vs People's Campaign Movement**

- A government's initiative would have been effective as a responsible government during this period but people's campaign will give responsibility to the citizens on upholding the concerns.
- A government's Initiative might ban the plastics and introduce fitness programs among government schools and colleges but couldn't enforce them upon the private sectors.
- Whereas people's campaign would act like a forest fire, motivating and initiating several activities towards this cause.
- Several NGOs, Celebrities, people's societies have shown keen interest towards this campaign and have organized several other campaigns to implement these actions.

# Hindu Editorial Analysis

## 1) Tax policy

### GS Paper III – Economy; Taxation; Tax avoidance

- Context – In the current fiscal year's budget, Corporate taxes has been reduced to 25% which will help boost the investments but also would be a huge cut in the revenue of the government. Hence it is important to analyse the taxation system of the corporates and MNCs.

### Corporate tax in India

- Indian taxation system is divided into two types: Direct Taxes and Indirect Taxes. Direct taxes, it is levied on the income that different types of business entities earn in a financial year.
- **Corporate Tax:** This tax is paid by the companies registered under company law in India on the net profit that it makes from businesses. It is taxed at a specific rate as prescribed by the income tax act subject to the changes in the rates every year by the IT department.
- Domestic as well as foreign companies are liable to pay corporate tax under the Income-tax Act. While a domestic company is taxed on its universal income, a foreign company is only taxed on the income earned within India i.e. is being accrued or received in India.

### Issues:

#### 1) Tax Avoidance:

- Tax avoidance is the use of legal methods to modify an individual's financial situation to lower the amount of income tax owed.
- This is generally accomplished by claiming the permissible deductions and credits. This practice differs from tax evasion which uses illegal methods, such as underreporting income, to avoid paying taxes.
- **BEPS (base erosion and profit shifting):** these are tax avoidance strategies which Multinational Corporations (MNCs) employ for reducing their tax bases.
- *Base erosion* refers to the practice of reducing the taxable base. An example is deducting large interest payments in order to lower the taxable profits.

- *“Profit shifting”* refers to the practice of shifting taxable profits from high-tax countries to low-tax countries. An example is the transfer of ownership of intellectual property and its income from the US (high-tax) to Bermuda (low-tax).
- Therefore the companies avoid paying taxes in some countries which will erode the revenue of those countries.

### Problems because of BEPS:

- The country losses revenue where the company is functioning. The International Monetary Fund has estimated that countries lose \$500 billion a year because of this
- It creates an uneven competition to the domestic companies which are at a disadvantage because of lower taxation by MNCs.

### What Is a Transfer Pricing?

- a. It is the method by which the companies benefit from tax avoidance or BEPS.
- b. Transfer price is the price at which divisions of a company transact with each other, such as the trade of supplies or labour between departments.
- c. Transfer prices are used when individual entities of a larger multi-entity firm are treated and measured as separately run entities.

### Double Taxation Avoidance Agreement

- A DTAA is a tax treaty signed between two or more countries. Its key objective is that tax-payers in these countries can avoid being taxed twice for the same income. A DTAA applies in cases where a tax-payer resides in one country and earns income in another.
- It is one of the mechanisms followed by countries to avoid double taxation for companies in order to make their countries attractive investment destination.
- These agreements are misused by many MNCs by setting up shell companies (unrecognized subsidiary of the parent company) to avoid tax liability.
- For example, If company (Shell Company) is registered in tax haven and carries out the

- operations through its subsidiary based in India. Under the provisions of DTAA, the company would be liable to pay tax only in the tax haven country, even for the profits which it makes in India. This causes significant revenue loss for India.

#### What can be done?

- Since an MNC actually functions as one entity, it should be treated that way for tax purposes. So the total global profits of a multinational should be calculated, and then apportioned across countries according to some formula based on sales, employment and users (for digital companies).
- A minimum corporate tax should be internationally agreed upon for this to prevent companies shifting to low tax jurisdictions

## 2) Hunger and Malnutrition

- GS Paper II – Social Issues; Hunger and Poverty; Sustainable Development

#### What is the Issue?

- India with such a large population is **ranked 102 out of 117 in the global hunger Index.**
- Malnutrition** is among the **leading cause of death** and disability in India according to The Global Burden of disease (2017).
- The **theme of current world food day** was - **Our Actions are our Future; Healthy Diets for a #Zero Hunger World**. Highlighting the need to immediately work towards zero hunger.

#### Consumption pattern change is one reason for malnutrition.

- The consumption of traditional millets grain diet has substantially reduced due to **large scale production of only staple food grains** like rice and wheat.
- Fruits and vegetables are not having economic value to small farmers therefore cost of it is increasing thereby reducing consumption by the poor.
- Dependence on a few crops** has negative consequences for ecosystems, food diversity and health.
- Food monotony** increases the risk of **micronutrient deficiency**.
- Intensive, **monoculture agricultural practices** can lead to the food and nutrition security problem by degrading

the quality of land, water and the food derived through them.

- Packaged food** is another cause of malnutrition in urban areas.

#### Government initiatives:

- National Nutrition Mission** - targets to **reduce stunting, under-nutrition, anemia** (*among young children, women and adolescent girls*) and reduce **low birth weight** by 2%, 2%, 3% and 2% per annum respectively.
- It has a robust convergence mechanism which interlinks all the sub schemes for nutrition provision through anganwadi workers and ensures real time monitoring.

#### What can be done?

- Food and agriculture** should be **integrated with nutrition-sensitive and climate-resilient.**
- Nutrition security** has to be ensured the government rations to poor.
- Adaptation strategies and agricultural biodiversity should be developed together with affected communities based on local needs. These strategies should **integrate indigenous and traditional knowledge**—particularly of women.
- Invest in resilience building** to prevent conflicts related to the use of natural resources, such as water and land.
- A radical **transformation of production and consumption patterns**, especially in high-income countries, is crucial to reduce emissions and ensure that all people have access to healthy and sustainable diets.
- Governments must **promote sustainable production systems**, consumption of nutritious foods, and reduction of food loss and waste.
- Countries must **harmonize climate policy with food and trade policies** to prevent mitigation and CO2 removal measures—such as the use of scarce agricultural land for bioenergy production— from harming people’s food and nutrition security.
- Financing for climate change mitigation and adaptation must especially support least-developed countries (LDCs) and must be in addition to official development assistance (ODA) to ensure

that resources for sustainable development are not reduced.

### 3) Not green, but greenwash

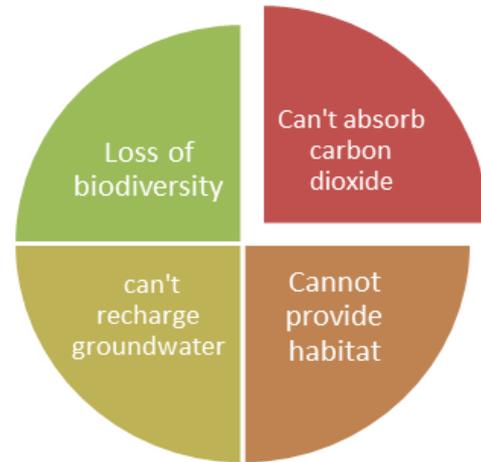
- A **case study** technology vs environment vs infrastructure.
- It is an article describing about the efficiency of using newer technologies to reduce the carbon emission.
- In the recent move, **Mumbai is thinking to adopt metro** to reduce carbon emissions and improve public transport.
- But along doing this they have chopped down the **Aarey forest** (a national forest in the Mumbai). The push for the **capital-intensive Metro** has come at a time when the city's bus service is in tatters and it is argued that the Metro is the only option to improve the city's public transport.

#### Why Infrastructure is thought as an alternative to Forest?

- The forest utility is always thought in terms of "CARBON EMISSION" capability. The push for newer means of public transport which replaces the forest are brought up in the notion that they reduce the carbon emission. They are thought to reduce the number of cars on the roads and expect that making cost effective public transport would push the people to travel. But it isn't such.
- It must be made clear that infrastructure like Metros would definitely REDUCE the PACE of emissions but not cut the emissions per say. If the Metro really replaces cars, Metro infrastructure should take up the space that cars take up in the city's landscape. But instead, the Metro consumes trees, soil and aquifers, even as we keep getting new flyovers and expressways.
- There isn't much evidence that when a Metro arrives in a city or the bus system gets better, car sales drop.
- For Example: Before the Asian Games in 1982, there were a handful of flyovers in New Delhi. People complained of traffic problems. Scores of new flyovers were constructed, felling thousands of trees in the process. In the end, traffic congestion grew much worse.
- More fuel-efficient cars have meant that car owners take many more trips, in effect

nullifying the saving of fuel from the technical innovation

- The physical infrastructure is incompetent because of following. Hence at the end makes us vulnerable to the ecological crisis.



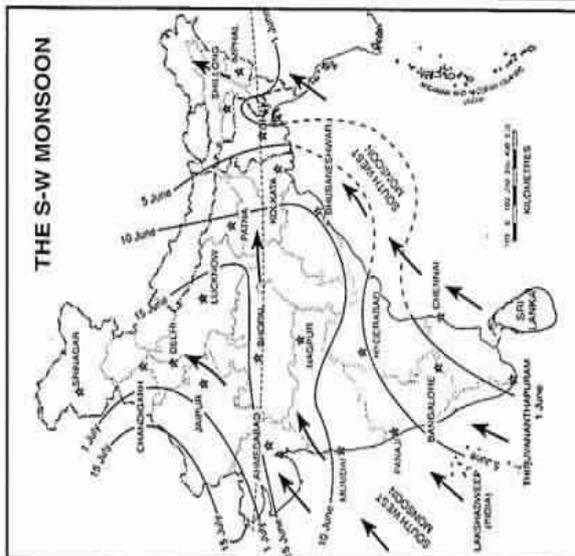
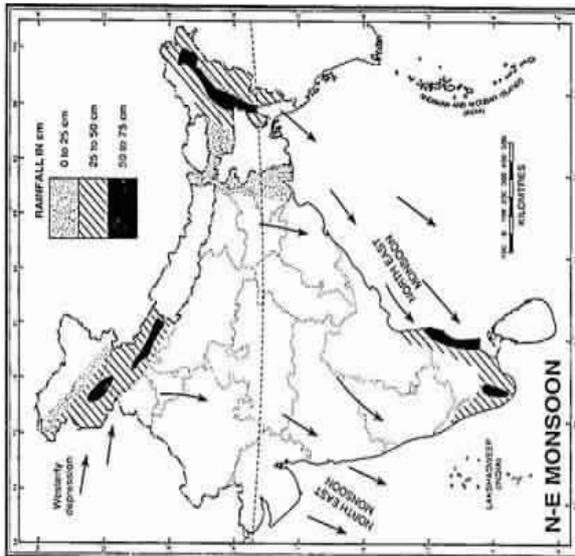
#### What we can do?

- We need to address the ecological crisis, especially climate change; **we need a fall in emissions, not a slower-than-projected rate of increase of emissions.**
- The problem lies in lack of decentralisation of the facilities, jobs and opportunities from **being city-centric**. People in India have to travel more and more because jobs are being offered further and further from homes, since capital is being accumulated in a handful of metropolitan centres of wealth — by dispossessing the rest of the country.
- A simple reason why any advocacy of a lasting technological solutions to ecological challenges is only destined to set the **stage for the next generation of ecological problem.**
- The new problems also mean that innovative entrepreneurs get fresh opportunities in the marketplace.
- In the delve to get new opportunities through new innovative infrastructure we mustn't become vulnerable to the catastrophe quicker.

### 4) The secondary monsoon

#### Why in news?

- There have been problems in prediction of onset of monsoon in India.



#### More about Indian Monsoon:

- India's climate is affected by **two seasonal winds** - the northeast monsoon and the southwest monsoon.
- **South-west monsoon**, known as summer monsoon blows from sea to land after crossing the Indian Ocean, the Arabian Sea, and the Bay of Bengal. The south-west monsoon brings most of the rainfall during a year in the country.
- Whereas the north-east monsoon, commonly known as winter monsoon or retreating Monsoon blows from land to sea.

#### Why this year is so unique?

- This year it had been the most delayed withdrawal of the monsoon since 1961 but both the **quantity and the timing had no effect on the onset of the**

**northeast monsoon**, which officially commenced on 17th Oct.

- This summer, the IMD and other meteorological agencies around the world, bet that monsoon rains would be on the lower side due to the **possible emergence of an El Niño**.
- But the threat of El Niño had waned and India experienced torrential rains in August and September. This wasn't predicted by our authorities and department.
- Conditions in the **Indian Ocean turned favourable** and led to the excessive monsoon activity this year. Monsoon rains in south India have been 15% above normal.
- In Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu, where the Central Water Commission monitors over 30 reservoirs, their water levels were 44.2 billion cubic meters, or 84% of their total live capacity, and much higher than the 10-year average of 66%.
- This shows that there is a deficit in understanding the behaviour of the Indian Ocean and its influence on the monsoons.

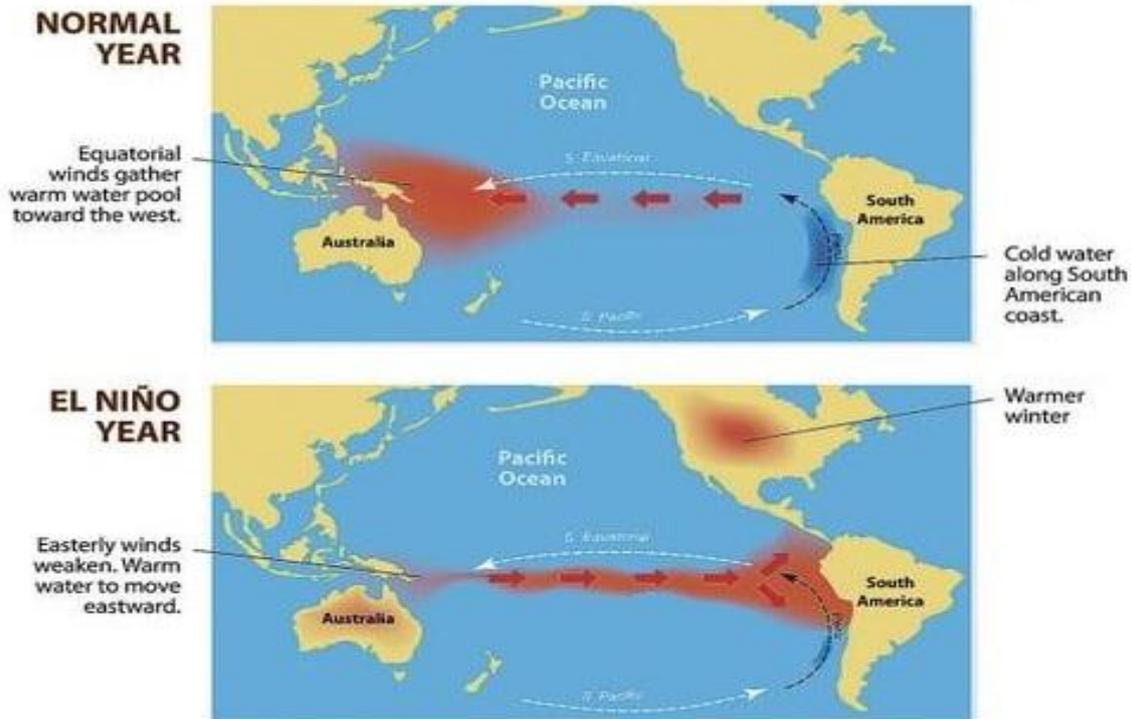
#### What is an El Niño?

- It is a climate phenomenon that occurs when a vast pool of water in the eastern tropical Pacific Ocean becomes abnormally warm. Under normal conditions, the warm water and the rains it drives are in the western Pacific. El Niño occurs every few years.

#### What is the problem?

- The influence of factors and their correlation on SOUTH-WEST monsoon is well studied.
- For example, the influence of temperatures in the Central Pacific, or land surface air temperature in north-western Europe, quantity and distribution of monsoon rainfall in the south west monsoon is well understood **but not on North-east monsoon**.
- For NE monsoon, which contributes about 20% of India's annual rainfall and span October-December, there are no definite parameters evolved for prediction. Predictions for NE monsoon are only in terms of a few months.

# THE EL NIÑO PHENOMENON



- The El Niño phenomenon, which has been linked to the abnormal warming of the equatorial waters off the central and eastern Pacific, has been connected with the failure of the southwest monsoon.
- However, researchers over the years have noted that this **had an opposite effect on the NE monsoon leading to more voluminous showers in the winter and particularly over South India.**
- This shows that there is a **lack in understanding the behaviour of the Indian Ocean and its influence on the monsoons.**
- Though today India is moving to a system where dynamical models that **run on powerful computers** but these too are **heavily reliant on the behaviour of the Pacific Ocean and El Niño-related swings.**
- India needs to step up research to improve the performance of these models.

## Way forward

- Giving more importance to understanding the vagaries of the NE monsoon & Indian Ocean should be among India's key prongs to adapting to climate change and better forecasting.

## 5) Vital Additions To Empirical Research - Randomised control trials in development economics

- GS Paper II- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
  - GS Paper III - Economic Development
- ### What is randomised control trials(RCT)?
- The concept of randomised experiments is well-known in medical trials.
  - RCTs use the following insight: you select two groups that are similar and then randomly select one to receive the treatment (a drug, or a policy) being tested and then compare the outcome of this group (called the treatment group) with that of the other group (called the control group). If the difference is statistically significant, then that is attributed to the treatment.

### RCTs in development economics

- Using this method in economics has altered our views about what policies work and what do not.
- This method now has become one of the main tools used in empirical work in

development economics and in related fields.

- It has also led to a paradigm shift in development policy evaluation — the World Bank, and many governments and large NGOs now insist on randomised control methods wherever feasible.

#### **Limitations/Concerns with RCTs in policy making**

- They can establish what works, but cannot say much about what could have worked better or whether it could work in a very different environment.
- There is the concern that funding by large donor or private philanthropic organisations may influence the policy agenda in certain directions.
- Also, imposing a test of purity that the only form of evidence that counts is that generated by RCTs may lead us to ignore many other forms of useful evidence, and that may be potentially dangerous.
- Finally, there is the critique that given the political environment within which policymaking and programme implementation happens, it is unrealistic to expect anything more than marginal gains from improving the design of anti-poverty programmes.

#### **Evidence based policy making**

- The RCT revolution is creating a consensus that evidence is important in the context of policy — which pushes us to be aware of both what we know and what we do not know — and to quantify and compare the costs and benefits of alternative programmes.
- This may be the most important impact of RCTs in the public domain, especially in the context of India where policy formulation and implementation is often done in a highly centralised fashion and carried out without looking at the evidence.
- As much as medicine should not be prescribed without diagnosis, policies should not be implemented without evidence.

### **6) Agents of change: On investing in women's education**

- GS-II- Polity and governance-Issues Relating to Development and

Management of Social Sector/Services relating to Health, Education, Human Resources.

- The Comprehensive National Nutrition Survey, which studied 1.2 lakh children between 2016-18, measured diet diversity, meal frequency and minimum acceptable diet as the three core indicators of nutritional deficiency among infants and young children. It demonstrated that with higher levels of schooling for a mother, her children received better diets. On two counts, meal diversity and minimum acceptable diet, and in terms of bolstering food with micronutrients, the children of mothers with better education did well.

- World Education believes that education for girls and women is the single most effective way to improve the lives of individual families as well as to bring economic development.
- There is no doubt that educating a woman serves larger purpose.

#### **Importance of women's education:**

- The recently released Health Ministry survey that showed a direct correlation between the nutritional status of children and their mothers' education.
- Women's well-being is strongly influenced by women's literacy and educated participation in decisions within and outside the family.
- Educating a girl plays a role in enabling them to emerge as agents of change according to development economists.
- States with a high literacy rate (male and female) like Kerala also sit at the top of the table on development indicators.
- 2011 census shows that female literacy rate (65percent) was much lower than males. (82percent).

#### **What to be done?**

- It is **urgent for a nation** which strives to improve its performance on all fronts to **invest in women's education** which is also been insisted by Michelle Obama as "when girls are educated their countries become stronger and more prosperous".

## 7) Cost effective way of power generation

- GS-III Economy- Infrastructure- Energy

### Current scenario:

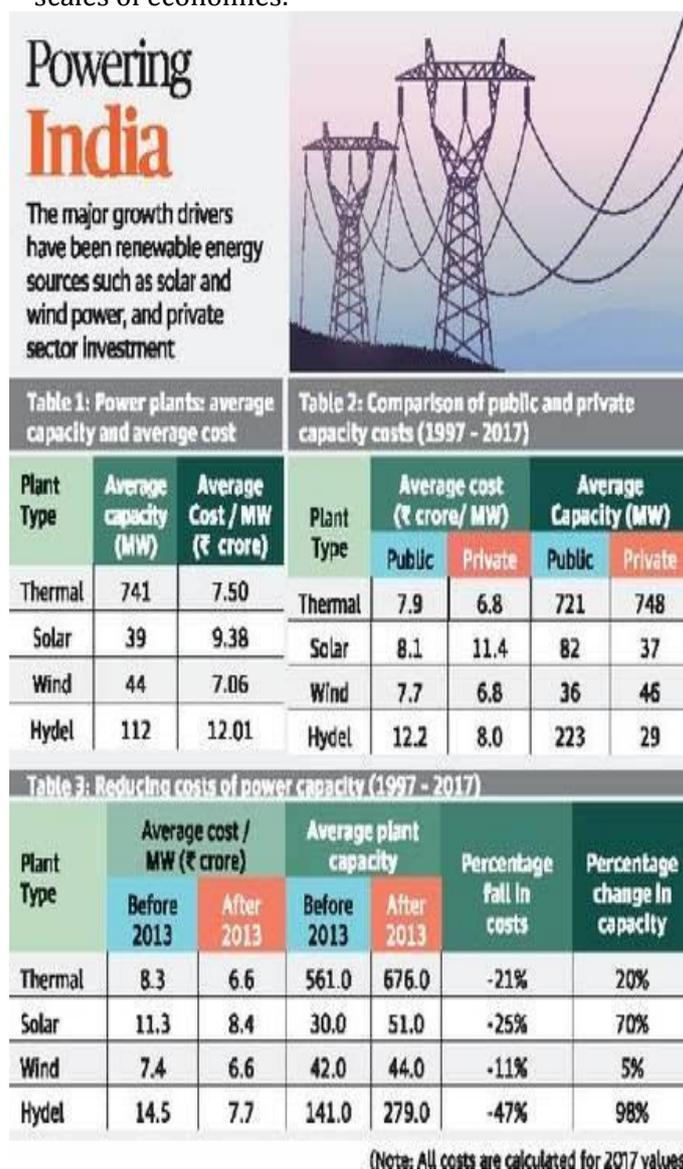
- India has **total installed capacity of 358GW** which is four times that of in 1997-1998 which indicates that India has been aggressively expanding its power generation capacity.
- Major growth drivers have been **renewable energy sources** such as solar and wind power and **investment from the private sector** which can be seen from private sector accounting for more than half of the installed power generation capacity and 25percent of the generation capacity has been sourced from renewables.
- India aims to have a **renewables capacity of 175 GW by 2022 and 500 GW by 2030** of which solar and wind would account for much of the targeted capacity from renewables.
- Let's discuss how this can be achieved.

### Ways to achieve cost effective power generation:

#### Project cost and size:

- Thermal power plants** accounting for **two thirds of the installed power generation capacity**, reliance on thermal power plants is never going to end, even though we are aware about the environmental impacts by fossil fuels.
- Thermal plants being larger, **construction of few plants** would help to achieve the targeted capacity generation. (18 solar/ wind projects generates the same quantity of power as one thermal power plant)
- Switching from fossil fuel to renewables **will add up the cost** incurred because of multiple projects.
- Infrastructure projects** having an **inverse relationship between size and cost** which indicates economies of scale, increasing capacity of power plant reduces the average cost per MW.
- (The average cost per MW in a thermal power plant is 25percent lower than that of solar plant)
- Surmounting the cost advantages that large thermal power plants enjoy would require to Create large such solar and

wind power plants that can exploit similar scales of economies.



#### Project ownership:

- Private sector plants have an **average cost per MW** that is 12-34% lower for all categories except solar which is evident from table 2 of the above image.
- Lower capacity cost** has a direct impact on electricity tariffs.
- Of the two components of the electricity tariff, whatever the fuel may be, the capacity cost accounts for more than 90percent of the levelized cost of electricity. Thus by creating additional capacity with lower cost, the electricity tariffs can be kept low.
- This can be done with the help of private investment that not only augments the capacity but also helps in lowering cost.

#### Marginal capacity costs:

- The cost of **installing additional capacity** has fallen even though the total capacity in generation is growing because of the following reasons:
  1. advances in technology have resulted in the construction of larger power plants.
  2. increasing share of private sector investment.
  3. Falling marginal costs suggest that retiring some existing high-cost capacity plants with newer plants could be explored.
- As India continues to ramp up capacity, it is imperative to create generation assets with the lowest unit cost by optimizing plant capacities and encouraging private sector investment.
- Declining marginal cost for capacity provides opportunities for replacing existing capacity with newer capacity that are more efficient.
- However there exist challenges of replacing fossil fuel fired plants with renewables.

# RSTV Big Picture

## 1) Fight against malnutrition

### Why in News?

- The Government of India has come up with an initiative to prepare “**POSHAN ATLAS**” under Poshan Abhiyan in order to tackle malnutrition by adopting holistic approach of **ensuring food security** for whole India.

### POSHAN ATLAS

- It is a unique initiative in order to **promote the intake of nutritious protein foods** and proper calorific food to people.
- **Aim:-** Mapping of crops and food grains including different cropping patterns of different regions (local areas) of the country .
- “POSHAN ATLAS “is prepared by ‘Ministry of Women and Child development in collaboration with Bill and Melinda Gates foundation and Deendayal Research Institute under Poshan Abhiyan.

### Poshan Abhiyan:-

- It is a government’s multi ministerial convergence mission under ministry of women and child development which aims at **ensuring nutrition of women, children and pregnant women** in impoverished areas.
- It aims to **reduce malnutrition** in India by 2% per year and anaemia by 3% per year.
- **Vision:-** Attainment of malnutrition free India by 2022
- **Need:-** According to **World Bank Global Nutrition Report(2018)**, malnutrition causes India around \$10 billion annually in terms of :
  - (i) Lost productivity
  - (ii) Illness
  - (iii) Death
- Hence, it results in retarding improvements in Human Development Index and also retarding the reduction in child mortality.

### Efforts by government in order to achieve malnutrition free India by 2022:-

- The Government has set ambitious targets for reducing malnutrition in India which

can pave a way but the result comes slowly.

- Example:-The target set under Poshan Abhiyan is to reduce malnutrition by 2% per year which was historically set around less than 1%.
- It targets to **reduce anaemia** by 3% per year which is a major problem among women in India.
- The government is trying to tackle malnutrition via “**JAN AANDOLAN**”
- It has launched “**POSHAN MAAH**” in September 2019 which includes various stakeholders for finding the solution of malnutrition in India. (Ministry of Health and Family welfare, Ministry of drinking water and sanitation, Ministry of urban development ,ministry of rural development and ministry of information and broadcasting)

### Indicators of child undernutrition

- According to National Family Survey data-4 (2015):

#### (i) Underweight children:

- Around 20-25% of children are born as “low birth weight”
- The decrease in underweight children in last 10 years is only 10%

#### (ii) Wasting:

- Child wasting indicates low birth weight with respect to height.
- The decrease in child wasting in last 10 years is only 1.6 % (21%-19.4%)
- The food surplus state of Punjab recorded highest increase in wasting

#### (iii) Stunting:

- Child stunting indicates low height according to age.
- The decrease stunted child in last 10 years is only 7%

### Are the targets achievable?

- In order to answer this question, various experts have quoted regarding “MISSION INDRADHANUSH”, the universal immunization program which is targeted to achieve 5% coverage of child vaccination per year is currently achieving 7% per year hence proving that proper implementation might pave a way for succession of larger targets.

- The another example which is quoted is “Integrated child development scheme (ICDS)” which ensures nutrition for children between 0-6 years via “ANGANWADIS”, mid-day meal scheme etc can be regarded as “backbone of India’s nutrition target”.

#### **Challenges for achieving big targets:**

- The proper monitoring of targets at regular intervals is a challenge
- Real time delivery of various schemes to the beneficiaries
- Improper Infrastructure of primary health centres
- Lack of Awareness about what kind of food should be taken.
- Range of infections(eg parasitic infection)
- Irregular delivery of medical services at the village level which can lead to increase in huge number of diseases.
- Hygiene environment
- The micronutrient deficiency is the biggest challenge

#### **How big is the problem of malnutrition in India?**

- Recently, India has conducted for the first time the “COMPREHENSIVE NATIONAL NUTRITION SURVEY”.

#### **Key facts:-**

- According to this survey; India accounts for more than one-third of the children who are wasted.
- India being a large and diversified country faces a huge problem of “Undernutrition as well as Over nutrition”. The wasting and stunting of children might lead to communicable as well as non-communicable diseases.
- Around 40-50% of females faces the problem of “Anaemia”.

#### **What is CNNS?**

- The comprehensive national nutrition survey was recently conducted by the Ministry of Health and UNICEF for the first time in Asia and India.
- Under this survey, the gap between Macro nutrient level and Micro nutrient level is analysed for the 1st time.
- The concept of “HIDDEN HUNGER” is brought to the picture for the 1st time in India.

- Micronutrient deficiency might lead to problems like Pre-diabetic children, high cholesterol levels etc. thus the survey has “right kind nutrition” as the focal point.

#### **Key facts of the survey:-**

- The stunting has reduced by 1.8% per year
- The under-weight problem has reduced from 34% to 32%.
- There is a significant reduction in “Vitamin A” deficiency for the first time via “universal vitamin A supplementation program”.
- There is a significant decline in the “Iodine deficiency” which is a micro nutrient.
- The Iron deficiency was tested by anaemia level as well as sterampheratal level which shows that around 30% of people are not consuming Iron in states of Punjab, Haryana, Gujarat etc.
- It has taken a holistic view which includes “Intake of food as well as Absorption of food”.

#### **Way Forward:-**

1. The use of various programs like Ayushman bharat, National deworming program, anaemia mukht Bharat etc. can be used effectively to tackle some challenges of malnutrition in India.
2. The primary health care aspect should be strengthened at village levels by using various services like AASHA. The people should be educated from the grass root level as to “What kind of food should be taken”.
3. Schools can be used as a medium to educate children and parents about the problem of malnutrition.
4. Adolescents can be taken targeted for making them aware of the problem who can further educate other people.
5. The child feeding practices should be improved because less than 10% of the children get the right kind of feeding.
6. To manage the problem of low-birth weight at the adolescent level.
  - Thus a holistic and multi-pronged approach towards all problems can lead a path for India towards becoming “a malnutrition free country by 2022.”

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